

COMPONENTS OF CONTRACT PLANS SET  
ROADWAY PLANS  
SIGNING AND PAVEMENT MARKING PLANS  
SIGNALIZATION PLANS

A DETAILED INDEX APPEARS ON THE  
KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

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GOVERNING DESIGN STANDARDS:

Florida Department of Transportation, FY2021-22 Design Standards eBook (DSeB)  
and applicable Design Standards Revisions (DSRs) at the following website:  
<http://www.fdot.gov/design/Standardplans/>

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, January 2022, Standard Specifications  
for Road and Bridge Construction at the following website:  
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

BOARD OF COUNTY COMMISSIONERS

BOB DALLARI	DISTRICT 1
JAY ZEMBOWER	DISTRICT 2
<b>LEE CONSTANTINE</b>	<b>DISTRICT 3</b>
AMY LOCKHART	DISTRICT 4
ANDRIA HERR	DISTRICT 5

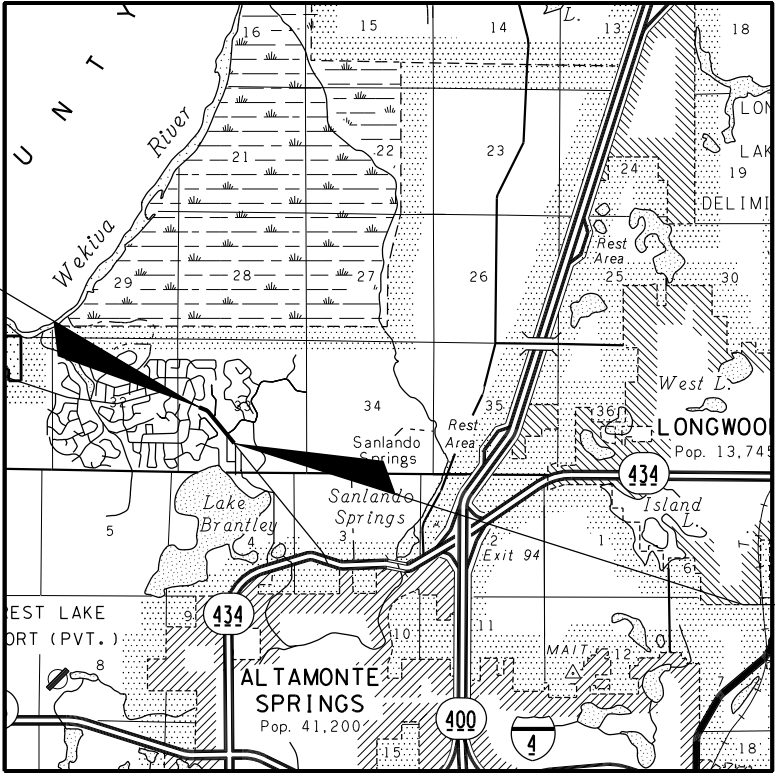
JOE ABEL, INTERIM COUNTY MANAGER

SEMINOLE COUNTY  
ENGINEERING DIVISION

CONTRACT PLANS



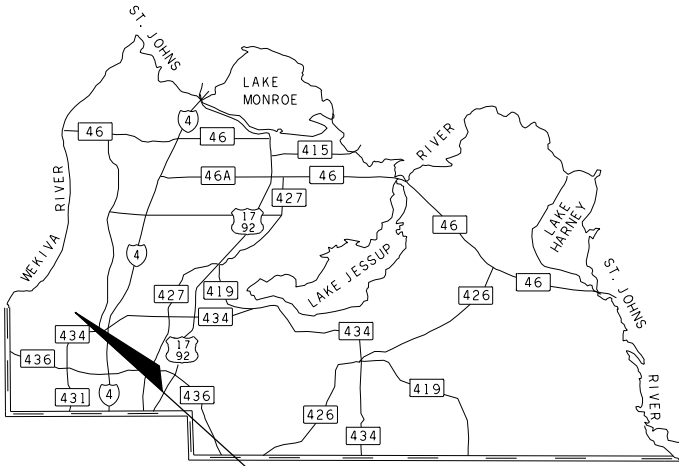
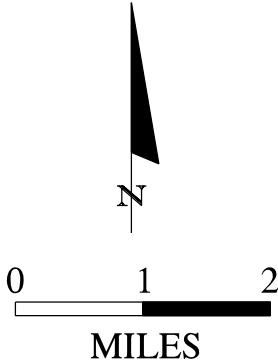
WEKIVA SPRINGS ROAD  
INTERSECTION IMPROVEMENTS  
SEMINOLE COUNTY CIP No. 02007027  
DISTRICT 3



BEGIN PROJECT  
BEGIN CONSTRUCTION  
STA. 215+06.55

T 20 S  
T 21 S

END PROJECT  
END CONSTRUCTION  
STA. 245+44.43



PROJECT LOCATION

SEMINOLE COUNTY ENGINEERING  
PROJECT MANAGER: ANGELA CARDONA, P.E.  
100 EAST FIRST STREET  
SANFORD, FLORIDA 32771  
407-665-5661

ROADWAY SHOP DRAWINGS  
TO BE SUBMITTED TO:

FURSAN S. MUNJED, P.E.  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
PHONE 407-992-9160, X-302

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

**90% SUBMITTAL**  
**MARCH 29, 2022**

ROADWAY PLANS  
ENGINEER OF RECORD: FURSAN S. MUNJED, P.E.

P.E. NO.: 51446

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	3037.88	0.575
BRIDGES	0.00	0.000
NET LENGTH OF PROJECT	3037.88	0.575
EXCEPTIONS	0.00	0.000
GROSS LENGTH OF PROJECT	3037.88	0.575

PUBLIC WORKS DIRECTOR: JEAN JREIJ, P.E.

FISCAL YEAR	SHEET NO.
21	1

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SUMMARY OF PAY ITEMS				
ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY TOTAL	
			PLANS	FINAL
101-1	MOBILIZATION	LS	1	
102-1	MAINTENANCE OF TRAFFIC	LS	1	
102-99	PORTABLE CHANGEABLE MESSAGE SIGN (TEMP.)	ED	1,448	
104-14	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	
110-1-1	CLEARING AND GRUBBING	LS	1	
110-4-10	REMOVAL OF EXISTING CONCRETE	SY	1,996	
120-1	REGULAR EXCAVATION	CY	1,879	
120-4	SUBSOIL EXCAVATION	CY	406	
120-6	EMBANKMENT	CY	599	
160-4	TYPE B STABILIZATION, 12" MINIMUM, LBR 40	SY	3,083	
285-706	BASE GROUP 6, TYPE B-12.5 ONLY	SY	249	
285-713	BASE GROUP 13, TYPE B-12.5 ONLY, (8")	SY	2,647	
327-70-6	MILLING EXISTING ASPHALT PAVEMENT (1.5" AVG. DEPTH)	SY	12,261	
334-1-13	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C	TN	418.5	
337-7-83	ASPHALTIC CONCRETE FRICTION COURSE, TRAFFIC C, FC-12.5, PG 76-22	TN	1,206.2	
400-0-11	CONCRETE CLASS NS, GRAVITY WALL INDEX 400-011	CY	174	
400-1-15	CONCRETE CLASS I (MISCELLANEOUS)	CY	5	
425-1-311	INLET (CURB TYPE P-1) (<10')	EA	4	
425-1-321	INLET (CURB TYPE P-2) (<10')	EA	2	
425-1-351	INLET (CURB TYPE P-5) (<10')	EA	1	
425-1-521	INLET, DITCH BOTTOM, TYPE C, <10'	EA	1	
425-1-541	INLET, DITCH BOTTOM, TYPE D, <10'	EA	1	
425-1-551	INLET, DITCH BOTTOM, TYPE E, <10'	EA	1	
425-2-71	MANHOLES, J-7, <10'	EA	2	
425-11	MODIFY EXISTING DRAINAGE STRUCTURE	EA	7	
430-175-118	PIPE CULVERT, ROUND, 18" S/CD, RCP, CLASS III	LF	378	
430-175-218	PIPE CULVERT, ELIP/ARCH, 14"x23" S/CD, RCP, CLASS III	LF	40	
430-982-125	MITERED END SECTION, CLASS III, 18" SD	EA	1	
515-2-311	PEDESTRIAN/BICYCLE RAILING, ALUMINUM ONLY, 42" TYPE 1	LF	251	
520-1-7	CONCRETE CURB AND GUTTER (TYPE E)	LF	136	
520-1-10	CONCRETE CURB AND GUTTER (TYPE F)	LF	1,847	
520-2-4	CONCRETE CURB TYPE D	LF	211	
520-3	VALLEY GUTTER - CONCRETE	LF	367	
520-5-11	CONCRETE TRAFFIC SEPARATOR, TYPE 1, OPTION II	LF	672	
522-1	CONCRETE SIDEWALK, 4" THICK	SY	668	
522-2	CONCRETE SIDEWALK, 6" THICK	SY	396	
527-2	DETECTABLE WARNINGS	SF	202	
530-3-4	RUBBLE RIPRAP, DITCH LINING	TN	2	
570-1-2	PERFORMANCE TURF, SOD	SY	3,466	
999-1	CONCRETE FLUME	EA	3	

102-1 INCLUDES THE COST OF ALL ITEMS NECESSARY FOR TRAFFIC CONTROL NOT SPECIFICALLY INCLUDED IN THE SUMMARY OF PAY ITEMS (INCLUDING SIGNS, BARRICADES, FLAGMAN, ETC.) IN ACCORDANCE WITH FDOT DESIGN STANDARDS PLANS INDEX 102-600 SERIES, MUTCD, AND FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITIONS. INCLUDES THE COST TO FURNISH AND INSTALL ALL TEMPORARY STRIPING AND DETOUR FACILITIES. THE CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO RESIDENCES AND BUSINESSES AT ALL TIMES. INCLUDES THE COST FOR OFF-DUTY POLICE OFFICER AS NEEDED.

102-99 INCLUDES THE COST FOR VARIABLE MESSAGE SIGNS TO BE SET UP SEVEN DAYS IN ADVANCE OF THE BEGINNING OF CONSTRUCTION AND DURING VARIOUS PHASES OF CONSTRUCTION. CONTRACTOR TO COORDINATE LOCATIONS AND MESSAGES WITH THE PROJECT MANAGER. THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES ALONG THE PROJECT LIMITS TWO WEEKS PRIOR TO START CONSTRUCTION BY FLYER, APPROVED BY THE SEMINOLE COUNTY PROJECT MANAGER.


104-14 THIS PAY ITEM INCLUDES THE COST OF ALL ITEMS REQUIRED FOR EROSION AND TURBIDITY CONTROL INCLUDING, BUT NOT LIMITED TO, TURBIDITY BARRIERS, SILT FENCE, TEMPORARY AND PERMANENT EROSION CONTROL MATTING, INLET PROTECTION DEVICES, AND SOIL TRACKING PREVENTION DEVICES AS SHOWN IN THE PLANS OR AS DIRECTED BY THE COUNTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MEASURES DEEMED NECESSARY FOR THE CONTROL OF EROSION AND WATER POLLUTION AS DESIGNATED BY THE PLANS, THE COUNTY, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND ST JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD).

110-1-1 INCLUDES THE COST OF REMOVAL AND DISPOSAL OF ALL OBSTRUCTIONS, VEGETATION, DEBRIS, FENCES, EXISTING ASPHALT, TRIMMING OF TREES AND SHRUBS AS NECESSARY, AND ALL OTHER ITEMS IN ORDER TO CONSTRUCT THE PROJECT. INCLUDES THE COST TO RELOCATE EXISTING MAILBOXES, ADJUST THE EXISTING VALVE BOXES AND SEWER TOPS, RELOCATE THE EXISTING IRRIGATION HEADS AND LINES THAT ARE IN CONFLICT WITH THE CONSTRUCTION. CONTRACTOR TO COORDINATE LOCATION OF IRRIGATION SYSTEM WITH THE PROPERTY OWNER AND PROJECT MANAGER. NO TREES ARE TO BE REMOVED WITHOUT APPROVAL FROM THE SEMINOLE COUNTY PROJECT MANAGER.

THE LIMITS OF CLEARING AND GRUBBING SHALL BE AS DIRECTED BY THE PROJECT MANAGER TO PROVIDE FOR CONTINUITY OF CONSTRUCTION OR TO SUIT THE ACTUAL REQUIREMENTS. DISPOSAL SHALL BE OFF SITE, IN AREAS PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL MINIMIZE LIMITS OF CLEARING AND GRUBBING TO THE EXTENT POSSIBLE SO AS TO AVOID DAMAGING EXISTING LANDSCAPING, SOD, IRRIGATION SYSTEMS, ETC.

570-1-2 INCLUDES THE COST AND APPLICATION OF WATER AT A RATE OF 30,000 GAL/ACRE, AND FERTILIZER AT THE RATE OF 400 LBS/ACRE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND TO MAINTAIN THE SODDED AREAS UNTIL FINAL ACCEPTANCE. TYPES OF SOD MAY VARY. CONTRACTOR TO MATCH EXISTING SOD. INCLUDES THE COST OF PEGGING FOR THE ESTABLISHMENT OF PERMANENT SODDING.

INCLUDES PAYMENT FOR SODDING, MOWING, FERTILIZING, WATER AND DOLOMITE LIMESTONE. ALL SOD ON SLOPES 1:3 (V:H) AND STEEPER SHALL BE PEGGED. SOD SHALL BE CERTIFIED "SODA APPLE FREE". SUBCONTRACTOR SHALL REMOVE AND REPLACE ANY AREAS INFESTED FOR A PERIOD OF ONE YEAR FROM THE COMPLETION OF THE PROJECT.

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SUMMARY OF PAY ITEMS	SHEET NO.  2
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



BEGIN PROJECT  
BEGIN CONSTRUCTION  
STA. 215+06.55

END PROJECT  
END CONSTRUCTION  
STA. 245+44.43

70

70

60

60

50

50

40

40

214+00

216+00

218+00

220+00

222+00

224+00

226+00

228+00

230+00

232+00

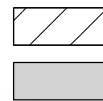
234+00

SCALE  
1" = 200' HORIZ.  
1" = 10' VERT.

BEGIN PROJECT  
BEGIN CONSTRUCTION  
B/L CONST. WEKIVA SPRINGS RD.  
STATION 215+06.55

TOWNSHIP 20 S  
RANGE 29E  
SECTION 33

LEGEND




MILLING & RESURFACING

PAVEMENT WIDENING

END PROJECT  
END CONSTRUCTION  
B/L CONST. WEKIVA SPRINGS RD.  
STATION 245+44.43

1" = 200'

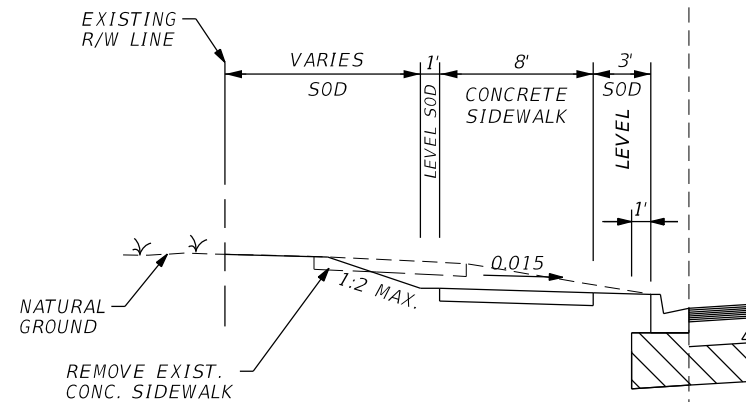
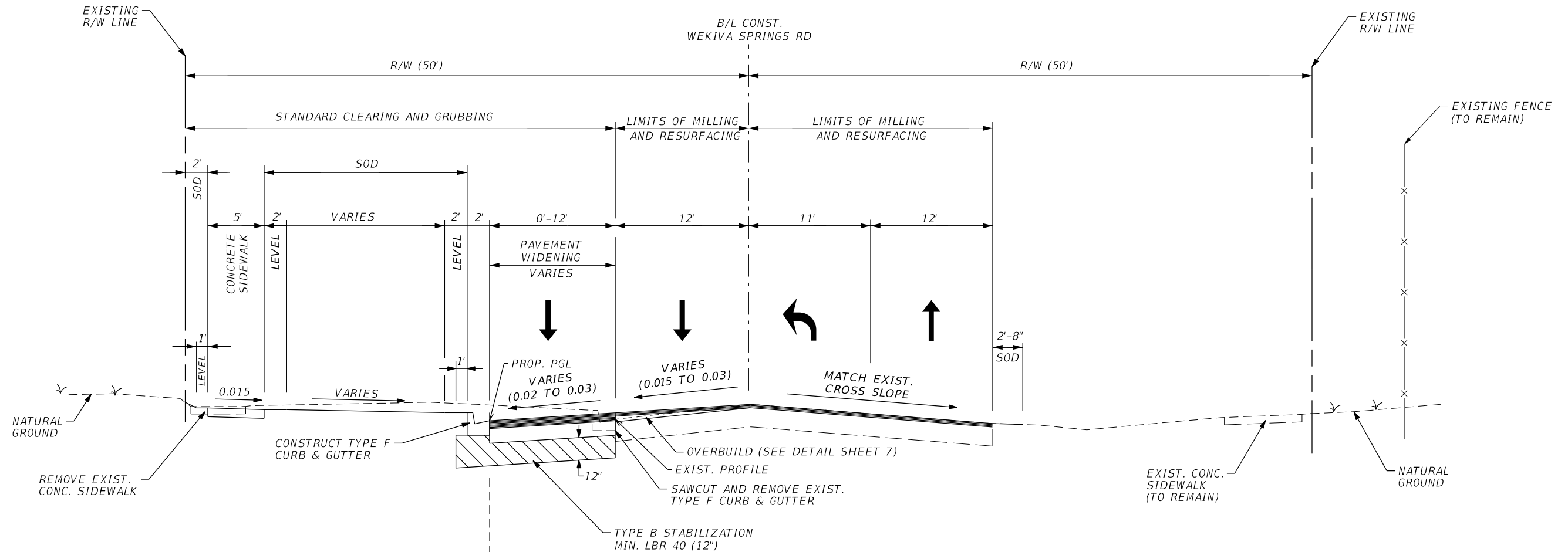
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD DRAINAGE MAP	SHEET NO.  3
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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### 8' WIDE SIDEWALK DETAIL

WEKIVA SPRINGS ROAD  
STA. 223+95.20 TO STA. 225+54.96

### TRAFFIC DATA

EXISTING YEAR 2020 AADT = 22,900  
K=9.0%, D=51.9%, T=5.0% (24 HOUR)  
DESIGN SPEED = 35 MPH  
POSTED SPEED = 35 MPH

### TYPICAL SECTION NO. 1

WEKIVA SPRINGS ROAD  
STA. 215+06.55 TO STA. 223+85.07

### PAVEMENT WIDENING

BASE GROUP 13 (TYPE B-12.5 ONLY) (8") WITH  
TYPE SP-12.5 STRUCTURAL COURSE (2.50") TRAFFIC C  
AND FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

### MILLING AND RESURFACING

MILL EXISTING ASPHALT PAVEMENT FOR DEPTH 1.50"  
AND RESURFACE WITH FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

### OVERBUILD PAVEMENT

TYPE SP STRUCTURAL COURSE (0" TO 3.68"), TRAFFIC C

### REVISIONS

DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770



SEMINOLE COUNTY  
ENGINEERING DIVISION

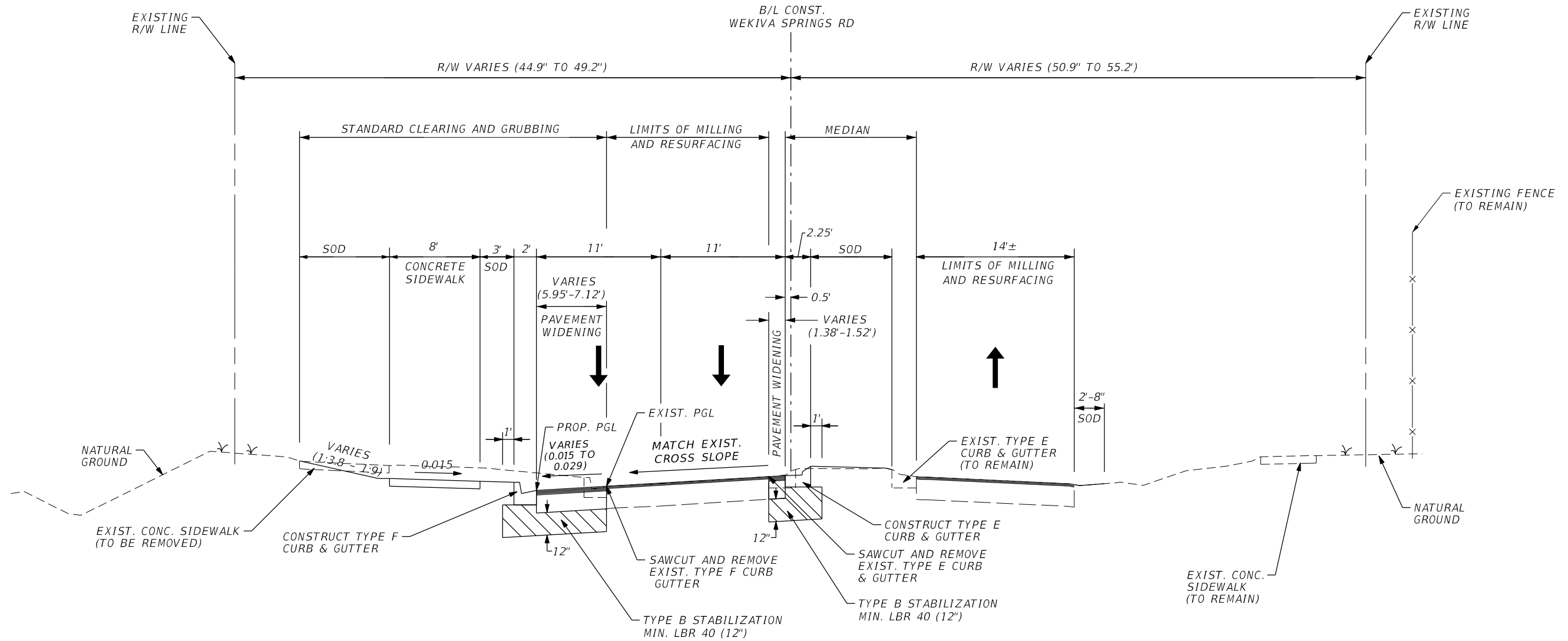
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD  
TYPICAL SECTION

SHEET  
NO.

4





**TYPICAL SECTION NO. 2**  
 WEKIVA SPRINGS ROAD  
 STA. 223+85.07 TO STA. 225+17.41

**PAVEMENT WIDENING**


BASE GROUP 13 (TYPE B-12.5 ONLY) (8") WITH  
 TYPE SP-12.5 STRUCTURAL COURSE (2.50") TRAFFIC C  
 AND FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

**MILLING AND RESURFACING**

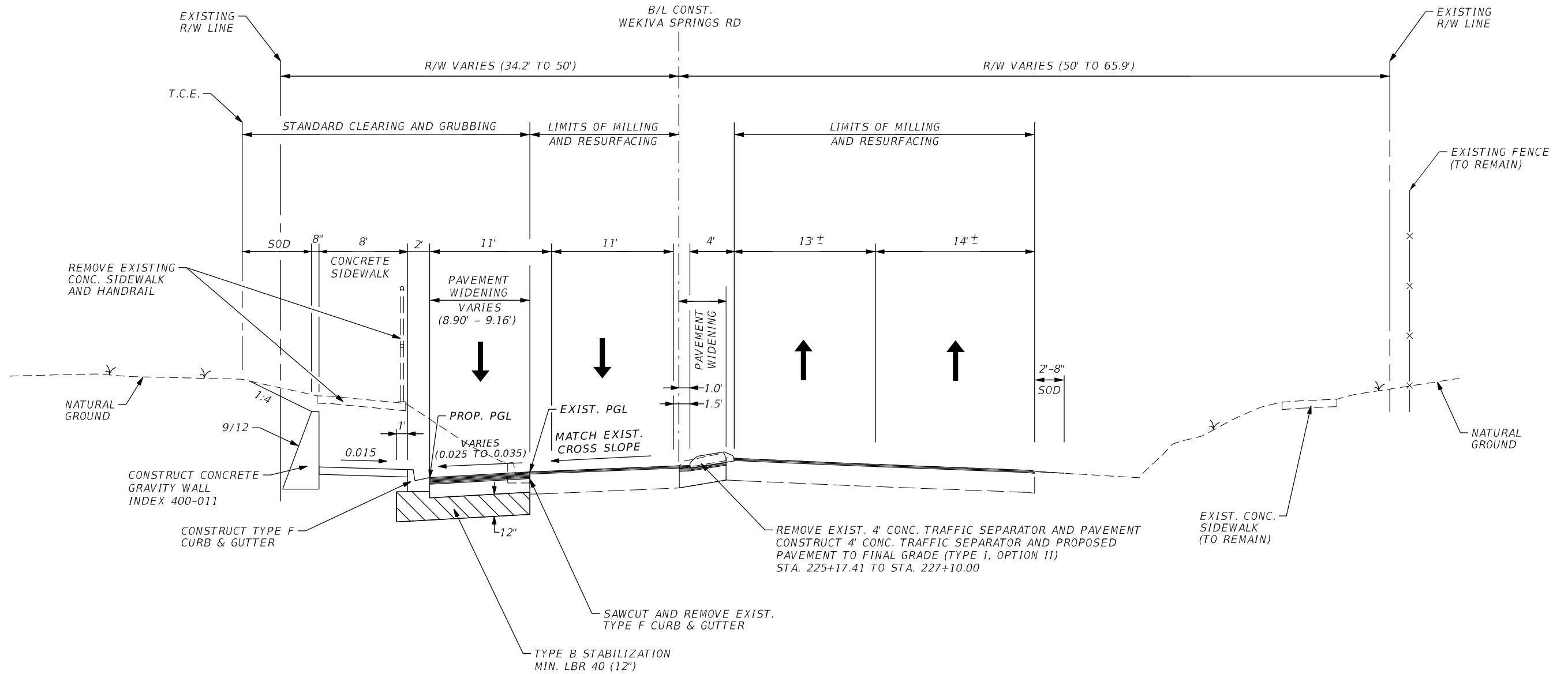
MILL EXISTING ASPHALT PAVEMENT FOR DEPTH 1.50"  
 AND RESURFACE WITH FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

**TRAFFIC DATA**

EXISTING YEAR 2020 AADT = 22,900  
 K=9.0%, D=51.9%, T=5.0% (24 HOUR)  
 DESIGN SPEED = 35 MPH  
 POSTED SPEED = 35 MPH

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TYPICAL SECTION	SHEET NO.  5
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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### TYPICAL SECTION NO. 3

WEKIVA SPRINGS ROAD  
STA. 225+17.41 TO STA. 227+10.00

#### PAVEMENT WIDENING

BASE GROUP 13 (TYPE B-12.5 ONLY) (8") WITH  
TYPE SP-12.5 STRUCTURAL COURSE (2.50") TRAFFIC C  
AND FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

#### MILLING AND RESURFACING

MILL EXISTING ASPHALT PAVEMENT FOR DEPTH 1.50"  
AND RESURFACE WITH FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

#### PAVEMENT UNDER TRAFFIC SEPARATOR

BASE GROUP 13 (TYPE B-12.5 ONLY) (8") WITH  
TYPE SP-12.5 STRUCTURAL COURSE (2.50") TRAFFIC C

#### TRAFFIC DATA

EXISTING YEAR 2020 AADT = 22,900  
K=9.0%, D=51.9%, T=5.0% (24 HOUR)  
DESIGN SPEED = 35 MPH  
POSTED SPEED = 35 MPH

#### REVISIONS

DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770



SEMINOLE COUNTY  
ENGINEERING DIVISION

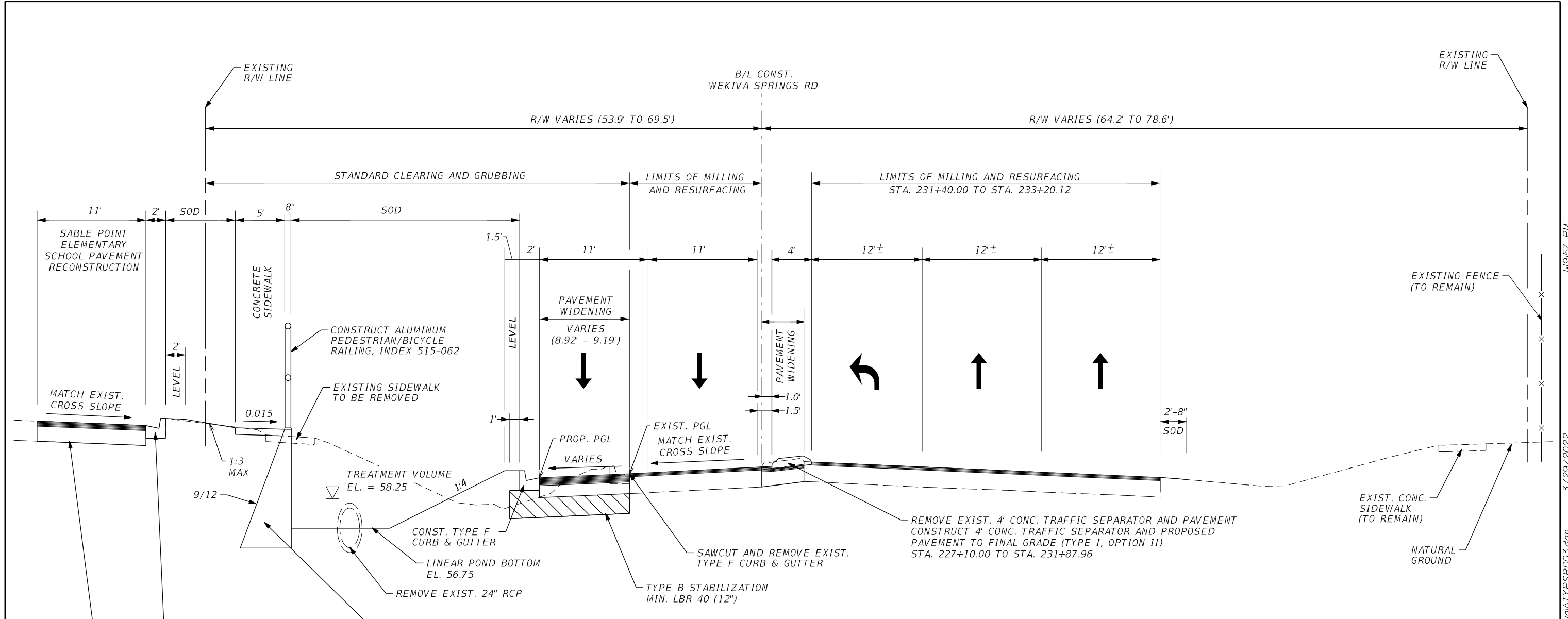
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD  
TYPICAL SECTION

SHEET  
NO.

5A





TYPICAL SECTION NO. 4

WEKIVA SPRINGS ROAD  
STA. 227+10.00 TO STA. 245+44.43

PAVEMENT WIDENING

BASE GROUP 13 (TYPE B-12.5 ONLY) (8") WITH  
TYPE SP-12.5 STRUCTURAL COURSE (2.50") TRAFFIC C  
AND FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

MILLING AND RESURFACING

MILL EXISTING ASPHALT PAVEMENT FOR DEPTH 1.50"  
AND RESURFACE WITH FRICTION COURSE FC-12.5 (1.50") TRAFFIC C (PG76-22)

PAVEMENT UNDER TRAFFIC SEPARATOR

BASE GROUP 13 (TYPE B-12.5 ONLY) (8") WITH  
TYPE SP-12.5 STRUCTURAL COURSE (2.50") TRAFFIC C

PAVEMENT RECONSTRUCTION (SCHOOL ACCESS ROAD)

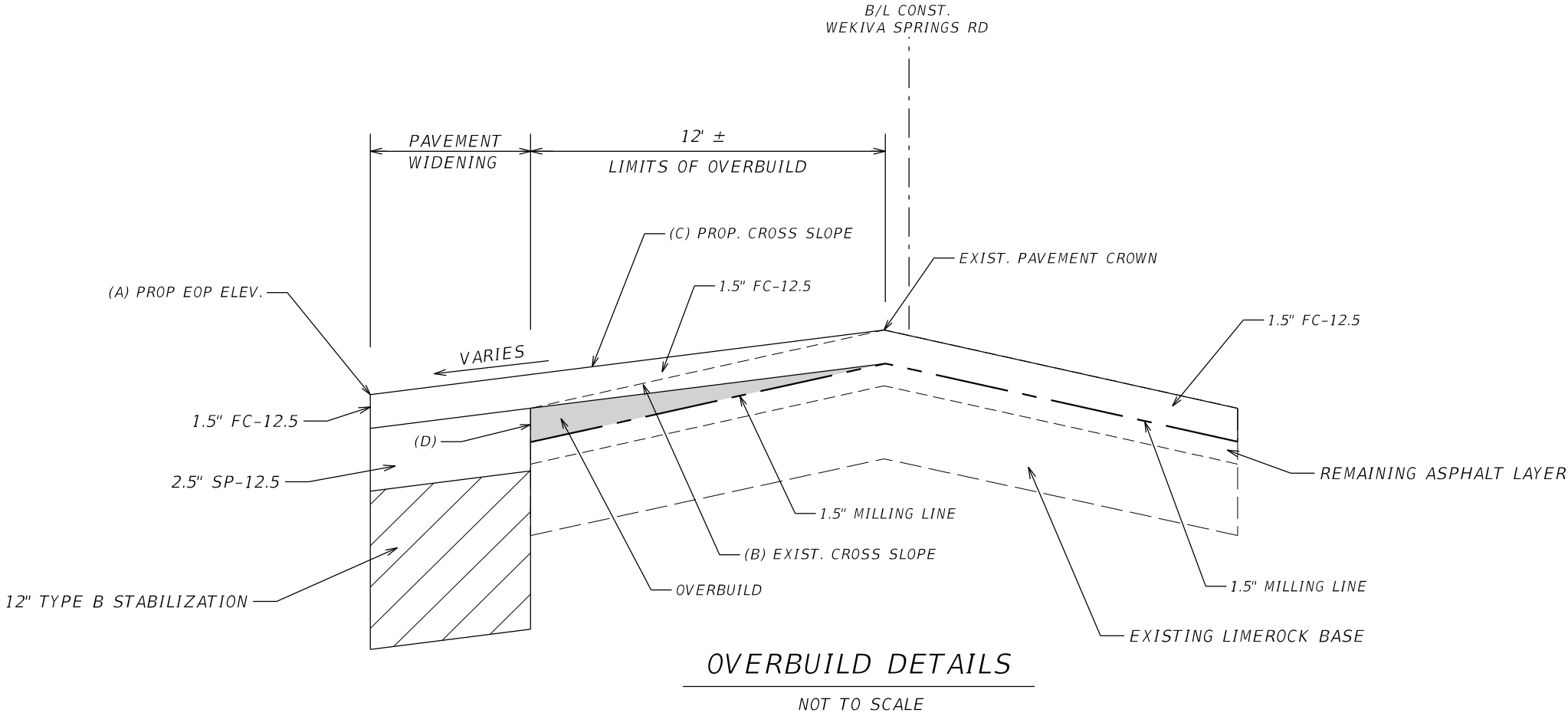
BASE GROUP 6 (TYPE B-12.5 ONLY) (5") WITH  
TYPE SP-12.5 STRUCTURAL COURSE (2.00")


TRAFFIC DATA

EXISTING YEAR 2020 AADT = 22,900  
K=9.0%, D=51.9%, T=5.0% (24 HOUR)  
DESIGN SPEED = 35 MPH  
POSTED SPEED = 35 MPH

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TYPICAL SECTION	SHEET NO.  6
DATE	BY	DESCRIPTION						
					ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		


WEKIVA SPRINGS ROAD STA. 218+50.00 TO STA. 223+00.00	OVERBUILD DETAILS					
	LOCATION		(A) PROP. EOP ELEV.	(B) EXISTING CROSS SLOPE %	(C) PROPOSED CROSS SLOPE %	(D) DEPTH OF OVERBUILD (IN)
	STATION	LANE				
	218+50.00	NORTHBOUND	63.51	(-) 3.02 %	(-) 3.02 %	0.00"
	219+00.00	NORTHBOUND	63.11	(-) 3.92 %	(-) 3.00 %	0.00" to 1.38"
	219+50.00	NORTHBOUND	62.72	(-) 3.59 %	(-) 3.00 %	0.00" to 0.85"
	220+00.00	NORTHBOUND	62.47	(-) 4.01 %	(-) 3.00 %	0.00" to 1.45"
	220+50.00	NORTHBOUND	62.70	(-) 4.17 %	(-) 2.50 %	0.00" to 2.39"
	221+00.00	NORTHBOUND	62.53	(-) 5.34 %	(-) 3.00 %	0.00" to 3.44"
	221+50.00	NORTHBOUND	62.35	(-) 5.43 %	(-) 3.00 %	0.00" to 3.68"
	222+00.00	NORTHBOUND	62.17	(-) 5.02 %	(-) 3.00 %	0.00" to 2.99"
	222+50.00	NORTHBOUND	61.94	(-) 3.20 %	(-) 3.00 %	0.00" to 0.28"
	223+00.00	NORTHBOUND	61.74	(-) 3.10 %	(-) 3.10 %	0.00"



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD OVERBUILD DETAILS	SHEET NO.  7
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



SUMMARY OF DRAINAGE STRUCTURES																					
Q T Y	STR. NO.	INDEX NO.	STATION	OFFSET	SIDE	DESCRIPTION	BARRELS	STORM SEWER CLASS III		DITCH BOTTOM INLET			CURB INLET			MANHOLE	M.E.S.	MODIFY EXIST. DRAINAGE STRUCTURE	RUBBLE RIP RAP (DITCH LINING)	SOD	REMARKS
								R.C.P	E.R.C.P.	TYPE C	TYPE D	TYPE E	P-1	P-2	P-5	J-7	18"				
								18"	14"x 23"	(<10')	(<10')	(<10')	(<10')	(<10')	(<10')	(EA)	(EA)				
P	S-21	425-001, 425-010, 425-021	216+74.95	25.25'	LT.	EXIST. CURB INLET	2										1			REMOVE EXIST. CURB INLET TOP AND CONST. NEW TYPE 5 CURB INLET TOP	
F																					
P	S-1	425-001, 425-010	218+19.91	17.74'	LT.	EXIST. CURB INLET	2										1			REMOVE EXIST. CURB INLET TOP AND CONST. NEW TYPE 7 MH TOP	
F																					
P	S-2	425-001, 425-010, 425-020	218+50.00	29.50'	LT.	CURB INLET, PIPE	1	33				1									
F																					
P	S-3	425-001, 425-010	219+95.06	13.18'	LT.	EXIST. CURB INLET	1										1			REMOVE EXIST. CURB INLET TOP AND CONST. NEW TYPE 7 MH TOP	
F																					
P	S-4	425-001, 425-010, 425-020	220+00.00	29.50'	LT.	CURB INLET, PIPE	1		17			1									
F																					
P	S-5	425-001, 425-010	221+59.56	13.23'	LT.	EXIST. CURB INLET	1										1			REMOVE EXIST. CURB INLET TOP AND SLAB AND CONST. NEW TYPE 7 MH TOP	
F																					
P	S-6	425-001, 425-010, 425-020	221+59.56	29.50'	LT.	CURB INLET, PIPE	1	16				1									
F																					
P	S-7	OMITTED																			
F																					
P	S-8	425-001, 425-010, 425-021	222+83.24	25.25'	LT.	CURB INLET, PIPE	1	118						1							
F																					
P	S-9	425-001, 425-010, 425-020	224+00.00	28.00'	LT.	CURB INLET, PIPE	1	68					1								
F																					
P	S-10	425-001, 425-010, 425-021	224+71.15	28.00'	LT.	CURB INLET, PIPE	1	9				1									
F																					
P	S-11	425-001, 425-010	224+71.20	17.17'	LT.	EXIST. CURB INLET	1										1			REMOVE EXIST. CURB INLET TOP AND CONST. NEW TYPE 7 MH TOP	
F																					
P	S-12	425-001, 425-010	227+15.70	13.77'	LT.	MANHOLE	1							1						DOGHOUSE MANHOLE	
F																					
P	S-13	425-001, 425-010, 425-020	227+15.70	28.00'	LT.	CURB INLET, PIPE	1		12				1								
F																					
P	S-14	425-001, 425-010	227+45.73	13.38'	LT.	EXIST. CURB INLET	1										1			REMOVE EXIST. CURB INLET TOP AND SLAB AND CONST. NEW TYPE 7 MH TOP	
F																					
P	S-15	425-052	228+26.54	37.17'	LT.	D.B.I. , PIPE	1		11			1									
F																					
P	S-16	425-001, 425-010	228+26.97	49.52'	LT.	MANHOLE	1							1							
F																					
P	S-17	430-022	230+75.02	41.14'	LT.	M.E.S.	1								1			2.0	9	1:4	
F																					
P	S-18	425-052	231+74.67	67.15'	LT.	DBI, PIPE	1	22		1											
F																					
P	S-19	425-052	231+87.49	48.55'	LT.	DBI, PIPE	1	112			1										
F																					
P	S-20	425-001, 425-010	231+93.15	36.86'	LT.	EXIST. CURB INLET	1										1			REMOVE EXIST. CURB INLET TOP AND SLAB AND CONST. NEW TYPE 7 MH TOP	
F																					
GRAND TOTAL						PLAN QUANTITY		378	40	1	1	1	4	2	1	2	1	7	2.0	9	
						FINAL QUANTITY															

