

# SIGNALIZATION AND LIGHTING PLANS

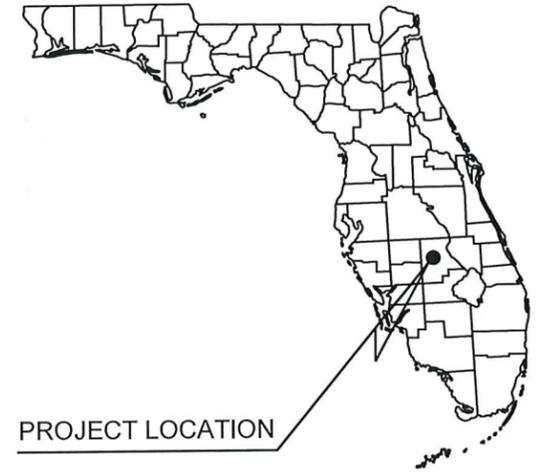
## FOR

# SEBRING PARKWAY

## SIGNAL DESIGN SERVICES

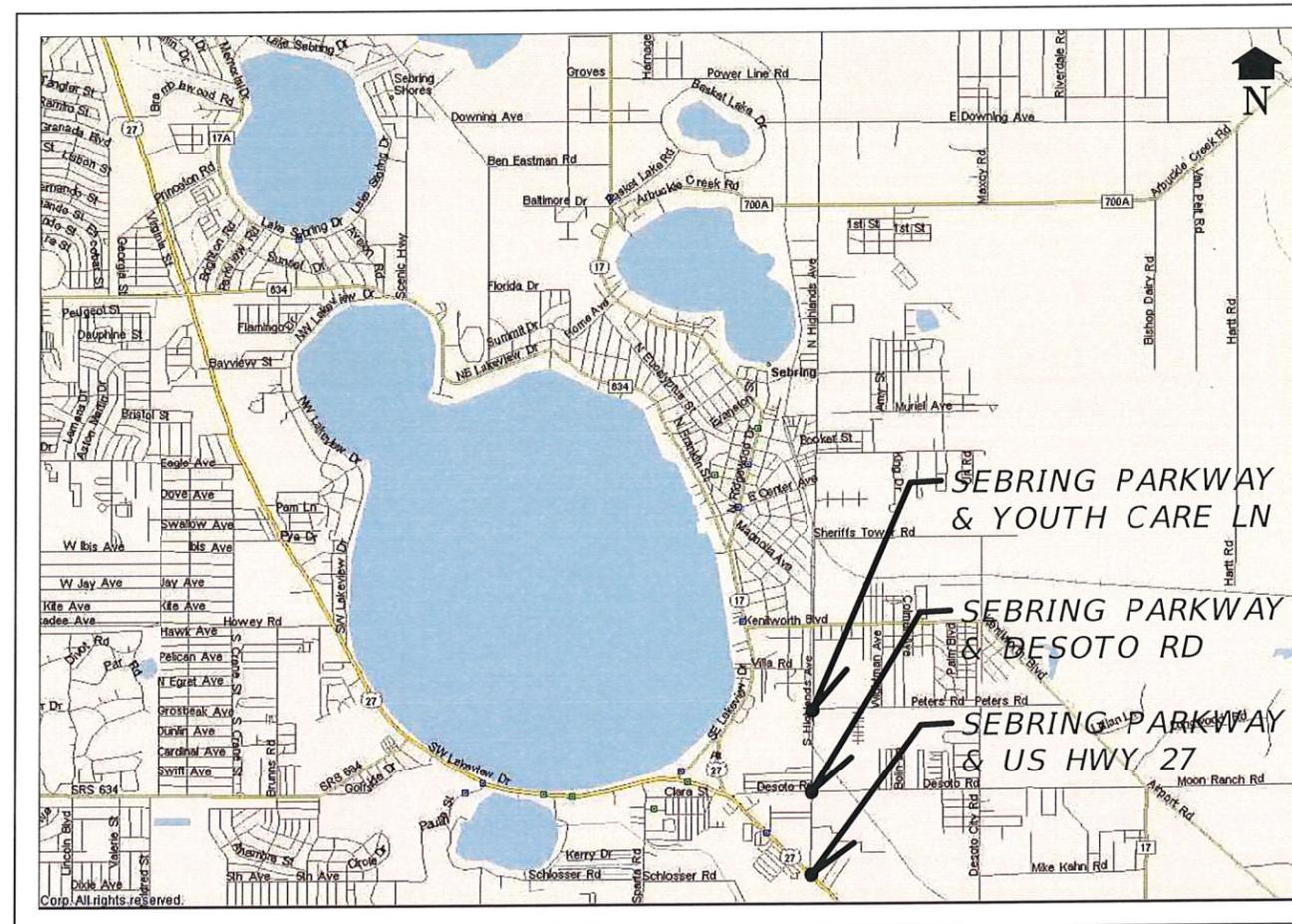
### SEBRING, FLORIDA

### SEPTEMBER 24, 2019



#### INDEX OF DRAWINGS

T-1	COVER SHEET
T-2	TABULATION OF QUANTITIES SIGNAL
T-3	GENERAL NOTES
T-4 TO T-6A	SIGNALIZATION PLANS
T-7	MAST ARM TABULATION
T-8 & T-8A	STANDARD & SPECIAL MAST ARM ASSEMBLIES
T-9	GUIDESIGN WORKSHEET
T-10 TO T-13	REPORT OF CORE BORINGS
L-1	TABULATION OF QUANTITIES LIGHTING
L-2	POLE DATA AND LEGEND
L-3	LIGHTING PLAN



VICINITY MAP  
N.T.S.

SIGNALIZATION  
SHOP DRAWINGS  
TO BE SUBMITTED TO:

JOHN R. SEALS, P.E.  
655 NORTH FRANKLIN STREET  
TAMPA, FL 33602  
PHONE (813) 620-1460

PLANS PREPARED BY:

**Kimley»Horn**

655 NORTH FRANKLIN STREET  
TAMPA, FL 33602  
PHONE (813) 620-1460  
CERTIFICATE OF AUTHORIZATION: 00000696

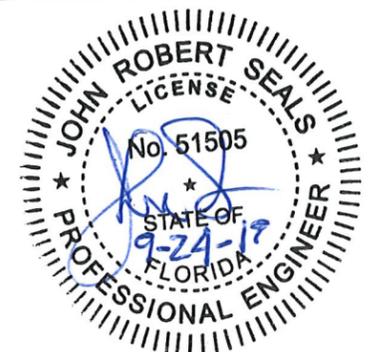
NOTE: THE SCALE OF THESE PLANS MAY  
HAVE CHANGED DUE TO REPRODUCTION.

FINAL SUBMITTAL  
SEPTEMBER 24, 2019

SIGNALIZATION PLANS  
ENGINEER OF RECORD:

JOHN R. SEALS

P.E. NO.: 51505



Drawing name: \\namb01\p\...\_TMA\_TMA\_Roadway\140857 - Highlands Co\008 - Sebring Hwy Signal\140857 - Signal Design\T-1 - Sep 24, 2019 4:40pm by nicoleheck  
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GOVERNING STANDARDS AND SPECIFICATIONS:  
FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD  
PLANS FY 2018-19, JANUARY 2018 EDITION OF THE  
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE  
CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS

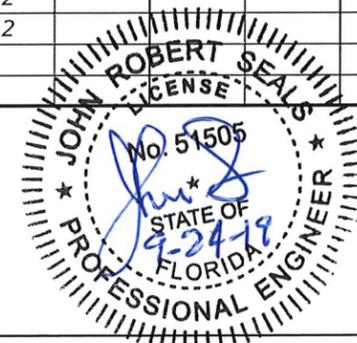
For Design Standards modifications go to the following Web site:  
<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>

REVISIONS:

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS										TOTAL THIS SHEET		GRAND TOTAL		
			T-4		T-5		T-6		T-6A		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL							
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	498		796		810							2,104		2,104	
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	326		398		637							1,361		1,361	
632-7-1	SIGNAL CABLE, NEW OR RECONSTRUCTED INTERSECTION, F&I	PI	1		1		1							3		3	
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	8		17		18							43		43	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA					1							1		1	
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER FURNISHED BY CONTRACTOR	AS			1		1							2		2	
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF			10		20							30		30	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA					1							1		1	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			1		1							2		2	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL - POLE 30' AND GREATER	EA			2									2		2	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	2		8		4							14		14	
649-1-63	STEEL STRAIN POLE, REMOVE, SHALLOW FOUNDATION REMOVAL, BOLT ON ATTACHMENT	EA					2							2		2	
649-21-3	STEEL MAST ARM ASSEMBLY, F&I, SINGLE ARM 40'	EA			1									1		1	
649-21-6	STEEL MAST ARM ASSEMBLY, F&I, SINGLE ARM 50'	EA			1									1		1	
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, SINGLE ARM 60'	EA			2									2		2	
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, SINGLE ARM 78'	EA					2							2		2	
649-21-182	STEEL MAST ARM ASSEMBLY, F&I, PROJECT SPECIFIC APPROVAL (82')	EA					1							1		1	
649-26-3	STEEL MAST ARM ASSEMBLY, REMOVE, SHALLOW FOUNDATION, BOLT ON ATTACHMENT	EA					1							1		1	
650-1-14	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	2		8				12					22		22	
650-1-16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	EA			4									4		4	
650-1-19	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 5 SECTION CLUSTER, 1 WAY	EA							2					2		2	
650-1-60	TRAFFIC SIGNAL, REMOVE-POLES TO REMAIN	AS	3											3		3	
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	EA	2		4				4					10		10	
660-1-109	LOOP DETECTOR INDUCTIVE, F&I, TYPE 9	EA	5		6		11							22		22	
660-1-110	LOOP DETECTOR INDUCTIVE, F&I, TYPE 10	EA	1		2		1							4		4	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	8		8		18							34		34	
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	AS	3		8		7							18		18	
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	2		8		4							14		14	
670-5-111	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 1 PREEMPTION	AS	1		1		1							3		3	
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS			1		1							2		2	
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA	1		1		1							3		3	
699-1-1	OVERHEAD SIGN BRACKET ARM (ONE ARM)	AS			4				2					6		6	
699-1-2	OVERHEAD SIGN BRACKET ARM (TWO ARM)	AS							1					1		1	
700-5-21	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, UP TO 12 SF	EA							2					2		2	
700-5-22	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12 SF TO 18 SF	EA			4				2					6		6	
715-5-30	LUMINAIRE AND BRACKET ARM, INSTALL	EA					1							1		1	