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

WEKIVA SPRINGS ROAD		SUMMARY OF DRAINAGE STRUCTURES	8

(1) CURB INLET  
TOP=65.16  
SE INV=58.28  
SE INV=58.26

(2) DRAINAGE MANHOLE  
TOP=66.43  
NW INV=58.15  
NW INV=58.14  
SE INV=58.17  
SE INV=58.16

(3) CURB INLET  
TOP=65.01  
NW INV=58.13  
NW INV=58.15  
SE INV=58.04  
SE INV=58.06

(4) CURB INLET  
TOP=63.97  
NW INV=57.81  
NW INV=57.78  
SW INV=59.11

(5) CURB INLET  
TOP=63.88  
NE INV=60.09

(6) CURB INLET  
TOP=62.76  
SE INV=58.90  
SW INV=59.37

(7) CURB INLET  
TOP=62.80  
NE INV=59.47

(8) CURB INLET  
TOP=62.41  
NW INV=57.94  
SE INV=58.00

(9) CURB INLET  
TOP=61.76  
NW INV=56.81  
SE INV=56.83

(10) MITERED END SECTION  
INVERT=60.08

(11) DRAINAGE MANHOLE  
TOP=62.11  
BOX CULVERT  
INV=55.87  
NW INV=60.90

(12) FLAT GRATE INLET  
TOP=61.97  
BOX CULVERT  
INV=55.73

(13) FLAT GRATE INLET  
TOP=60.40  
24" BOX CULVERT  
INV=55.40

(14) DRAINAGE MANHOLE  
TOP=60.52  
24" BOX CULVERT  
INV=55.37  
SE ELBOW ELEV=59.16

(15) MITERED END SECTION  
INVERT=58.41

(16) FLAT GRATE INLET  
OVERFLOW STRUCTURE  
TOP=60.41  
E INV=58.46

(17) DRAINAGE MANHOLE  
TOP=63.25  
W INV=57.72  
S INV=54.71

(18) DRAINAGE MANHOLE  
TOP=63.02  
N INV=54.89  
SE INV=54.95  
S INV=54.82

(19) CURB INLET  
TOP=58.96  
N INV=RECESSED  
SE INV=54.85  
SW INV=55.07  
NW INV=RECESSED

(20) DRAINAGE MANHOLE  
TOP=58.97  
NE INV=54.83  
SW INV=55.02

(21) HEADWALL  
INVERT=55.57

(22) DRAINAGE MANHOLE  
TOP=61.63  
NW INV=55.39  
E INV=56.21  
SE INV=55.33

(23) FLAT GRATE INLET  
TOP=61.55  
SE INV=56.72  
W INV=56.65

(24) DRAINAGE MANHOLE  
TOP=59.88  
SE INV=55.19  
NW INV=55.34

(25) CURB INLET  
TOP=60.22  
NW INV=55.42  
SE INV=56.52  
SW INV=54.45

(26) DRAINAGE MANHOLE  
TOP=60.23  
NW INV=56.21  
NE INV=57.10  
NE INV=57.14

(27) FLAT GRATE INLET  
TOP=59.50  
SW INV=57.35  
SW INV=57.22

(28) DRAINAGE MANHOLE  
TOP=59.52  
NE INV=54.33  
SE INV=54.42

(29) CURB INLET  
TOP=60.05  
NW INV=56.93  
SE INV=56.99  
S INV=56.96

(30) HEADWALL  
INVERT=57.22

(31) CURB INLET  
TOP=59.65  
N INV=57.09


(32) CURB INLET  
TOP=59.87  
NW INV=54.76  
SE INV=55.67  
SW INV=54.71

(33) CURB INLET  
TOP=58.89  
NE INV=54.79  
SW INV=54.84

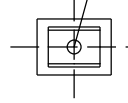
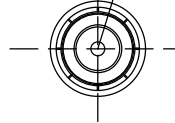
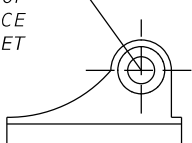
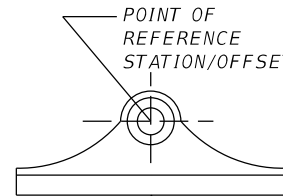
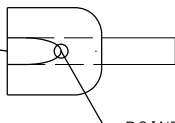
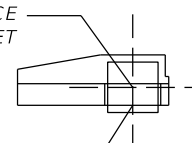

(34) CURB INLET  
TOP=58.92  
NE INV=55.04

(35) CURB INLET  
TOP=60.13  
SE INV=56.02  
SW INV=56.07

(36) DRAINAGE MANHOLE  
TOP=60.22  
NE INV=55.87  
NW INV=55.81

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD EXISTING DRAINAGE DATA	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
						WEKIVA SPRINGS ROAD	02007027	



<div>S-21</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING CURB INLET TOP AND CONST. TYPE 5 CURB INLET TOP STA. 216+74.95 (25.25' LT.) EOP EL. 64.89 INV. EL. 58.13 BK. (EXISTING 36" RCP) INV. EL. 58.15 BK. (EXISTING 36" RCP) INV. EL. 58.04 AH. (EXISTING 36" RCP) INV. EL. 58.06 AH. (EXISTING 36" RCP) FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX 425-001, 425-010, 425-021</div>			<div>S-1</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING CURB INLET TOP AND CONST. MANHOLE (TYPE 7) TOP CONNECT PROPOSED 18" RCP STA. 218+19.91 (17.74' LT.) RIM EL. 63.95 (TO MATCH FINISHED PAVEMENT ELEV.) INV. EL. 59.11 AH. (PROPOSED 18" RCP) INV. EL. 57.81 BK. (EXISTING 36" RCP) INV. EL. 57.78 BK. (EXISTING 36" RCP) INV. EL. 59.11 RT. (EXISTING 18" RCP) FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX 425-001, 425-010</div>			<div>S-2</div> <div>CONST. CURB INLET TYPE P-1 (&lt;10') STA. 218+50.00 (29.50' LT.) EOP EL. 63.51 INV. EL 59.31 BK. (18" RCP) INDEX 425-001, 425-010, 425-020</div>			<div>S-3</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING CURB INLET TOP AND CONST. MANHOLE (TYPE 7) TOP CONNECT PROPOSED 14"x23" ERCP STA. 219+95.06 (13.18' LT.) RIM EL. 62.80 (TO MATCH FINISHED PAVEMENT ELEV.) INV. EL. 58.90 LT. (PROPOSED 14"x23" ERCP) INV. EL. 59.37 RT. (EXISTING 18" RCP) INV. EL. 58.90 AH. (EXISTING 18" RCP) FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX 425-001, 425-010</div>			<div>S-4</div> <div>CONST. CURB INLET TYPE P-1 (&lt;10') STA. 220+00.00 (29.50' LT.) EOP EL. 62.47 INV. EL 59.00 RT. (14"x23" ERCP) INDEX 425-001, 425-010, 425-020</div>			
<div>S-5</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING CURB INLET TOP &amp; SLAB AND REPLACE WITH MANHOLE (TYPE 7) TOP &amp; SLAB CONNECT PROPOSED 18" RCP STA. 221+59.56 (13.23' LT.) RIM EL. 62.64 INV. EL. 58.00 LT. (PROPOSED 18" RCP) INV. EL. 57.94 BK. (EXISTING 18" RCP) INV. EL. 58.00 AH. (EXISTING 24" RCP) FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX NO. 425-001, 425-010</div>			<div>S-6</div> <div>CONST. CURB INLET TYPE P-1 (&lt;10') STA. 221+59.56 (29.50' LT.) EOP EL. 62.32 INV. EL 58.21 RT. (18" RCP) INDEX NO. 425-001, 425-010, 425-020</div>			<div>S-7</div> <div>OMITTED</div>			<div>S-8</div> <div>CONST. CURB INLET TYPE P-5 (&lt;10') STA. 222+83.24 (25.25' LT.) EOP EL. 61.81 INV. EL 57.85 AH. (18" RCP) INDEX NO. 425-001, 425-010, 425-021</div>			<div>S-9</div> <div>CONST. CURB INLET TYPE P-2 (&lt;10') STA. 224+00 (28.00' LT.) EOP EL. 61.52 INV. EL 57.28 BK. &amp; AH. (18" RCP) INDEX NO. 425-001, 425-010, 425-020</div>			
<div>S-10</div> <div>CONST. CURB INLET TYPE P-1 (&lt;10') STA. 224+71.15 (28.00' LT.) EOP EL. 61.45 INV. EL 57.03 BK. (18" RCP) INV. EL 57.03 RT. (18" RCP) INDEX NO. 425-001, 425-010, 425-020</div>			<div>S-11</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING CURB INLET TOP AND CONST. MANHOLE (TYPE 7) TOP STA. 224+71.20 (17.17' LT.) RIM EL. 61.69 (TO MATCH FINISHED PAVEMENT ELEV.) INV. EL. 56.83 LT. (PROPOSED 18" RCP) INV. EL. 56.81 BK. (EXISTING 24" RCP) INV. EL. 56.83 AH. (EXISTING 19"x30" ERCP) FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX NO. 425-001, 425-010</div>			<div>S-12</div> <div>CONST. MANHOLE TYPE J-7 (&lt;10') (DOGHOUSE) STA. 227+ 15.70 (13.77' LT.) RIM EL. 58.82 (TO MATCH FINISHED PAVEMENT ELEV.) INV. EL. 54.70 LT. (PROPOSED 14"x23" ERCP)* INV. EL. 55.20 BK. &amp; AH. (EXISTING 19"x30" ERCP) FIELD VERIFY EXIST. PIPE INVERTS INDEX NO. 425-001, 425-010</div>			<div>S-13</div> <div>CONST. CURB INLET TYPE P-2 (&lt;10') STA. 227+15.70 (28.00' LT.) EOP EL. 58.51 INV. EL 54.80 RT. (14"x23" ERCP)* INDEX NO. 425-001, 425-010, 425-020</div>			<div>S-14</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING CURB INLET TOP &amp; SLAB AND CONST. MANHOLE (TYPE 7) TOP (TO MATCH FINISHED PAVEMENT ELEV.) STA. 227+45.73 (13.38' LT.) RIM EL. 58.89 FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX NO. 425-001, 425-010</div>			
<div>S-15</div> <div>CONST. DITCH BOTTOM INLET TYPE E (&lt;10') STA. 228+26.54 (37.17' LT.) GRATE EL. 58.25 INV. EL 55.50 LT. (14"x23" ERCP) INDEX NO. 425-052</div>			<div>S-16</div> <div>CONST. MANHOLE TYPE J-7 (&lt;10') STA. 228+26.97 (49.52' LT.) RIM EL. 61.75 (TO MATCH FINISHED GRADE) INV. EL. 55.35 RT. (PROPOSED 14"x23" ERCP) INV. EL. 55.35 BK. (EXISTING 24" RCP) EXISTING 24" RCP AHEAD TO BE REMOVED FIELD VERIFY EXIST. PIPE INVERTS INDEX NO. 425-001, 425-010</div>			<div>S-17</div> <div>CONST. MES (SD) (18") (1:4) STA. 230+75.02 (41.14' LT.) INV. EL. 56.75 (18" RCP) INDEX NO. 430-022</div>			<div>S-18</div> <div>REMOVE EXISTING DRAINAGE STRUCTURE CONST. DITCH BOTTOM INLET, TYPE C (&lt;10') STA. 231+74.67 (67.15' LT.) GRATE EL. 59.50 INV. EL. 56.95 RT. (18" RCP) INDEX NO. 425-052</div>			<div>S-19</div> <div>CONST. DITCH BOTTOM INLET TYPE D (&lt;10') STA. 231+87.49 (48.55' LT.) GRATE EL. 59.10 INV. EL. 56.85 BK. (18" RCP) INV. EL. 56.85 LT. (18" RCP) INDEX NO. 425-052</div>			
<div>S-20</div> <div>MODIFY EXISTING DRAINAGE STRUCTURE REMOVE EXISTING INLET TOP &amp; SLAB AND CONST. MANHOLE (TYPE 7) TOP (TO MATCH FINISHED PAVEMENT ELEVATION) STA. 231+93.15 (36.86' LT.) RIM EL. 59.50 FIELD VERIFY EXISTING DRAINAGE STRUCTURE DIMENSIONS PRIOR TO SHOP DRAWINGS INDEX NO. 425-001, 425-010</div>			<div>POINT OF REFERENCE STATION/OFFSET AND GRATE ELEVATION</div> <div></div> <div>DITCH BOTTOM INLETS</div> <div>NOT TO SCALE</div>		<div>POINT OF REFERENCE STATION/OFFSET AND RIM ELEVATION</div> <div></div> <div>MANHOLES</div> <div>NOT TO SCALE</div>		<div>POINT OF REFERENCE STATION/OFFSET</div> <div></div> <div>POINT OF REFERENCE EOP ELEVATION</div> <div>CURB INLETS TYPE 1</div> <div>NOT TO SCALE</div>		<div>POINT OF REFERENCE STATION/OFFSET</div> <div></div> <div>POINT OF REFERENCE EOP ELEVATION</div> <div>CURB INLET TYPE 2</div> <div>NOT TO SCALE</div>		<div>INV. ELEV.</div> <div></div> <div>POINT OF REFERENCE: STATION/OFFSET</div> <div>MITERED END SECTION</div> <div>NOT TO SCALE</div>		<div>POINT OF REFERENCE STATION/OFFSET</div> <div></div> <div>EOP ELEVATION</div> <div>CURB INLETS TYPE 5</div> <div>NOT TO SCALE</div>		
REVISIONS					ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770				SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  PROPOSED DRAINAGE DATA			SHEET NO.  10	
DATE	BY	DESCRIPTION													

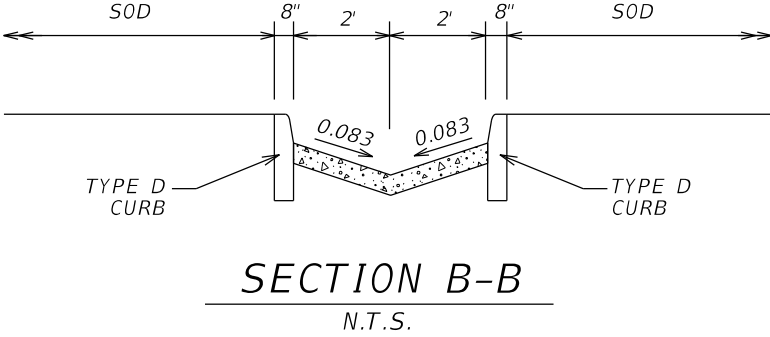
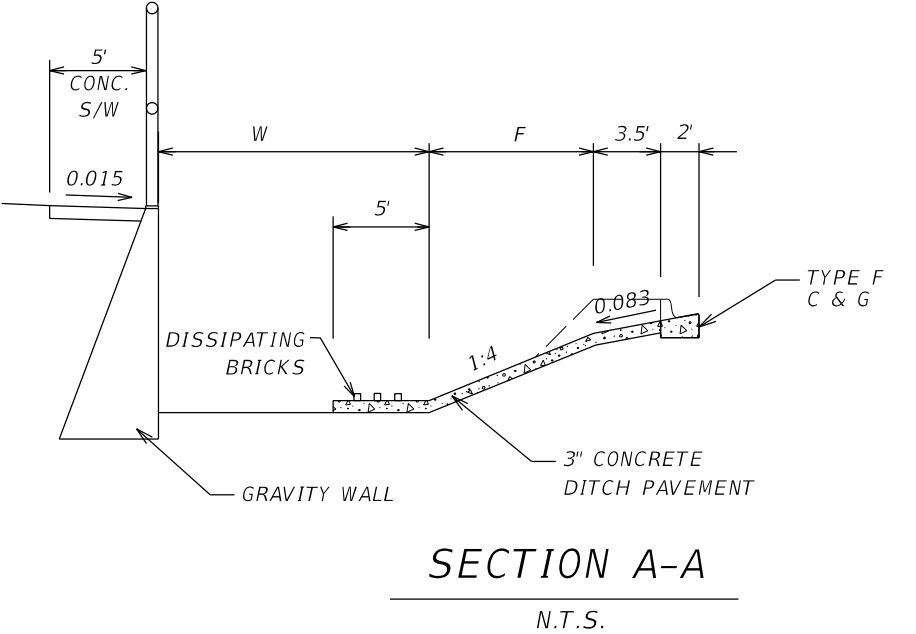
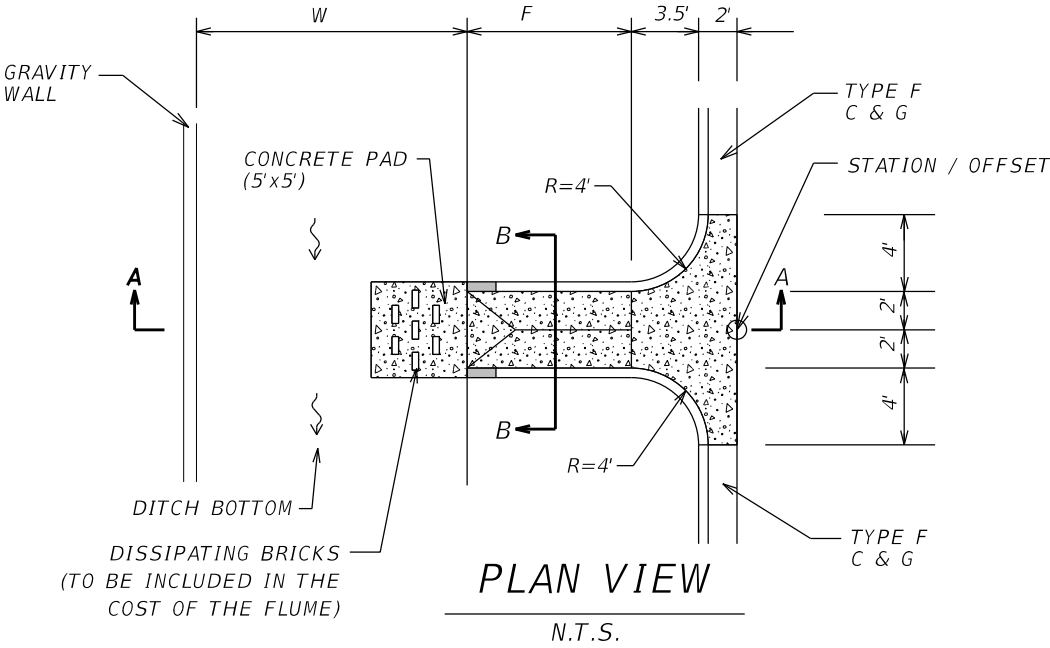
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SUMMARY OF CONCRETE FLUMES

FLUME NO.	STATION	OFFSET	SIDE	DIMENSIONS (FEET)			FRONT SLOPE	BACK SLOPE	REMARKS
				F	W	B			
F-1	228+40.25	22.50'	LT	9.18	17.31	-	1:4	-	
F-2	229+40.25	22.50'	LT	11.01	12.40	-	1:4	-	
F-3	230+40.25	22.50'	LT	12.11	8.22	-	1:4	-	



CONCRETE FLUME DETAILS  
F-1 TO F-3

NOT TO SCALE

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION	WEKIVA SPRINGS ROAD SUMMARY OF CONCRETE FLUMES	SHEET NO. //
DATE	BY	DESCRIPTION					



GENERAL NOTES


1. THE CONTRACTOR IS TO OBTAIN A CONSTRUCTION PERMIT ONE (1) WEEK PRIOR TO CONSTRUCTION FROM SEMINOLE COUNTY PUBLIC WORKS ENGINEERING DIVISION FOR "RIGHT-OF-WAY UTILIZATION". CONTACT PERMIT COORDINATOR AT 100 EAST FIRST STREET, SANFORD, FL 32771. TELEPHONE (407) 665-5719. NO FEE REQUIRED.
2. NPDES CONSTRUCTION PERMIT IS REQUIRED. IT IS THE REPONSIBILITY OF THE CONTRACTOR TO ACQUIRE THE NPDES PERMIT.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONDITIONS OF ALL PERMITS.
4. THE EROSION CONTROL MEASURES PER FDOT DESIGN STANDARDS ARE THE MINIMUM REQUIRED; ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DUE TO FIELD CONDITIONS AS DETERMINED BY THE SEMINOLE COUNTY ENGINEERING INSPECTOR OR THE REGULATORY AGENCIES.
5. FOR FINISHING AND CURING REQUIREMENTS, SEE FDOT STANDARD SPECIFICATIONS SECTION 522-7 AND SECTION 520-8.1 & 8.3.
6. VERTICAL INFORMATION SHOWN HEREON REFERS TO FDOT BRASS SURVEY DISK STAMPED D5PNC 7705D 013 WITH A PUBLISHED ELEVATION OF 46.050 FEET, NORTH AMERICAN VERTICAL DATUM 1988, NAVD88.
7. ANY NGVD-29 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF ANY DANGER OF DAMAGE THE CONTRACTOR SHALL NOTIFY THE FLORIDA DEPARTMENT OF NATURAL RESOURCES,BUREAU OF SURVEYS AND MAPPING, 3900 COMMONWEALTH BLVD., SUITE 309, TALLAHASSEE, FLORIDA 32399.
8. ANY NAD 83 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHOULD NOTIFY:  
GEODETIC INFORMATION CENTER  
ATTN: MARK MAINTENANCE SECTION  
N/CG-162  
6001 EXECUTIVE BOULEVARD  
ROCKVILLE, MARYLAND 20852  
TELEPHONE: (301) 443-8319
9. ANY PUBLIC LAND CORNER OR COUNTY MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE SEMINOLE COUNTY SURVEYOR IMMEDIATELY AT SEMINOLE COUNTY PUBLIC WORKS AT (407) 665-5656.
10. ALL SURVEY CORNERS INDICATED ON THE PLANS SHALL BE REFERENCED AND CERTIFIED BY A REGISTERED PROFESSIONAL LAND SURVEYOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL CORNERS DESTROYED OR OBLITERATED BY CONSTRUCTION SHALL BE RESET AND SO CERTIFIED BY THE LAND SURVEYOR PRIOR TO COMPLETION OF THE PROJECT. CERTIFIED SKETCHES SHALL BE SUBMITTED TO: SEMINOLE COUNTY PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION SURVEY SECTION, 520 LAKE MARY BLVD. SUITE 200, SANFORD, FL. 32773.
11. CONTRACTOR SHALL HORIZONTALLY AND VERTICALLY VERIFY ALL UTILITIES IN THE VICINITY OF ALL PROPOSED DRAINAGE STRUCTURES PRIOR TO ORDERING SAID STRUCTURES. IF ANY CONFLICTS SHOULD ARISE, THE CONTRACTOR SHALL CONTACT THE PROJECT MANAGER FOR RESOLUTION IMMEDIATELY.
12. GRADES SHOWN ARE FINISHED GRADES.
13. ALL SHOP DRAWINGS MUST BE APPROVED BY SEMINOLE COUNTY PROJECT MANAGER OR HIS DESIGNEE, PRIOR TO FABRICATION.
14. IF ENCOUNTERED, UNSUITABLE MATERIALS SHALL BE REMOVED FROM CONSTRUCTION AREAS AND BACKFILLED WITH SUITABLE MATERIALS.
15. ANY DRAINAGE PROBLEMS, CREATED BY CONSTRUCTION OR EXISTING BEFORE CONSTRUCTION, THAT ARE NOT ALLEVIATED SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER.
16. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THE CONSTRUCTION WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITION, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION TO BE ALLOWED.
17. "E/P ELEV." FOR CURB INLETS REFERS TO THE EDGE OF PAVEMENT ELEVATION AS MEASURED AT THE CENTERLINE OF THE INLET.

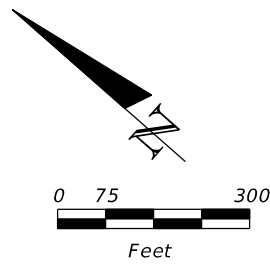
18. THE CONTRACTOR IS TO SAWCUT EXISTING PAVEMENT TO A NEAT EDGE IN ALL AREAS WHERE TIEING INTO EXISTING PAVEMENT. IN AREAS WHERE THE TIE IN IS AT THE R/W LINE (i.e. DRIVEWAYS) THE CONTRACTOR WILL TAKE EXTRA CARE TO STAY WITHIN THE PROPOSED R/W.
19. ALL EXCESS EXCAVATION MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
20. THE CONTRACTOR SHALL PRESERVE TREES BY LIMITING THE EXTENTS OF EXCAVATION AND GRADING, WHERE PRACTICAL.
21. EXISTING DRAINAGE STRUCTURES AND PIPES WITHIN CONSTRUCTION LIMITS TO REMAIN UNLESS OTHERWISE SPECIFIED IN PLANS. EXISTING DRAINAGE STRUCTURES AND FACILITIES SHALL BE MAINTAINED AND FULLY FUNCTIONAL DURING CONSTRUCTION.
22. SHRUBS AND TREES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED. NO TREES ARE TO BE REMOVED WITHOUT THE PRIOR APPROVAL FROM SEMINOLE COUNTY PROJECT MANAGER.
23. TEMPORARY DRAINAGE SHALL BE PROVIDED DURING CONSTRUCTION TO ELIMINATE ANY FLOODING OF PUBLIC AND PRIVATE PROPERTY.
24. GRADE SIDEWALK FOR POSITIVE DRAINAGE. CROSS SLOPES NOT TO EXCEED 2%. SIDEWALKS ARE TO MEET ALL CURRENT ADA STANDARDS.
25. NO SIDEWALK SHALL HAVE A LONGITUDINAL GRADE (SLOPE) GREATER THAN 1:20 OR 5%; CURB RAMPS 1:12 OR 8.3%. EXCEPT WHERE CALLED FOR IN THE PLAN AND GUIDERAIL WITH HANDRAIL IS PROVIDED THE MAXIMUM SLOPE WILL BE 8.3%. SIDEWALKS ARE TO MEET ALL CURRENT ADA STANDARDS.
26. SOIL MATERIALS USED FOR FILL OR GRADING ACTIVITIES SHALL BE APPROVED BY THE SEMINOLE COUNTY ENGINEERING INSPECTOR PRIOR TO USE.
27. THE CONTRACTOR SHALL NOTIFY THE SEMINOLE COUNTY ENGINEERING INSPECTOR FOR A FIELD INPECTION PRIOR TO PLACEMENT OF ANY CONCRETE.
28. IRRIGATION LINES DAMAGED DURING CONSTRUCTION ARE TO BE CAPPED IMMEDIATELY AND REPORTED TO THE SEMINOLE COUNTY ENGINEERING INSPECTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE ALL DAMAGED IRRIGATION COMPONENTS TO THE PRE-CONSTRUCTION CONDITION AT HIS EXPENSE PRIOR TO COMPLETION OF THE PROJECT. COST TO BE INCLUDED IN 110-1-1.
29. THE TEST REQUIREMENTS FOR CLASS I CONCRETE WILL BE WAIVED UPON PRESENTATION TO THE INSPECTOR A WRITTEN CERTIFICATION FROM THE PLANT THAT THE CONCRETE IS 3000 PSI CONCRETE MIX.
30. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL CONSTRUCTION DEBRIS PRIOR TO COMPLETION OF THE PROJECT.
31. EXISTING UTILITY LOCATIONS SHOWN IN THE PLANS ARE ONLY APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL EXISTING UNDERGROUND UTILITIES LOCATED IN THE FIELD AND NOTIFY ALL UTILITY OWNERS PUBLIC OR PRIVATE, WITH FACILITIES IN THE AREA OF CONSTRUCTION ACTIVITIES FOR POSSIBLE CONFLICTS AND COORDINATE ANY ADJUSTMENTS AND/OR RELOCATIONS. ALL NOTIFICATIONS TO BE MADE ONE WEEK PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTACT SUNSHINE STATE ONE CALL AT 1-800-432-4770.
32. ALL DISTURBED AREAS SHALL BE SODDED.
33. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL REQUIRED PERMITS AND LICENSES ARE OBTAINED AND IN HAND BEFORE COMMENCING CONSTRUCTION. FOR ADDITIONAL INFORMAION REFER TO THE FDOT STANDARD SPECIFICATIONS (SECTION 7-2, PERMITS AND LICENSES).

34. IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE CURRENT STATE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT AND/OR RELATED STATE LAW. THE FOLLOWING INFORMATION IS BEING PROVIDED BY SEMINOLE COUNTY IN AN EFFORT TO ASSIST THE CONTRACTOR BY LISTING UTILITIES THAT MAY PROVIDE SERVICE IN THE APPROXIMATE AREA OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHOULD ASSUME OTHER UTILITIES THAT ARE NOT LISTED BELOW MAY PROVIDE SERVICE IN THE APPROXIMATE AREA OF THE PROPOSED CONSTRUCTION."
35. IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL CONCRETE FORMS PRIOR TO CONCRETE BEING POURED AND CONFIRM THAT THE FINISH SIDEWALK AND/OR CURB RAMP MEET ADA REQUIREMENTS AS INTENDED. FAILURE TO DO SO MAY RESULT IN THE REMOVAL AND REPLACEMENT OF THE CONCRETE AT THE CONTRACTOR'S EXPENSE."
36. ANY GRASSED AREA OUTSIDE OF THE PROJECT LIMITS DISTURBED BY THE CONTRACTOR WILL BE SODDED AT THE CONTRACTOR'S EXPENSE WITHIN 48 HR. OF NOTIFICATION BY THE SEMINOLE COUNTY PROJECT MANAGER.

UTILITY OWNERS:

ZAYO GROUP/FORMERLY LIGHTWAVE LLC MATT RICHARDS (813) 587-2584	CHARTER COMMUNICATIONS REX ANDERSON (407) 215-8955
MCI/VERIZON INVESTIGATIONS@VERIZON.COM (469) 886-4091	BLACK & VEATCH JOHN WALKER (913) 458-2516
AT&T DISTRIBUTION ALAN REYNOLDS (407) 351-8180	CENTURYLINK MARLON BROWN (407) 830-3359
SEMINOLE COUNTY UTILITIES PAUL ZIMMERMAN (407) 665-2040	DUKE ENERGY DEFDISTRIBUTIONGOV@DUKE-ENERGY.COM
SEMINOLE COUNTY TRAFFIC ENGINEERING JOHN BROWN (407) 665-5644	DUKE ENERGY DEFTRANSMISSIONGOV@DUKE-ENERGY.COM
UTILITIES INC. OF FLORIDA BRYAN GONGRE (866) 842-8432	

REVISIONS			<div>ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770</div>		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  GENERAL NOTES	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		12

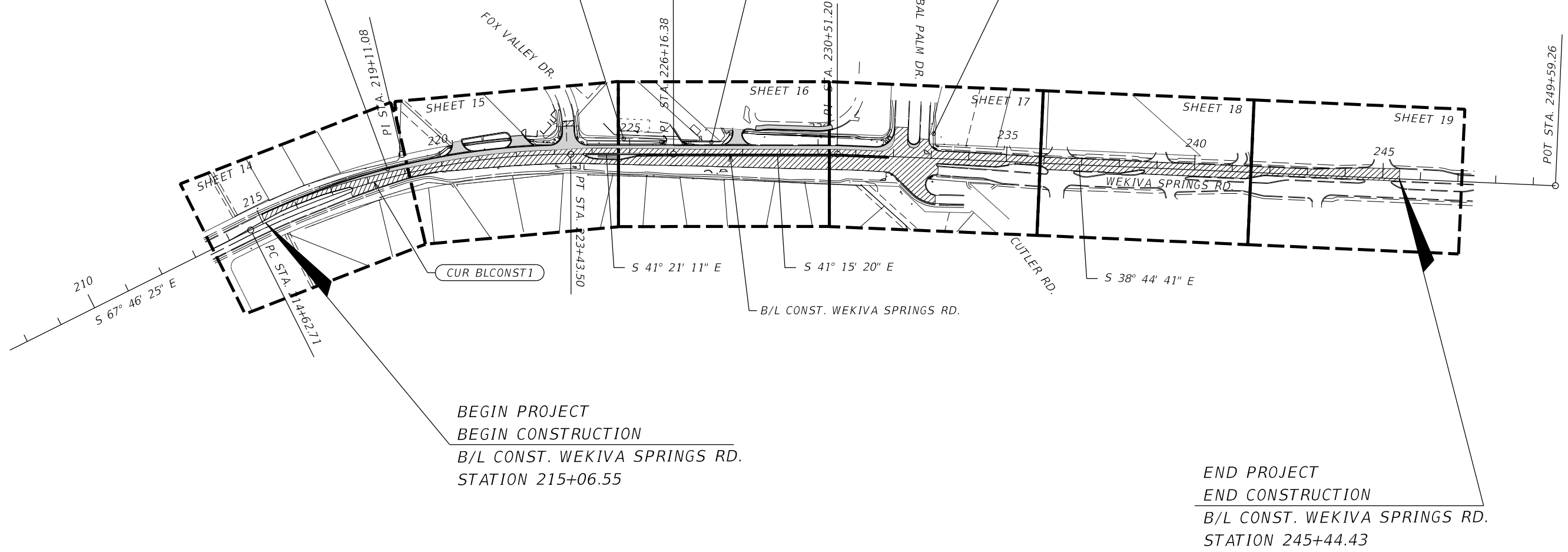


SITE BENCHMARK  
SET NAIL & DISK  
"SSMC TRAV. PT."  
ELEV. = 64.53  
N = 1589266.82  
E = 520951.02  
STATION = 218+57.94  
OFFSET = 23.42' LT.

SITE BENCHMARK  
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"SSMC TRAV. PT."  
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E = 521425.02  
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OFFSET = 40.96' LT.

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"SSMC TRAV. PT."  
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N = 1588239.27  
E = 521977.65  
STATION = 233+04.18  
OFFSET = 65.34' LT.



BEGIN PROJECT  
BEGIN CONSTRUCTION  
B/L CONST. WEKIVA SPRINGS RD.  
STATION 215+06.55

END PROJECT  
END CONSTRUCTION  
B/L CONST. WEKIVA SPRINGS RD.  
STATION 245+44.43

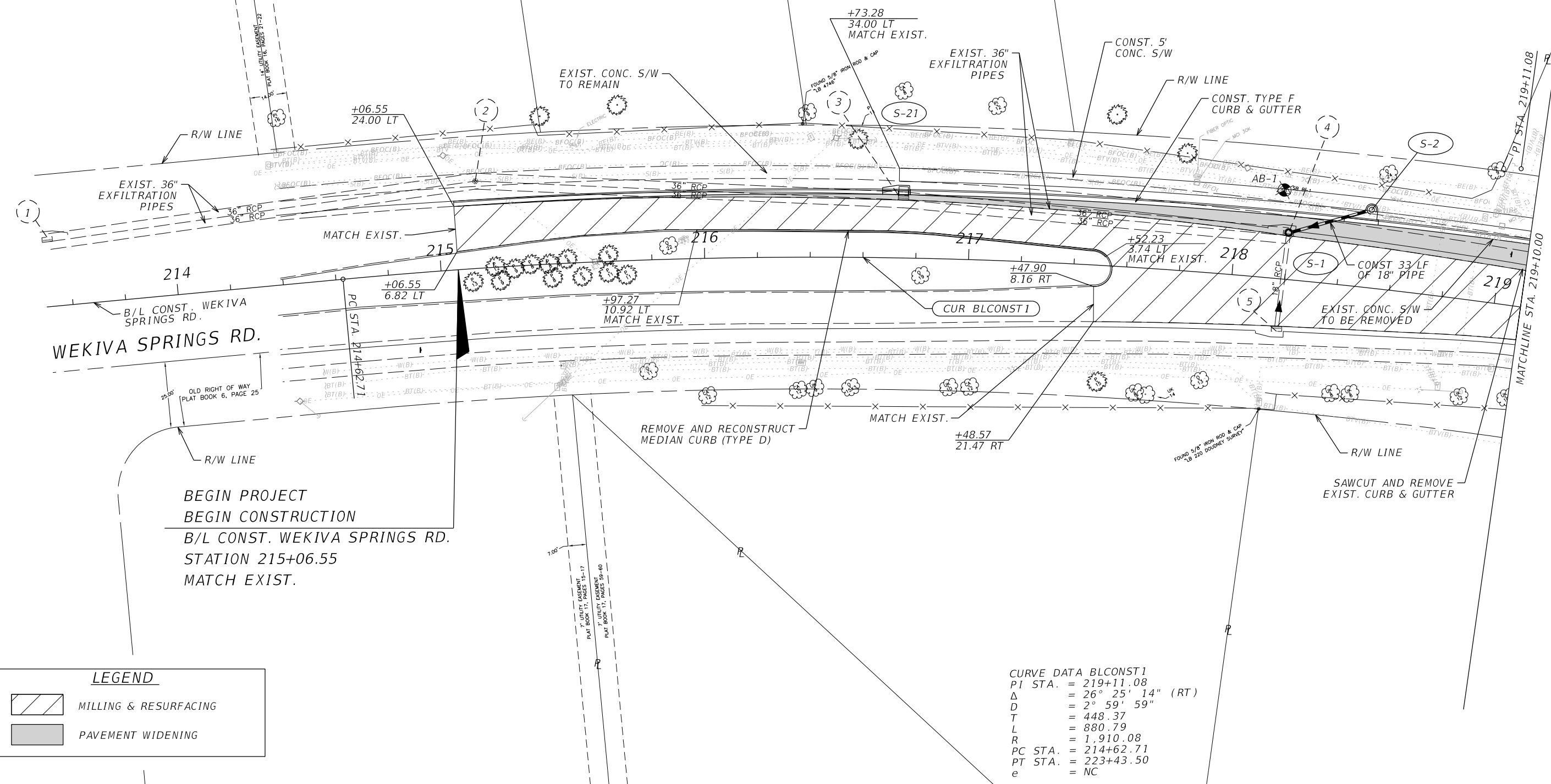
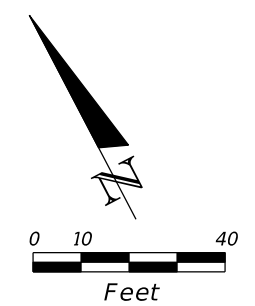
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D = 2° 59' 59"  
T = 448.37  
L = 880.79  
R = 1,910.08  
PC STA. = 214+62.71  
PT STA. = 223+43.50  
e = NC

**LEGEND**

	MILLING & RESURFACING
	PAVEMENT WIDENING

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD PROJECT LAYOUT SHEET	SHEET NO.  13
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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**LEGEND**

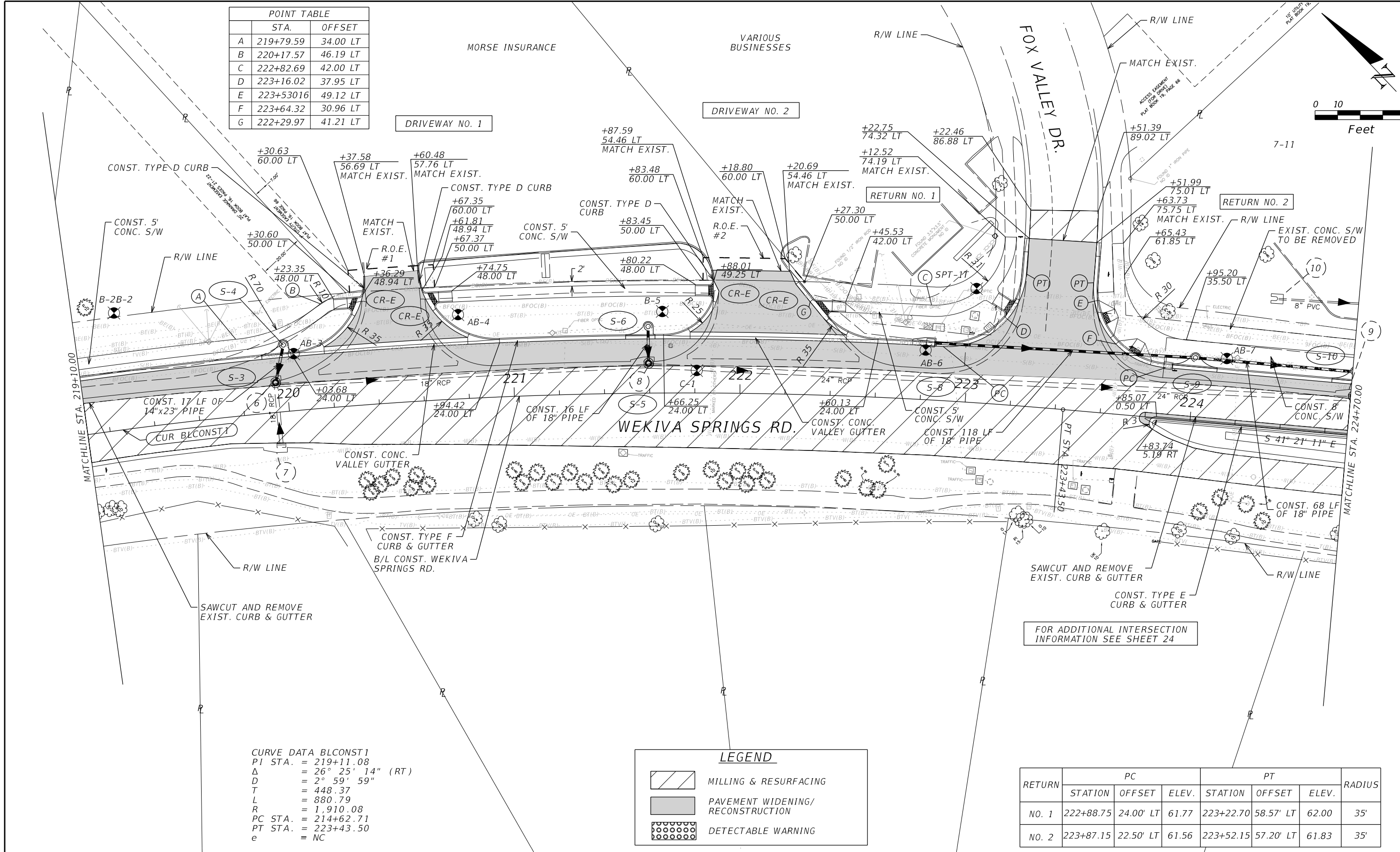
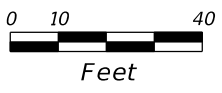
- MILLING & RESURFACING
- PAVEMENT WIDENING

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D = 2° 59' 59"  
T = 448.37  
L = 880.79  
R = 1,910.08  
PC STA. = 214+62.71  
PT STA. = 223+43.50  
e = NC

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD PLAN SHEET	SHEET NO.  14
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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POINT TABLE		
	STA.	OFFSET
A	219+79.59	34.00 LT
B	220+17.57	46.19 LT
C	222+82.69	42.00 LT
D	223+16.02	37.95 LT
E	223+53016	49.12 LT
F	223+64.32	30.96 LT
G	222+29.97	41.21 LT



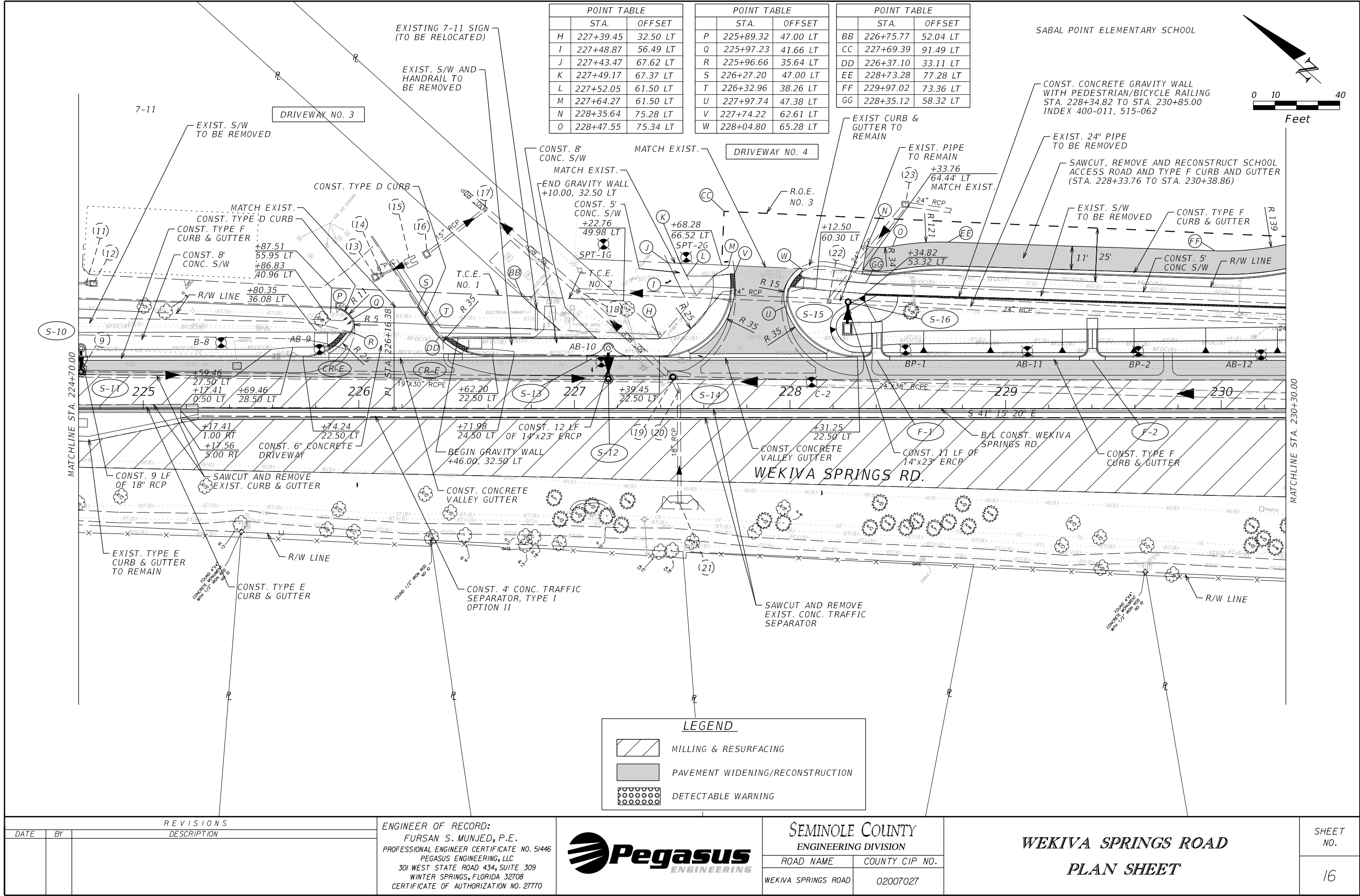
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Δ	= 26° 25' 14" (RT)
D	= 2° 59' 59"
T	= 448.37
L	= 880.79
R	= 1,910.08
PC STA.	= 214+62.71
PT STA.	= 223+43.50
e	= NC

LEGEND	
	MILLING & RESURFACING
	PAVEMENT WIDENING/RECONSTRUCTION
	DETECTABLE WARNING

RETURN	PC			PT			RADIUS
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.	
NO. 1	222+88.75	24.00' LT	61.77	223+22.70	58.57' LT	62.00	35'
NO. 2	223+87.15	22.50' LT	61.56	223+52.15	57.20' LT	61.83	35'

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY		WEKIVA SPRINGS ROAD PLAN SHEET		SHEET NO.  15
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			
					WEKIVA SPRINGS ROAD	02007027			



POINT TABLE		
STA.	OFFSET	
H	227+39.45	32.50 LT
I	227+48.87	56.49 LT
J	227+43.47	67.62 LT
K	227+49.17	67.37 LT
L	227+52.05	61.50 LT
M	227+64.27	61.50 LT
N	228+35.64	75.28 LT
O	228+47.55	75.34 LT

POINT TABLE		
STA.	OFFSET	
P	225+89.32	47.00 LT
Q	225+97.23	41.66 LT
R	225+96.66	35.64 LT
S	226+27.20	47.00 LT
T	226+32.96	38.26 LT
U	227+97.74	47.38 LT
V	227+74.22	62.61 LT
W	228+04.80	65.28 LT

POINT TABLE		
STA.	OFFSET	
BB	226+75.77	52.04 LT
CC	227+69.39	91.49 LT
DD	226+37.10	33.11 LT
EE	228+73.28	77.28 LT
FF	229+97.02	73.36 LT
GG	228+35.12	58.32 LT

SABAL POINT ELEMENTARY SCHOOL  
CONST. CONCRETE GRAVITY WALL  
WITH PEDESTRIAN/BICYCLE RAILING  
STA. 228+34.82 TO STA. 230+85.00  
INDEX 400-011, 515-062



LEGEND

MILLING & RESURFACING

PAVEMENT WIDENING/RECONSTRUCTION

DETECTABLE WARNING

REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770



SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD

PLAN SHEET

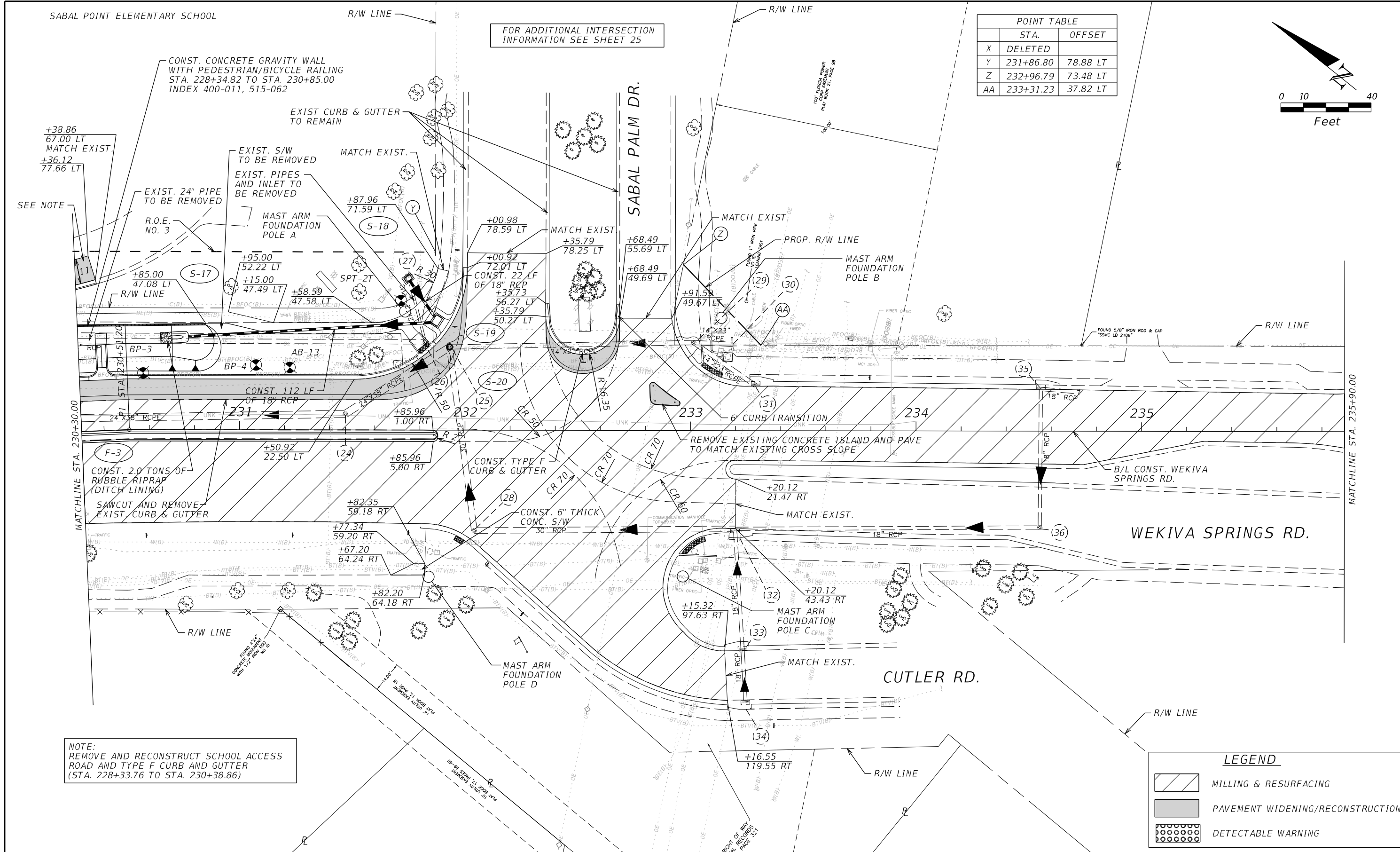
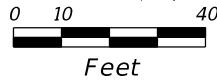
SHEET NO.
16

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FOR ADDITIONAL INTERSECTION  
INFORMATION SEE SHEET 25

POINT TABLE		
	STA.	OFFSET
X	DELETED	
Y	231+86.80	78.88 LT
Z	232+96.79	73.48 LT
AA	233+31.23	37.82 LT



NOTE:  
REMOVE AND RECONSTRUCT SCHOOL ACCESS  
ROAD AND TYPE F CURB AND GUTTER  
(STA. 228+33.76 TO STA. 230+38.86)

LEGEND	
	MILLING & RESURFACING
	PAVEMENT WIDENING/RECONSTRUCTION
	DETECTABLE WARNING

REVISIONS		
DATE	BY	DESCRIPTION

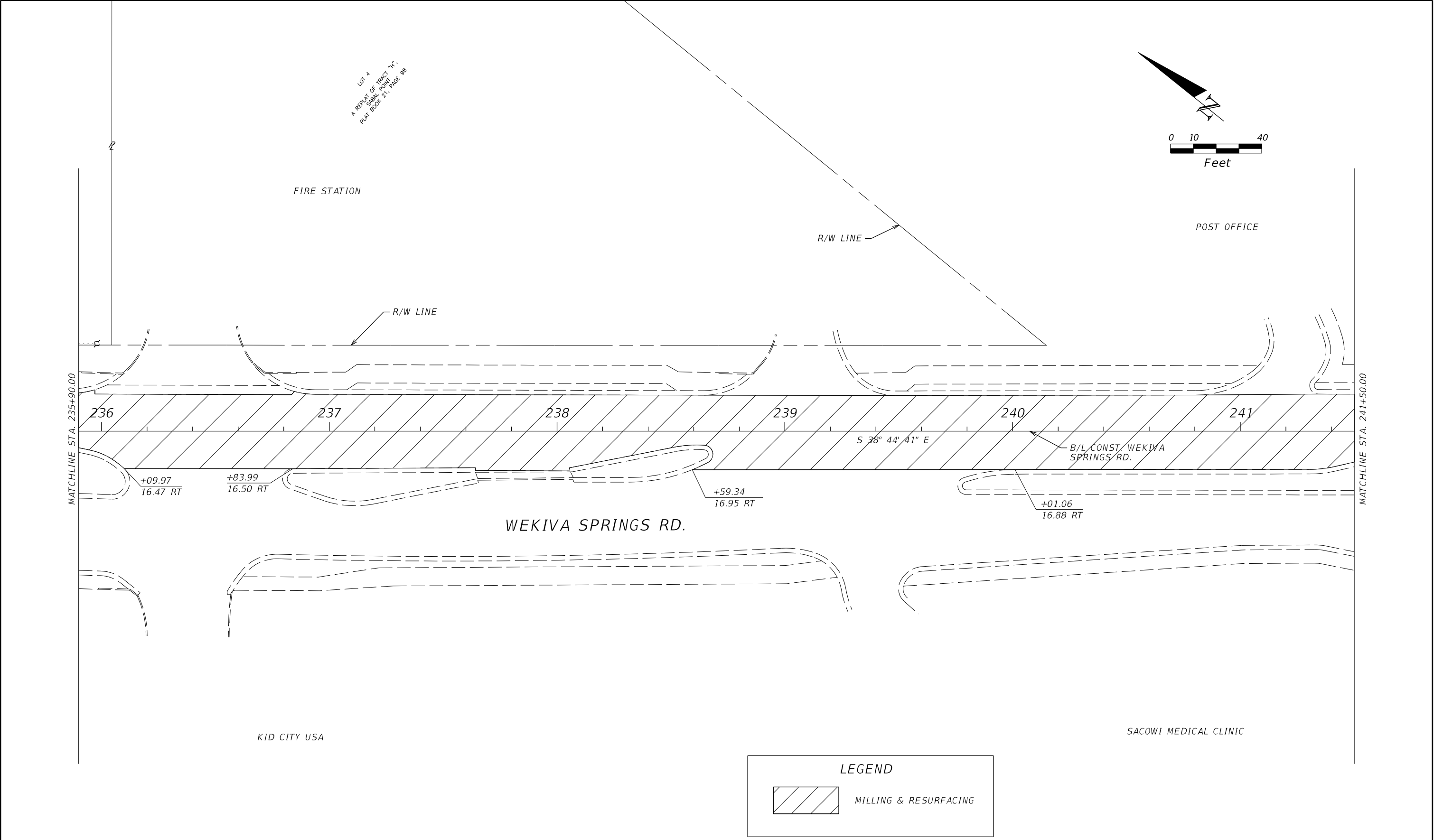
ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770




SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

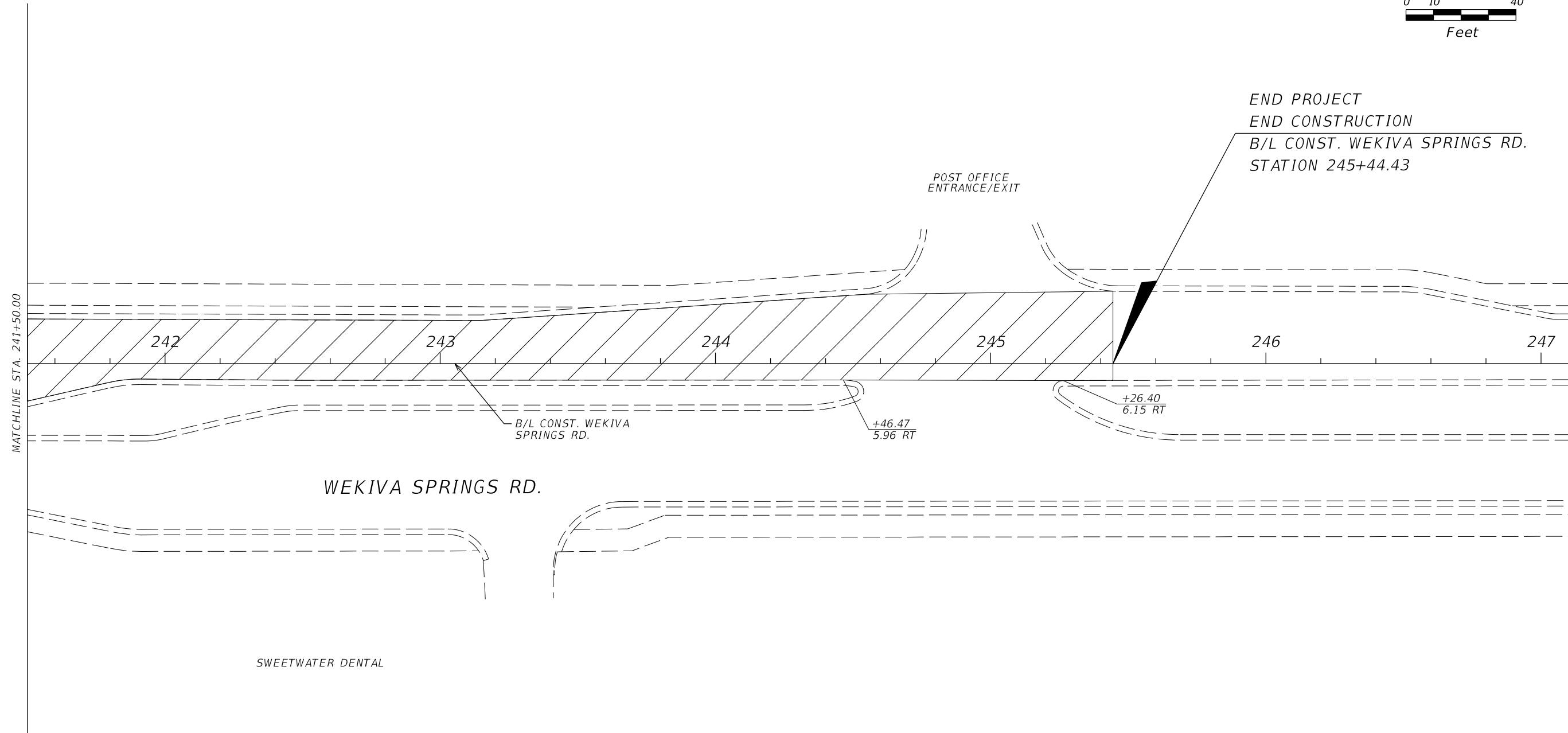
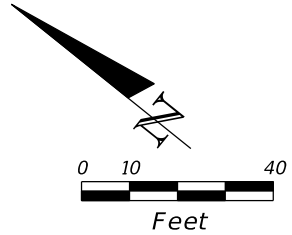
WEKIVA SPRINGS ROAD  
PLAN SHEET

SHEET  
NO.  
17




REVISIONS			<div>ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770</div>	<div></div>	SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD PLAN SHEET	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
						WEKIVA SPRINGS ROAD	02007027	

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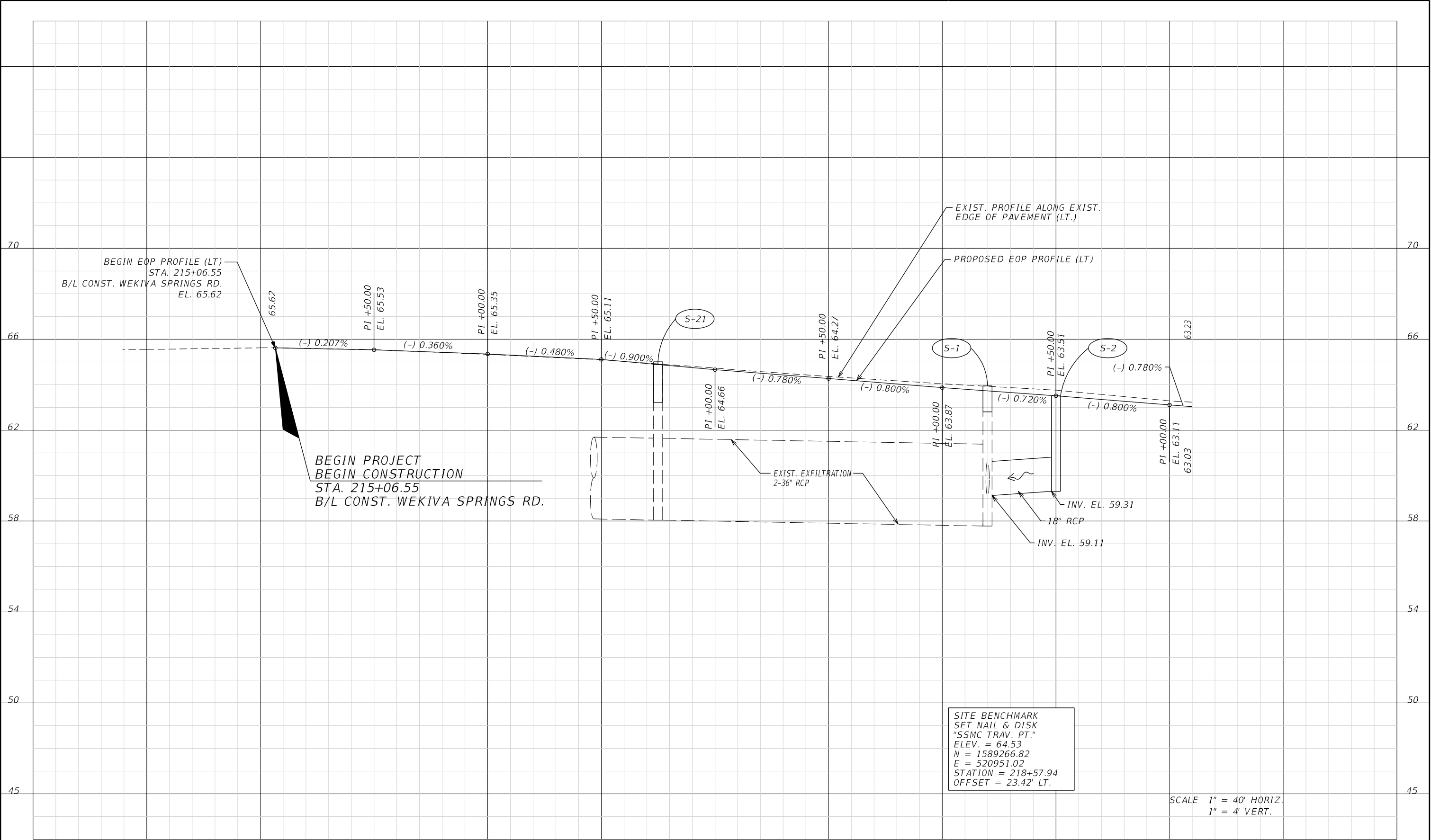



LEGEND

MILLING & RESURFACING

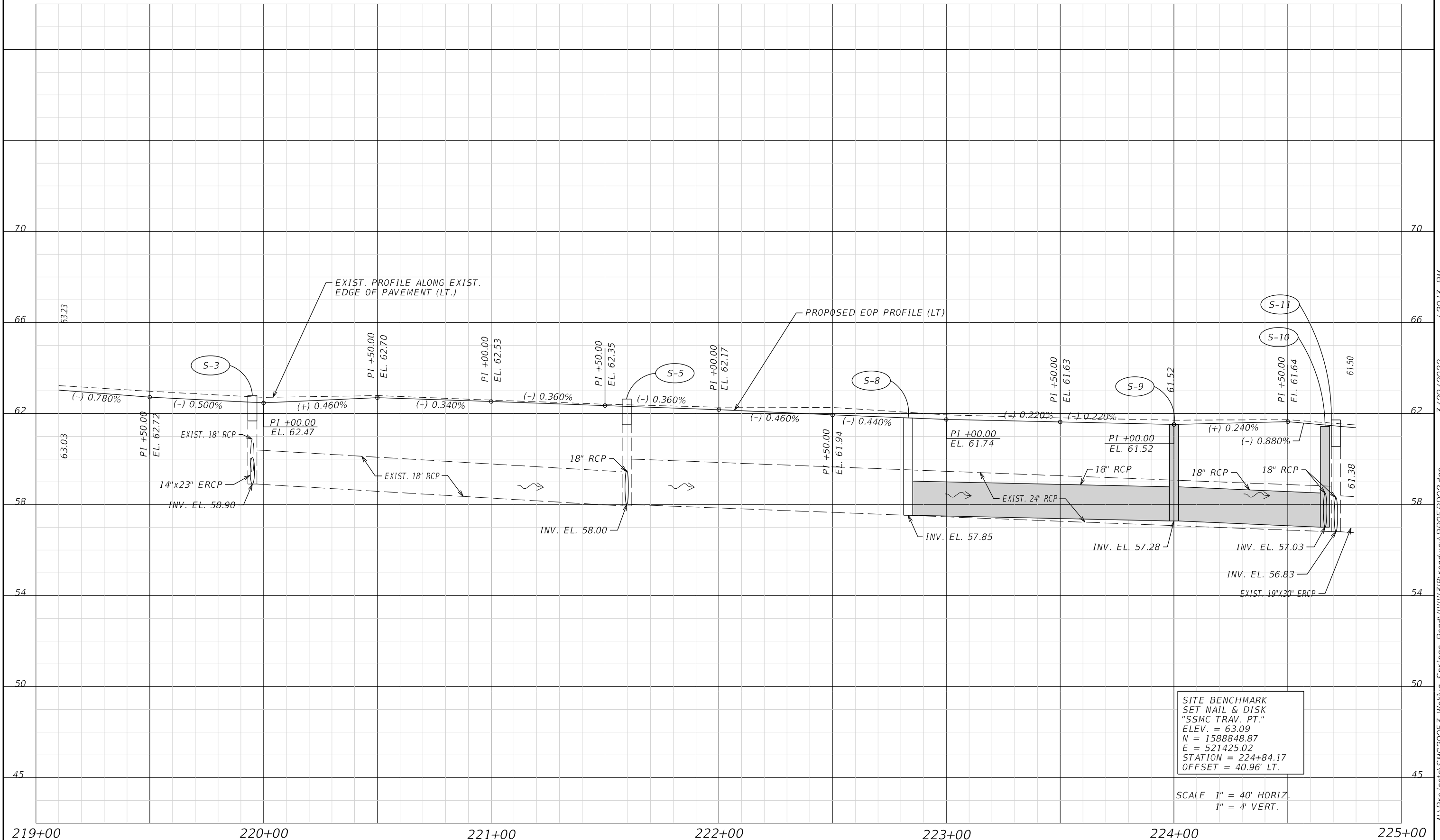
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  PLAN SHEET	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		19
						WEKIVA SPRINGS ROAD	02007027	

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REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD PROFILE SHEET	SHEET NO. 20
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

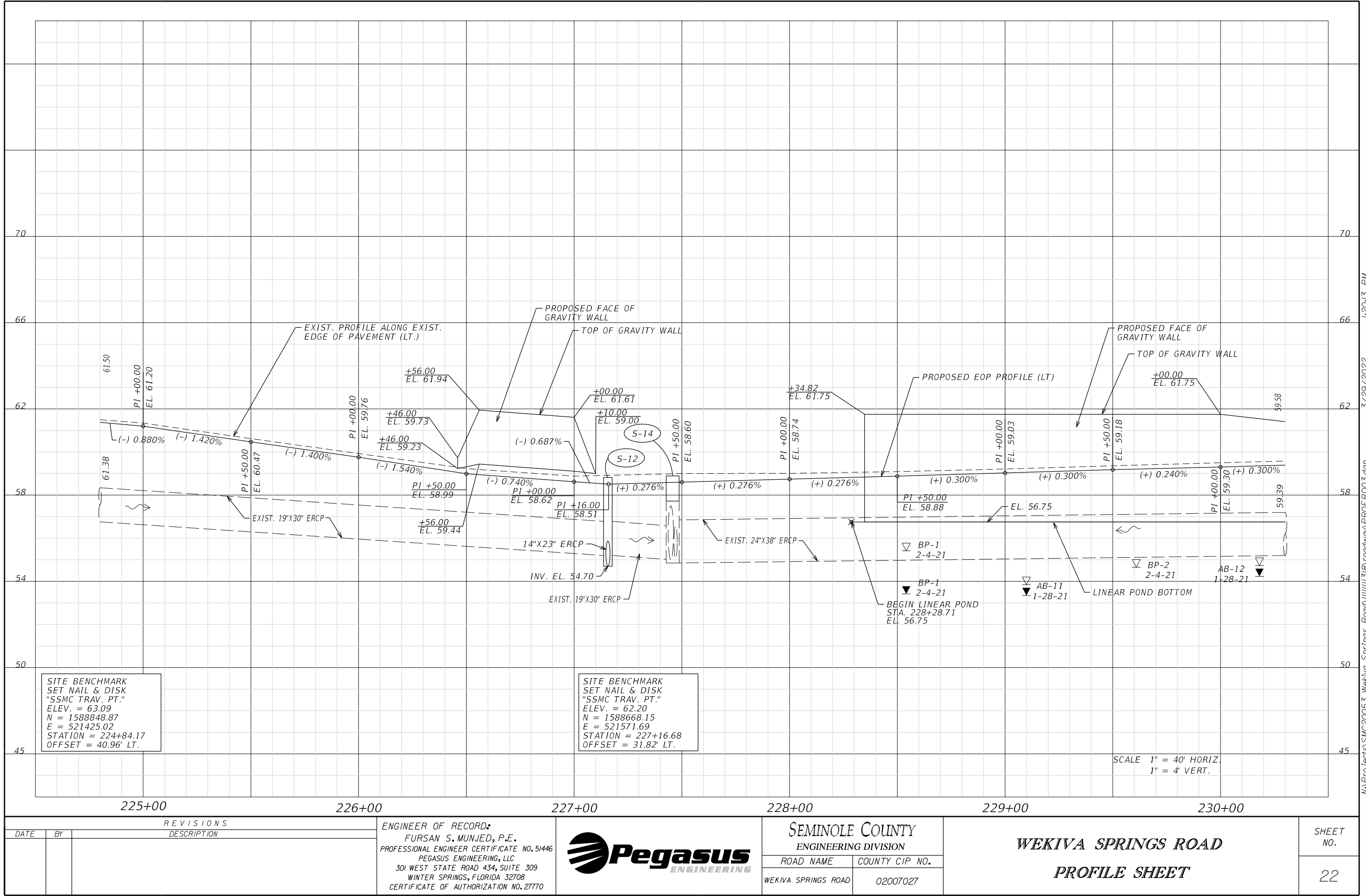
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REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  PROFILE SHEET	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		21





REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770

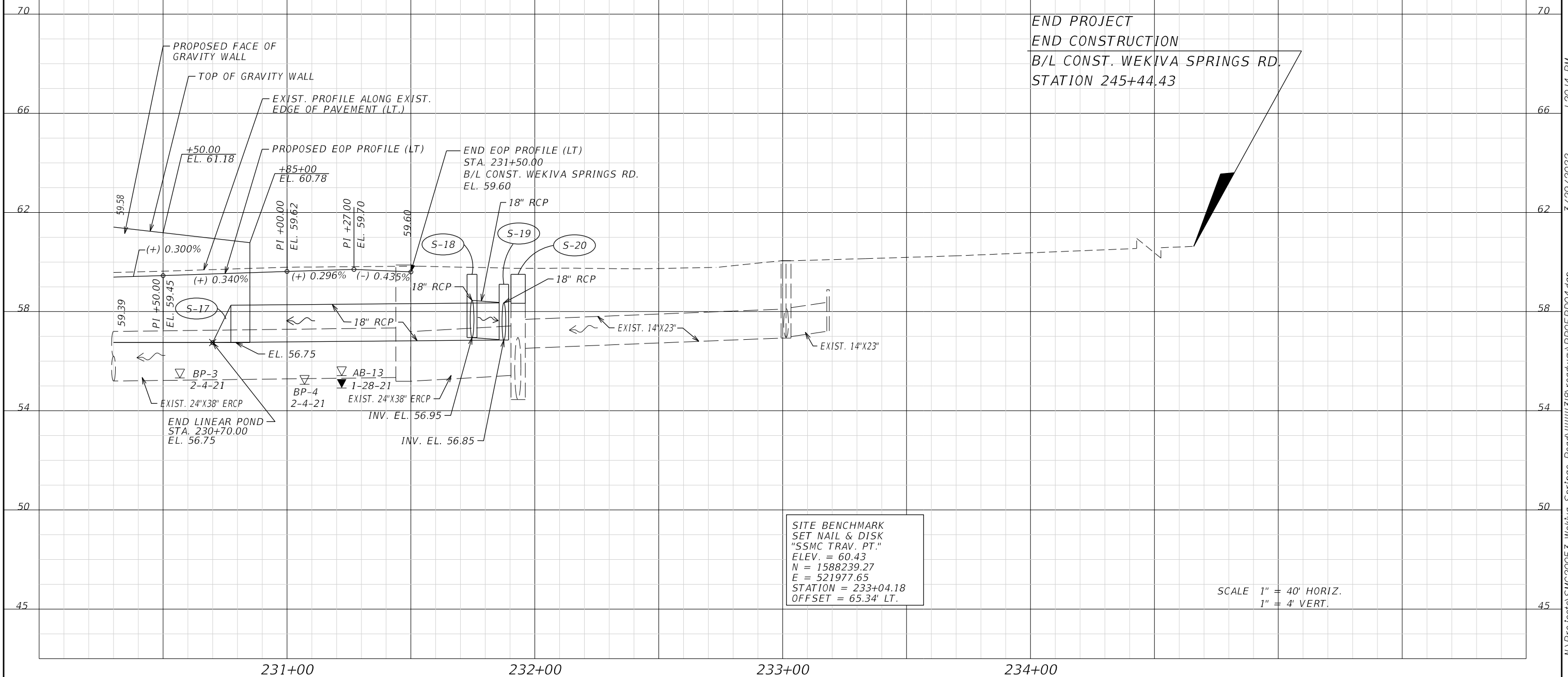



SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD

PROFILE SHEET

SHEET NO.
22

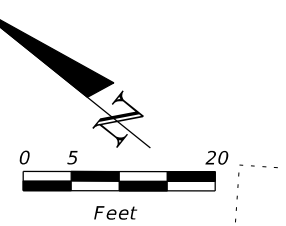
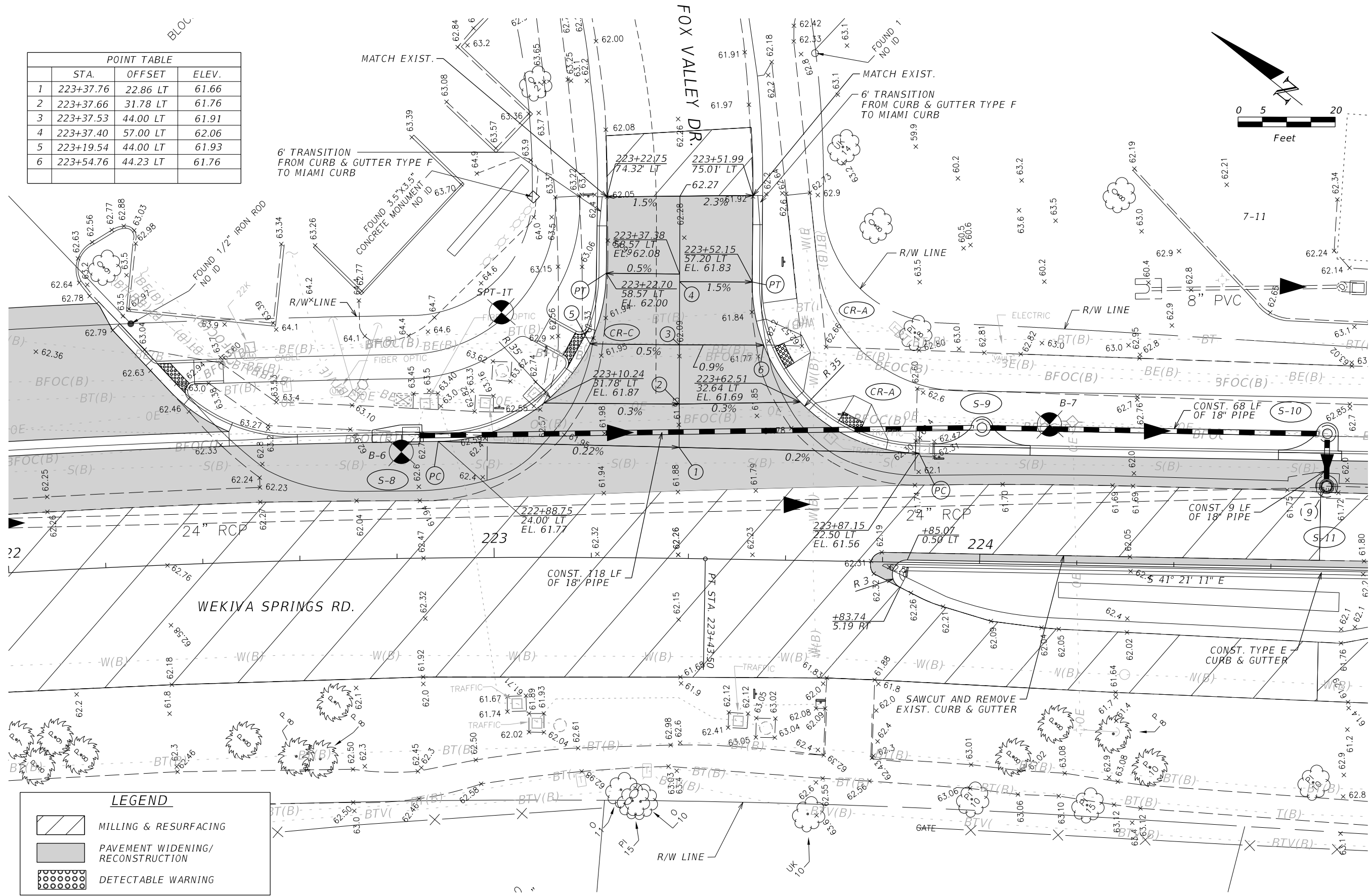


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

WEKIVA SPRINGS ROAD	
PROFILE SHEET	

23
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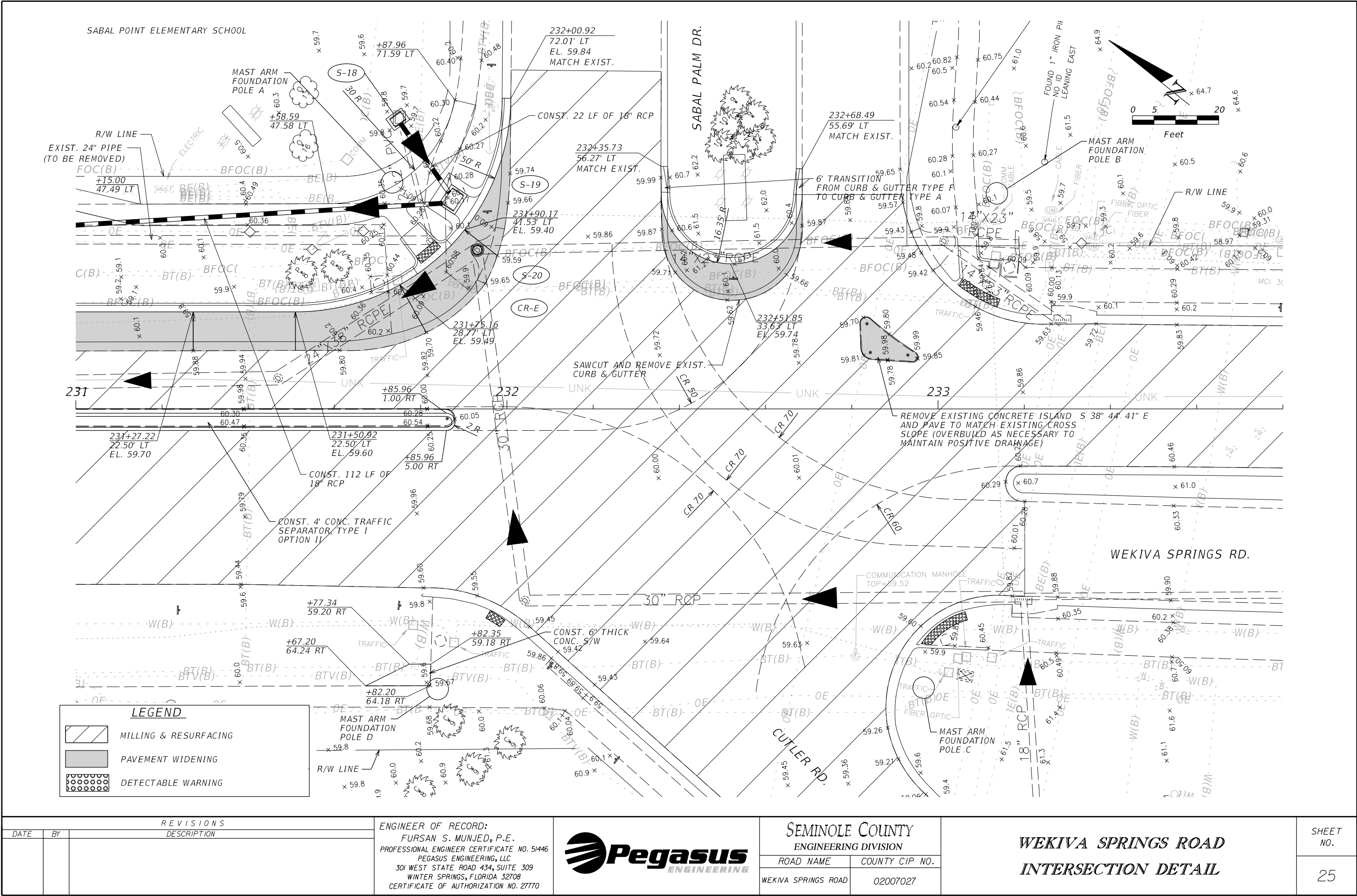
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4	223+37.40	57.00 LT	62.06
5	223+19.54	44.00 LT	61.93
6	223+54.76	44.23 LT	61.76



LEGEND	
	MILLING & RESURFACING
	PAVEMENT WIDENING/RECONSTRUCTION
	DETECTABLE WARNING

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD INTERSECTION DETAILS	SHEET NO.  24
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

N:\Projects\SMC20053\_Wekiva Springs Road\11111318 roadway\INT.DRD01.dgn 3/29/2022 1:20:15 PM



REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770



SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD INTERSECTION DETAIL	
SHEET NO.	
25	

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
MATERIALS AND RESEARCH

DATE OF SURVEY: JANUARY 2021 - FRBRUARY 2021  
SURVEY MADE BY: TIERRA, INC.  
SUBMITTED BY: JEREMY A. SEWELL, P.E.