No.	REVISIONS	DATE	BY

**Kimley»Horn**  
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT 140057006  
 DATE 09/17/2019  
 SCALE AS SHOWN  
 DESIGNED BY JRS  
 DRAWN BY NRH  
 CHECKED BY JRS



HIGHLANDS COUNTY  
 FLORIDA

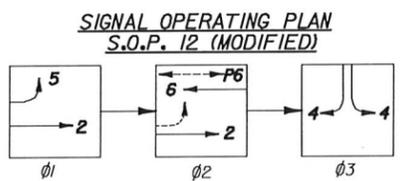
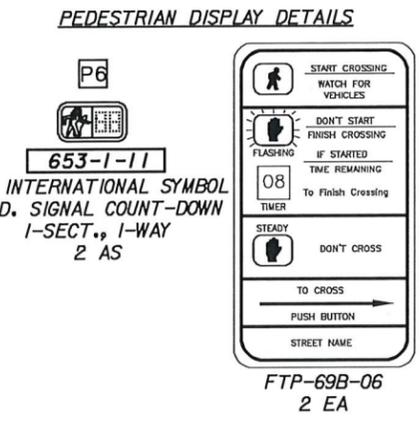
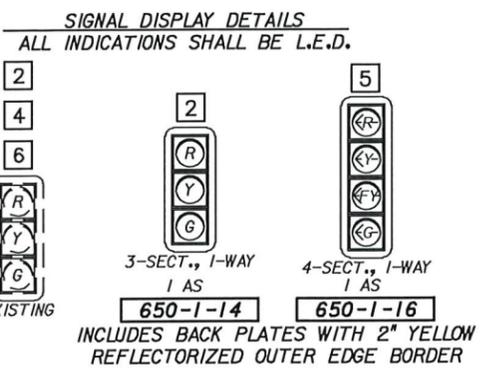
LICENSED PROFESSIONAL  
 JOHN R. SEALS, P.E.  
 FLORIDA LICENSE NUMBER 51505  
 DATE:

SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 TABULATION OF QUANTITIES  
 SIGNAL

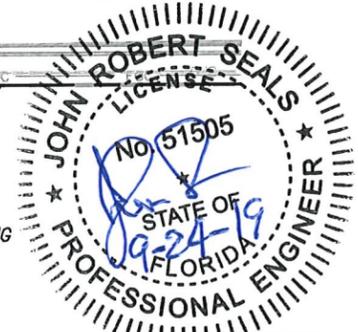
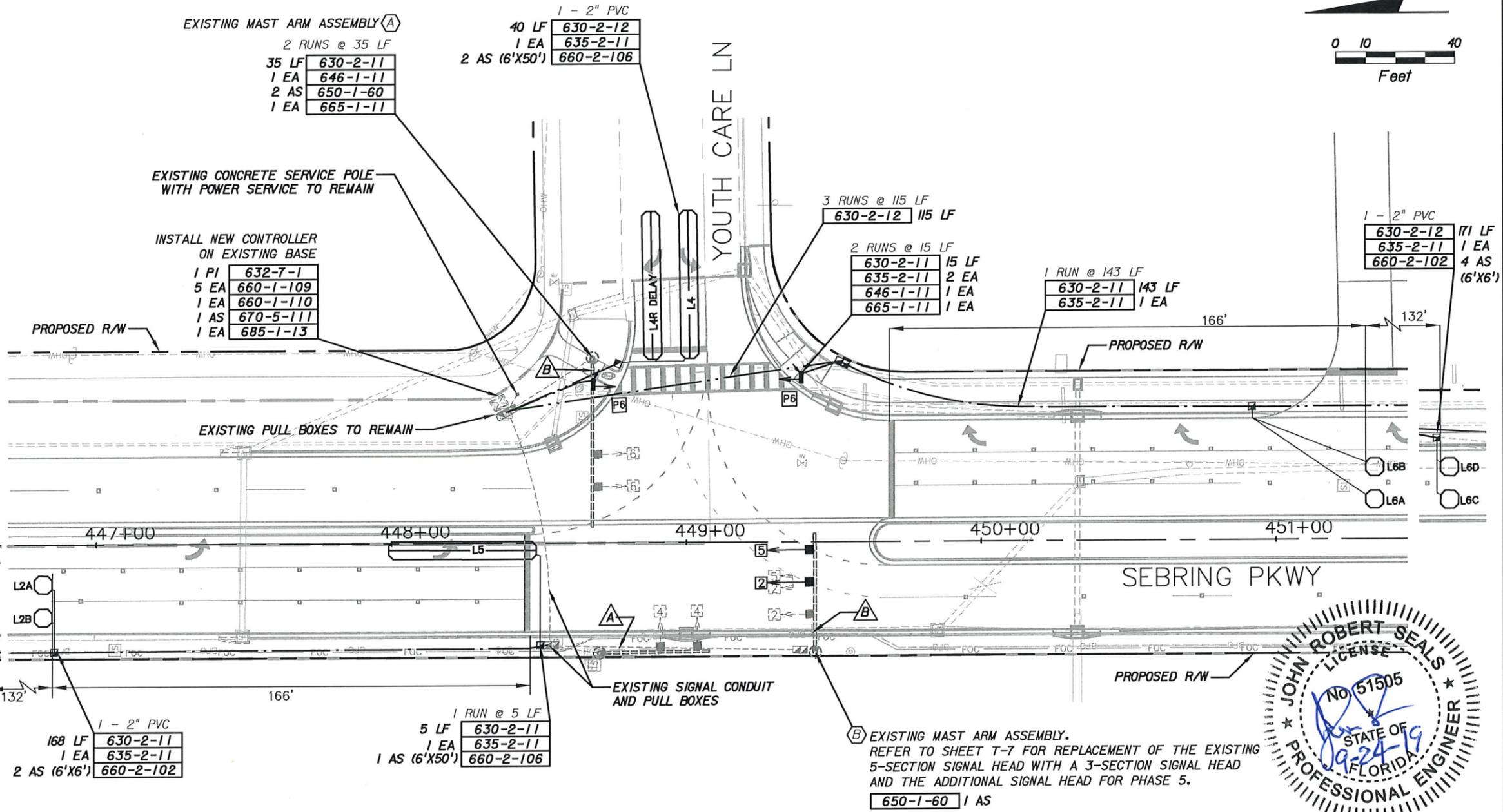
SHEET NUMBER  
 T-2



This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Release of and improper reliance on this document without written authorization and adoption by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



- NOTES :**
- MAJOR STREET IS SEBRING PARKWAY (SPEED LIMIT IS 45 MPH). MINOR STREET NAME IS YOUTH CARE LANE (SPEED LIMIT IS 30 MPH).
  - FLASHING OPERATION: MOVEMENTS 2 AND 6 YELLOW. ALL OTHER MOVEMENTS RED.
  - S.O.P. 12 (MODIFIED) WITH CONCURRENT PEDESTRIAN PHASE P6 (MOVEMENT 6).



EXISTING STREET NAME SIGNS TO REMAIN.

**Sebring Pkwy**

**Youth Care Ln**

**DETECTORS FOR LOOPS**

LOOP	NO. OF LOOPS	NO. OF DETS.	TIMING FUNCTION	SECONDS OF DELAY
L2A, L2B	2	1	2	-
L2C, L2D	2	1	2	-
L4, L4R	2	1	4	5
L5	2	1	5	-
L6A, L6B	2	1	6	-
L6C, L6D	2	1	6	-

**CONTROLLER TIMING PLAN**

TIMING FUNCTION	2	4	5	6
MOVEMENT(S)	2	4	5	6
MINIMUM GREEN (INITIAL)	18	10	5	18
EXTENSION (PASSAGE)	2.0	2.5	2.5	2.0
MAXIMUM GREEN I *	-	-	-	-
MAXIMUM GREEN II *	-	-	-	-
YELLOW	3.8	3.9	3.8	3.7
ALL RED	2.3	2.2	2.0	2.3
PEDESTRIAN WALK	-	-	-	7
FLASH DON'T WALK	-	-	-	20
RECALL	MIN	-	-	MIN
DETECTOR FUNCTION	NL	L	L	NL

2-CHANNEL RACK-MOUNTED LOOP DETECTORS - ONE LOOP PER CHANNEL

\* UTILIZE EXISTING CONTROLLER MAX GREEN TIMES.

No.	REVISIONS	DATE	BY

**Kimley»Horn**

655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
PHONE: 813-620-1450  
WWW.KIMLEY-HORN.COM CA 00000696  
© 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT 140057006

DATE 09/17/2019

SCALE AS SHOWN

DESIGNED BY JRS

DRAWN BY NRH

CHECKED BY JRS



HIGHLANDS COUNTY  
FLORIDA

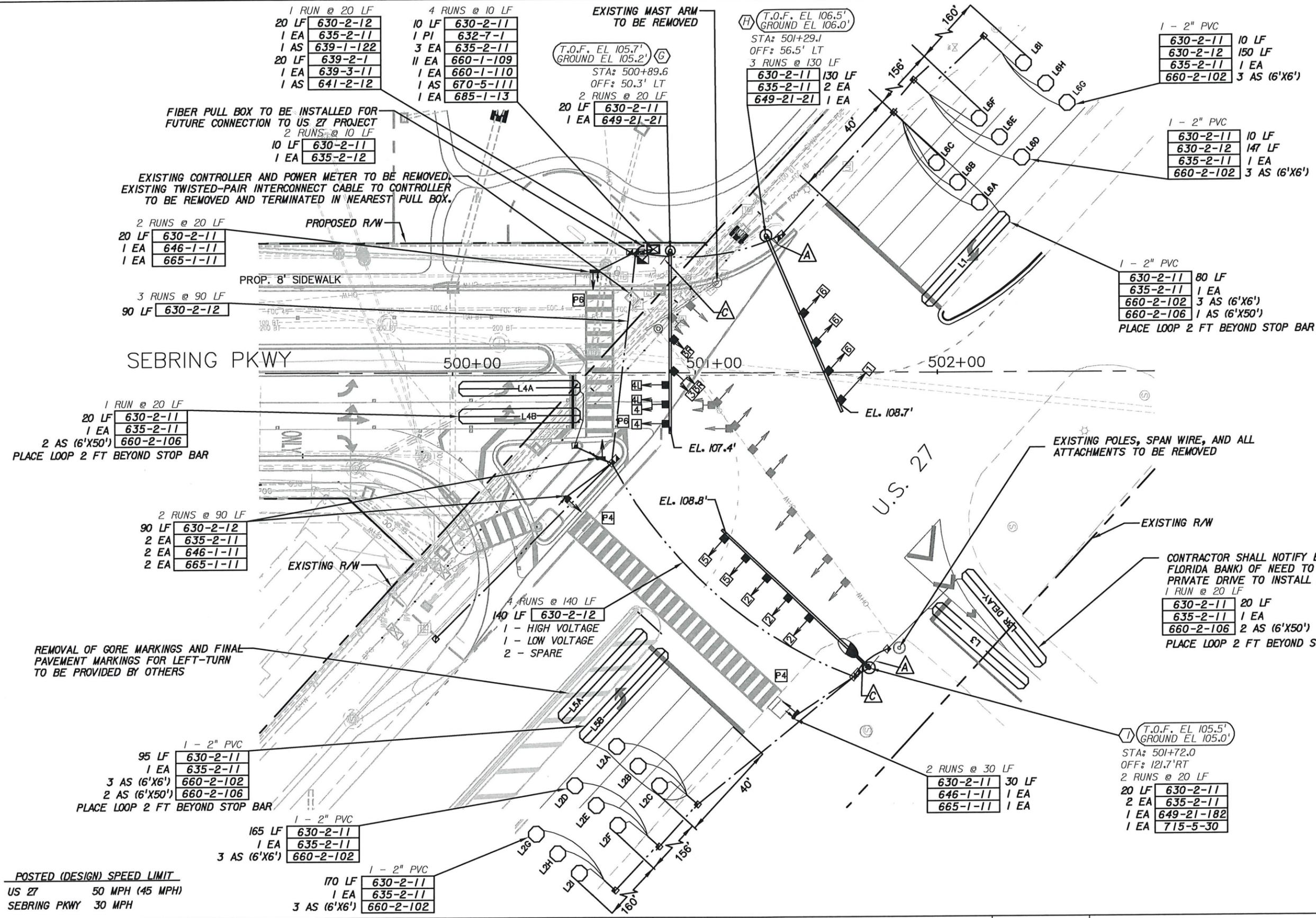
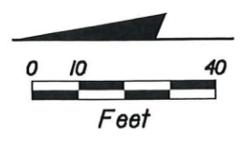
LICENSED PROFESSIONAL  
JOHN R. SEALS, P.E.  
FLORIDA LICENSE NUMBER 51505

**SEBRING PARKWAY  
SIGNAL DESIGN SERVICES  
SIGNALIZATION PLANS**

SHEET NUMBER  
**T-4**



This document, together with the concepts and design presented herein, is intended only for the specific purpose and client for which it was prepared. Review of and reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



1 RUN @ 20 LF  
20 LF 630-2-12  
1 EA 635-2-11  
1 AS 639-1-122  
20 LF 639-2-1  
1 EA 639-3-11  
1 AS 641-2-12

4 RUNS @ 10 LF  
10 LF 630-2-11  
1 PI 632-7-1  
3 EA 635-2-11  
11 EA 660-1-109  
1 EA 660-1-110  
1 AS 670-5-111  
1 EA 685-1-13

EXISTING MAST ARM TO BE REMOVED  
T.O.F. EL 105.7'  
GROUND EL 105.2'  
STA: 500+89.6  
OFF: 50.3' LT  
2 RUNS @ 20 LF  
20 LF 630-2-11  
1 EA 649-21-21

T.O.F. EL 106.5'  
GROUND EL 106.0'  
STA: 501+29.1  
OFF: 56.5' LT  
3 RUNS @ 130 LF  
630-2-11 130 LF  
635-2-11 2 EA  
649-21-21 1 EA

1 - 2" PVC  
630-2-11 10 LF  
630-2-12 150 LF  
635-2-11 1 EA  
660-2-102 3 AS (6'X6')

1 - 2" PVC  
630-2-11 10 LF  
630-2-12 147 LF  
635-2-11 1 EA  
660-2-102 3 AS (6'X6')

1 - 2" PVC  
630-2-11 80 LF  
635-2-11 1 EA  
660-2-102 3 AS (6'X6')  
660-2-106 1 AS (6'X50')  
PLACE LOOP 2 FT BEYOND STOP BAR

2 RUNS @ 20 LF  
20 LF 630-2-11  
1 EA 646-1-11  
1 EA 665-1-11

3 RUNS @ 90 LF  
90 LF 630-2-12

1 RUN @ 20 LF  
20 LF 630-2-11  
1 EA 635-2-11  
2 AS (6'X50') 660-2-106  
PLACE LOOP 2 FT BEYOND STOP BAR

2 RUNS @ 90 LF  
90 LF 630-2-12  
2 EA 635-2-11  
2 EA 646-1-11  
2 EA 665-1-11

1 - 2" PVC  
95 LF 630-2-11  
1 EA 635-2-11  
3 AS (6'X6') 660-2-102  
2 AS (6'X50') 660-2-106  
PLACE LOOP 2 FT BEYOND STOP BAR

1 - 2" PVC  
165 LF 630-2-11  
1 EA 635-2-11  
3 AS (6'X6') 660-2-102

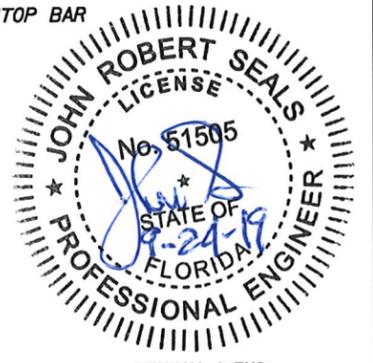
1 - 2" PVC  
170 LF 630-2-11  
1 EA 635-2-11  
3 AS (6'X6') 660-2-102

4 RUNS @ 140 LF  
140 LF 630-2-12  
1 - HIGH VOLTAGE  
1 - LOW VOLTAGE  
2 - SPARE

2 RUNS @ 30 LF  
630-2-11 30 LF  
646-1-11 1 EA  
665-1-11 1 EA

T.O.F. EL 105.5'  
GROUND EL 105.0'  
STA: 501+72.0  
OFF: 121.7' RT  
2 RUNS @ 20 LF  
20 LF 630-2-11  
2 EA 635-2-11  
1 EA 649-21-182  
1 EA 715-5-30

CONTRACTOR SHALL NOTIFY BUSINESS OWNER (MID FLORIDA BANK) OF NEED TO GAIN ACCESS TO PRIVATE DRIVE TO INSTALL NEW LOOPS  
1 RUN @ 20 LF  
630-2-11 20 LF  
635-2-11 1 EA  
660-2-106 2 AS (6'X50')  
PLACE LOOP 2 FT BEYOND STOP BAR



REMOVAL ITEMS:  
649-1-63 2 EA  
649-26-3 1 EA  
670-5-600 1 AS

POSTED (DESIGN) SPEED LIMIT  
US 27 50 MPH (45 MPH)  
SEBRING PKWY 30 MPH

No.	REVISIONS	DATE	BY

**Kimley»Horn**  
655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
PHONE: 813-620-1460  
WWW.KIMLEY-HORN.COM CA 00000696  
© 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT 140057006  
DATE 09/17/2019  
SCALE AS SHOWN  
DESIGNED BY JRS  
DRAWN BY NRH  
CHECKED BY JRS