DISTRICT: 5  
ROAD NO.: N/A  
COUNTY: SEMINOLE

SEMINOLE COUNTY CIP NO. : 02007027  
PROJECT NAME: WEKIVA SPRINGS ROAD IMPROVEMENTS

CROSS SECTION SOIL SURVEY FOR THE DESIGN OF ROADS AND PONDS

SURVEY BEGINS STA. : 216+50      SURVEY ENDS STA. : 234+50      REFERENCE: ~~B~~ CONSTRUCTION OF WEKIVA SPRINGS ROAD

STRATUM NO.	ORGANIC CONTENT		MOISTURE CONTENT		SIEVE ANALYSIS RESULTS PERCENT PASS (%)						ATTERBERG LIMITS (%)				DESCRIPTION	CORROSION TEST RESULTS				
	NO. OF TESTS	% ORGANIC	NO. OF TESTS	MOISTURE CONTENT	NO. OF TESTS	10 MESH	40 MESH	60 MESH	100 MESH	200 MESH	NO. OF TESTS	LIQUID LIMIT	PLASTIC INDEX	AASHTO GROUP		NO. OF TESTS	RESISTIVITY ohm-cm	CHLORIDE ppm	SULFATES ppm	pH
1	--	--	--	--	13	98-100	94-96	68-76	19-27	3-7	--	--	--	A-3	LIGHT BROWN, GRAY-BROWN TO BROWN, AND DARK BROWN SAND TO SAND WITH SILT	3	34,000-67,000	30	<5	6.8-7.1
2	--	--	1	10	5	99-100	96-97	81-87	41-55	14-31	1	25	7	A-2-4	GRAY-BROWN TO BROWN SILTY SAND	--	--	--	--	--
3	--	--	--	--	1	100	99	97	86	67	--	--	--	A-6/A-7-6	GRAY TO GRAY-BROWN SANDY CLAY	--	--	--	--	--

NOTES:

1. THE MATERIAL FROM STRATUM 1 (A-3) APPEARS SATISFACTORY FOR USE IN THE EMBANKMENT WHEN UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001.
2. THE MATERIAL FROM STRATUM 2 (A-2-4) APPEARS SATISFACTORY FOR USE IN THE EMBANKMENT WHEN UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001. HOWEVER, THIS MATERIAL IS LIKELY TO RETAIN EXCESS MOISTURE AND MAY BE DIFFICULT TO DRY AND COMPACT. IT SHOULD BE USED IN THE EMBANKMENT ABOVE THE WATER LEVEL EXISTING AT THE TIME OF CONSTRUCTION.
3. THE MATERIAL FROM STRATUM 3 (A-6/A-7-6) IS PLASTIC MATERIAL AND SHALL BE REMOVED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-002. IT MAY REMAIN IN PLACE ABOVE THE EXISTING WATER LEVEL (AT THE TIME OF CONSTRUCTION) TO WITHIN 2 FEET OF THE PROPOSED BASE.
4. THE "--" INDICATES AN UNMEASURED PARAMETER.

EMBANKMENT AND SUBGRADE MATERIAL

STRATA BOUNDARIES ARE APPROXIMATE. MAKE FINAL CHECK AFTER GRADING.

▽ - ESTIMATED SEASONAL HIGH GROUNDWATER TABLE

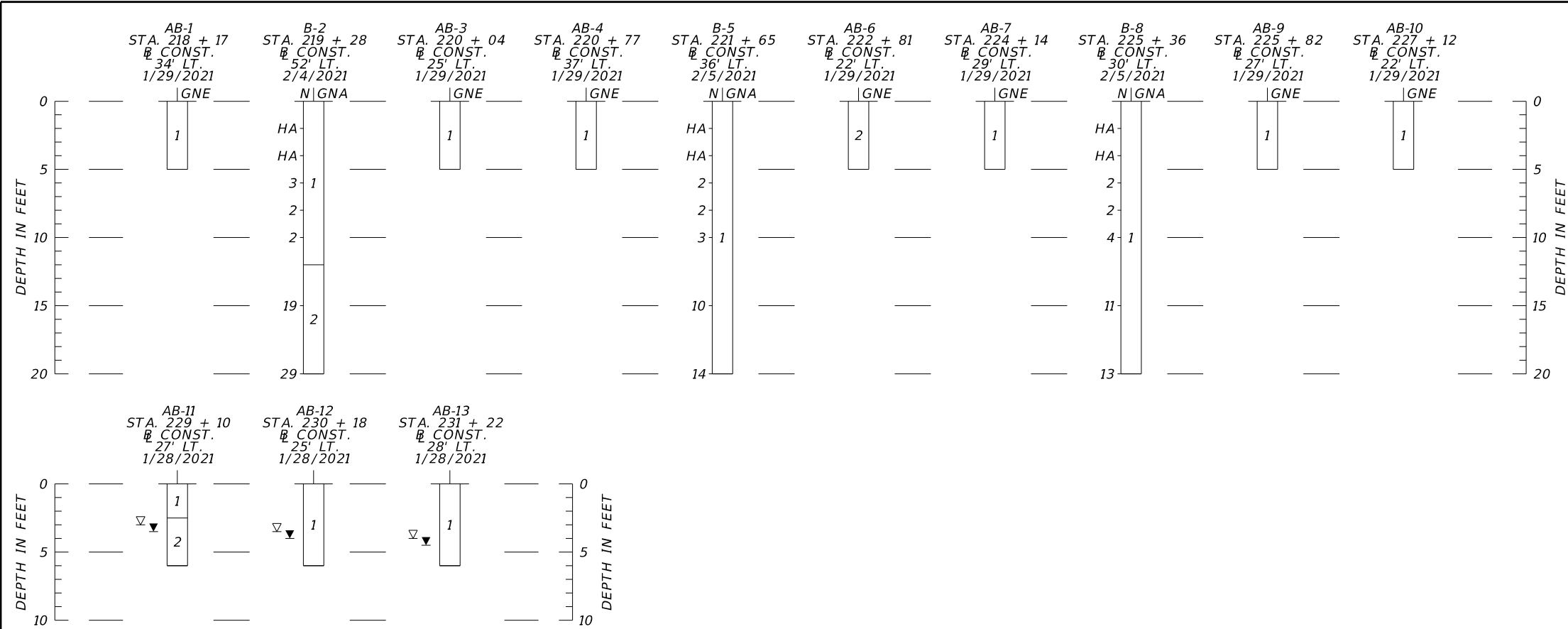
▼ - WATER TABLE ENCOUNTERED

GNE - GROUNDWATER NOT ENCOUNTERED

GNA - GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID

REVISIONS			JEREMY A. SEWELL, P.E. P.E. LICENSE NUMBER 62951 TIERRA, INC. 591 SUSAN B. BRITT COURT WINTER GARDEN, FLORIDA 34787		SEMINOLE COUNTY ENGINEERING DIVISION		ROADWAY SOIL SURVEY		SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			
					WEKIVA SPRINGS ROAD	02007027			26





- LEGEND
1.

LIGHT BROWN, GRAY-BROWN TO BROWN, AND DARK BROWN SAND TO SAND WITH SILT (A-3)
2.

GRAY-BROWN TO BROWN SILTY SAND (A-2-4)
3.

GRAY TO GRAY-BROWN SANDY CLAY (A-6/A-7-6)
- A-3

AASHTO 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).
- HA

HAND AUGERED TO VERIFY UTILITY CLEARANCE
- ▽

ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
- ▼

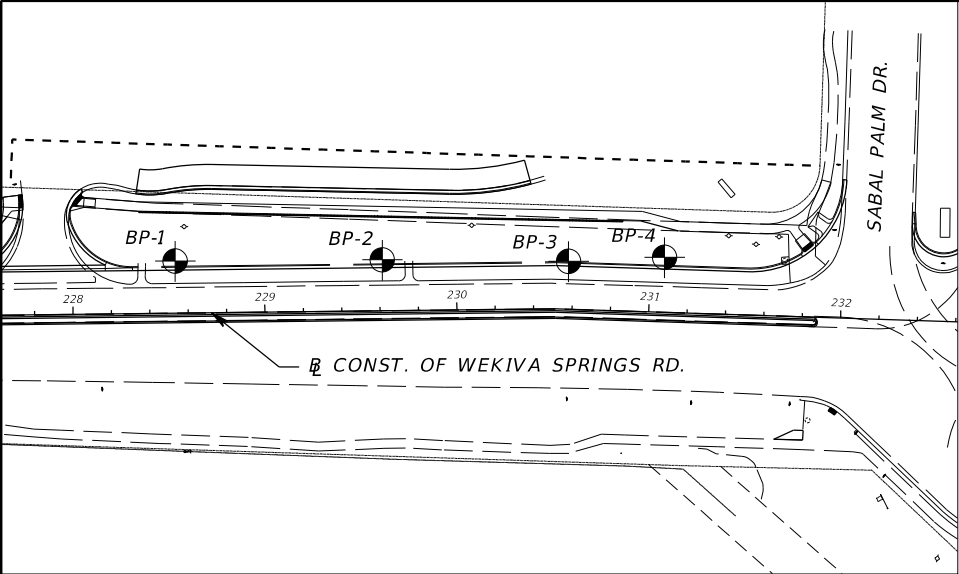
GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNE

GROUNDWATER NOT ENCOUNTERED
- GNA

GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- ⚡ CONST.

BASELINE CONSTRUCTION OF WEKIVA SPRINGS RD.

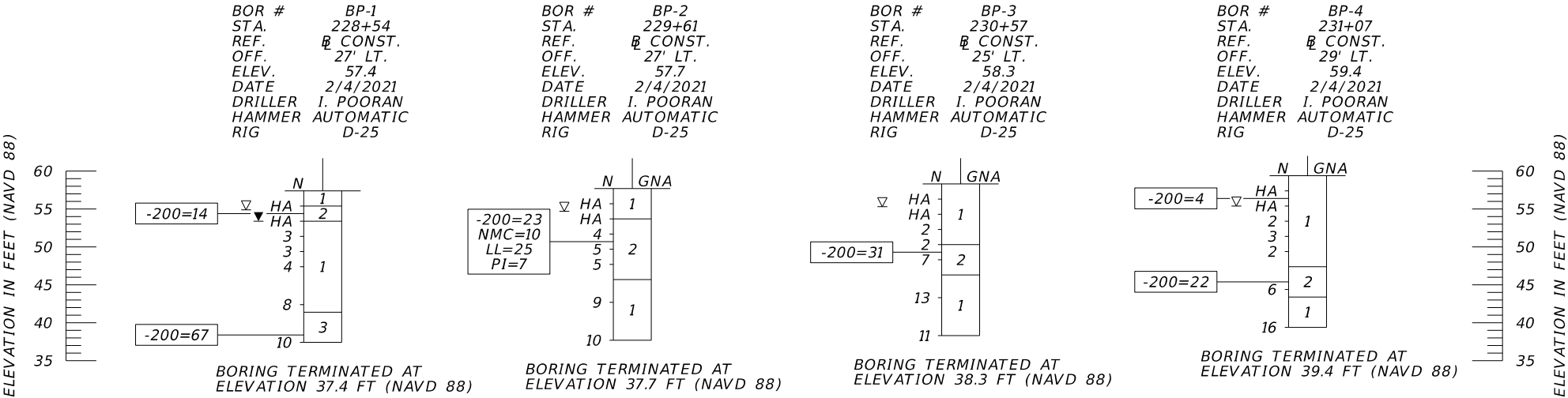
	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	LESS THAN 4 4 to 10 10 to 30 30 to 50 GREATER THAN 50	LESS THAN 3 3 to 8 8 to 24 24 to 40 GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT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



BORING LOCATION PLAN

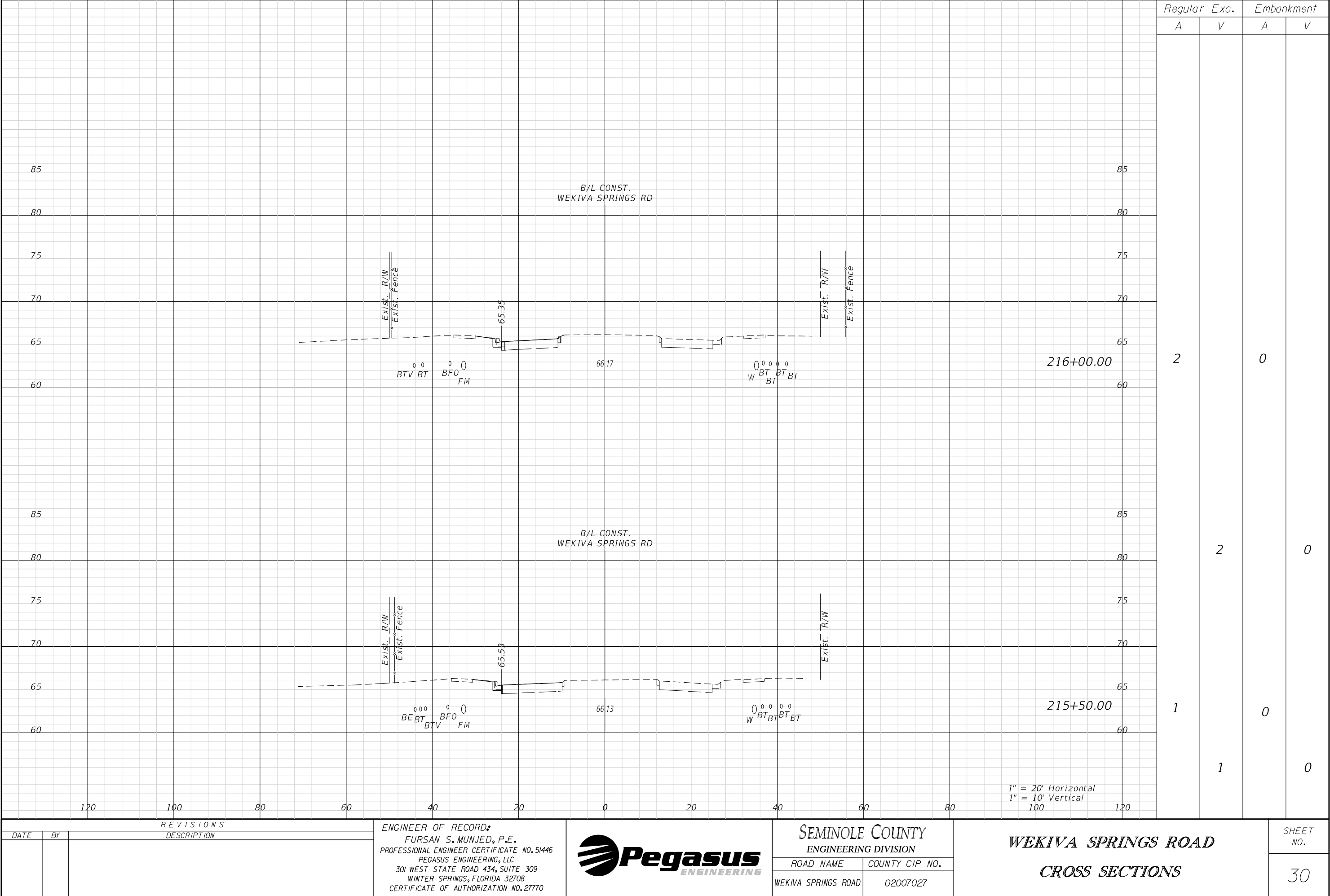
- LEGEND**
- 1. LIGHT BROWN, GRAY-BROWN TO BROWN, AND DARK BROWN SAND TO SAND WITH SILT (A-3)
  - 2. GRAY-BROWN TO BROWN SILTY SAND (A-2-4)
  - 3. GRAY TO GRAY-BROWN SANDY CLAY (A-6/A-7-6)
  - A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
  - N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
  - HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
  - 200 PERCENT PASSING #200 SIEVE
  - NMC NATURAL MOISTURE CONTENT (%)
  - LL LIQUID LIMIT (%)
  - PI PLASTICITY INDEX (%)
  - NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
  - APPROXIMATE SPT BORING LOCATION
  - ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
  - GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
  - GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
  - CONST. BASELINE CONSTRUCTION OF WEKIVA SPRINGS RD.

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



EXFILTRATION SYSTEM





REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770



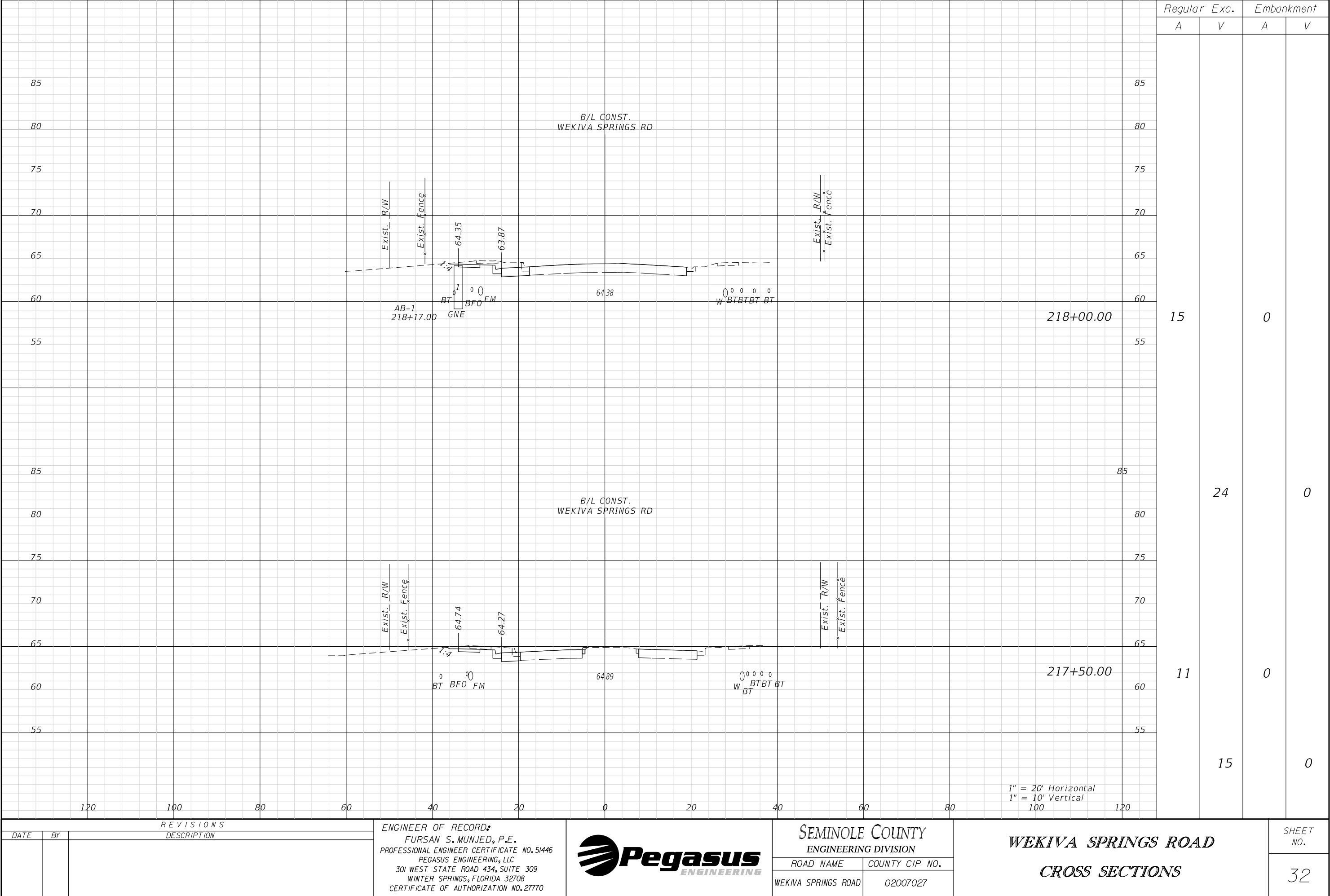
SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD CROSS SECTIONS	

SHEET NO.
30







REVISIONS		
DATE	BY	DESCRIPTION

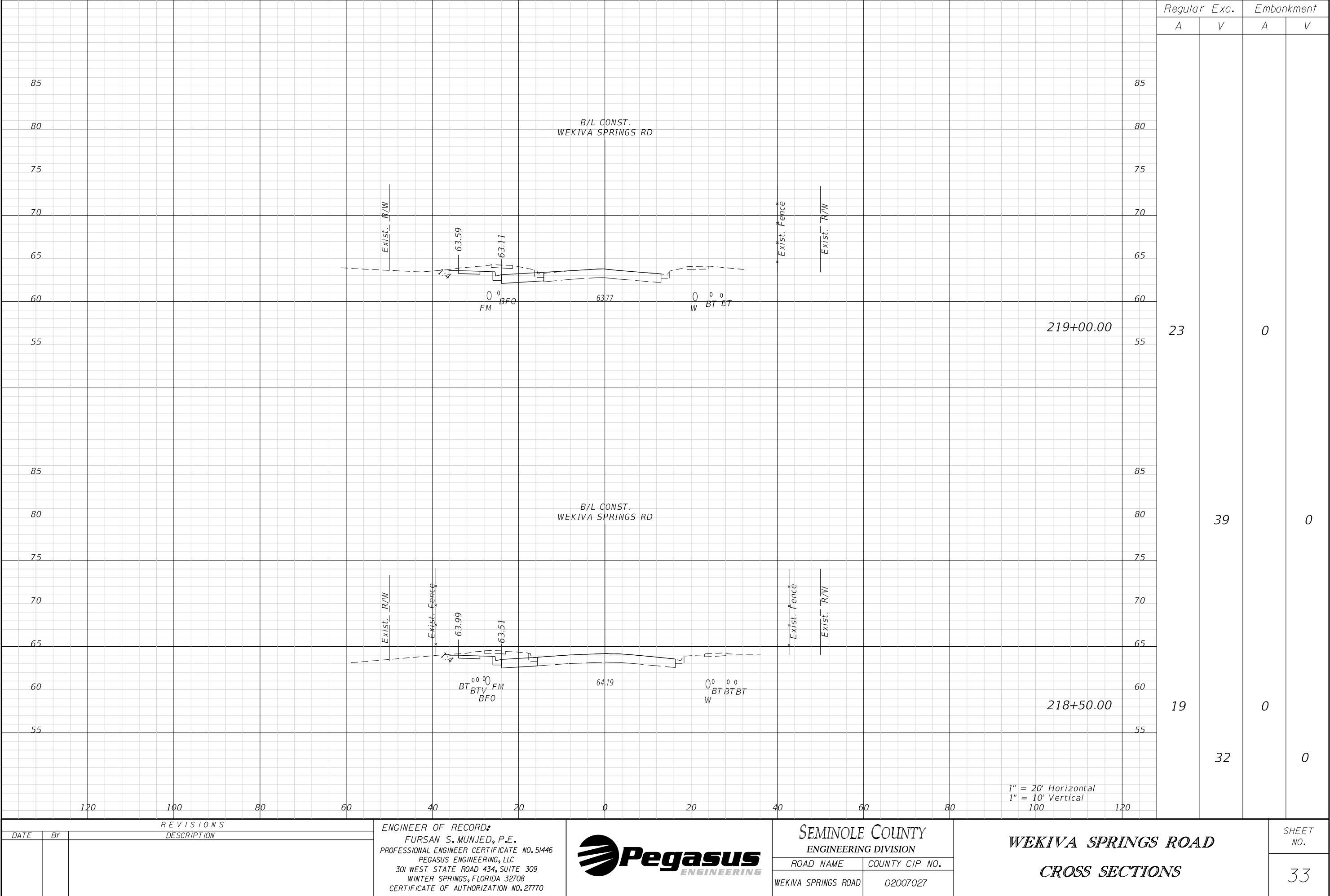
ENGINEER OF RECORD:  
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PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
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CERTIFICATE OF AUTHORIZATION NO. 27770



SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

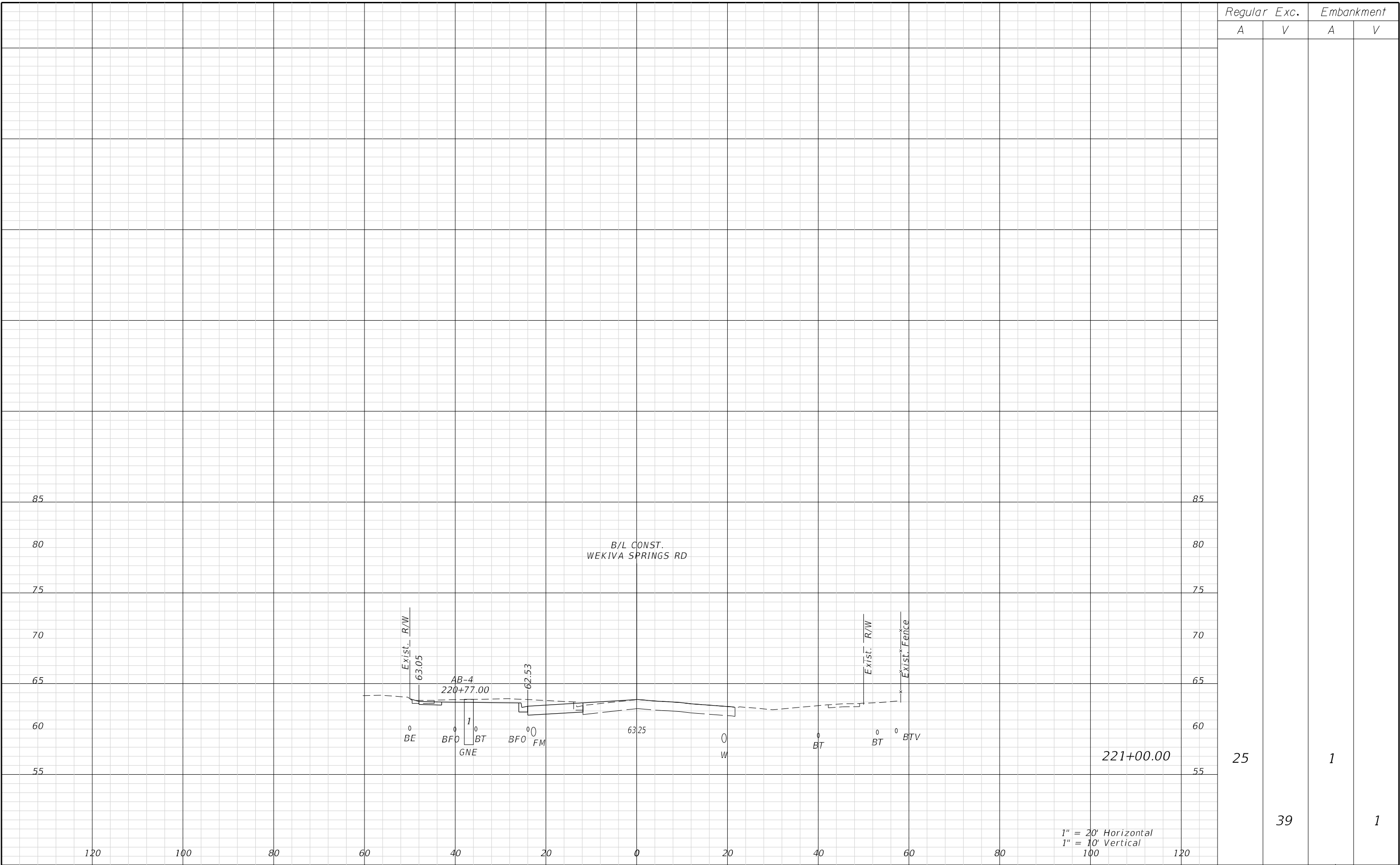
WEKIVA SPRINGS ROAD CROSS SECTIONS	

SHEET NO.
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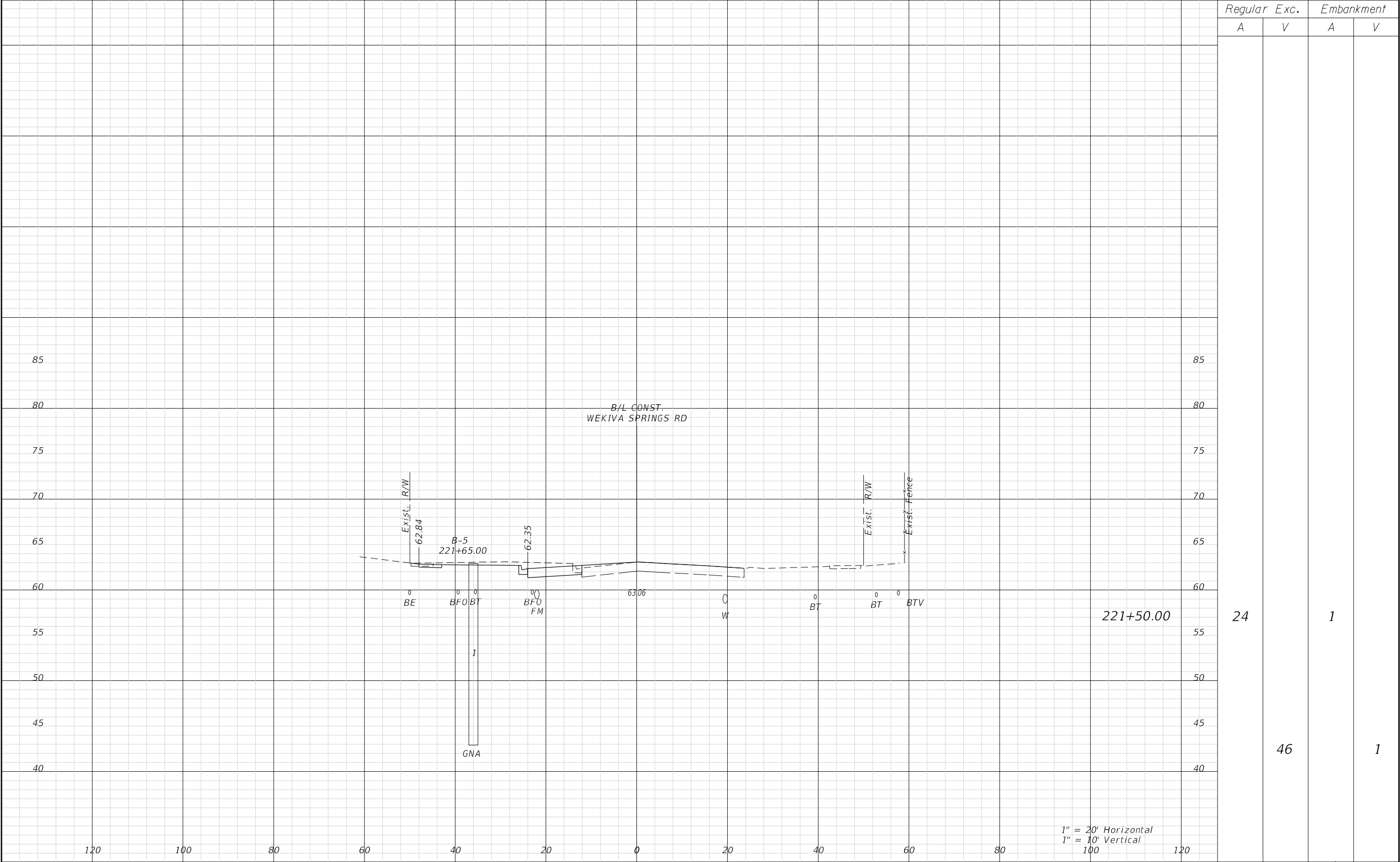


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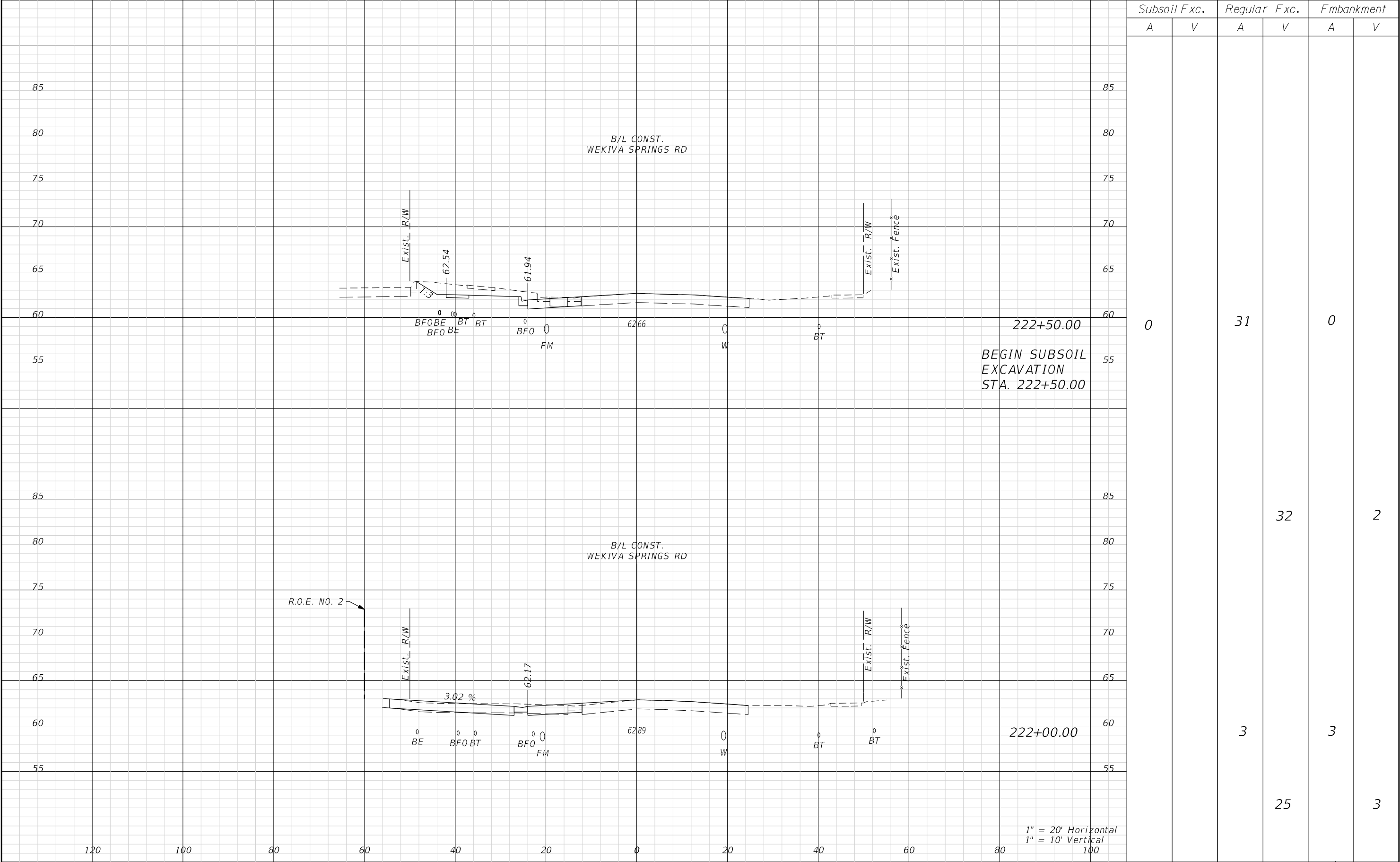