HIGHLANDS COUNTY  
FLORIDA

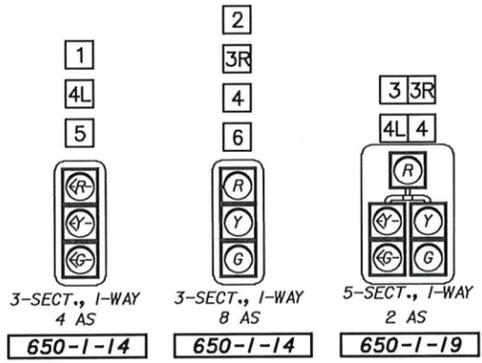
LICENSED PROFESSIONAL  
JOHN R. SEALS, P.E.  
FLORIDA LICENSE NUMBER 51505  
DATE:

SEBRING PARKWAY  
SIGNAL DESIGN SERVICES  
SIGNALIZATION PLANS

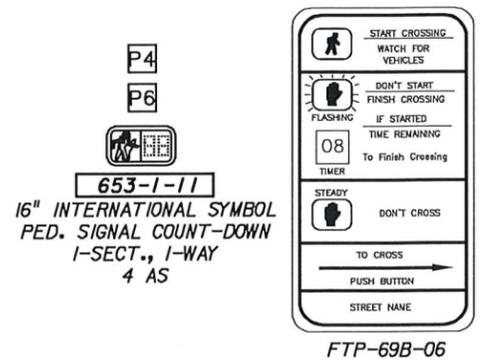
SHEET NUMBER  
T-6

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reason of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

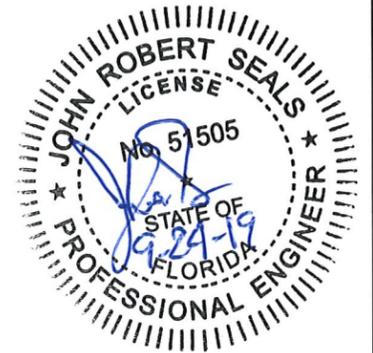
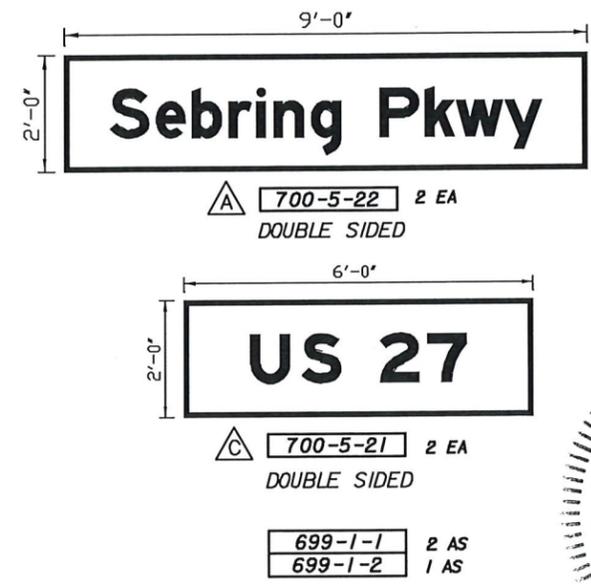
**SIGNAL DISPLAY DETAILS**  
ALL INDICATIONS SHALL BE L.E.D.



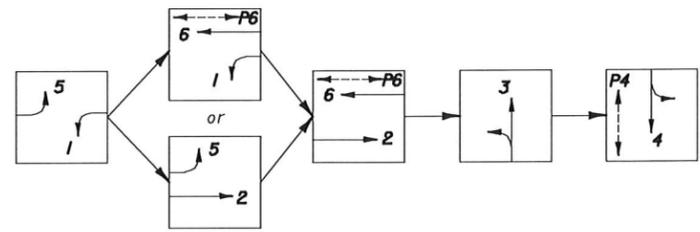
**PEDESTRIAN DISPLAY DETAILS**



**OVERHEAD STREET NAME SIGNS**  
LED EDGE LIT INTERNALLY ILLUMINATED,  
MOUNTED ON INDEPENDENT SIGN BRACKET ARM  
SEE GUIDESIGN WORKSHEET FOR SIGN DETAILS.



**SIGNAL OPERATING PLAN**  
S.O.P. 9



**NOTES :**

- MAJOR STREET IS U.S. 27 (SPEED LIMIT IS 50 MPH). MINOR STREET IS SEBRING PARKWAY (SPEED LIMIT IS 30 MPH).
- FLASHING OPERATION: MOVEMENTS 2 AND 6 YELLOW. ALL OTHER MOVEMENTS RED.
- SIGNAL OPERATING PLAN 9.
- POWER SERVICE POINT IS PRELIMINARY AND SHALL BE DETERMINED AFTER SITE VISIT WITH A POWER SERVICE REPRESENTATIVE.
- LOOPS L1, L3, L4, L5A, AND L5B SHALL BE 6'X50' TYPE 'F' QUADRAPOLE LOOPS. ALL LOOPS SHALL EXTEND 2' BEYOND STOP LINE.
- LOOPS L2A-C, L2D-F, L6A-C, L6D-F ARE CONNECTED IN SERIES AND SHALL HAVE ONE DETECTOR AMPLIFIER PER TRIO.

DETECTORS FOR LOOPS				
LOOP	NO. OF LOOPS	NO. OF DETS.	CONNECT TO MOVEMENT	SECONDS OF DELAY
L1	1	1	1	-
L5A, L5B	2	1	5	-
L2A, L2B	2	1	2	-
L2C, L2D	2	1	2	-
L2E, L2F	2	1	2	-
L2G, L2H	2	1	2	-
L2I, L6I	2	1	2, 6	-
L6A, L6B	2	1	6	-
L6C, L6D	2	1	6	-
L6E, L6F	2	1	6	-
L6G, L6H	2	1	6	-
L4A	1	1	4L	3
L4B	1	1	4	-
L3	1	1	3	-
L3R	1	1	3R	8

2-CHANNEL RACK-MOUNTED  
LOOP DETECTORS - ONE LOOP PER CHANNEL

CONTROLLER TIMING PLAN						
MOVEMENT	1	2	3	4	5	6
DIRECTION	WBL	EBT	NB	SB	EBL	WBT
TURN TYPE	PROT	-	-	-	PROT	-
MIN GREEN	5	15	10	10	5	15
EXTENSION (PASSAGE)	3.0	2.2	3.0	3.0	3.0	2.2
YELLOW	5.0	5.0	3.7	4.8	5.0	5.0
ALL RED	3.0	2.0	2.6	2.5	2.9	2.0
MAX I *	15	50	15	25	20	50
MAX II *	-	-	-	-	-	-
MAX LIMIT	-	-	-	-	-	-
ADJUST BY	-	-	-	-	-	-
WALK	-	-	-	7.0	-	7.0
FLASH DON'T WALK	-	-	-	38.0	-	19.0
DETECTOR MEMORY	-	-	-	-	-	-
DET. CROSS SWITCH	-	-	-	-	-	-
DUAL ENTRY	-	ON	-	-	-	ON
RECALL	-	MIN	-	-	-	MIN

\* INITIAL TIMINGS MAY BE FIELD ADJUSTED DURING CONSTRUCTION.  
NOTE: REQUEST UPDATED SIGNAL TIMINGS FROM FDOT ARTERIAL MANAGEMENT SYSTEM ENGINEER (863-519-2746) WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE FDOT WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR FDOT TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY FDOT.

No.	REVISIONS	DATE	BY	<p>655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602 PHONE: 813-620-1460 WWW.KIMLEY-HORN.COM CA 00000696 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.</p>	<p>KHA PROJECT 140057006 DATE 09/17/2019 SCALE AS SHOWN DESIGNED BY JRS DRAWN BY NRH CHECKED BY JRS</p>	<p>HIGHLANDS COUNTY FLORIDA</p>	<p>LICENSED PROFESSIONAL JOHN R. SEALS, P.E. FLORIDA LICENSE NUMBER 51505</p>	<p>SEBRING PARKWAY SIGNAL DESIGN SERVICES SIGNALIZATION PLANS</p>	<p>SHEET NUMBER T-6A</p>



This document, together with the concepts and designs presented herein, is intended only for the specific purpose and design for which it was prepared. It is intended only for the specific purpose and design for which it was prepared. It is intended only for the specific purpose and design for which it was prepared. It is intended only for the specific purpose and design for which it was prepared.

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	FAA (ft.)			POLE ID	UAA (ft.)	UB (ft.)	
C	A60/S-P4/S	A60/S	29.5	-	-	-	-	P4/S	24	21	*
D	A50/S-P3/S	A50/S	32.5	-	-	-	-	P3/S	23.5	20.5	*
E	A60/S-P4/S	A60/S	27.5	-	-	-	-	P4/S	*	*	*
F	A40/S-P2/S	A40/S	34.0	-	-	-	-	P2/S	25	22	DS/14/4.5
G	A78/S/H-P6/S	A78/S/H	35.0	-	-	-	-	P6/S	*	*	*
H	A78/S-P6/S	A78/S	-	-	-	-	-	P6/S	*	*	*
I	*	*	*	-	-	-	-	*	*	*	*

\* SEE SPECIAL MAST ARM DATA TABLE SHEET

**NOTES:**

- IF AN ENTRY APPEARS IN COLUMNS 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.
- IF AN ENTRY APPEARS IN COLUMNS 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.
- WORK THIS SHEET WITH SEBRING PARKWAY SIGNAL DESIGN SERVICES "MAST ARM TABULATION" SHEET. SEE SEBRING PARKWAY SIGNAL DESIGN SERVICES "MAST ARM TABULATION" SHEET FOR SPECIAL INSTRUCTIONS THAT INCLUDE NON-STANDARD HANDHOLE LOCATION, PAINT COLOR, TERMINAL COMPARTMENT REQUIREMENT, AND PEDESTRIAN FEATURES.
- WORK WITH INDEXES 649-030 AND 649-031.
- DESIGN WIND SPEED = 150 MPH
- DESIGN STANDARDS: FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STRUCTURES DESIGN MANUAL, JANUARY 2018.

DESIGN SPECIFICATIONS: FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JANUARY 2018 AND FY 2018-2019 STANDARD PLANS.

**FOUNDATION NOTES:**

- DESIGN BASED ON BORINGS PROVIDED BY ARDAMAN AND ASSOCIATES, INC. DATED OCTOBER 21, 2003 AND DECEMBER 7, 2017.
- DRILLED SHAFT FOUNDATIONS NOT LOCATED IN SIDEWALKS HAVE BEEN LENGTHENED 6" PER STANDARD. SEE "MAST ARM TABULATION" SHEET FOR TOP OF SHAFT ELEVATIONS.
- FOUNDATION ASSUMPTIONS USED IN DESIGN  
 POLE C - BORING B-1  
 CLASSIFICATION: COHESIONLESS SOIL  
 FRICTION ANGLE: 28 DEG.  
 UNIT WEIGHT: 48 PCF  
 N-SPT #: 5.8

**FOUNDATION NOTES CONTINUED:**

POLE D - BORING B-4  
 CLASSIFICATION: COHESIONLESS SOIL  
 FRICTION ANGLE: 28 DEG.  
 UNIT WEIGHT: 48 PCF  
 N-SPT #: 7.1

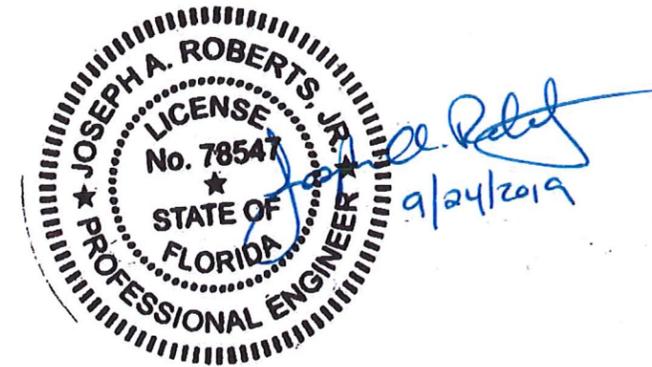
POLE E - BORING B-3  
 CLASSIFICATION: COHESIONLESS SOIL  
 FRICTION ANGLE: 28 DEG.  
 UNIT WEIGHT: 48 PCF  
 N-SPT #: 5.8

POLE F - BORING B-2  
 CLASSIFICATION: COHESIONLESS SOIL  
 FRICTION ANGLE: 28 DEG.  
 UNIT WEIGHT: 48 PCF  
 N-SPT #: 5.5

POLES G&H - BORING TH-11  
 CLASSIFICATION: COHESIONLESS SOIL  
 FRICTION ANGLE: 28 DEG.  
 UNIT WEIGHT: 48 PCF  
 N-SPT #: 7.3

POLE I - BORING TH-12  
 CLASSIFICATION: COHESIONLESS SOIL  
 FRICTION ANGLE: 28 DEG.  
 UNIT WEIGHT: 48 PCF  
 N-SPT #: 7.3

- GROUNDWATER SHOULD BE EXPECTED WITHIN 8 TO 10 FEET OF THE EXISTING GROUND. IT IS ANTICIPATED THAT SURFACE AND GROUNDWATER CONTROLS WILL BE REQUIRED DURING CONSTRUCTION OPERATIONS.
- IF EXISTING SOILS VARY FROM THE CRITERIA PRESENTED ABOVE, CONTACT THE ENGINEER PRIOR TO CONSTRUCTION OF THE DRILLED SHAFT.



No.	REVISIONS	DATE	BY

**Kimley»Horn**  
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT 140057006
DATE 9/17/2019
SCALE AS SHOWN
DESIGNED BY JAR
DRAWN BY IERM
CHECKED BY JAR



HIGHLANDS COUNTY  
 FLORIDA

LICENSED PROFESSIONAL  
 JOSEPH A. ROBERTS, JR.,  
 P.E.  
 FLORIDA LICENSE NUMBER  
 78547  
 DATE:

SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 STD MAST ARM ASSEMBLIES

SHEET NUMBER  
 T-8

This document, together with the concepts and design presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

SPECIAL MAST ARM ASSEMBLIES DATA TABLE																							
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)
1	C	-	-	-	-	-	-	-	-								-	-	-	-	-		
1	D	-	-	-	-	-	-	-	-								-	-	-	-	-		
1	E	27.5	8.15	12.0	0.25	27.5	11.15	15	0.375								25.5	22.5	18.46	22	0.375		
1	G	35	10.18	15.07	0.25	42	14.16	20	0.375								26	23	20.39	24	0.5		
1	H	39	7.62	13.08	0.25	42	12.16	18	0.375								25.5	22.5	20.46	24	0.5		
1	I	43	7.06	13.08	0.25	42	12.16	18	0.375								31.5	23.5	19.62	24	0.5		30

SPECIAL MAST ARM ASSEMBLIES DATA TABLE (CONT.)																						
STRUCTURE NUMBER	FIRST ARM CONNECTION (in) (Poles C-H) First Arm Camber Angle = 2.0 Degrees (Pole I) First Arm Camber Angle = 2.2 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
C	-	-	-	-	-	-	-	-	-	-	-											
D	-	-	-	-	-	-	-	-	-	-	-											
E	-	-	-	-	-	-	-	-	-	-	-											
G	6	30	36	3	0.75	0.625	18	1.5	2.5	12	0.625											
H	6	30	36	3	0.75	0.625	18	1.5	2.5	12	0.625											
I	6	30	36	3	0.75	0.625	18	1.5	2.5	12	0.625											

- NOTES:
- WORK WITH INDEX 649-031.
  - DESIGN WIND SPEED = 150 MPH.
  - IF INPUT IS "-", USE VALUE LOCATED IN STANDARD MAST ARM TABLES FOUND IN FDOT STANDARD PLANS INDEX 649-030.
- FOUNDATION NOTES:
- SEE "STANDARD MAST ARM ASSEMBLIES" SHEET.

SPECIAL MAST ARM ASSEMBLIES DATA TABLE (CONT.)																						
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)	LA(ft)	LB(ft)	LC(in)	LD(in)	LE	LF(ft)	LG(in)	LH(in)	LJ(in)	LK(in)	LL(deg)
C	-	-	-	-	-	19	4.5	11	15	12	8											
D	-	-	-	-	-	17.5	4.5	11	15	10	8											
E	-	-	-	-	-	19	4.5	11	15	12	8											
G	6	42	2.5	2.25	45	24.5	5	11	19	10	8											
H	6	42	2.5	2.25	45	21.5	5	11	19	10	8											
I	6	42	2.5	2.25	45	23.5	5	11	19	12	8	32.5	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	0



No.	REVISIONS	DATE	BY

**Kimley»Horn**  
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT 140057006  
 DATE 9/17/2019  
 SCALE AS SHOWN  
 DESIGNED BY JAR  
 DRAWN BY IERM  
 CHECKED BY JAR

**HIGHLANDS COUNTY**  
 FLORIDA

LICENSED PROFESSIONAL  
 JOSEPH A. ROBERTS JR., P.E.  
 FLORIDA LICENSE NUMBER 78547

**SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 SPECIAL MAST ARM ASSEMBLIES**

SHEET NUMBER  
**T-8A**



This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

\\VAIS24FS1\Barrow Data\barrow jobs\2017 Job\17-9150 KIMLEY-HORN & ASSOCIATES, INC., Signal Poles @ Intersection of Sebring Parkway & DeSoto Rd., Sebring, Highlands Co\17-9150 FIG 2 Boring Plan and Profiles\_12-6-17.dwg