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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO.  37
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO.  38
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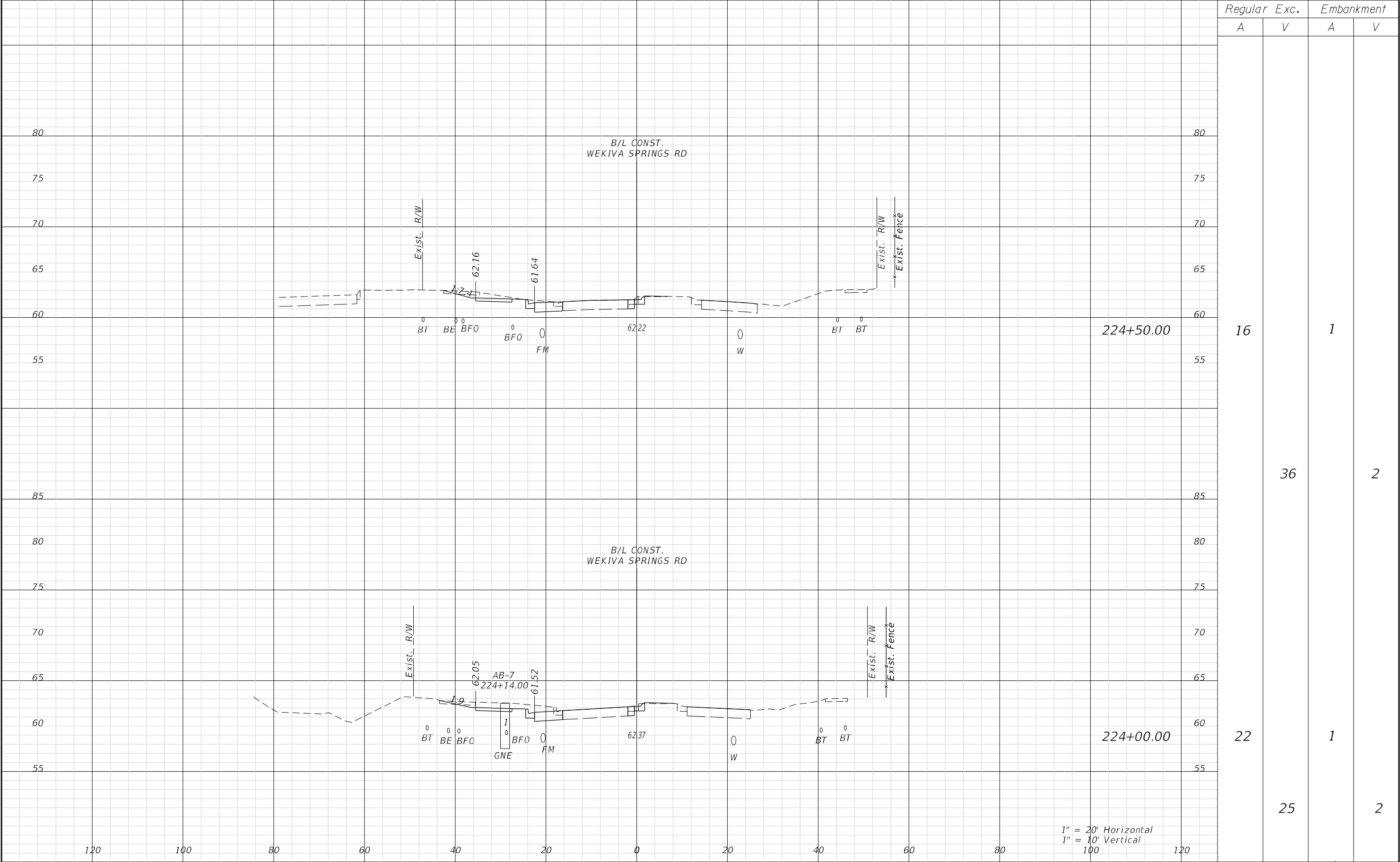
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3/29/2022

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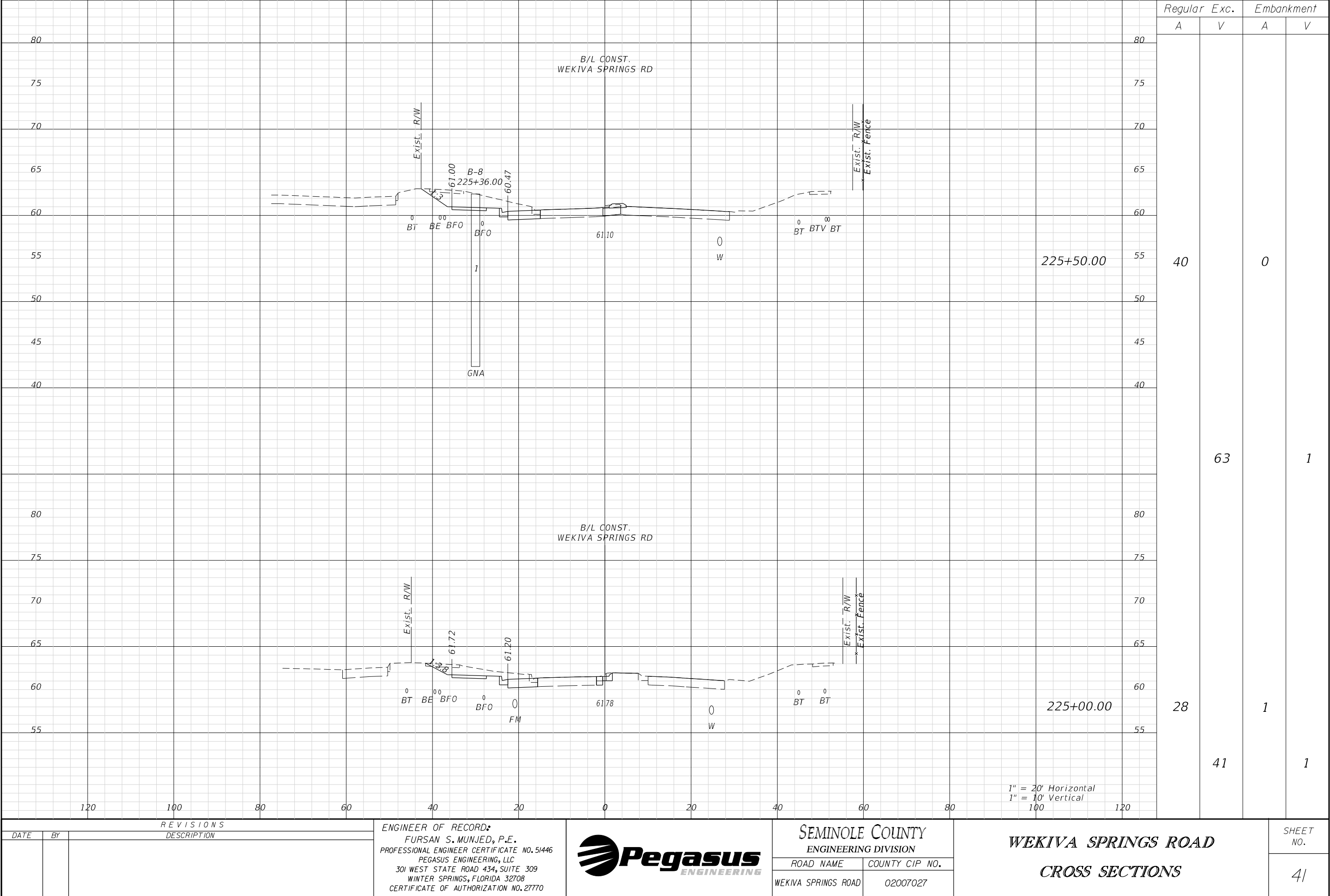


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD	CROSS SECTIONS	SHEET NO.  40
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3/29/2022

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REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770



SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

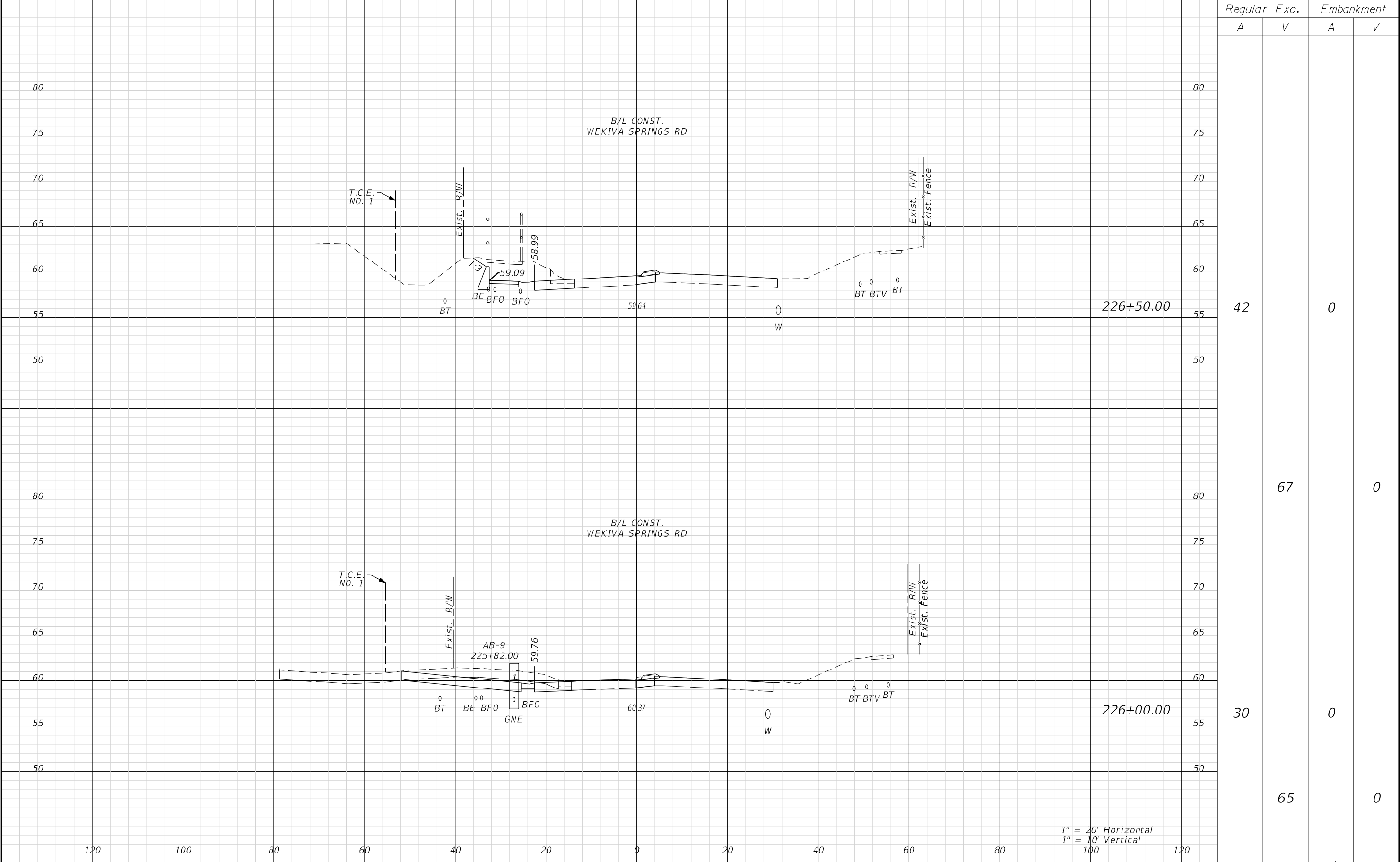
WEKIVA SPRINGS ROAD CROSS SECTIONS	

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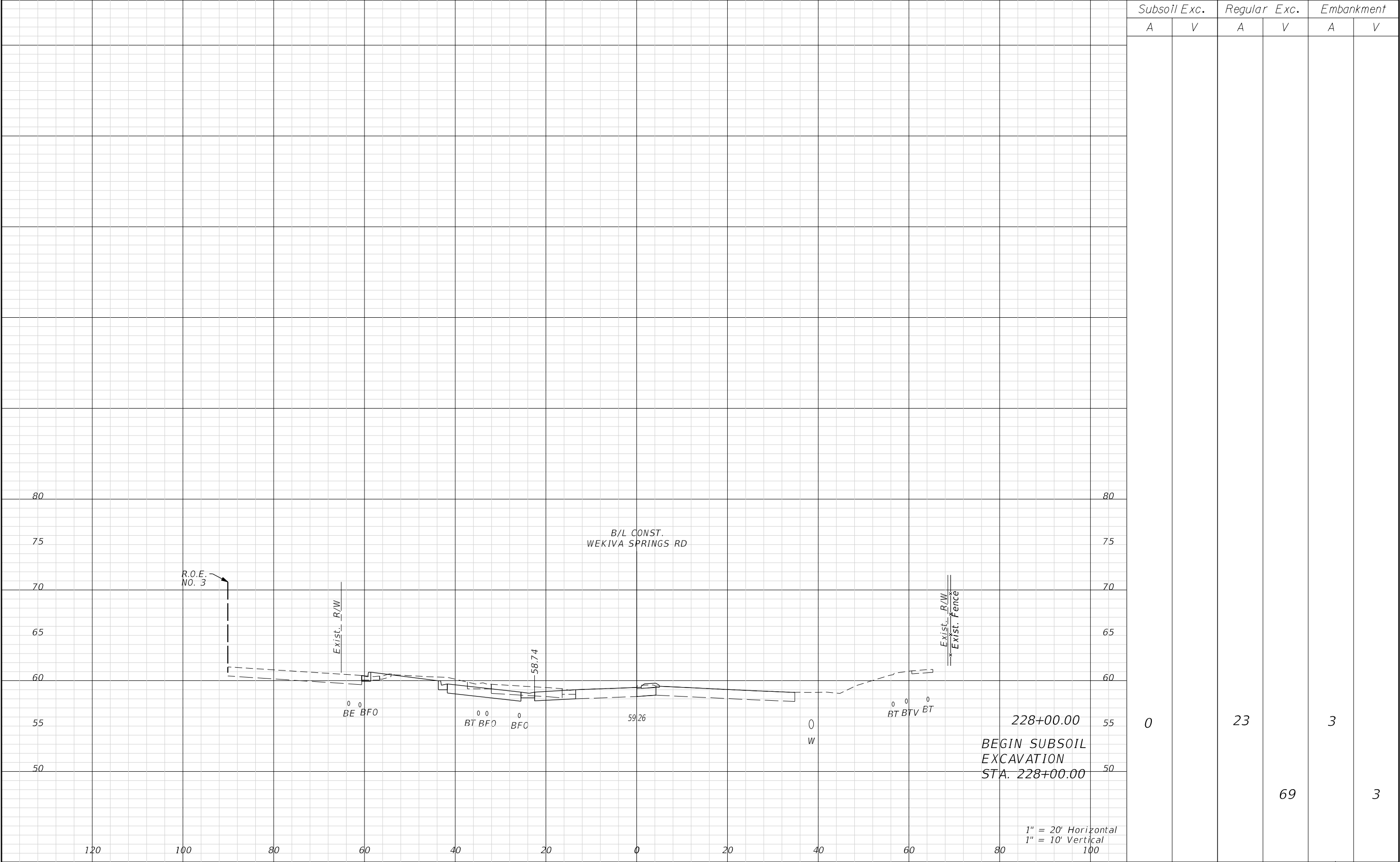
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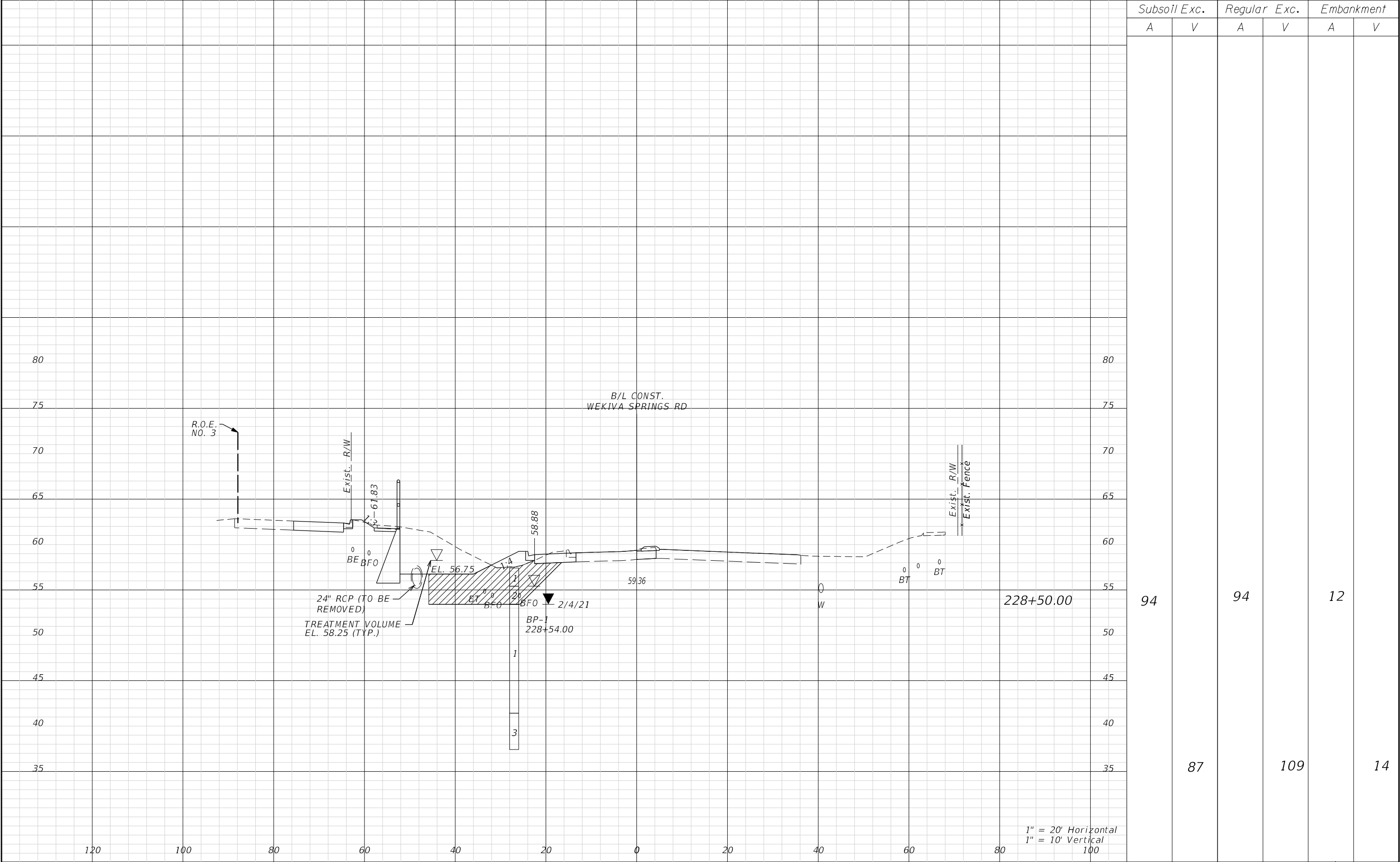


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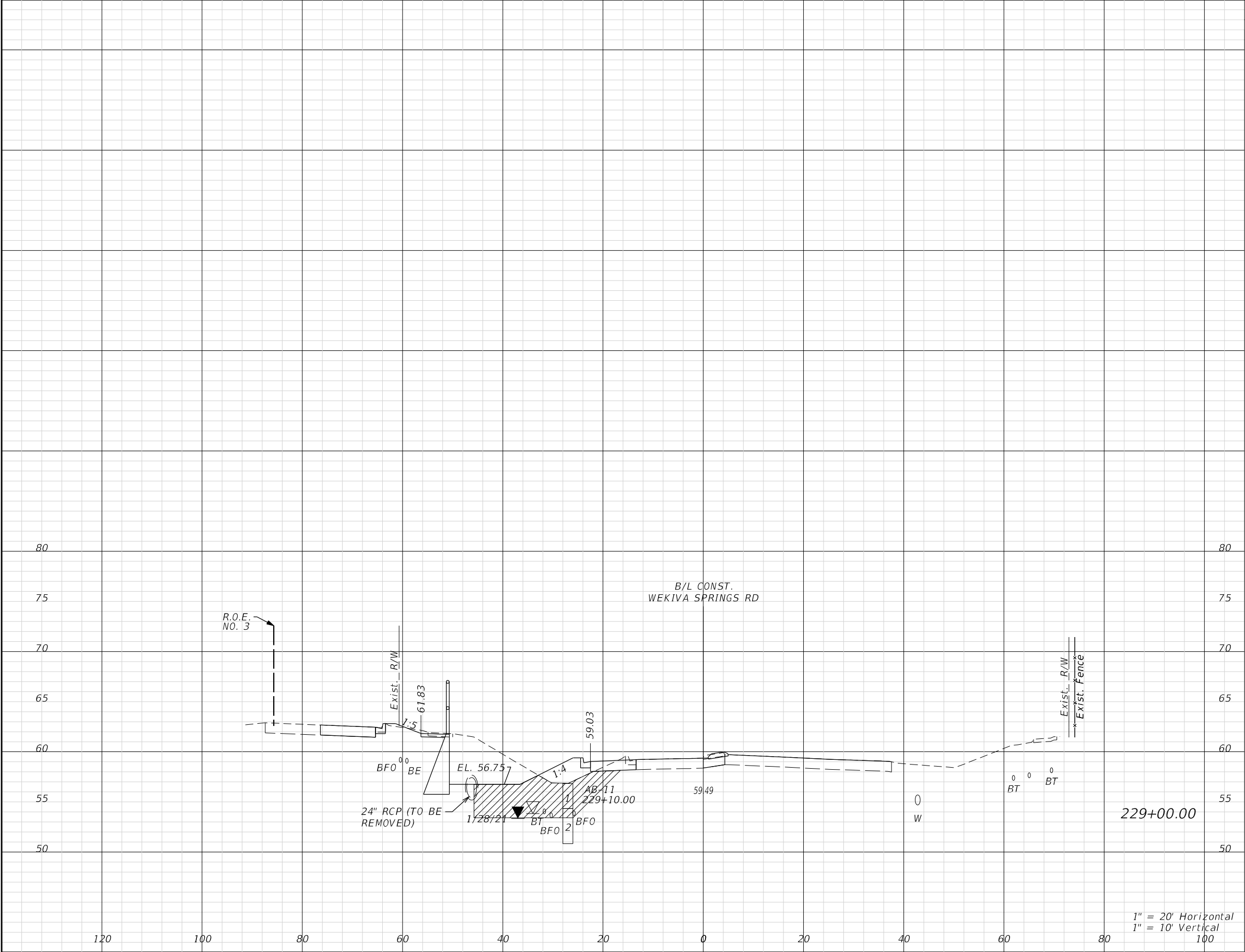




REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO.  44
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO.  45
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
89		81		19	
	169		162		29

DATE

BY

REVISIONS  
DESCRIPTION

ENGINEER OF RECORD:

FURSAN S. MUNJED, P.E.

PROFESSIONAL ENGINEER CERTIFICATE NO. 51446

PEGASUS ENGINEERING, LLC

301 WEST STATE ROAD 434, SUITE 309

WINTER SPRINGS, FLORIDA 32708

CERTIFICATE OF AUTHORIZATION NO. 27770

Pegasus

ENGINEERING

SEMINOLE COUNTY

ENGINEERING DIVISION

ROAD NAME

WEKIVA SPRINGS ROAD

COUNTY CIP NO.

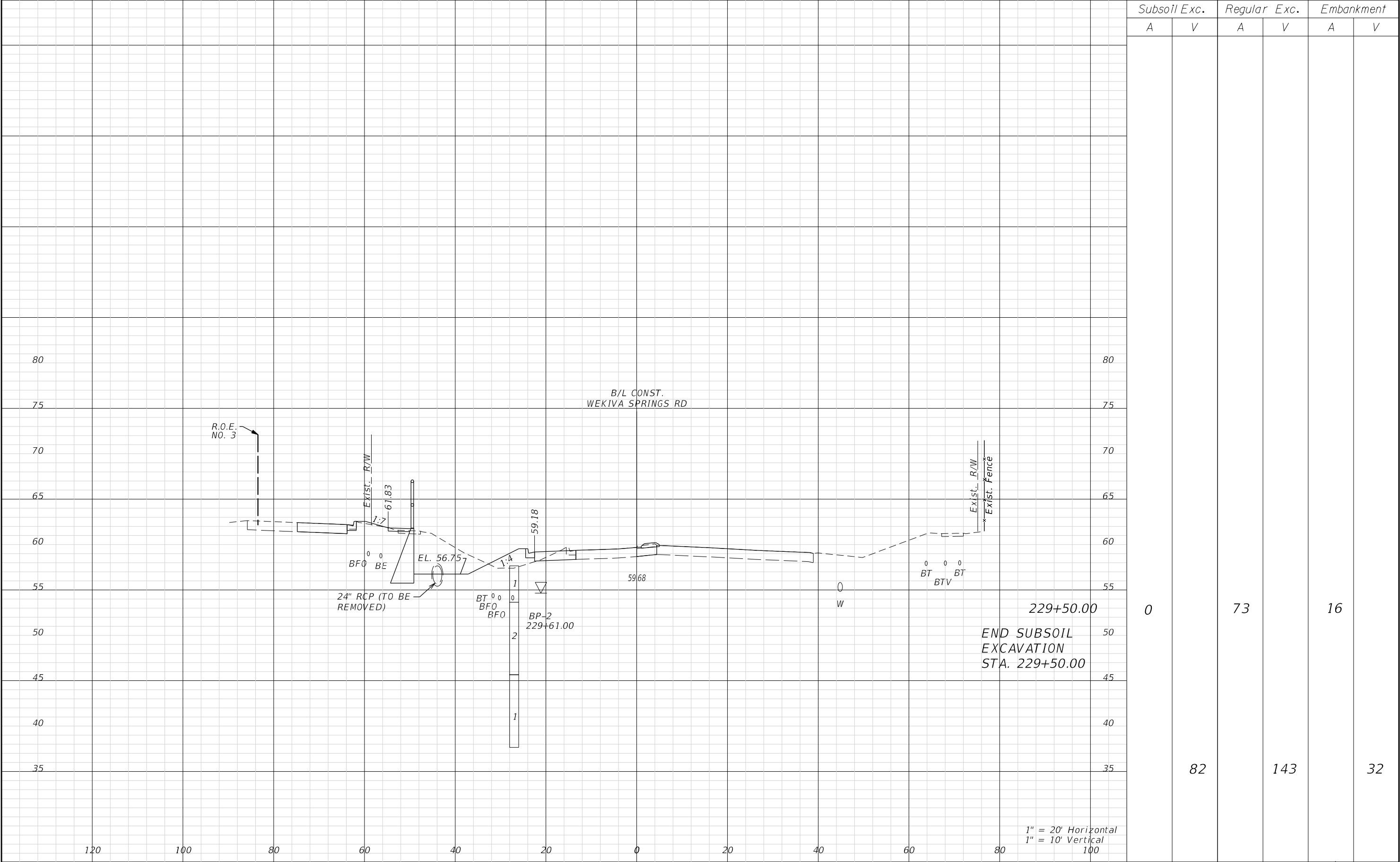
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WEKIVA SPRINGS ROAD

CROSS SECTIONS

SHEET NO.

46



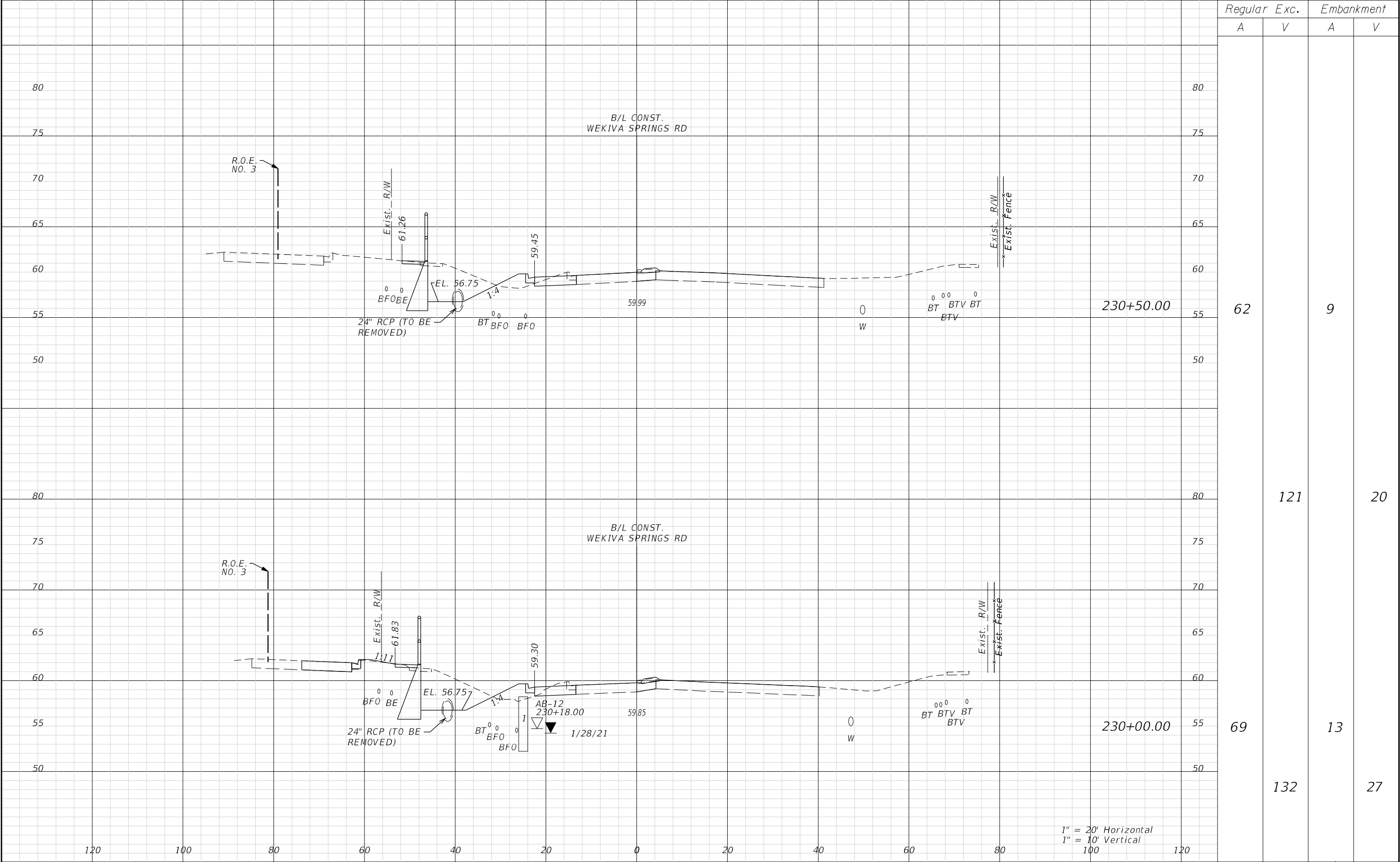
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		47

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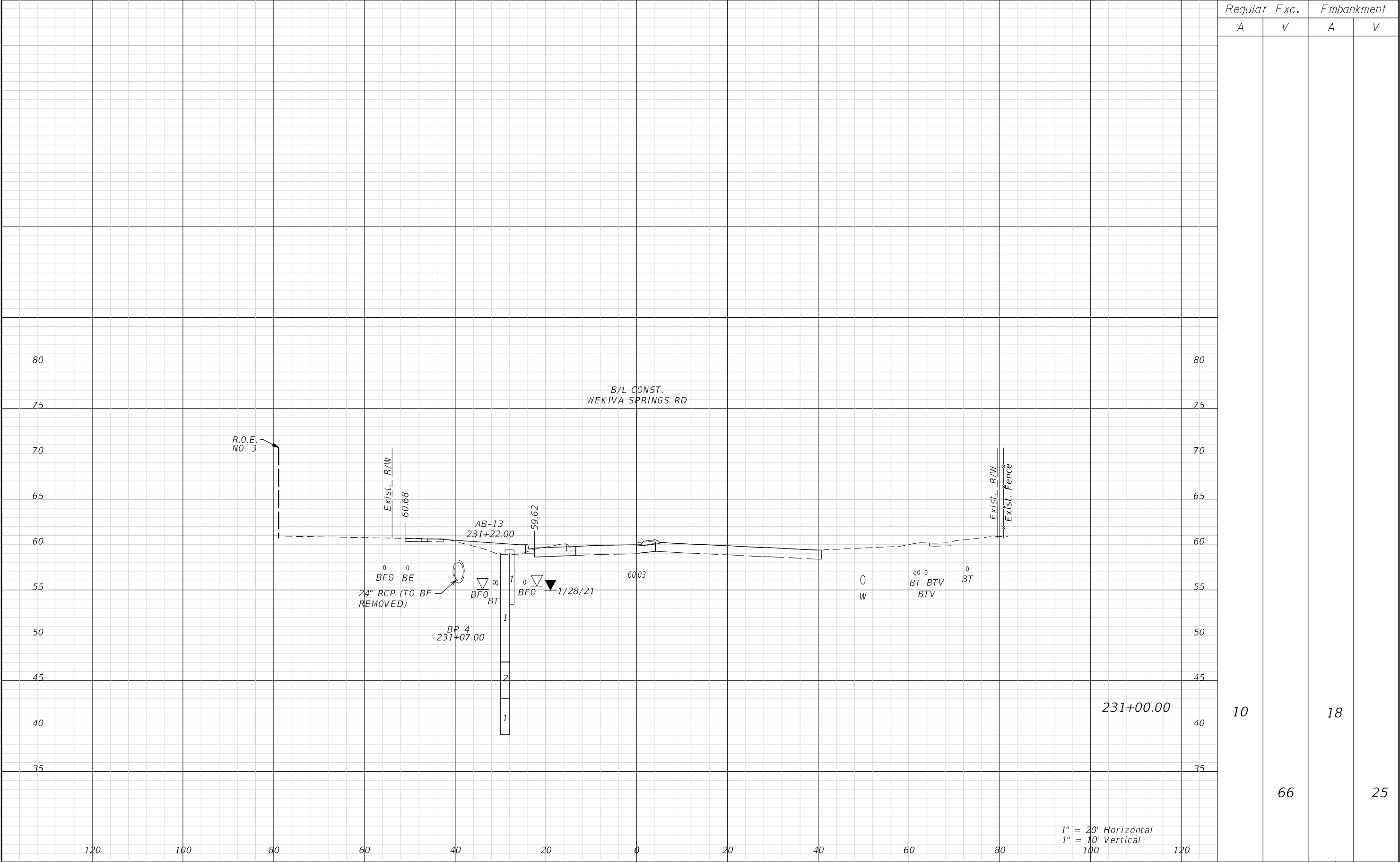


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO.  48
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
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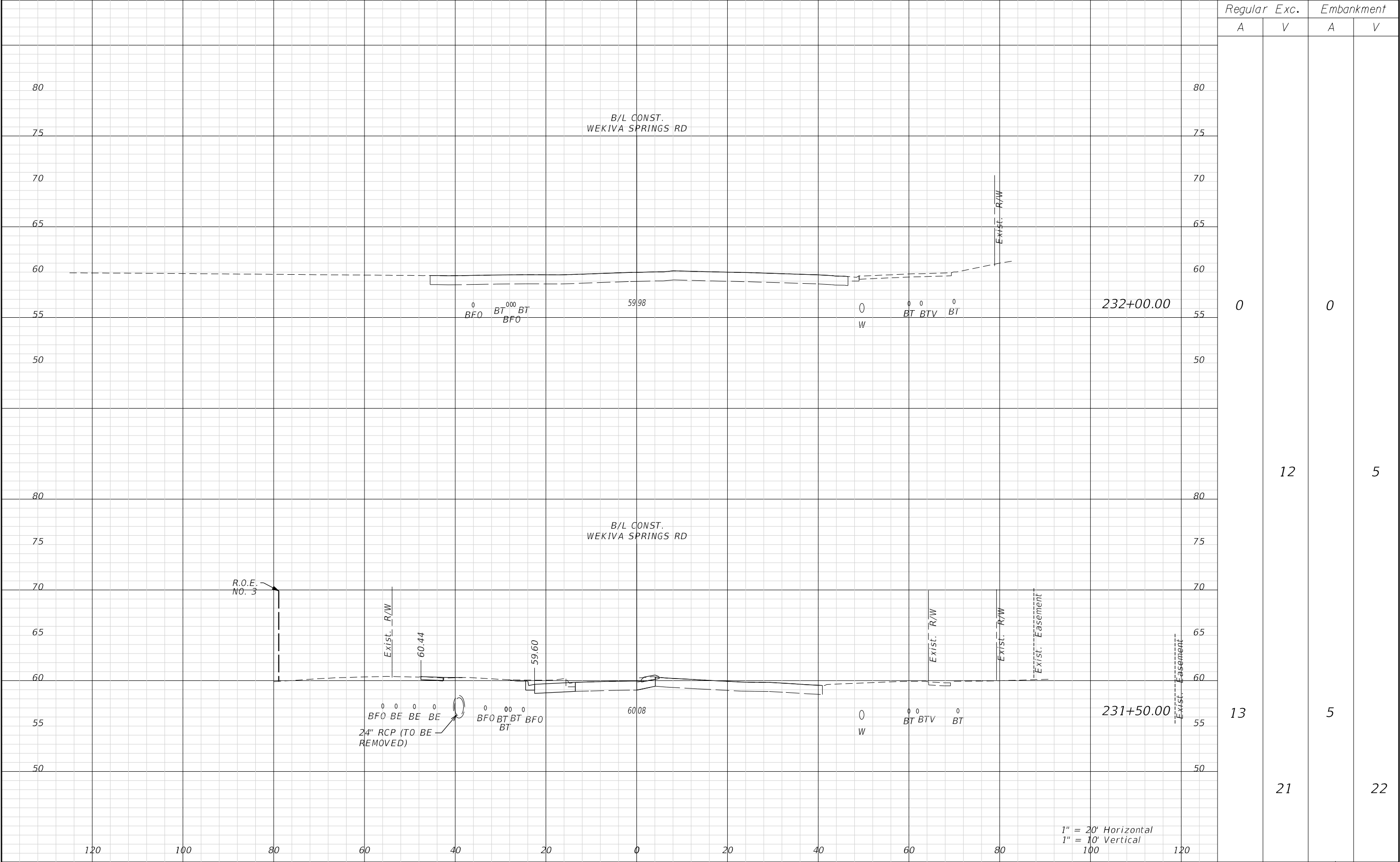
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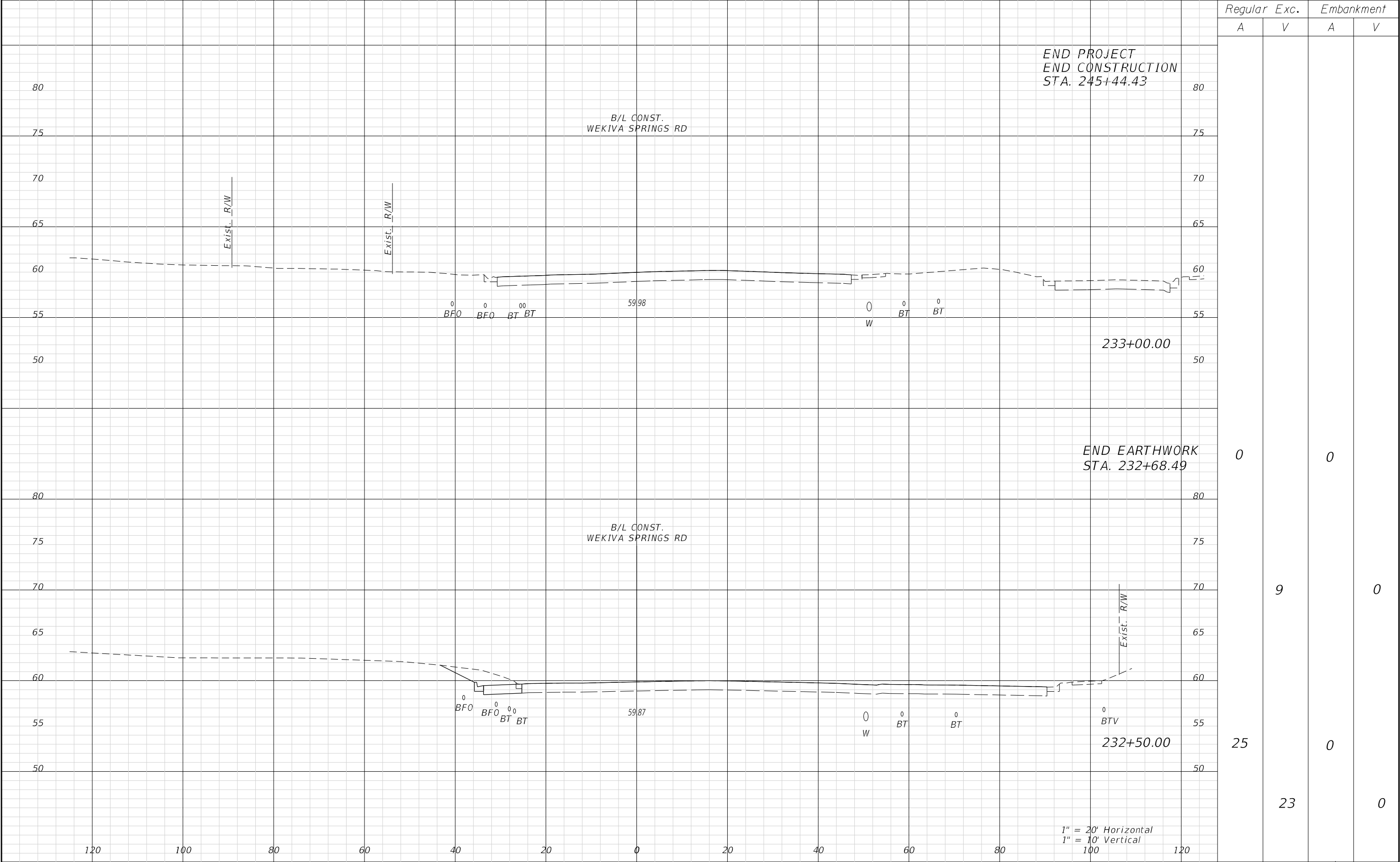
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REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD CROSS SECTIONS	SHEET NO. 49
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



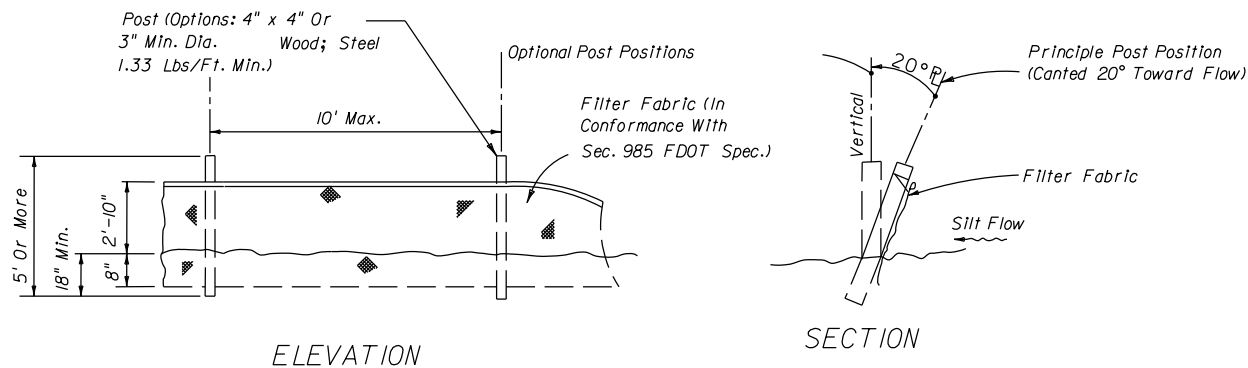
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD	02007027	WEKIVA SPRINGS ROAD		CROSS SECTIONS	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.				50		



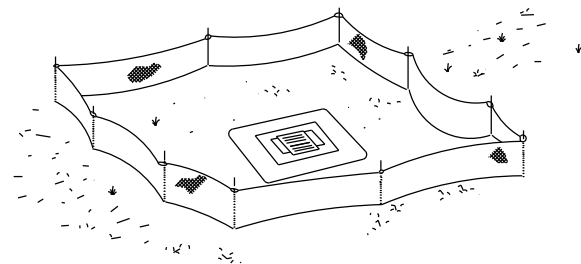
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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		







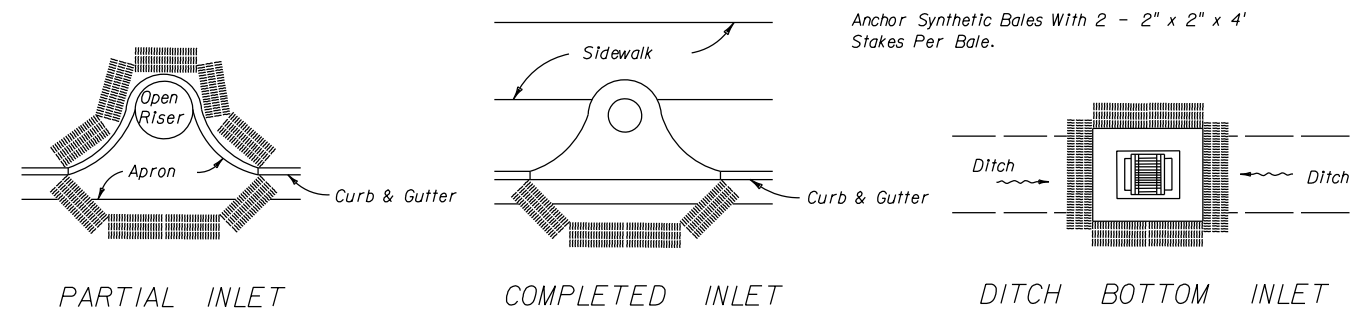
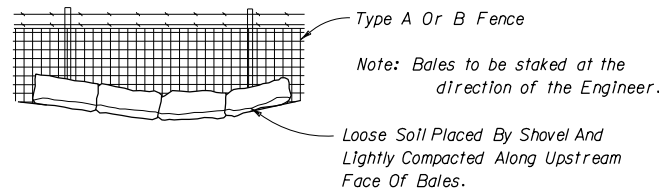
TYPE III SILT FENCE



Type III Silt Fence Protection  
Around Ditch Bottom Inlets.