GOOGLE PRO AERIAL IMAGE DATED 2-11-2017  
NOT TO SCALE

**LEGEND**

⊕ APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORINGS

**LEGEND**

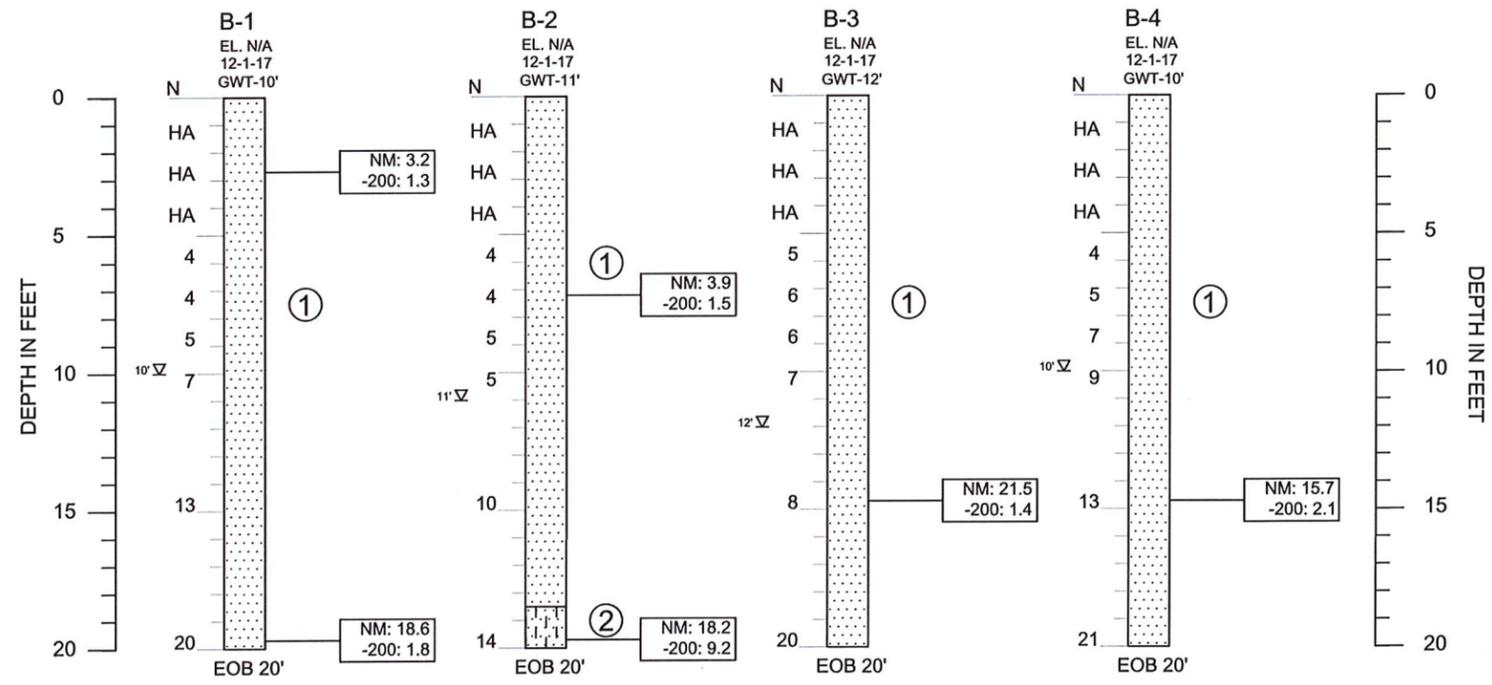
Strata symbols	Description
①	Sand (SP); Light Orangish-Brown to Light Brown
②	Sand with Silt (SP-SM); Light Brown

Misc. symbols	Description
B-1	Standard Penetration Test (SPT) Boring
N	Standard Penetration Resistance In Blows Per Foot
50/6"	Number Of Blows To Penetrate 6 Inches
HA	Hand Auger
PR	Hand Cone Penetrometer Test (HCPT) Gauge Reading
▽	GWT: Ground Water Table Measured On The Date Indicated GNE: Ground Water Table Not Encountered within 10' depth
SP, SM	Soil Classification Symbol ASTM 2487 Method For Classification Of Soils For Engineering Purposes
EOB	End of Boring
⬆	Loss of Drilling Fluid Circulation
NM	Natural Moisture Content (%)
-200	Percent Passing US No. 200 Sieve (%)

**NOTES:**  
 LOCATION PLAN: See Plan  
 DRILL RIG: CME-45  
 DRILLER: S. Stephenson  
 HOLE BACKFILL: Borehole Cuttings  
 DRILL DATE: 12-1-17  
 DRILL METHOD: Rotary Wash with Drill Mud (SPT)  
 HAMMER: Auto  
 DRILL BIT: 2 1/8" Tricone Roller or Drag Bit

**GENERALIZED SOIL PROFILE (SPT BORINGS B-1 TO B-4)**



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

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THOSE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS IN THE FUTURE.

**SOIL BORING PLAN & PROFILES**

**Ardaman & Associates, Inc.**  
 Geotechnical, Environmental and Materials Consultants  
 1525 Centennial Drive Bartow, Florida 33830  
 Tele. 863/533-0858 Fax 863/533-7325 CAN. 5950

**KIMLEY-HORN & ASSOCIATES**  
 SIGNAL POLES AT DESOTO RD & S. HIGHLANDS AVE  
 SCENIC HWY & SEBRING PKWY  
 SEBRING, HIGHLANDS COUNTY, FLORIDA

DRAWN BY: BRD	CHECKED BY: T.JL	DATE: 12-6-17
FILE NO. 17-51-9150	APPROVED BY: Thomas J. Leto, P.E.	FIGURE NO. 2

No.	REVISIONS	DATE	BY

**Kimley»Horn**

655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 0000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT  
140057006  
DATE  
10/31/2018  
SCALE AS SHOWN

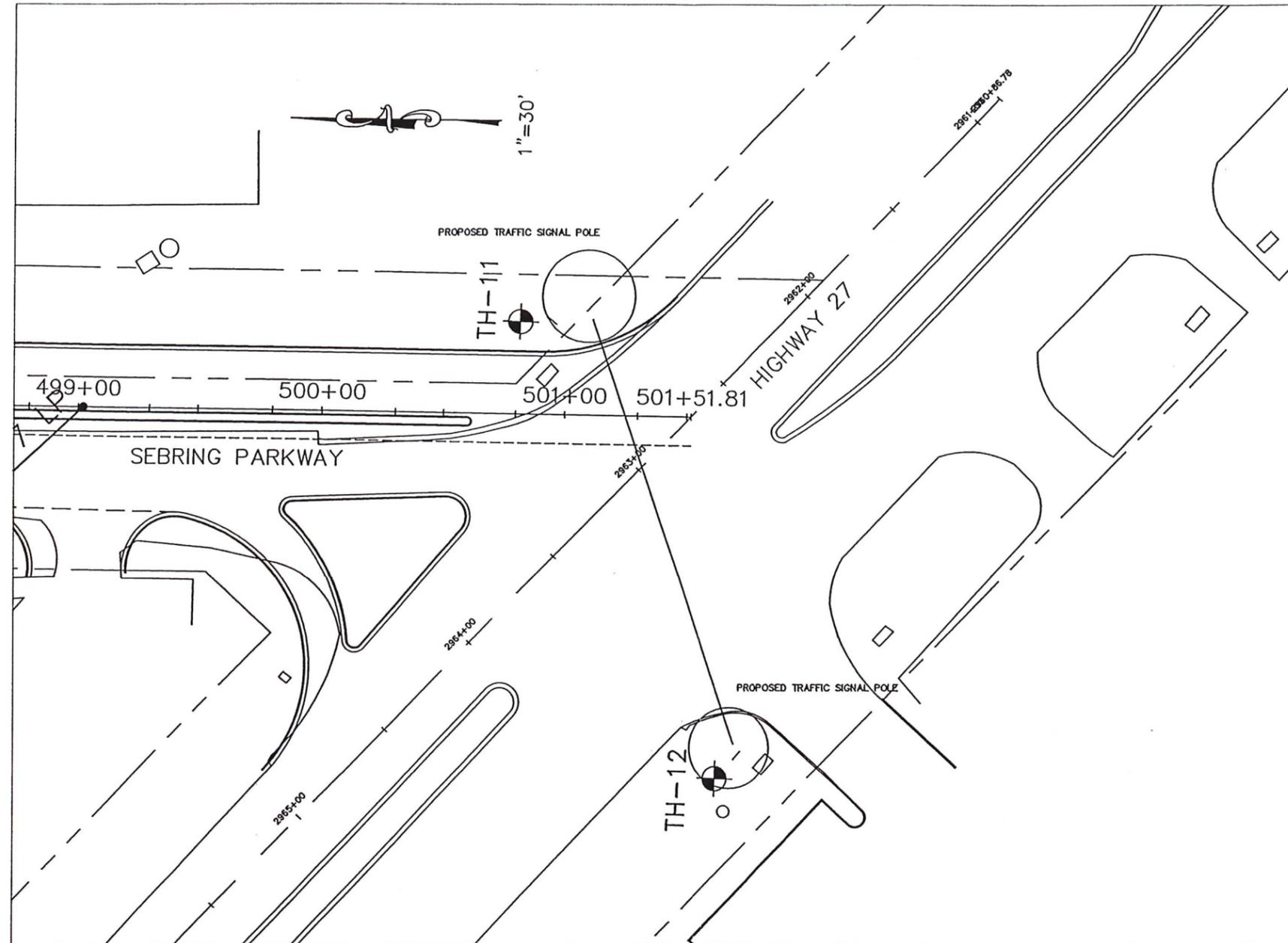


HIGHLANDS COUNTY  
FLORIDA

**SEBRING PARKWAY  
SIGNAL DESIGN SERVICES  
REPORT OF CORE BORINGS**

SHEET NUMBER  
**T-10**

# SOIL BORING LOCATION PLAN



**NOTICE:**  
 THE PURPOSE OF THIS DRAWING IS TO PRESENT THE LOCATION OF THE SOIL BORINGS AND OTHER FIELD TESTS, AND TO PRESENT SPECIAL FEATURES RELATED TO THE SUBSURFACE CONDITIONS AT THE SITE. THE PROPOSED SITE IMPROVEMENTS SHOWN ON THIS DRAWING MAY HAVE BEEN RELOCATED, AND/OR REDRAWN BETWEEN RECEIPT OF THE SITE PLAN AND ISSUANCE OF CONSTRUCTION DOCUMENTS. CONSEQUENTLY, THE SELECTED CONTRACTOR SHALL NOT USE OR RELY ON THIS DRAWING TO PLAN AND PERFORM THE CONSTRUCTION, INsofar AS IT RELATES TO THE PROPOSED SITE IMPROVEMENTS SHOWN HEREON. FURTHERMORE, BECAUSE THIS DRAWING WAS PREPARED USING A DOCUMENT WHICH WAS NOT RELEASED FOR CONSTRUCTION BIDS, THE CONTRACTOR SHALL BEAR IN MIND THAT ERRORS MAY EXIST ON THIS DRAWING WHICH MAY NOT HAVE BEEN CORRECTED. UNLESS THE BORING AND TEST LOCATIONS HAVE BEEN LOCATED BY A REGISTERED LAND SURVEYOR, THE LOCATIONS SHALL BE CONSIDERED TO BE APPROXIMATE, AND SHALL REFLECT THE ACCURACY OF THE TEST LOCATION METHODS USED BY ARDAMAN & ASSOCIATES, INC.

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING PROFILES AND RELATED INFORMATION ARE BASED ON THE DRILLERS LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED. GROUNDWATER ELEVATIONS SHOWN ON THE BORING PROFILES REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THOSE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS IN THE FUTURE.



**LEGEND**  
 TH-1 STANDARD PENETRATION TEST BORING

**Ardaman & Associates, Inc.**  
 Geotechnical, Environmental and Materials Consultants

**SOIL BORING LOCATION PLAN**  
 PROPOSED STRAIN POLE SUPPORTS  
 SEBRING PARKWAY & U.S. HWY 27  
 SEBRING,  
 HIGHLANDS COUNTY, FLORIDA

DRAWN BY: NPS | CHECKED BY: [Signature] | DATE: 10-15-03  
 FILE NO. 03-9173 | APPROVED BY: [Signature] | FIG. NO. 1.6

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

c:\p2000\03-9173\05\10-15-03\1.6\10\PS-1\NPS\0200

No.	REVISIONS	DATE	BY

**Kimley»Horn**  
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 0000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT  
 140057006  
 DATE  
 10/31/2018  
 SCALE AS SHOWN



HIGHLANDS COUNTY  
 FLORIDA

SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 REPORT OF CORE BORINGS

SHEET NUMBER  
 T-11

# SOILS LEGEND

-  ① DARK BROWN SAND, OCCASIONALLY WITH CLAYEY SAND LENSES (SP)
-  ② YELLOWISH-BROWN SAND (SP)
-  ③ DARK REDDISH-ORANGE SILTY SAND, WITH TRACE OF CLAY (SM)
-  ④ YELLOW OR LIGHT YELLOWISH-BROWN SAND (SP)
-  ⑤ VERY LIGHT BROWN TO WHITE SAND (SP)
-  ⑥ VERY LIGHT ORANGE SAND (SP)
-  ⑦ REDDISH-ORANGE SAND (SP)
-  ⑧ YELLOW SILTY SAND (SM)
-  ⑨ BROWN SAND WITH SILT (SP-SM)

- TH-1 STANDARD PENETRATION TEST (SPT) BORING
- N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
- 50/3 50 BLOWS FOR 3-INCHES PENETRATION INTO SOIL
-  GROUNDWATER LEVEL MEASURED ON DATE DRILLED
- NM NATURAL MOISTURE CONTENT IN PERCENT
- 200 PERCENT PASSING NO. 200 SIEVE (PERCENT FINES)
- $\gamma_d$  SOIL UNIT DRY WEIGHT (PCF)
- $\gamma_t$  SOIL TOTAL UNIT WEIGHT (PCF) SATURATED BELOW GROUNDWATER LEVEL
- SP,SM UNIFIED SOIL CLASSIFICATION SYSTEM

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLERS LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THOSE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS IN THE FUTURE.

### ENGINEERING CLASSIFICATION

COHESIONLESS

DESCRIPTION	BLOW COUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	ABOVE 50

COHESIVE

DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH T.S.F.	BLOW COUNT "N"
VERY SOFT	BELOW .25	0 TO 2
SOFT	.25 TO .50	2 TO 4
MEDIUM STIFF	.50 TO 1.0	4 TO 6
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	ABOVE 4	ABOVE 30

**Ardaman & Associates, Inc.**  
 Geotechnical, Environmental and Materials Consultants

**SOILS LEGEND**  
 PROPOSED STRAIN POLE SUPPORTS  
 EUCALYPTUS PARKWAY PHASE 2  
 SEBRING,  
 HIGHLANDS COUNTY, FLORIDA

DRAWN BY: NPS CHECKED BY: *[Signature]* DATE: 10-15-03  
 FILE NO. 03-9173 APPROVED BY: *[Signature]* FIG. NO. 2.0

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

C:\Users\jdo-4172\1\0-15-03\1333\PS-1\NPS\_2000

No.	REVISIONS	DATE	BY

**Kimley»Horn**

655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 0000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT  
 140057006  
 DATE  
 10/31/2018  
 SCALE AS SHOWN



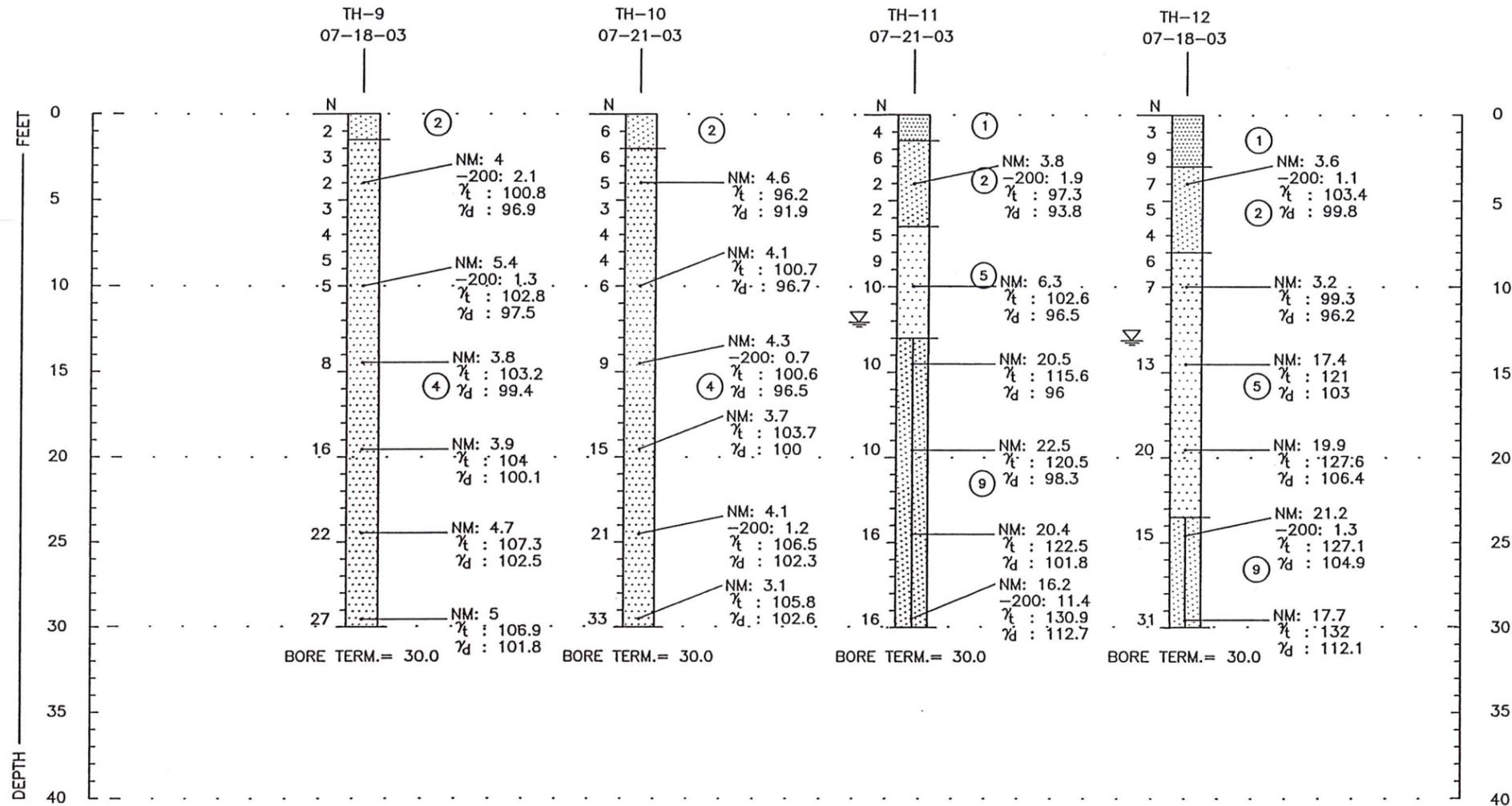
HIGHLANDS COUNTY  
 FLORIDA

SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 REPORT OF CORE BORINGS

SHEET NUMBER

T-12

# SOIL BORING PROFILES



ENGINEERING CLASSIFICATION		
COHESIONLESS		
DESCRIPTION	BLOW COUNT "N"	
VERY LOOSE	0 TO 4	
LOOSE	4 TO 10	
MEDIUM DENSE	10 TO 30	
DENSE	30 TO 50	
VERY DENSE	ABOVE 50	
COHESIVE		
DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH T.S.F.	BLOW COUNT "N"
VERY SOFT	BELOW .25	0 TO 2
SOFT	.25 TO .50	2 TO 4
MEDIUM STIFF	.50 TO 1.0	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	ABOVE 4	ABOVE 30

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING PROFILES AND RELATED INFORMATION ARE BASED ON THE DRILLERS LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE BORING PROFILES IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING PROFILES REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THOSE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS IN THE FUTURE.