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

GENERAL NOTES

1. THE CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE SYNTHETIC BALES, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.
2. NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
3. THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL BE CONTROLLED, SO THAT THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
4. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET. (SEE NOTE 16).
5. AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN SEVEN DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER, DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED SO AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 POUNDS PER ACRE.
6. THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
7. IF AFTER 14 DAYS, THE TEMPORARY GRASSES AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER.
8. ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.
9. ALL DISTURBED AREAS OUTSIDE THE EXCAVATION AND FILL LIMITS WILL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR CONDITION PRIOR TO CONSTRUCTION.
10. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL NEWLY PLANTED GRASSES OR VEGETATION AND RETENTION/DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE COUNTY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF EMBANKMENTS AND SHALL REPLACE ANY PORTION, WHICH IN THE OPINION OF THE ENGINEER, HAS BECOME DISPLACED DUE TO EROSION OR DUE TO CARELESSNESS OR NEGLIGENCE ON THE PART OF THE CONTRACTOR.
12. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT. MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO CONTROL EROSION AND SEDIMENT RUNOFF FROM THE SITE DURING CONSTRUCTION. SUCH METHODS SHALL BE IN ACCORDANCE WITH THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
13. ABSOLUTELY NO WORK WILL BE ALLOWED WITHIN ANY CONSERVATION AREA, BUFFER AREA, MITIGATION AREA OR DESIGNATED WETLAND AREA UNLESS SO SPECIFICALLY DESCRIBED BY THE PLANS AND GRANTED BY REASON OF PERMIT FROM THE GOVERNMENTAL ENTITY HAVING JURISDICTION OVER SAID AREA.
14. PRIOR TO CLEARING AND GRUBBING, THE LIMITS OF WETLANDS, BUFFERS, AND MITIGATION AREAS SHALL BE CLEARLY MARKED ALONG THE PROPOSED RIGHT OF WAY LINE TO PROTECT THESE AREAS FROM ENCROACHMENT FROM CONSTRUCTION ACTIVITIES.
15. ALL FILL EMBANKMENT AND GRADED AREAS SHALL BE PROTECTED AGAINST EROSION BY METHODS STATED IN "SECTION 104," F.D.O.T. STANDARD SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION. SIDE SLOPE MAY BE SEEDED AND MULCHED, PROVIDED THAT THE MULCH MATERIAL IS DISC HARROWED AND THE SIDE SLOPES ARE NEITHER GREATER THAN 1:3 NOR PART OF A DRAINAGE CONVEYANCE.
16. EROSION CONTROL AT ALL INLET DRAINAGE STRUCTURES DURING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH SECTION 104 PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION.

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD EROSION CONTROL DETAILS	SHEET NO.  54
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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N.P.D.E.S. STORMWATER POLLUTION PREVENTION PLAN  
FOR CONSTRUCTION ACTIVITIES

The Contractor shall prepare and provide Seminole County with a special plan for the prevention, control, and abatement of erosion and water pollution. The Contractor shall pay all permitting fees. (To be included under pay item 104-14)

This plan shall be prepared in accordance with the general requirements and/or any special conditions of all permits which authorize the construction of the project. In the event there are no permits required to construct the project, or they do not contain special conditions relating to erosion and water pollution, the project Stormwater Pollution Plan (SWPPP) for Construction Activities shall be governed by Florida Department of Transportation Standards Specifications for Road and Bridge Construction (2018), Subarticles 7-1.1, 7-2.2, 7-8.2, and Articles 104.1 through 104.9.

When a National Pollution Discharge Elimination System (N.P.D.E.S.) Permit has been issued or approved for the project by the FDEP. The Contractor's SWPPP will include the Erosion Control and Stormwater Management Plan during construction and all additional measures he will employ to dispose of, control, or otherwise prevent the discharge of solid, hazardous, and sanitary wastes to waters of the U.S. Procedures to control off-site tracking and spilling of soil by vehicles and construction shall also be included. The Contractor shall include a procedure for cleanup and reporting of non-storm water discharges such as contaminated ground water and accidental spills of contaminants. The Contractor's part of the SWPPP, including required signed certification statements, shall be furnished to and approved by Seminole County prior to initiating any soil disturbing activities.

The SWPPP for Construction Activities shall be prepared in accordance with the format and guidelines set forth in the EPA Document Number 833-R-06-004 dated May 2007, titled 'Developing Your Stormwater Pollution Prevention Plan' provisions of Section 403.0885, Florida Statutes, and applicable rules of the Florida Administrative Code. Construction activities that disturb five or more acres of land area are considered industrial activities under 40 CFR Part 122.26 (b) (14). This permit constitutes authorization to discharge stormwater associated with industrial activity to surface waters under the NPDES. Under the State of Florida's authority to administer the NPDES Stormwater program at 403.0885, F. S., operators that have stormwater discharge associated with large or small construction activities to surface waters of the State, including through a Municipal Separate Storm Sewer System (MSA), must obtain coverage either under a Notice of Intent (NOI) Generic Permit issued pursuant to Chapter 62-621, F.A.C., or an individual permit issued pursuant to Chapter 62-620, F.A.C. The SWPPP for Construction Activities shall describe, but not be limited to, the following items or activities.

- (1) For each phase of construction operations or activities, the Contractor shall supply the following information:
- (A) Locations of all erosion control devices.


(B) Types of all erosion control devices.

(C) Estimated length erosion control devices will be in operation.

(D) Monitoring schedules for maintenance of erosion control devices.

(E) Method of maintaining erosion control devices.

(F) Methods of containment or removal of pollutants or hazardous wastes.
- (2) The Contractor shall furnish Seminole County with the name and telephone number of the person who will be responsible for monitoring and maintaining the erosion control devices. The person who is performing the inspections is to be a qualified inspector (a person who is certified through the DEP Stormwater, Erosion, and Sedimentation Control Inspector Training Program). Inspections are to occur at least once every seven calendar days and within 24 hours of the end of a storm that is 0.50 inches or greater.
- (3) The Contractor shall submit a copy of his SWPPP for Construction Activities to Seminole County for their review and approval on or before the project preconstruction meeting. No construction activities shall commence until: 1.) the SWPPP for Construction Activities has been reviewed and approval received from Seminole County. 2.) Notice of Intent shall be submitted to the FDEP 48 hours prior to construction activities. The Contractor shall submit two (2) copies of the approved SWPPP for Construction Activities to Seminole County and one (1) copy of the approved SWPPP for Construction Activities to the St. John's River Water Management District, 601 Lake Destiny Drive #200, Maitland, FL 32751.
- (4) The Contractor shall be responsible for implementing, monitoring and modifying the SWPPP for Construction Activities to meet changing project site conditions.
- (5) The Contractor shall maintain a copy of the approved SWPPP for Construction Activities at a central location on the project site at all times and be responsible for compliance with the approved SWPPP for Construction Activities. The Contractor shall prepare and submit all annual reports required by permit.

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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		55
					WEKIVA SPRINGS ROAD	02007027		



TEMPORARY TRAFFIC CONTROL PLANS GENERAL NOTES

- 1. THE EXISTING POSTED SPEED LIMIT OF 35 MPH SHALL BE REDUCED TO 30 MPH DURING CONSTRUCTION.
- 2. NOTIFY ADJACENT PROPERTY OWNERS 96 HOURS IN ADVANCE OF CONSTRUCTION ACTIVITIES WHICH RESTRICT ACCESS, DELIVERY, ETC. TO PRIVATE OR COMMERCIAL PROPERTIES, AND SHALL PROVIDE REASONABLE SAFE DIRECT ACCESS.
- 3. DURING CONSTRUCTION, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST PUBLISHED EDITION, PART VI & FDOT STANDARD PLANS, 2021-22 EDITION, INDEX 102-600 SERIES AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO RESIDENCES AND BUSINESSES AT ALL TIMES.
- 4. WORK HOURS ARE FROM 8:00 AM TO 4:00 PM MONDAY TO FRIDAY. WORK WILL NOT BE ALLOWED ON WEEKENDS OR HOLIDAYS OBSERVED BY SEMINOLE COUNTY UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE COUNTY ENGINEER OR HIS DESIGNEE.

LANE CLOSURE NOTES

- 1. LANE CLOSURE HOURS SHALL BE RESTRICTED AS FOLLOWS:  
NO LANE CLOSURES BETWEEN 6:00 AM TO 10:00 PM.
- 2. ALL LANES SHALL BE OPEN TO TRAFFIC WHEN WORK IS NOT ACTIVELY IN PROGRESS.
- 3. NOTIFY ALL EMERGENCY / RESCUE AGENCIES LOCATED IN THE PROJECT VICINITY 48 HOURS IN ADVANCE OF ANY PROPOSED LANE CLOSURES OR RESTRICTIONS.

PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO CONSTRUCTION

MESSAGE 1

		R	O	A	D		
		W	O	R	K		
W	K	.	S	P	.	R	D

MESSAGE 2

		B	E	G	I	N	S	
		D	A	T	E			

TO BE INSTALLED  
7 DAYS PRIOR TO  
CONSTRUCTION

DURING CONSTRUCTION

MESSAGE 1

		R	O	A	D		
		W	O	R	K		
W	K	.	S	P	.	R	D

MESSAGE 2

		C	A	U	T	I	O	N
		C	A	U	T	I	O	N
		C	A	U	T	I	O	N

TEMPORARY TRAFFIC CONTROL PLANS CONSTRUCTION SEQUENCE

PHASE I

- 1. PLACE APPROACH SIGNAGE, PORTABLE CHANGEABLE MESSAGE SIGNS, AND CHANNELIZING DEVICES UTILIZING FDOT STANDARD PLANS.
- 2. CONSTRUCT TEMPORARY PAVEMENT AND RE-STRIPE THE EXISTING ROAD.
- 3. INSTALL TEMPORARY LOW PROFILE CURB AND SHIFT TRAFFIC.

PHASE II

- 1. CONSTRUCT PROPOSED DRAINAGE INLETS AND PIPES.
- 2. IMPLEMENT THE TRAFFIC DETOUR (SEE SHEET 60) TO CONSTRUCT THE DRAINAGE PIPE CROSSING AND SIDE STREET CONNECTION AT FOX VALLEY DR DURING PERIODS WHEN SCHOOL IS NOT IN SESSION.
- 3. CONSTRUCT THE SIDEWALKS AND CURB CUT RAMPS AT THE INTERSECTIONS OF OF FOX VALLEY DR. AND SABAL PALM DR. DURING PERIODS WHEN SCHOOL IS NOT IN SESSION.
- 4. IMPLEMENT PEDESTRIAN DETOUR NO. 1 PLAN (SEE SHEET 61). CONSTRUCT PROPOSED PAVEMENT WIDENING, GRAVITY WALLS AND SIDEWALK ALONG THE ACCESS SCHOOL ROAD. RECONSTRUCT SCHOOL ACCESS ROAD AND CURBING (SEE SHEET 61 FOR CLOSURE DETAIL)
- 5. IMPLEMENT PEDESTRIAN DETOUR NO. 2 (SEE SHEET 62). CONSTRUCT PROPOSED PAVEMENT WIDENING, GRAVITY WALLS AND SIDEWALK BETWEEN FOX VALLEY DR. AND THE SCHOOL ACCESS ROAD DRIVEWAY.
- 6. CONSTRUCT SIGNALIZATION IMPROVEMENTS.

PHASE III

- 1. SHIFT TRAFFIC TO NORTHBOUND LANE. RECONSTRUCT TRAFFIC SEPARATOR AND CURB AND GUTTER.

PHASE IV


- 1. MILL AND RESURFACE THE EXISTING ROADWAY EXCLUDING THE FRICTION COURSE.

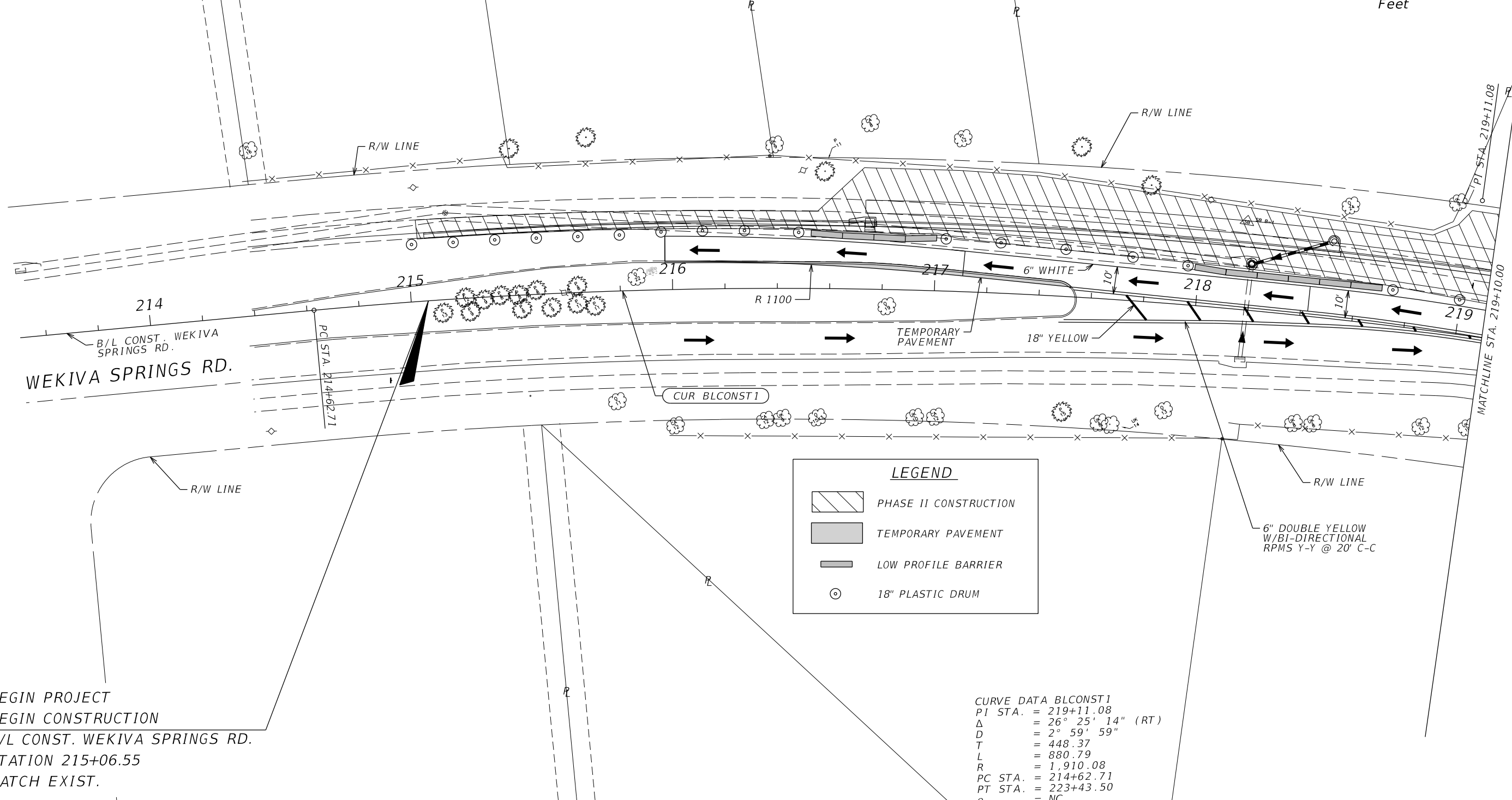
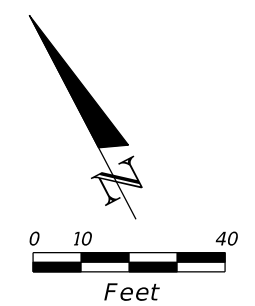
PHASE V

- 1. CONSTRUCT THE FRICTION COURSE.
- 2. INSTALL PROPOSED SIGNAGE AND PERMANENT PAVEMENT MARKINGS.

TEMPORARY PAVEMENT DESIGN

STANDARD COMPACTION WITH  
BASE GROUP 1 (TYPE B-12.5 ONLY) (4") AND  
TYPE SP-12.5 STRUCTURAL COURSE (2.00") TRAFFIC C

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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



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B/L CONST. WEKIVA SPRINGS RD.  
STATION 215+06.55  
MATCH EXIST.

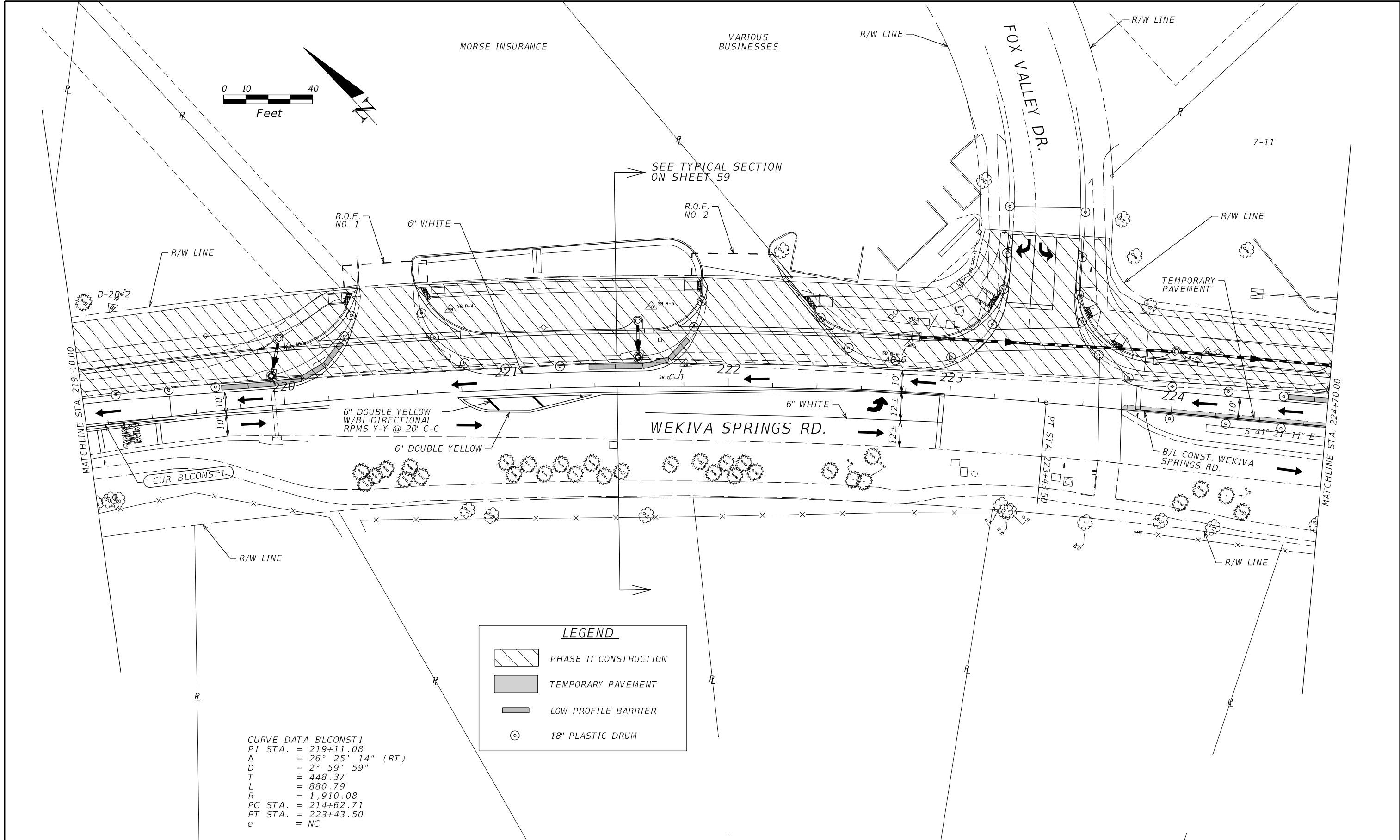
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- PHASE II CONSTRUCTION
- TEMPORARY PAVEMENT
- LOW PROFILE BARRIER
- 18" PLASTIC DRUM

CURVE DATA BLCONST1  
PI STA. = 219+11.08  
Δ = 26° 25' 14" (RT)  
D = 2° 59' 59"  
T = 448.37  
L = 880.79  
R = 1,910.08  
PC STA. = 214+62.71  
PT STA. = 223+43.50  
e = NC

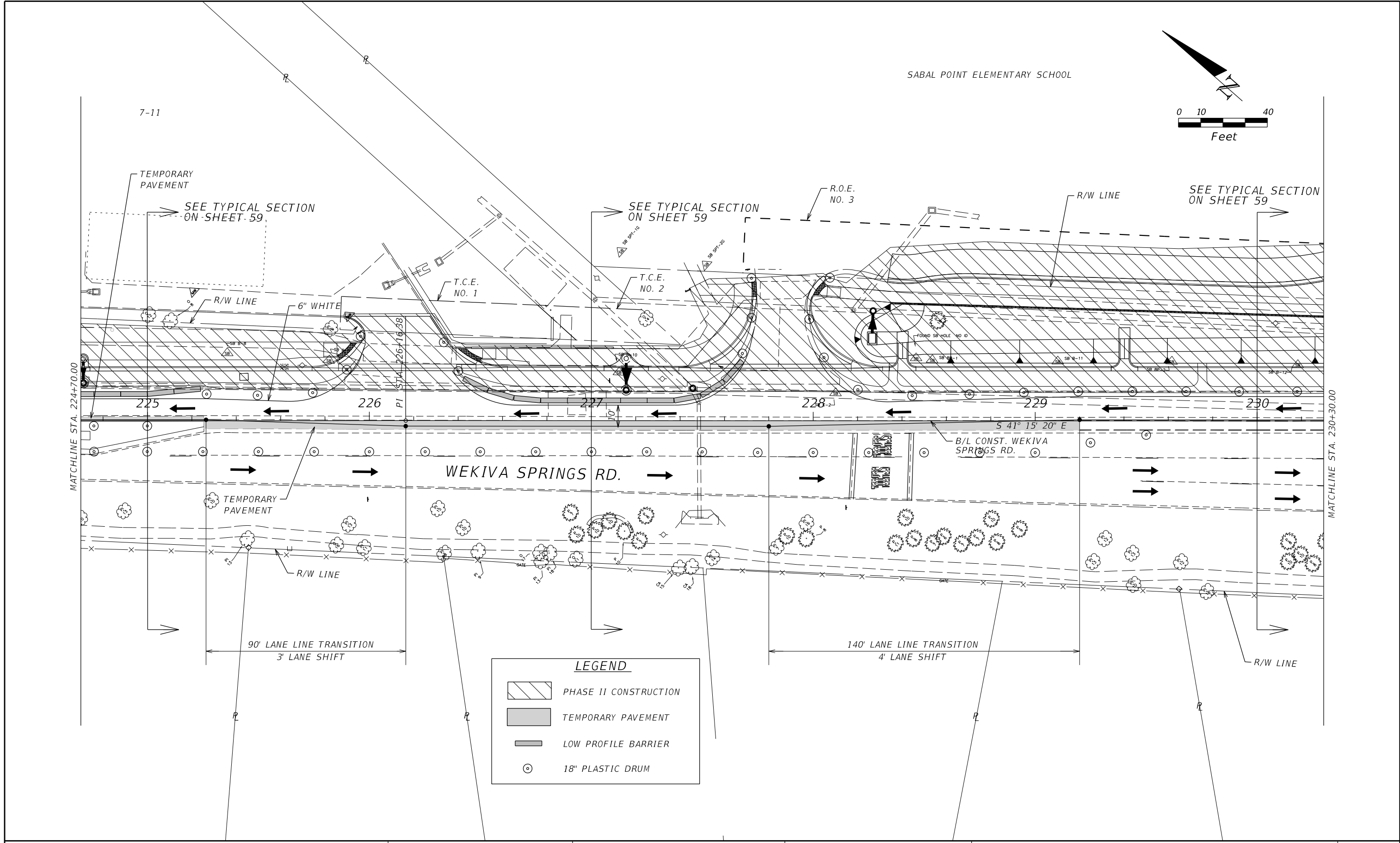
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TEMPORARY TRAFFIC CONTROL PLAN	SHEET NO.  57
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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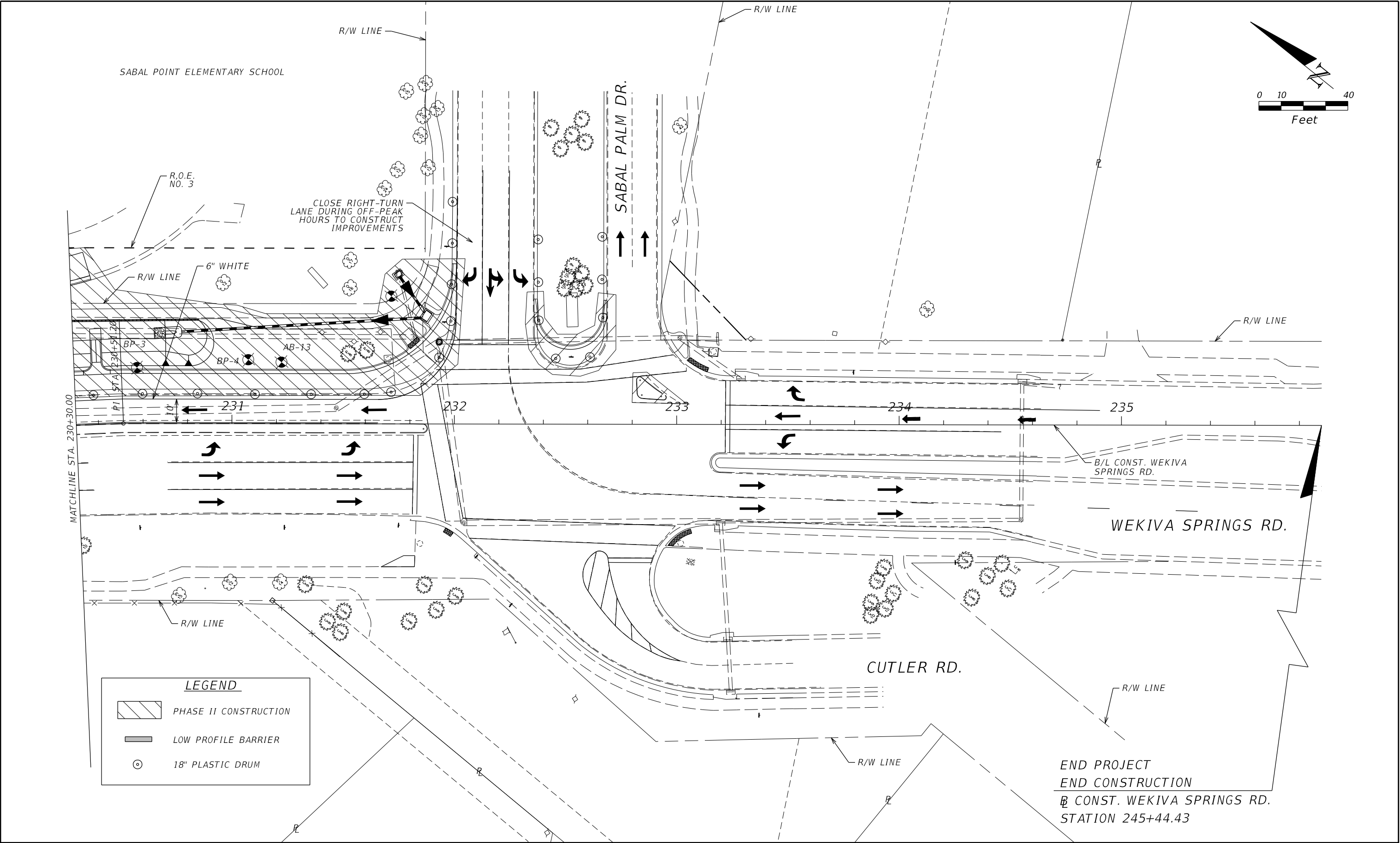
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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		


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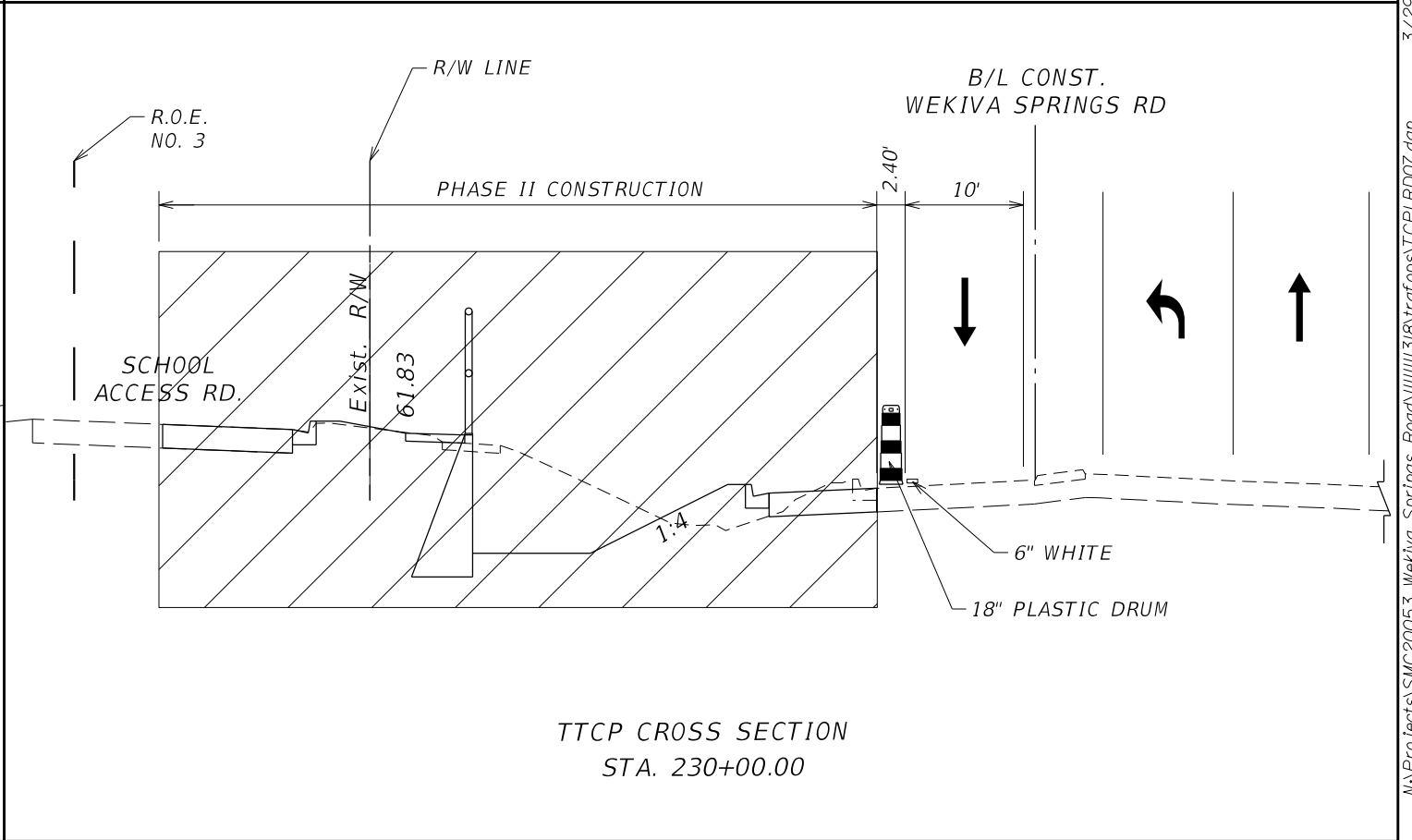
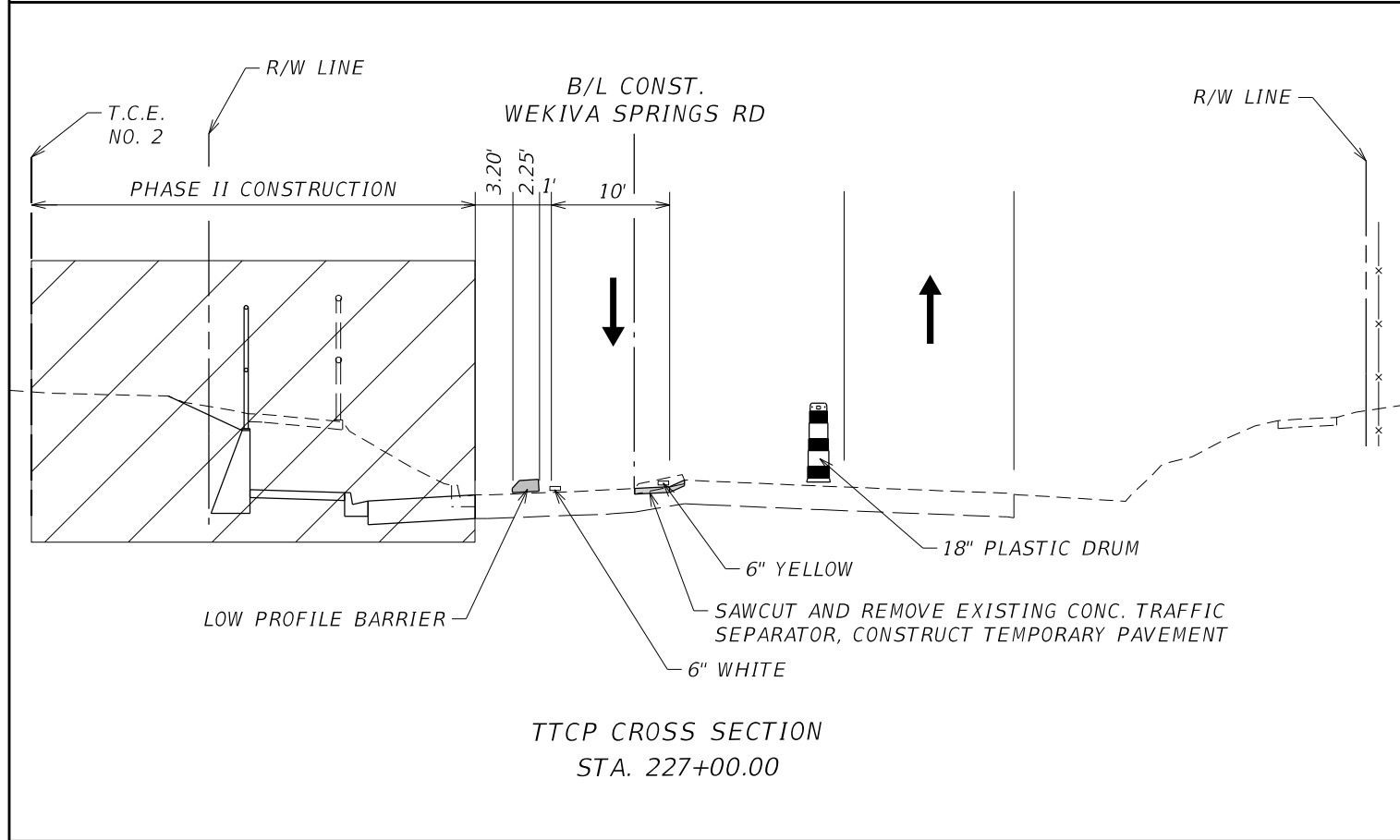
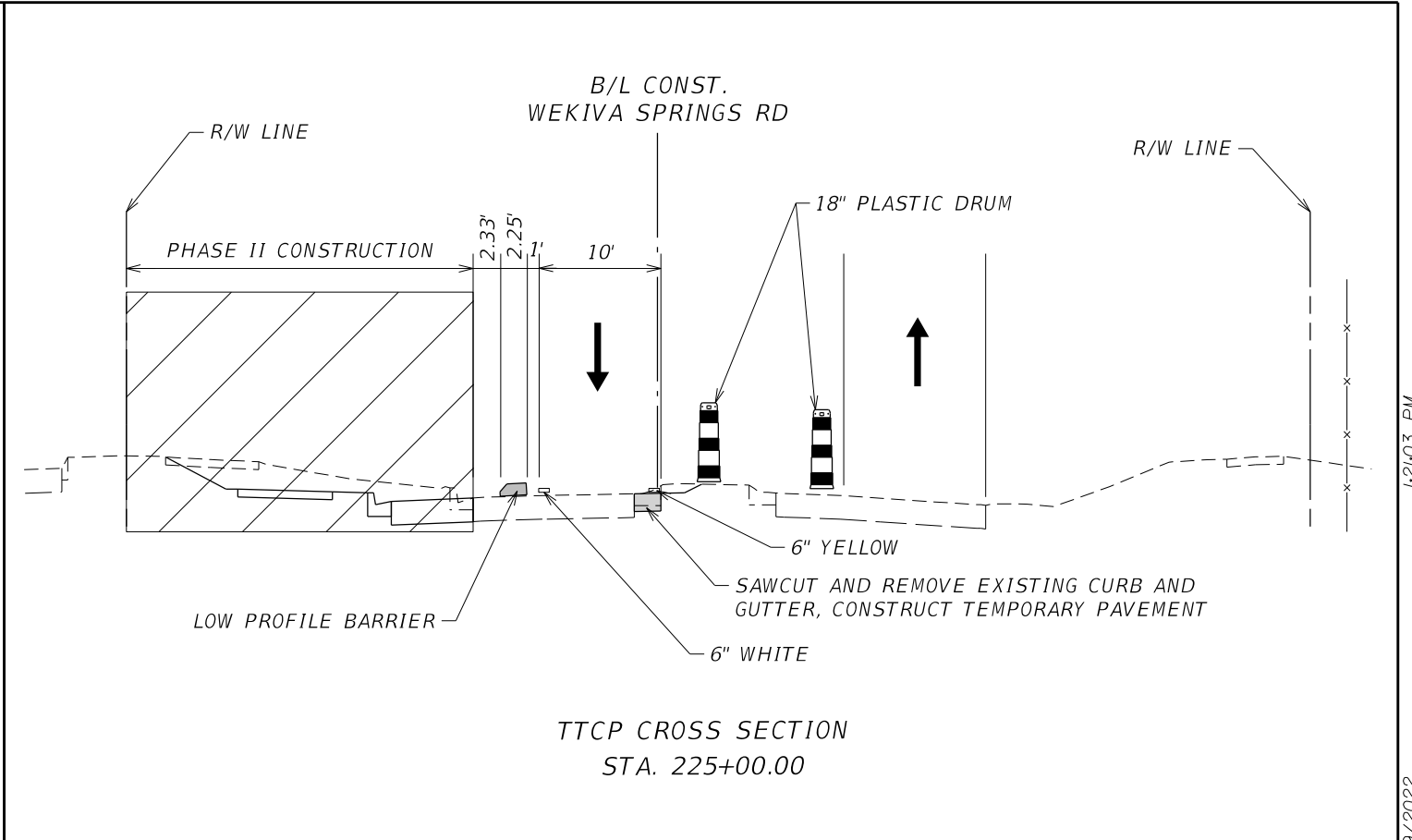
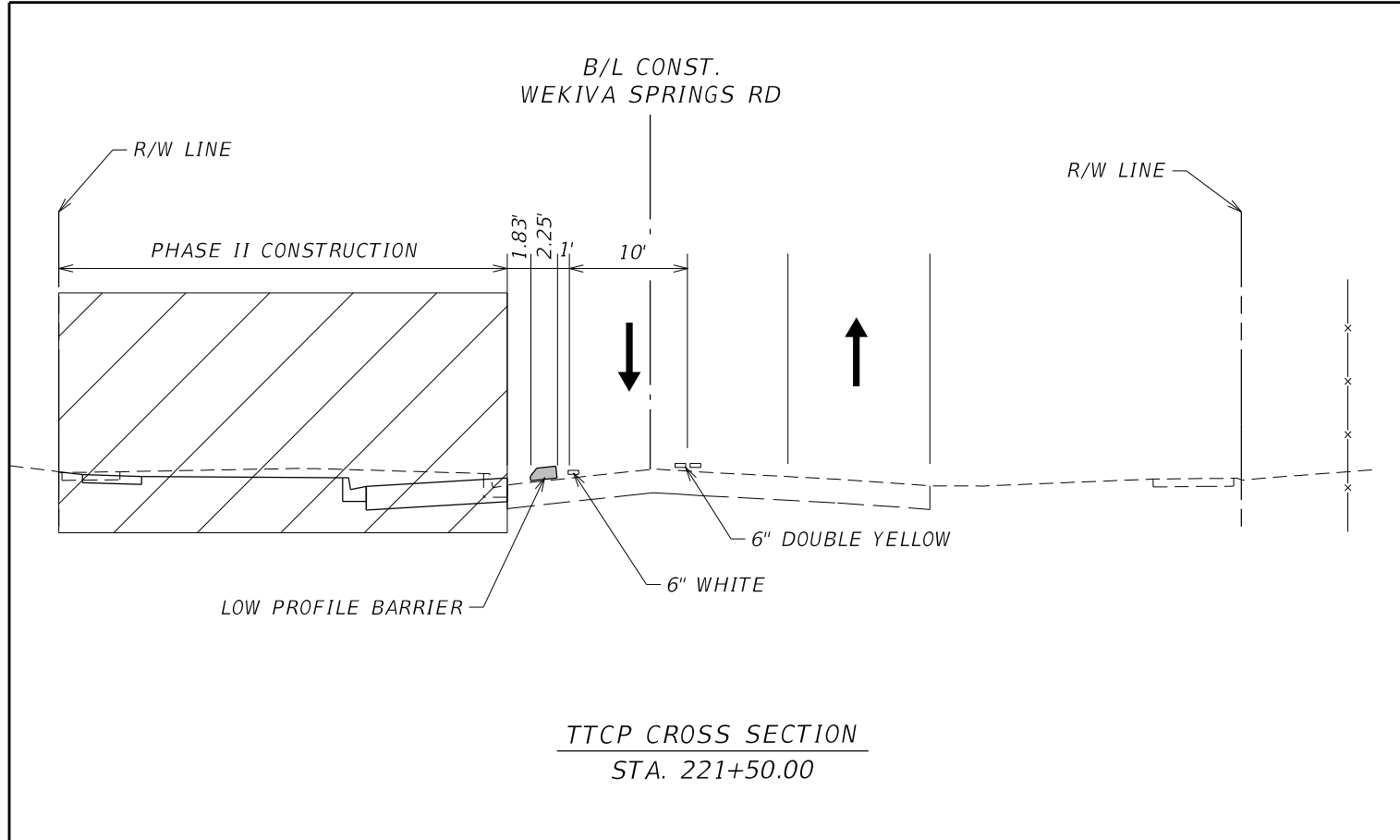
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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		