DATE DRILLED: SHOWN ABOVE

**Ardaman & Associates, Inc.**  
Geotechnical, Environmental and Materials Consultants

**SOIL BORING PROFILES**  
PROPOSED STRAIN RELIEF SUPPORTS  
EUCALYPTUS PARKWAY PHASE 2  
SEBRING,  
HIGHLANDS COUNTY, FLORIDA

DRAWN BY: NPS | CHECKED BY: [Signature] | DATE: 10-15-03  
FILE NO. 03-9173 | APPROVED BY: [Signature] | FIG. NO. 2.3

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

C:\06000\03-9173\10-15-03\1356\9-1\NPS 0300

No.	REVISIONS	DATE	BY

**Kimley»Horn**

655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
PHONE: 813-620-1460  
WWW.KIMLEY-HORN.COM CA 00000696  
© 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT  
140057006  
DATE  
10/31/2018  
SCALE AS SHOWN



HIGHLANDS COUNTY  
FLORIDA

SEBRING PARKWAY  
SIGNAL DESIGN SERVICES  
REPORT OF CORE BORINGS

SHEET NUMBER  
T-13



This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Please do not disseminate or rely on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

**POLE DATA**

POLE NO.	CIRCUIT	STATION	POLE OFFSET	LUMINAIRE WATTAGE	MOUNTING HEIGHT	ARM LENGTH	IES FILE	POLE SETBACK*	PAY ITEM
4.1-A-11	EXIST.	499+70.83	49.50' RT	248	40'	15'	RFL-241W112LED4K-G2-R2M	13.2'	715-4-13
4.2-A-11	EXIST.	499+85.99	43.40' LT	248	40'	15'	RFL-241W112LED4K-G2-R2M	9.1'	715-4-13

\* SETBACK MEASURED FROM NEAREST EDGE OF PAVEMENT TO FACE OF POLE

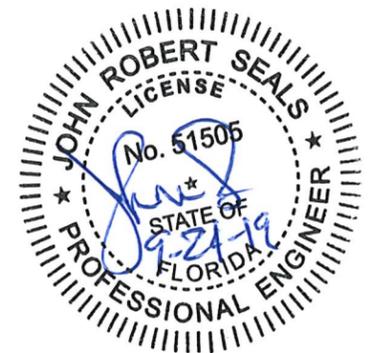
**LEGEND**

-  MANUFACTURER: PHILIPS LUMEC LED PHOTOMETRIC CURVE NO. RFL-241W112LED4K-G2-R2M WAS USED AS THE BASIS OF DESIGN. SEE POLE DATA TABLE FOR WATTAGE. NEW LIGHT POLE AND LUMINAIRE.
-  MANUFACTURER: PHILIPS LUMEC LED PHOTOMETRIC CURVE NO. RFL-145W64LED4K-G2-5 WAS USED AS THE BASIS OF DESIGN. SEE POLE DATA TABLE FOR WATTAGE. LUMINAIRE MOUNTED TO SIGNAL MAST ARM POLE. SEE SIGNALIZATION PLAN.
-  EXISTING LIGHT POLE TO REMAIN. PHILIPS LED MODEL 241W112LED4K-T-R2M, 248 WATT, 40' MOUNTING HEIGHT, 15' ARM LENGTH.
-  2" DIRECT BURIED CONDUIT
-  2" DIRECTIONAL DRILLED CONDUIT
-  PROPOSED LOCATION OF 13" X 24" LIGHTING PULL BOX
-  EXISTING LOCATION OF LIGHTING PULL BOX

**RETROFIT LIGHTING DESIGN CRITERIA**

AVERAGE INITIAL INTENSITY: 1.5 H.F.C./1.5 V.F.C.  
 UNIFORMITY RATIO AVG. / MIN.: 4 : 1 OR LESS\*  
 UNIFORMITY RATIO MAX. / MIN.: 10 : 1 OR LESS\*  
 DESIGN WIND SPEED: 150 MPH

\*ILLUMINATION UNIFORMITY RATIOS DO NOT APPLY TO V.F.C.



No.	REVISIONS	DATE	BY

**Kimley»Horn**

655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT  
140057006  
 DATE  
09/17/2019  
 SCALE AS SHOWN  
 DESIGNED BY JRS  
 DRAWN BY NRH  
 CHECKED BY JRS



HIGHLANDS COUNTY

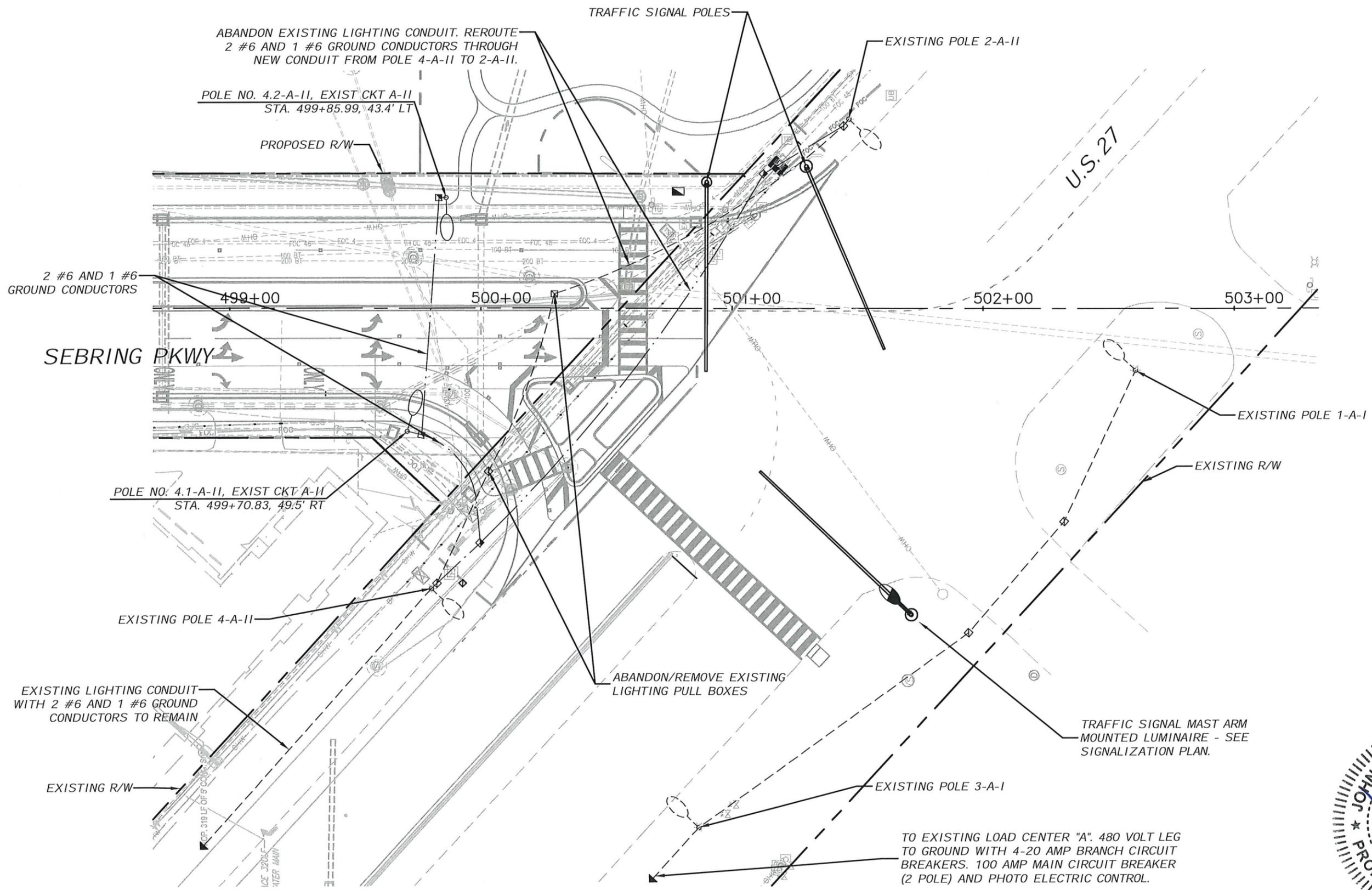
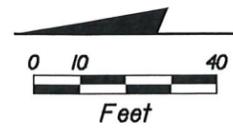
FLORIDA

LICENSED PROFESSIONAL  
 JOHN R. SEALS, P.E.  
 FLORIDA LICENSE NUMBER  
51505  
 DATE:

SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 POLE DATA AND LEGEND

SHEET NUMBER

L-2



This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Please do not rely on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. and shall be without liability to Kimley-Horn and Associates, Inc.



No.	REVISIONS	DATE	BY

**Kimley»Horn**  
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696  
 © 2018 KIMLEY-HORN AND ASSOCIATES, INC.

KHA PROJECT 140057006
DATE 09/17/2019
SCALE AS SHOWN
DESIGNED BY JRS
DRAWN BY NRH
CHECKED BY JRS



HIGHLANDS COUNTY  
 FLORIDA

LICENSED PROFESSIONAL  
 JOHN R. SEALS, P.E.  
 FLORIDA LICENSE NUMBER  
 51505

SEBRING PARKWAY  
 SIGNAL DESIGN SERVICES  
 LIGHTING PLAN

SHEET NUMBER  
 L-3