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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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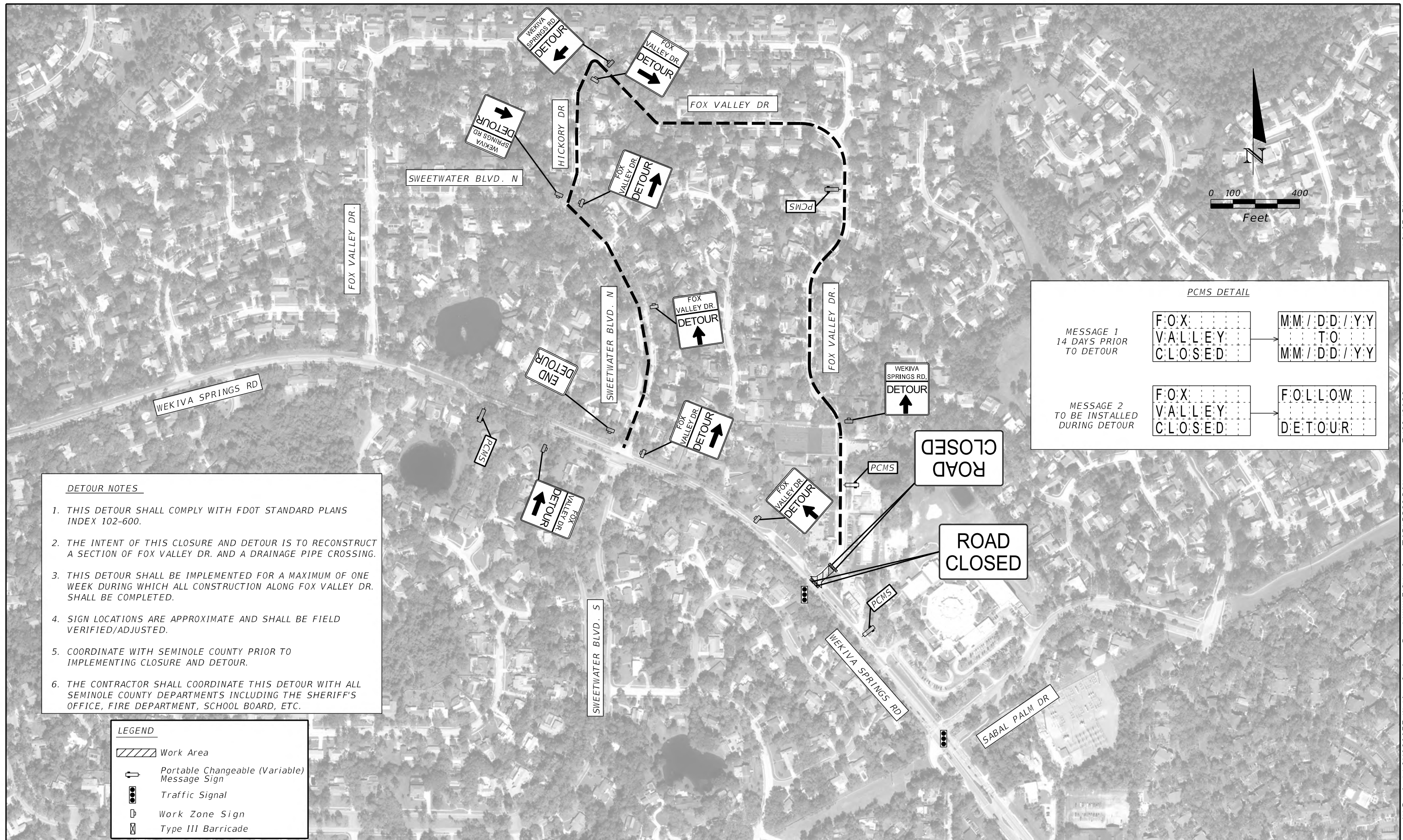
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD <b>TEMPORARY TRAFFIC CONTROL PLAN</b>		SHEET NO.  61
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			
					WEKIVA SPRINGS ROAD	02007027			


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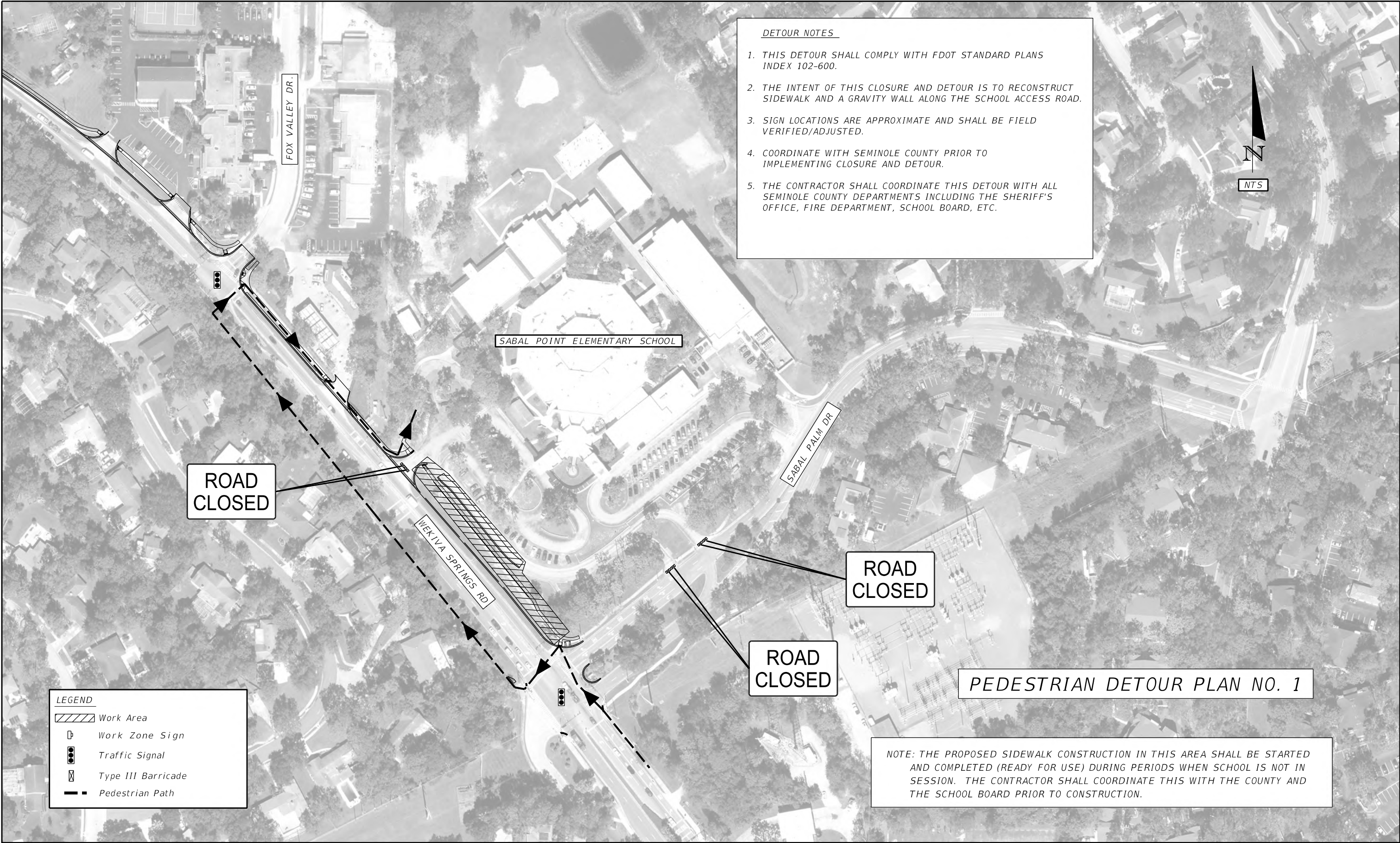
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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		62
					WEKIVA SPRINGS ROAD	02007027		





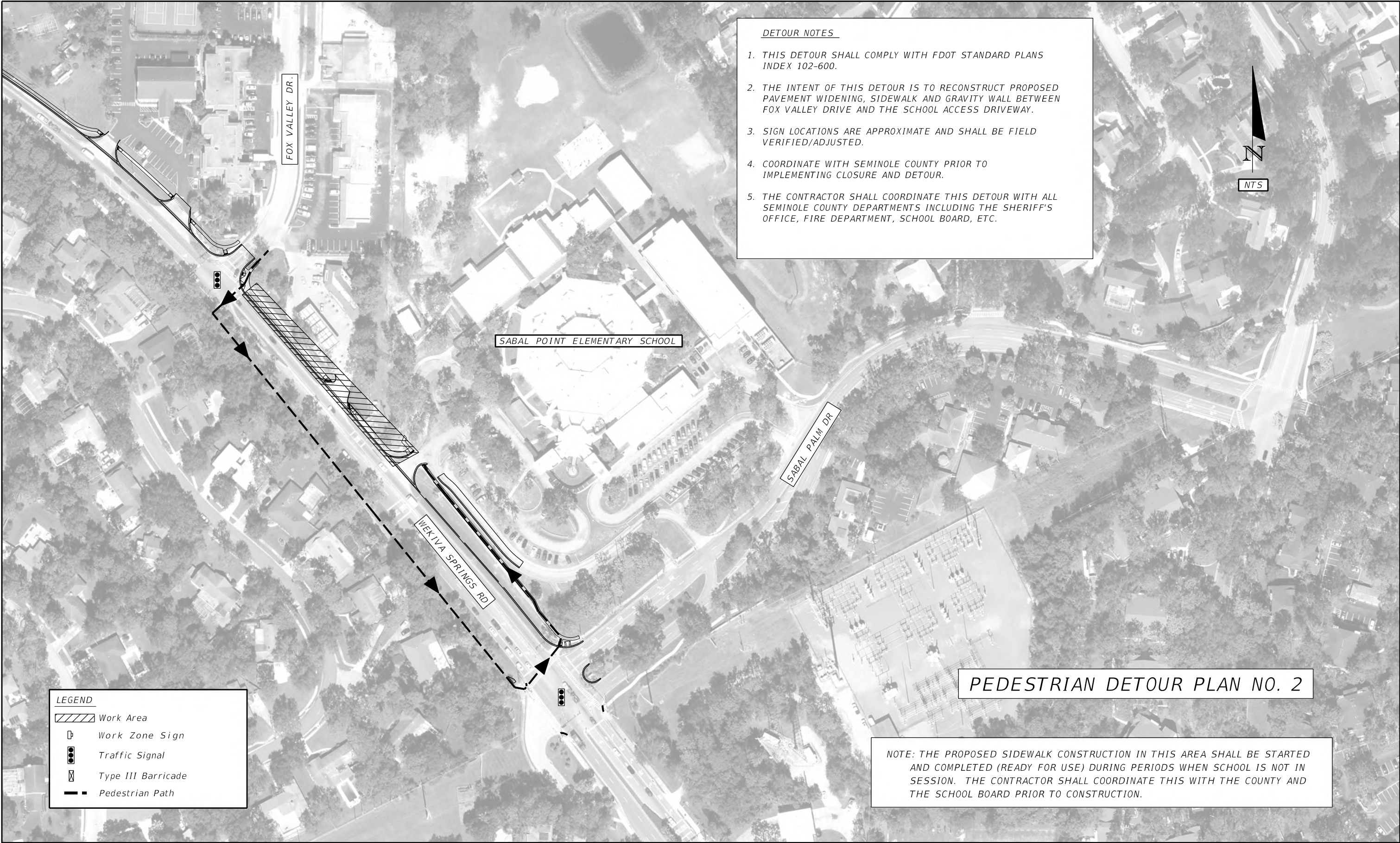
- DETOUR NOTES
1. THIS DETOUR SHALL COMPLY WITH FDOT STANDARD PLANS INDEX 102-600.
  2. THE INTENT OF THIS CLOSURE AND DETOUR IS TO RECONSTRUCT SIDEWALK AND A GRAVITY WALL ALONG THE SCHOOL ACCESS ROAD.
  3. SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED/ADJUSTED.
  4. COORDINATE WITH SEMINOLE COUNTY PRIOR TO IMPLEMENTING CLOSURE AND DETOUR.
  5. THE CONTRACTOR SHALL COORDINATE THIS DETOUR WITH ALL SEMINOLE COUNTY DEPARTMENTS INCLUDING THE SHERIFF'S OFFICE, FIRE DEPARTMENT, SCHOOL BOARD, ETC.

PEDESTRIAN DETOUR PLAN NO. 1

NOTE: THE PROPOSED SIDEWALK CONSTRUCTION IN THIS AREA SHALL BE STARTED AND COMPLETED (READY FOR USE) DURING PERIODS WHEN SCHOOL IS NOT IN SESSION. THE CONTRACTOR SHALL COORDINATE THIS WITH THE COUNTY AND THE SCHOOL BOARD PRIOR TO CONSTRUCTION.

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TRAFFIC CONTROL DETOUR	SHEET NO.  63
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		





DETOUR NOTES

1. THIS DETOUR SHALL COMPLY WITH FDOT STANDARD PLANS INDEX 102-600.
2. THE INTENT OF THIS DETOUR IS TO RECONSTRUCT PROPOSED PAVEMENT WIDENING, SIDEWALK AND GRAVITY WALL BETWEEN FOX VALLEY DRIVE AND THE SCHOOL ACCESS DRIVEWAY.
3. SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED/ADJUSTED.
4. COORDINATE WITH SEMINOLE COUNTY PRIOR TO IMPLEMENTING CLOSURE AND DETOUR.
5. THE CONTRACTOR SHALL COORDINATE THIS DETOUR WITH ALL SEMINOLE COUNTY DEPARTMENTS INCLUDING THE SHERIFF'S OFFICE, FIRE DEPARTMENT, SCHOOL BOARD, ETC.

LEGEND

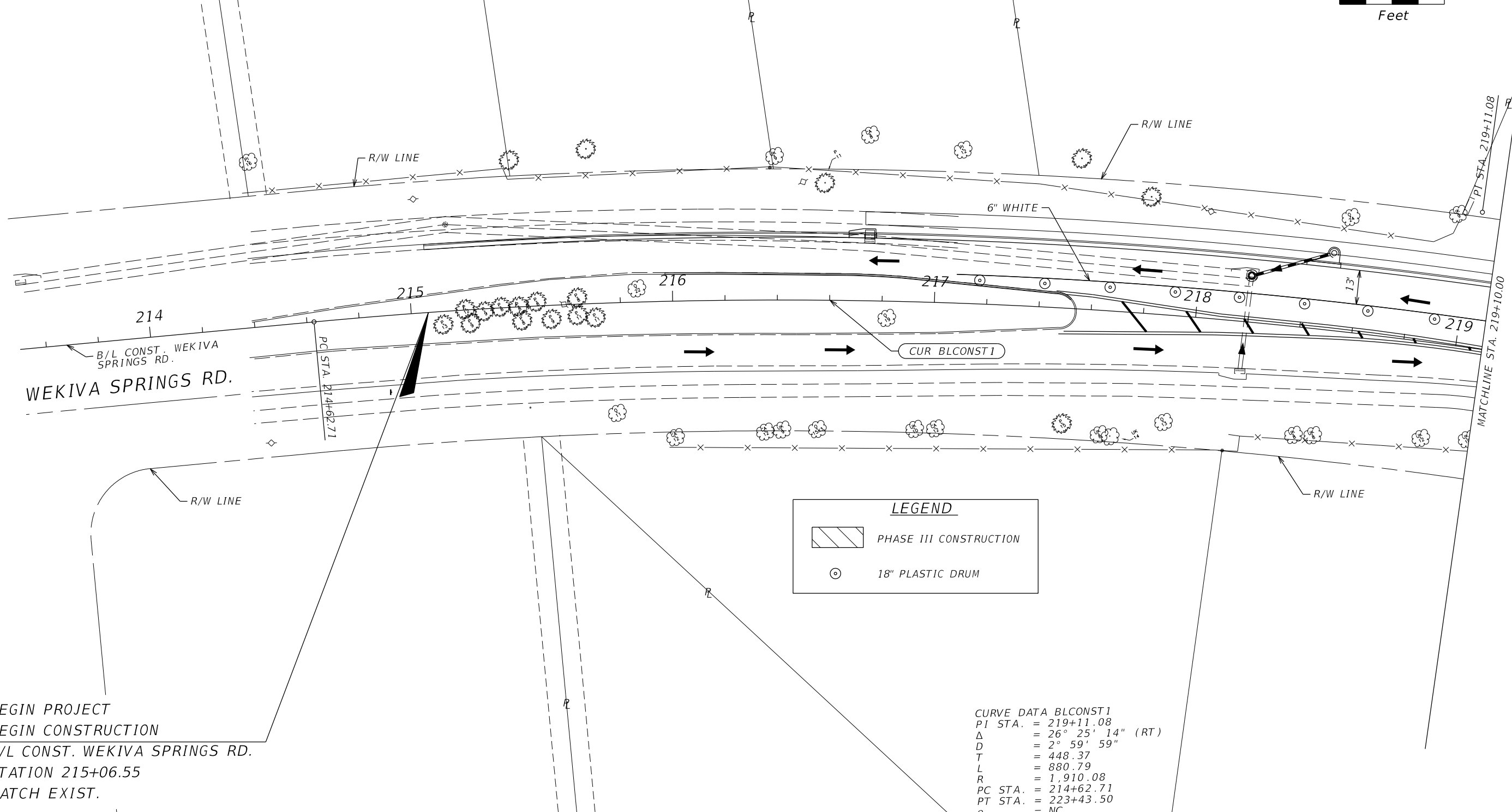
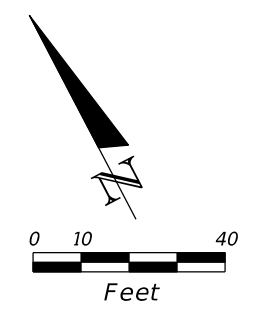
- Work Area
- Work Zone Sign
- Traffic Signal
- Type III Barricade
- Pedestrian Path

PEDESTRIAN DETOUR PLAN NO. 2

NOTE: THE PROPOSED SIDEWALK CONSTRUCTION IN THIS AREA SHALL BE STARTED AND COMPLETED (READY FOR USE) DURING PERIODS WHEN SCHOOL IS NOT IN SESSION. THE CONTRACTOR SHALL COORDINATE THIS WITH THE COUNTY AND THE SCHOOL BOARD PRIOR TO CONSTRUCTION.


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TRAFFIC CONTROL DETOUR	SHEET NO.  64
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		







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B/L CONST. WEKIVA SPRINGS RD.  
STATION 215+06.55  
MATCH EXIST.

**LEGEND**

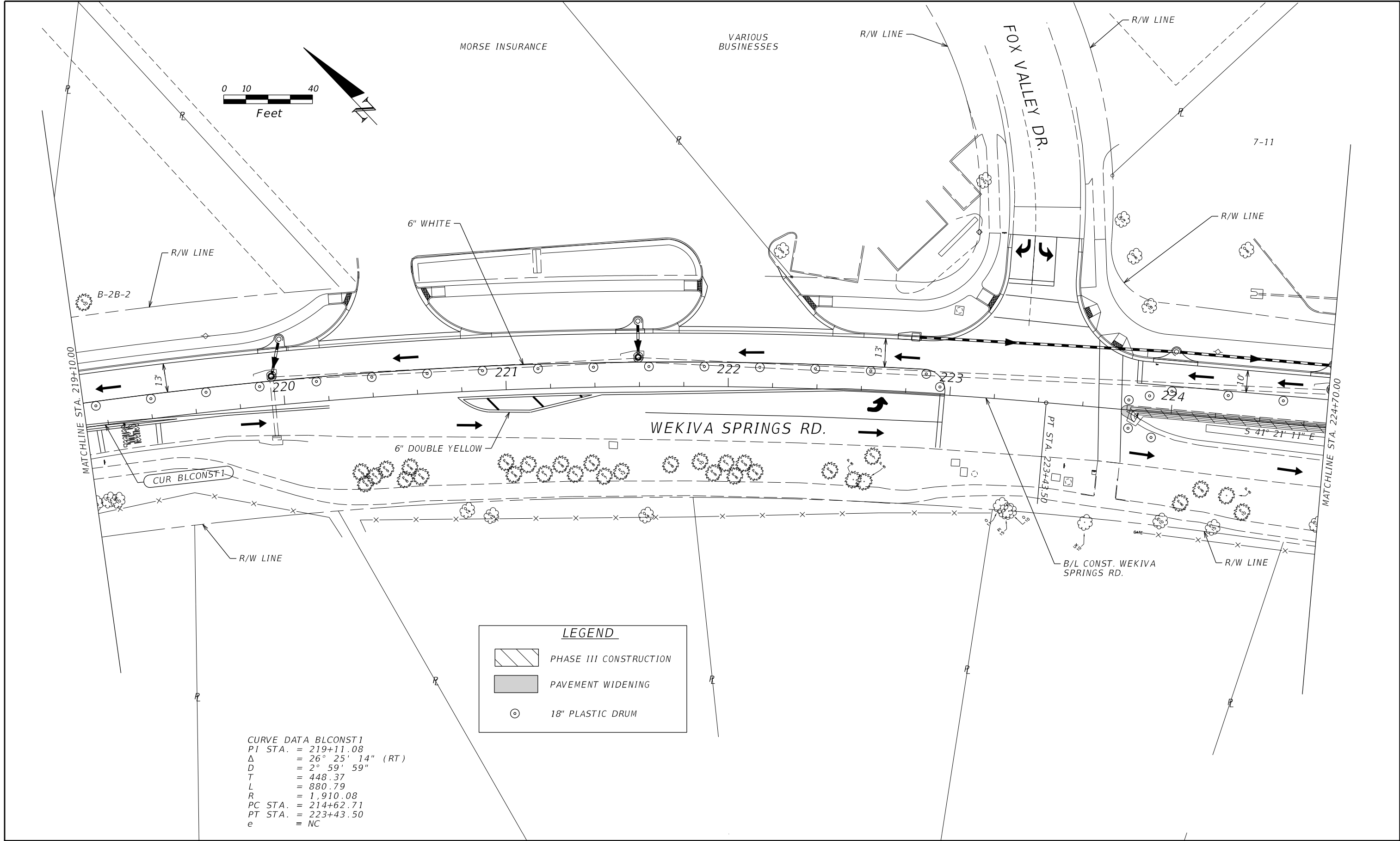
 PHASE III CONSTRUCTION

 18" PLASTIC DRUM

CURVE DATA BLCONST1  
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 $\Delta$  = 26° 25' 14" (RT)  
D = 2° 59' 59"  
T = 448.37  
L = 880.79  
R = 1,910.08  
PC STA. = 214+62.71  
PT STA. = 223+43.50  
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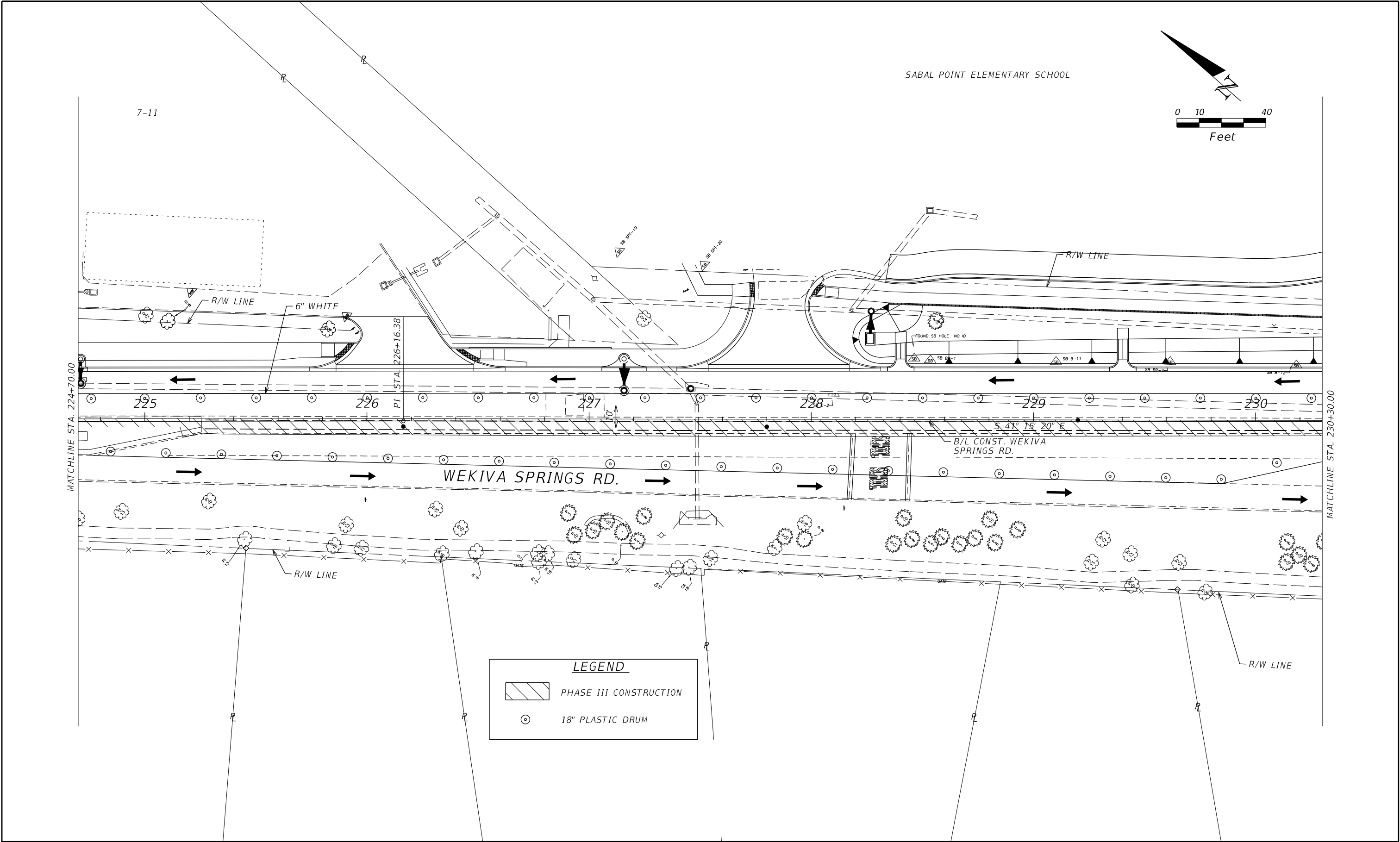
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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		


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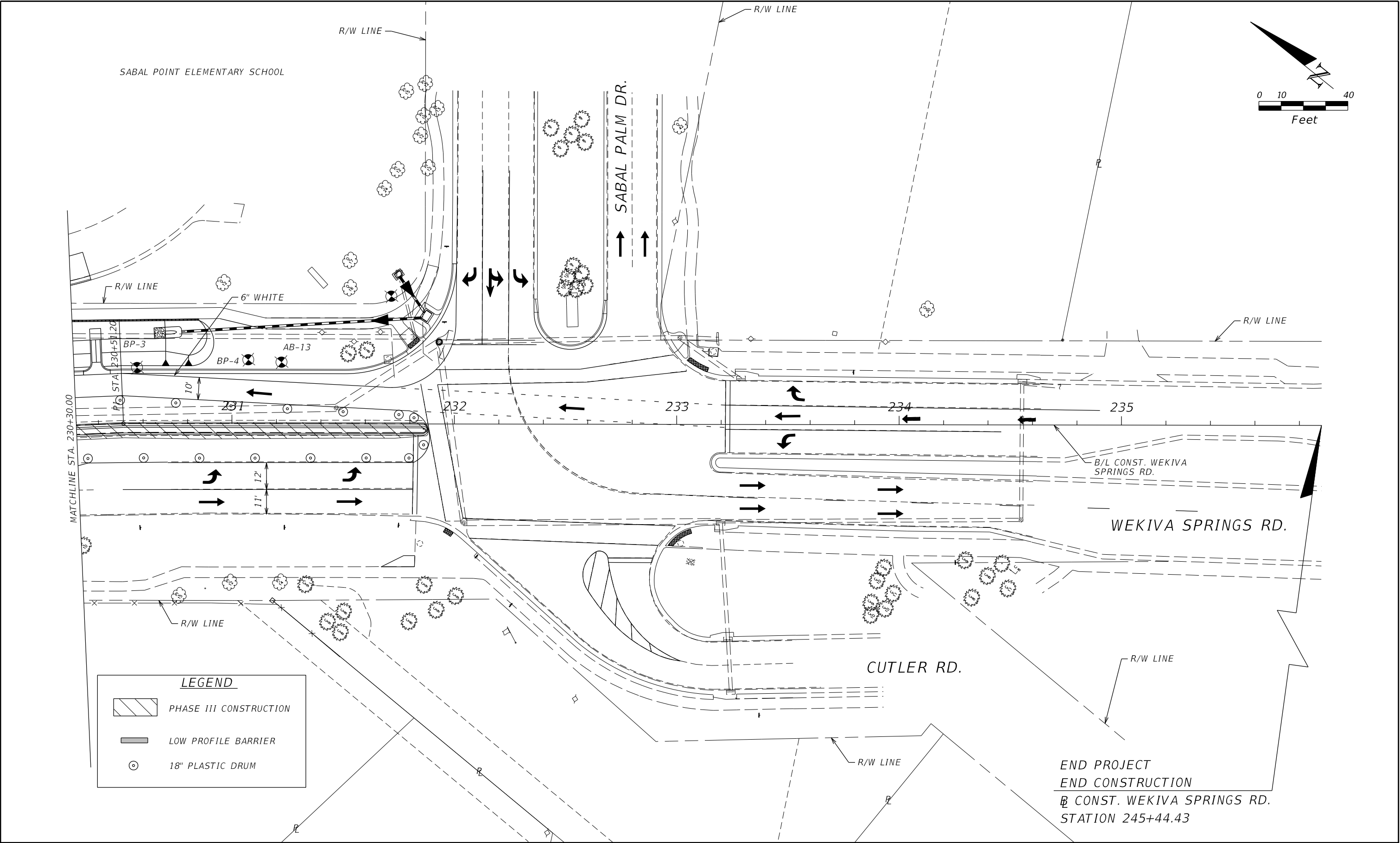



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TEMPORARY TRAFFIC CONTROL PLAN	SHEET NO.  66
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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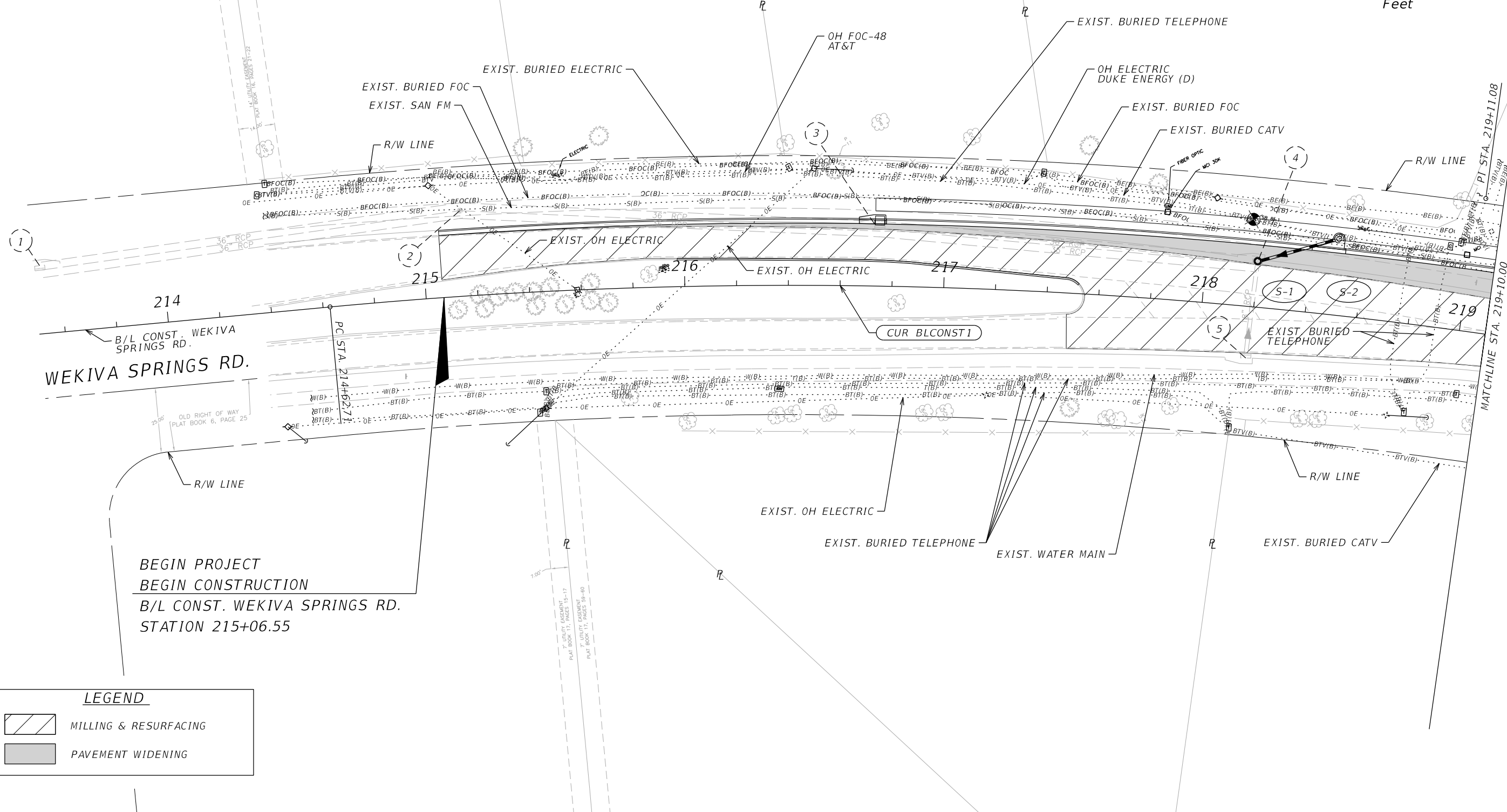


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TEMPORARY TRAFFIC CONTROL PLAN	SHEET NO.  67
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

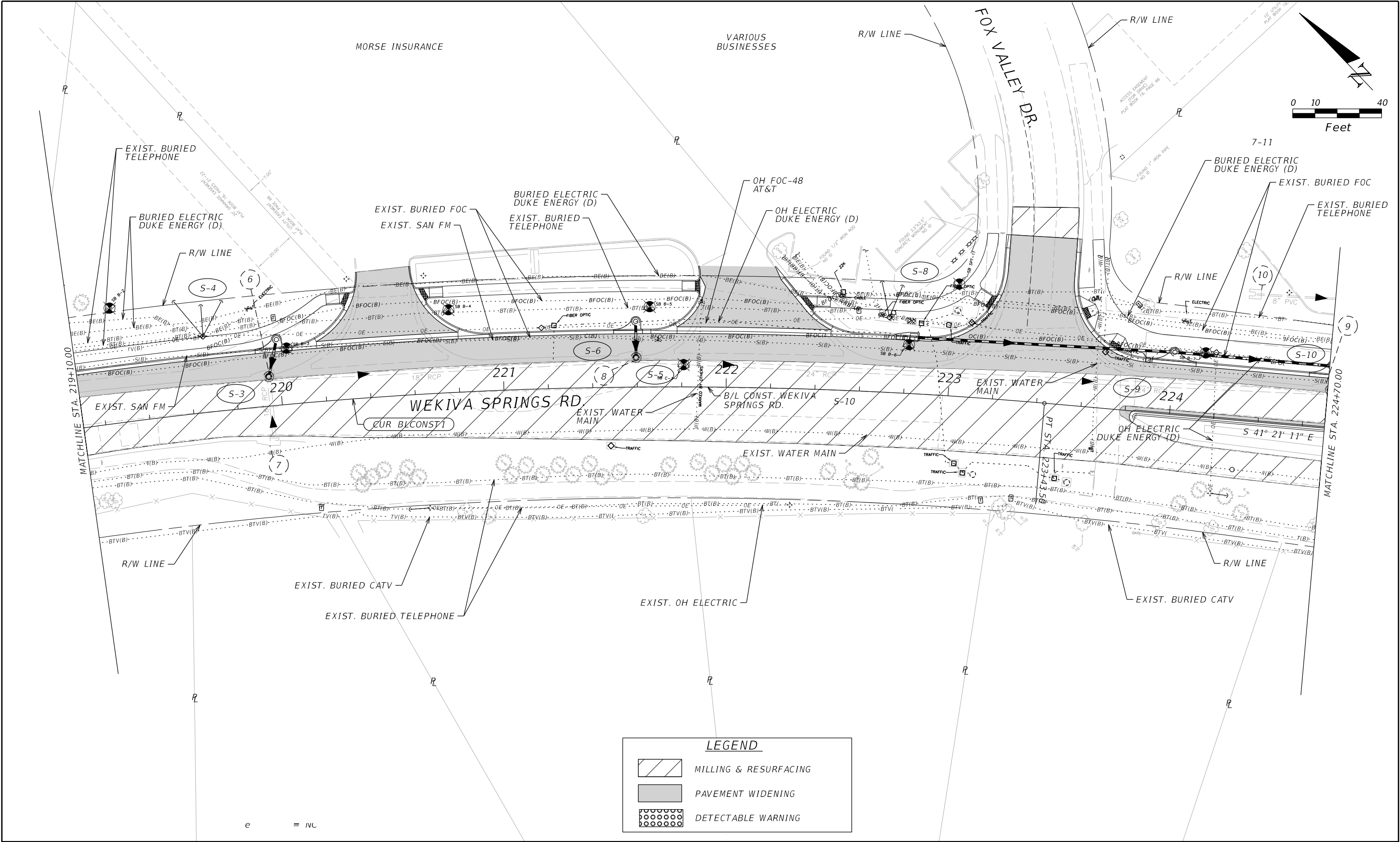



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD TEMPORARY TRAFFIC CONTROL PLAN	SHEET NO.  68
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
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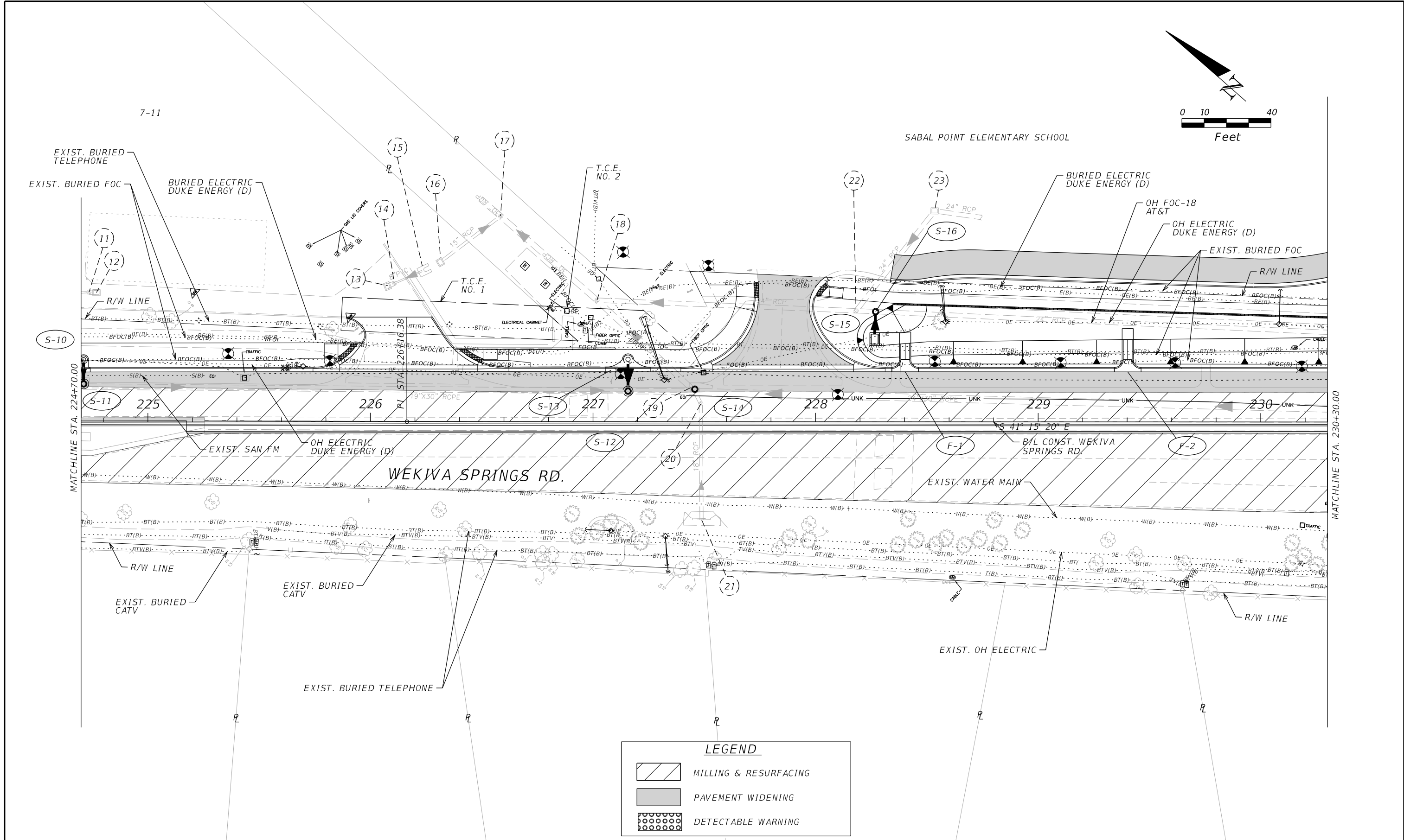


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REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD UTILITY ADJUSTMENTS	SHEET NO.  70
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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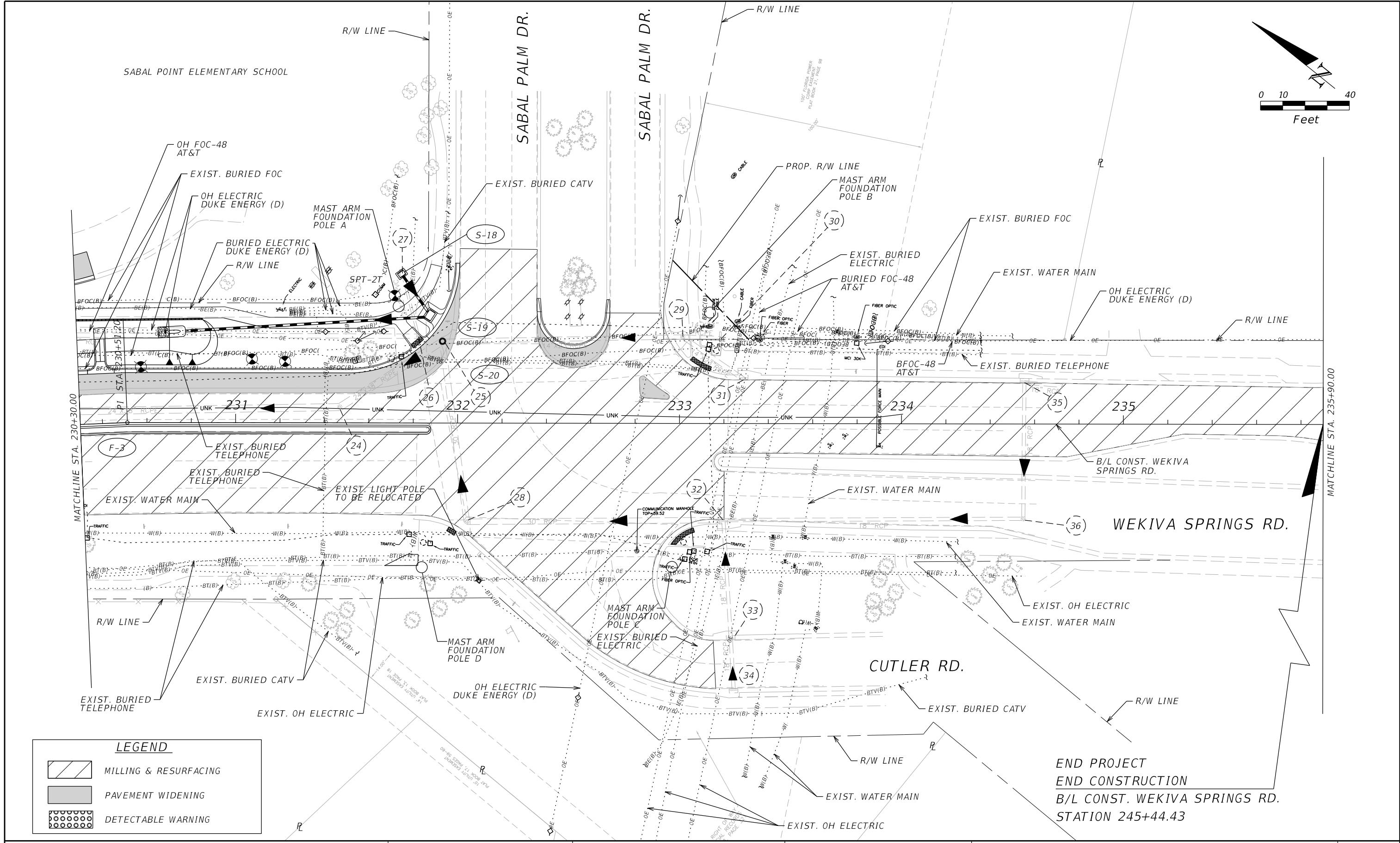
**LEGEND**

- MILLING & RESURFACING
- PAVEMENT WIDENING
- DETECTABLE WARNING

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD UTILITY ADJUSTMENTS	SHEET NO.  71
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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INDEX OF SUMMARY OF QUANTITIES

SHEET NO.	SHEET DESCRIPTION
SQ-1	SUMMARY OF LUMP SUM PAY ITEMS
SQ-2	SUMMARY OF TRAFFIC CONTROL PAY ITEMS
SQ-3	SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES
SQ-4	SUMMARY OF CLEARING AND GRUBBING AND REMOVAL ITEMS, SUMMARY OF EARTHWORK
SQ-5	SUMMARY OF PAVEMENT
SQ-6	SUMMARY OF WALLS, SUMMARY OF MISCELLANEOUS DRAINAGE ITEMS
SQ-7	SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS, SUMMARY OF RAILING
SQ-8	SUMMARY OF SIDEWALK & DETECTABLE WARNINGS
SQ-9	SUMMARY OF PERFORMANCE TURF

SUMMARY OF LUMP SUM ITEMS					
PAY ITEM NO.	PAY ITEM DESCRIPTION	QUANTITY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
101-1	MOBILIZATION	1			
102-1	MAINTENANCE OF TRAFFIC	1			
104-14	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	1			

SUMMARY OF TEMPORARY TRAFFIC CONTROL PLAN ITEMS									
PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	ALL PHASES			GRAND TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			DURATION	QUANTITY	TOTAL				
			DAYS	P	P	P	F		
102-1	MAINTENANCE OF TRAFFIC	LS				1		270 DAYS	
102-99	PORTABLE CHANGEABLE MESSAGE SIGN	ED							
	BEGIN PROJECT LOCATION = (1 DEVICE) x (5 LOCATIONS): PRE PROJECT		14	5	70	1448			
	BEGIN PROJECT LOCATION = (1 DEVICE) x (5 LOCATIONS)		270	5	1350				
	FOX VALLEY DRIVE DETOUR = (1 DEVICE) x (4 LOCATIONS)		7	4	28				


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SUMMARY OF QUANTITIES	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		SQ-2



SUMMARY OF CLEARING AND GRUBBING & REMOVAL ITEMS														
PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	AREA ID	LENGTH	WIDTH	UNITS	SECONDARY UNITS (IF LUMP SUM)	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.						AREA (AC)	P	F	P	F		
110-1-1	CLEARING AND GRUBBING						LS		1		1		LUMP SUM = 1 (1.44 AC.)	
		215+06.55 to 223+22.75	LT	30764				0.652						
		223+51.99 to 232+00.92	LT	30967				0.770						
		232+35.73 to 232+68.49	LT	16100				0.014						
110-4-10	REMOVAL OF EXISTING CONCRETE	215+06.55 to 223+22.75	LT	31483			SY		257.0		1996			
		216+73.28 to 220+36.73	LT	21052				206.3						
		220+60.68 to 220+60.96	LT	21222				0.56						
		220+60.68 to 221+88.31	LT	15296				72.4						
		222+29.88 to 223+17.33	LT	15313				82.2						
		223+51.99 to 232+00.92	LT	31643				275.4						
		223+55.22 to 225+98.22	LT	32227				272.2						
		223+78.25 to 231+87.96	LT	31424				351.4						
		225+89.24 to 225+97.14	LT	31814				0.5						
		226+27.20 to 226+32.52	LT	31822				0.6						
		226+39.00 to 227+74.22	LT	32265				146.0						
		227+98.85 to 231+92.82	LT	15442				263.3						
		228+33.76 to 230+38.86	LT	20754				47.3						
		232+35.73 to 232+68.49	LT	15492				11.6						
		232+81.88 to 232+94.91	LT	15927				9.1						

SUMMARY OF EARTHWORK					
PAY ITEM NO.	PAY ITEM DESCRIPTION	CY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
120-1	REGULAR EXCAVATION	1879			
120-4	SUBSOIL EXCAVATION	406			
120-6	EMBANKMENT	193			
	SUBSOIL EXCAVATION	406			
	EMBANKMENT TOTAL	599			

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REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SUMMARY OF QUANTITIES	SHEET NO.  SQ-5
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

SUMMARY OF WALLS										
PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.			P	F	P	F		
400-0-11	CONCRETE CLASS NS, GRAVITY WALL (INDEX 400-011)	226+46.00 to 227+10.00	LT	CY	11.5		174			
		228+34.82 to 230+85.00	LT	CY	162.5					

SUMMARY OF MISCELLANEOUS DRAINAGE ITEMS										
PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.			P	F	P	F		
999-1	CONCRETE FLUMES	228+40.25	LT	EA	1.0		3			
		229+40.25			1.0					
		230+40.28			1.0					


SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS													
PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	UNIT	QUANTITY				TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS	
		STA. TO STA.			GROSS LENGTH	DEDUCTIONS		NET LENGTH		P			F
520-1-7	Curb and Gutter, Type E	223+84.41 to 225+17.41	LT	LF	136.3			136.3		136			
520-1-10	Curb and Gutter, Type F	215+06.55 to 220+03.68	LT	LF	503.8			503.8		1847			
		220+16.95 to 220+30.84	LT		18.8			18.8					
		220+67.26 to 220+81.16	LT		18.8			18.8					
		220+94.42 to 221+66.25	LT		72.8			72.8					
		221+77.19 to 221+87.77	LT		16.9			16.9					
		222+24.72 to 222+46.86	LT		31.4			31.4					
		222+60.13 to 223+14.84	LT		59.8			59.8					
		223+19.28 to 223+21.79	LT		33.3			33.3					
		223+52.99 to 225+74.24	LT		257.3			257.3					
		225+85.40 to 225+94.27	LT		12.2			12.2					
		226+40.48 to 226+48.63	LT		9.7			9.7					
		226+62.20 to 227+39.45	LT		77.2			77.2					
		227+53.02 to 227+72.91	LT		37.1			37.1					
		227+99.09 to 228+17.68	LT		36.4			36.4					
		228+31.25 to 231+99.42	LT		396.4			396.4					
		228+33.50 to 230+39.23	LT		206.4			206.4					
		232+36.31 to 232+67.91	LT		58.8			58.8					
520-2-4	Concrete Curb, Type D	215+97.27 to 217+52.23	LT	LF	155.9			155.9		211			
		220+36.29 to 220+37.57	LT		7.9			7.9					
		220+62.81 to 220+60.48	LT		9.0			9.0					
		221+87.53 to 221+87.13	LT		5.1			5.1					
		222+20.69 to 222+21.23	LT		0.8			0.8					
		225+89.24 to 225+96.27	LT		15.2			15.2					
		226+27.62 to 226+37.46	LT		17.0			17.0					
520-3	Concrete Valley Gutter	220+03.68 to 220+94.42	LT	LF	91.9			91.9		367			
		221+66.25 to 222+60.13	LT		95.1			95.1					
		225+74.24 to 226+62.20	LT		88.0			88.0					
		227+39.45 to 228+31.25	LT		91.8			91.8					
520-5-11	Concrete Traffic Separator, Type I Option II	225+17.41 to 231+87.96	RT	LF	671.6			671.6		672			

SUMMARY OF RAILING					
LOCATION	SIDE	PEDESTRIAN/BICYCLE RAILING, ALUMINUM ONLY, 42" TYPE I		DESIGN NOTES	CONSTRUCTION REMARKS
		0515 2 311			
		LF			
		P	F		
228+34.32 to 230+85.00		250.7			
SUB-TOTAL :		251			
TOTAL :		251			

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SUMMARY OF QUANTITIES	SHEET NO.  SQ-7
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



SUMMARY OF SIDEWALK & DETECTABLE WARNINGS										
LOCATION	SIDE	AREA ID	CONC SIDEWALK 4"		CONC SIDEWALK 6"		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
			0522 1		0522 2		0527 2			
SY			SY		SF					
P			F	P	F	P	F			
216+73.28 to 220+05.47	LT	29319	187.4							
220+94.42 to 221+66.25	LT	29326	40.9							
222+60.13 to 222+87.90	LT	29331	16.0							
223+87.15 to 225+74.24	LT	29338	165.5							
226+61.98 to 227+39.45	LT	29346	66.1							
227+43.47 to 227+64.27	LT	29353	13.0							
228+31.25 to 231+50.92	LT	17870	179.2							
220+05.47 to 220+36.29	LT	29512			18.2					
220+61.81 to 220+94.42	LT	29541			17.4					
221+66.25 to 221+88.01	LT	29854			12.6					
222+31.08 to 222+60.13	LT	30139			15.8					
222+87.90 to 223+17.33	LT	29760			34.2					
223+54.53 to 223+87.15	LT	28631			69.2					
225+74.24 to 225+94.65	LT	30086			13.8					
225+86.11 to 226+48.02	LT	29658			98.3			7-11 DRIVEWAY		
226+37.10 to 226+61.98	LT	30110			11.2					
227+39.45 to 227+72.23	LT	29641			44.4					
227+99.09 to 228+31.25	LT	30172			17.7					
231+50.92 to 231+92.82	LT	30320			38.0					
231+67.20 to 231+82.35	RT	35246			5.6					
220+29.78 to 220+33.78	LT	30407					10.4			
220+64.32 to 220+68.32	LT	30402					10.4			
221+85.93 to 221+87.88	LT	30396					9.5			
222+32.30 to 222+38.63	LT	30388					13.6			
223+14.20 to 223+19.16	LT	30383					11.7			
223+57.07 to 223+61.09	LT	20534					9.5			
223+70.54 to 223+75.67	LT	20539					9.5			
225+85.96 to 225+94.27	LT	20544					19.2			
226+39.90 to 226+50.98	LT	20552					20.5			
227+72.41 to 227+74.22	LT	20564					13.1			
228+00.02 to 228+05.63	LT	20558					12.2			
231+78.89 to 231+84.60	LT	20571					11.6			
231+96.13 to 231+99.56	RT	35177					7.9			
232+96.12 to 233+06.83	RT	35182					23.0			
233+04.86 to 233+13.67	LT	35165					19.6			
SUB-TOTAL :			668.1		396.2		201.7			
TOTAL :			668		396		202			

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  SUMMARY OF QUANTITIES	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		SQ-8



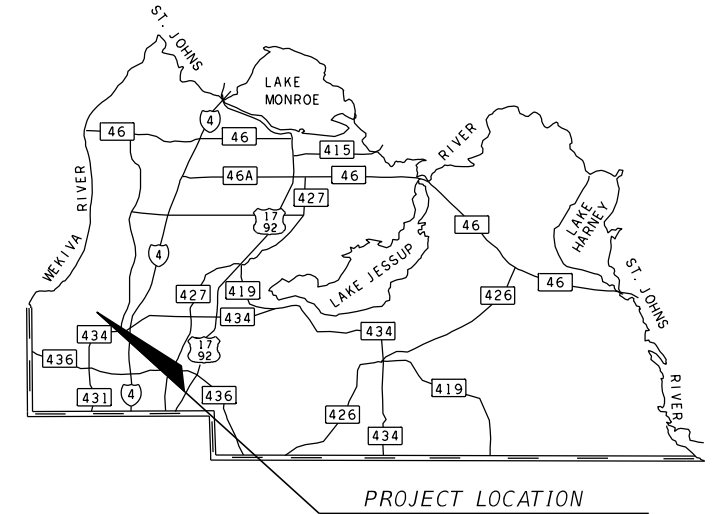
SEMINOLE COUNTY  
ENGINEERING DIVISION

CONTRACT PLANS



WEKIVA SPRINGS ROAD  
INTERSECTION IMPROVEMENTS  
SEMINOLE COUNTY CIP No. 02007027  
DISTRICT 3

SIGNING & PAVEMENT MARKING PLANS



SEMINOLE COUNTY ENGINEERING  
PROJECT MANAGER: ANGELA CARDONA, P.E.  
100 EAST FIRST STREET  
SANFORD, FLORIDA 32771  
407-665-5661

SIGNING & PAVEMENT  
MARKING SHOP DRAWINGS  
TO BE SUBMITTED TO:

FURSAN S. MUNJED, P.E.  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
PHONE 407-992-9160, X-302

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

90% SUBMITTAL  
MARCH 29, 2022

INDEX OF SIGNING &  
PAVEMENT MARKING PLANS

SHEET NO.	SHEET DESCRIPTION
S-1	KEY SHEET
S-2	TABULATION OF QUANTITIES
S-3	GENERAL NOTES
S-4 TO S-9	SIGNING & PAVEMENT MARKING PLANS

BOARD OF COUNTY COMMISSIONERS

BOB DALLARI	DISTRICT 1
JAY ZEMBOWER	DISTRICT 2
LEE CONSTANTINE	DISTRICT 3
AMY LOCKHART	DISTRICT 4
ANDRIA HERR	DISTRICT 5

JOE ABEL, INTERIM COUNTY MANAGER

PUBLIC WORKS DIRECTOR: JEAN JREIJ, P.E.

SIGNING & PAVEMENT  
MARKING PLANS  
ENGINEER OF RECORD: FURSAN S. MUNJED, P.E.

P.E. NO.: 51446

FISCAL YEAR	SHEET NO.
21	S-1


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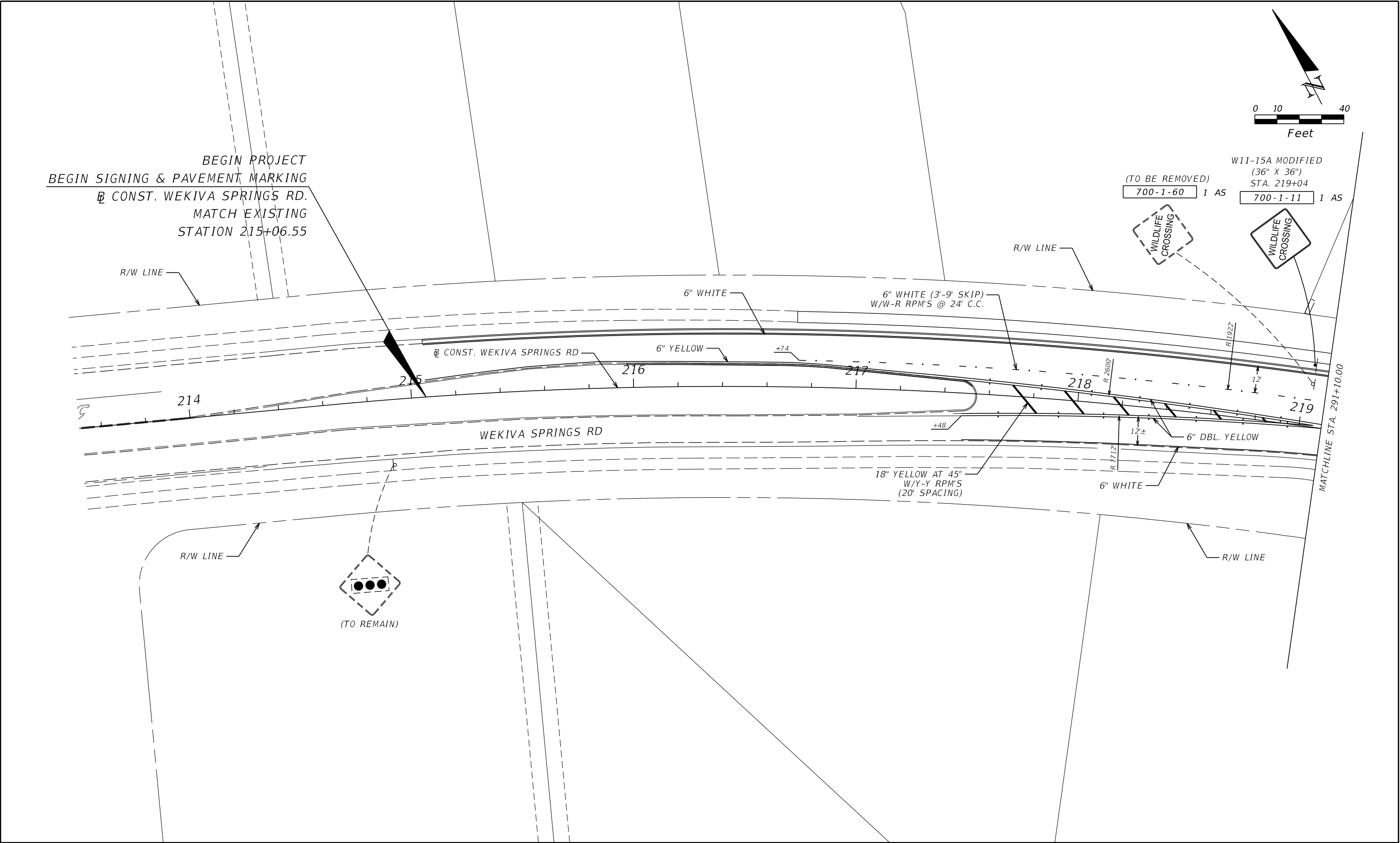
TABULATION OF QUANTITIES


BID ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																GRAND TOTAL	
			S-4		S-5		S-6		S-7		S-8		S-9							
			ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL	ORIG.	FINAL
700-I-11	SINGLE POST SIGN - GROUND MOUNT (F&I) (UP TO 12 S.F.)	AS	1		4		4		5		6		5						25	
700-I-12	SINGLE POST SIGN - GROUND MOUNT (F&I) (12 TO 20 S.F.)	AS			1		1				4		1						7	
700-I-50	SINGLE POST SIGN (RELOCATE)	AS			2														2	
700-I-60	SINGLE POST SIGN (REMOVE)	AS	1		3		4		8		12		7						35	
700-I-99	BUSINESS SIGN (RELOCATE)	AS			1														1	
705-10-1	OBJECT MARKER (TYPE 1)	EA			1				2		3		2						8	
706-I-3	RAISED PAVEMENT MARKERS, TYPE B, BI-DIRECTIONAL (WHITE/RED)	EA	10		28		31		39		22		8						138	
	RAISED PAVEMENT MARKERS, TYPE B, BI-DIRECTIONAL (YELLOW)	EA	28		30		2		21										81	
	RAISED PAVEMENT MARKERS, TYPE B, MONO-DIRECTIONAL (YELLOW)	EA			16				47		56		21						140	
710-II-290	PAINTED PAVEMENT MARKINGS (STANDARD) (YELLOW) (ISLAND NOSE)	SF			34				67		120		58						279	
711-II-123	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (WHITE) (SOLID) (12" CROSSWALKS)	LF			805		335		1445										2605	
711-II-125	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (WHITE) (SOLID) (24" STOP BARS)	LF			98		152		178		34								462	
711-II-141	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (WHITE) (SKIP) (2'-4' SKIP DOT/GUIDE/6'-10' GAP EXT.) (6")	GM			0.019				0.051				0.029						0.099	
711-II-160	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (WHITE) (MESSAGE/SYMBOL)	EA			4		4		2										10	
711-II-170	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (WHITE) (ARROWS)	EA			7				7		3								17	
711-II-224	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (YELLOW) (SOLID) (18" CHEVRONS)	LF	60		34				54										148	
711-II-241	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD) (YELLOW) (SKIP) (2'-4' SKIP DOT/GUIDE/6'-10' GAP EXT.) (6")	GM							0.043		0.037		0.013						0.093	
711-I6-101	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD-OTHER) (WHITE) (SOLID) (6")	GM	0.113		0.277		0.200		0.255		0.125		0.061						1.031	
711-I6-131	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD-OTHER) (WHITE) (10'-30' SKIP or 3'-9' LANE DROP) (6")	GM	0.047		0.072		0.215		0.052		0.057		0.066						0.509	
711-I6-201	THERMOPLASTIC PAVEMENT MARKINGS (STANDARD-OTHER) (YELLOW) (SOLID) (6")	GM	0.176		0.198		0.232		0.180		0.067		0.064						0.917	

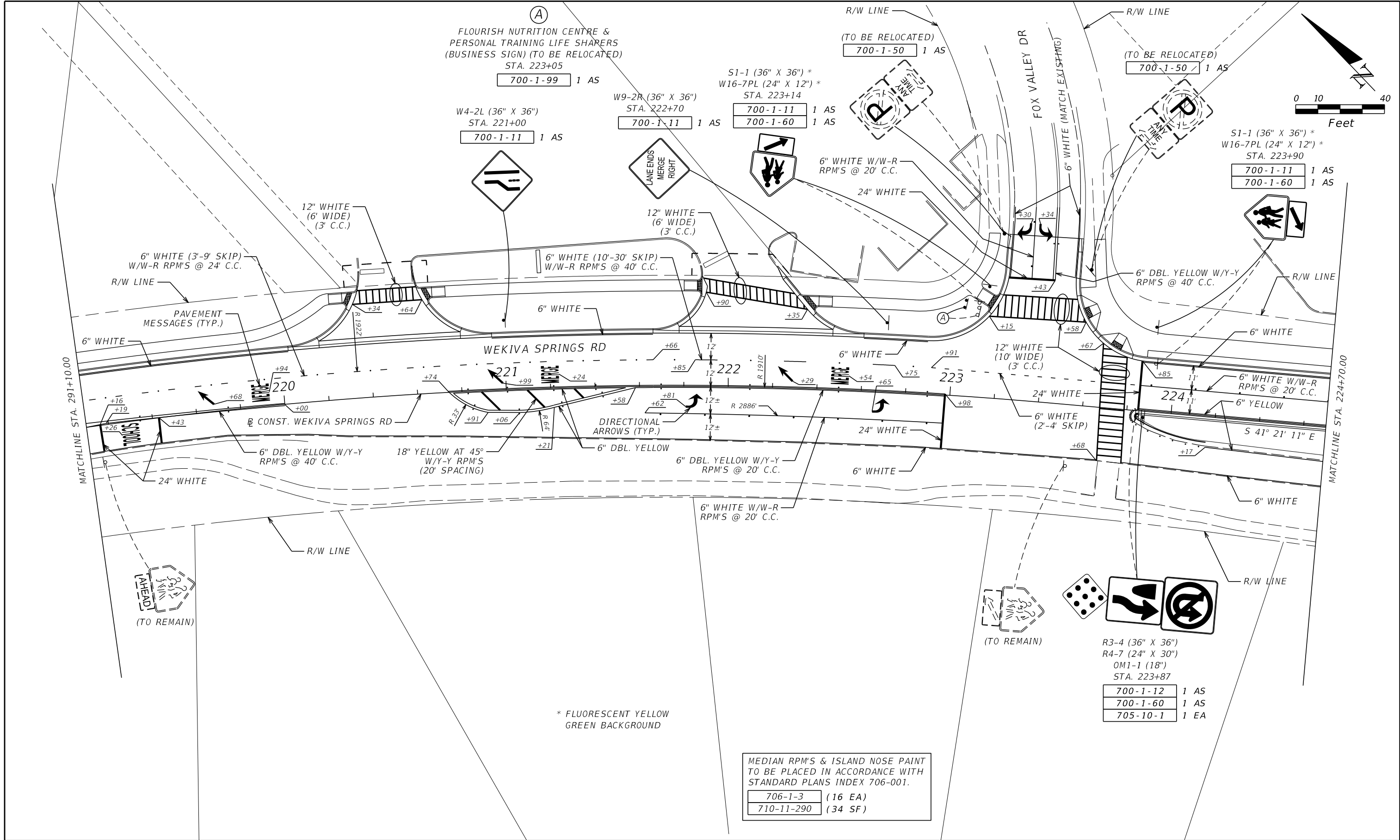
GENERAL NOTES


- 1. ALL FINAL MARKINGS TO BE THERMOPLASTIC.
- 2. ALL MARKINGS LAYOUT SHALL BE APPROVED BY THE PROJECT MANAGER PRIOR TO INSTALLATION OF THERMOPLASTIC.
- 3. EXISTING MARKINGS NEEDING TO BE REMOVED SHALL BE REMOVED BY HYDRO-BLASTING.
- 4. IT SHOULD BE NOTED THAT EXISTING SIGNAGE REFLECTS INVENTORY DATA COLLECTED DURING PLANS PREPARATION AND IT IS POSSIBLE THAT ADDITIONAL SIGNS MAY BE PRESENT AT THE TIME OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE DISPOSITION OF SUCH SIGNS WITH THE ENGINEER.
- 5. THE PAVEMENT MARKINGS AT ALL EXISTING/PROPOSED INTERFACE LOCATIONS ARE TO MATCH IN TERMS OF ALIGNMENT AND COLOR.
- 6. SIGNING AND PAVEMENT MARKINGS ARE TO BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE PLANS, THE TRAFFIC DESIGN STANDARDS AND ADA REQUIREMENTS.
- 7. TYPE 2 POST MOUNTED OBJECT MARKERS SHALL BE PLACED AT ENDS OF ALL CROSS DRAINS. REFER TO ROADWAY PLANS FOR EXACT LOCATION OF CROSS DRAINS.
- 8. SIGNS THAT ARE TO BE REMOVED FROM THE PROJECT SHOULD BE STOCKPILED SEPARATELY FROM THOSE THAT ARE TO BE RELOCATED.
- 9. SIDE ROAD STOP BAR LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATIONS SHOULD BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION IN ORDER TO ENSURE THE MAXIMUM AVAILABLE SIGHT DISTANCE.
- 10. ALL EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE TAKEN DOWN AND STOCKPILED WITHIN THE R/W LIMITS BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
- 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PICK UP AND DELIVER ALL STOCKPILED SIGNS TO SEMINOLE COUNTY TRAFFIC ENGINEERING 140 BUSH LOOP, SANFORD, FLORIDA, 32773.
- 12. THE CONTRACTOR SHALL VERIFY THE LENGTH OF SIGN COLUMN SUPPORTS IN THE FIELD PRIOR TO FABRICATION.
- 13. DUE TO TRACKING BY CONSTRUCTION VEHICLES, REPLACEMENT OF EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND END OF PROJECT MAY BE REQUIRED AT THE CONTRACTOR'S EXPENSE.
- 14. REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED IN ACCORDANCE WITH THESE PLANS AND ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 706-001.
- 15. A 4 FOOT MINIMUM DISTANCE SHALL BE MAINTAINED BETWEEN ALL MARKED PEDESTRIAN CROSSINGS AND STOPBARS.
- 16. ALL MEDIAN MOUNTED SIGN SHOULD BE PLACED IN AN 18" x 18" MEDIAN CUT OUT TO MAKE SIGN REPLACEMENT POSSIBLE.
- 17. THERMOPLASTIC PAVEMENT MARKINGS SHALL NOT BE INSTALLED UNTIL THE FINAL ASPHALT SURFACE HAS CURED FOR 30 DAYS. TEMPORARY PAINT PAVEMENT MARKINGS SHALL BE INSTALLED DURING THE CURE PERIOD, AND PAYMENT SHALL BE INCLUDED IN THE BID PRICES FOR THERMOPLASTIC PAVEMENT MARKINGS.
- 18. CAUTION SHALL BE EXERCISED WHILE RELOCATING EXISTING SIGNS TO PREVENT UNNECESSARY DAMAGE TO SIGNS. IF THE SIGNS ARE DAMAGED BEYOND USE, AS DETERMINED BY THE SEMINOLE COUNTY ENGINEERING INSPECTOR, SIGNS SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. ALL SIGNS SHALL REMAIN UNLESS OTHERWISE NOTED IN THE PLANS.

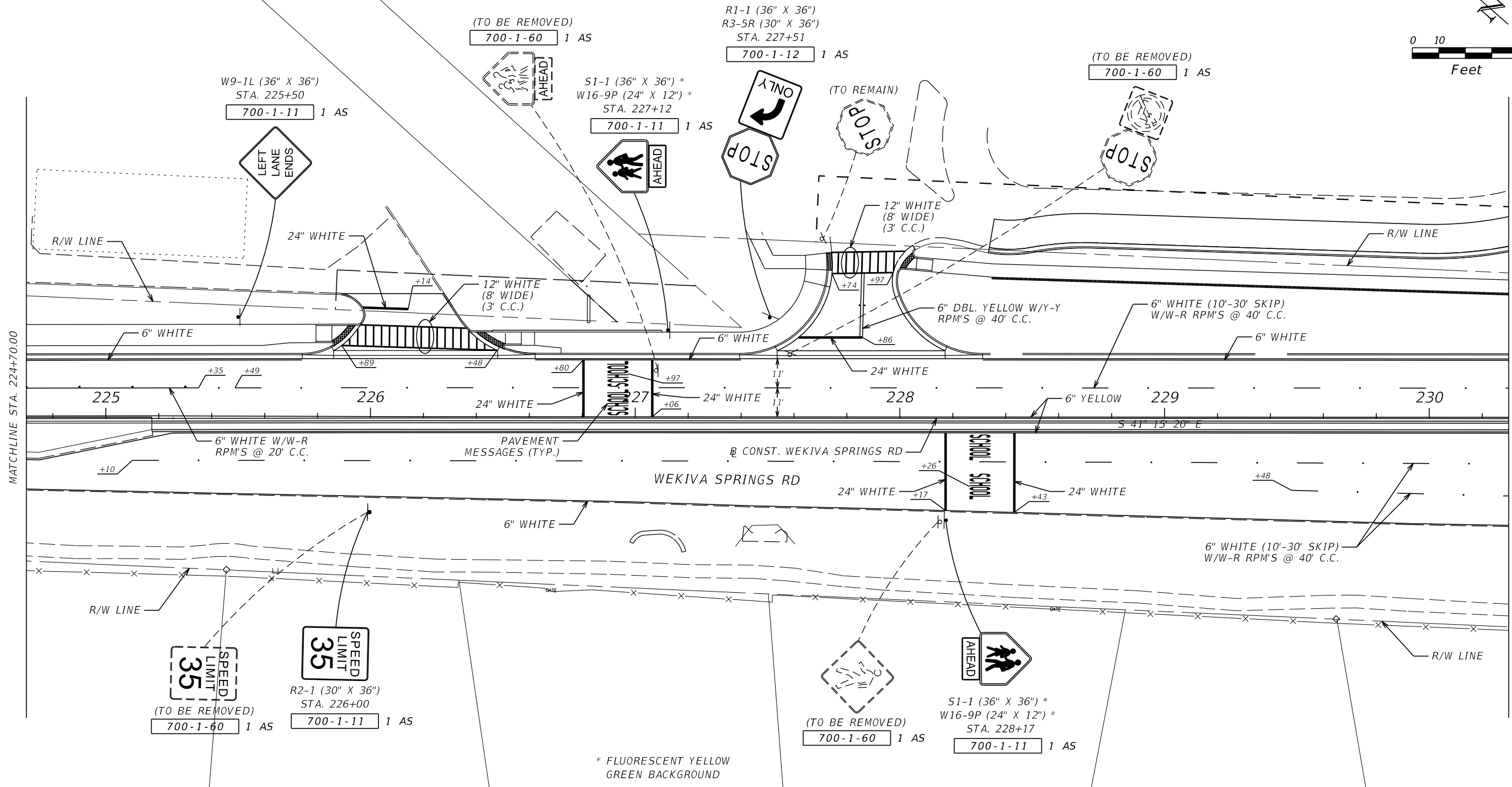
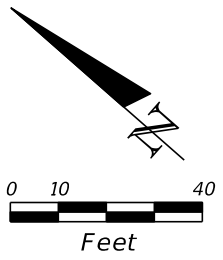
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  GENERAL NOTES	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		S-3




REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNING & PAVEMENT MARKING	SHEET NO.  S-4
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



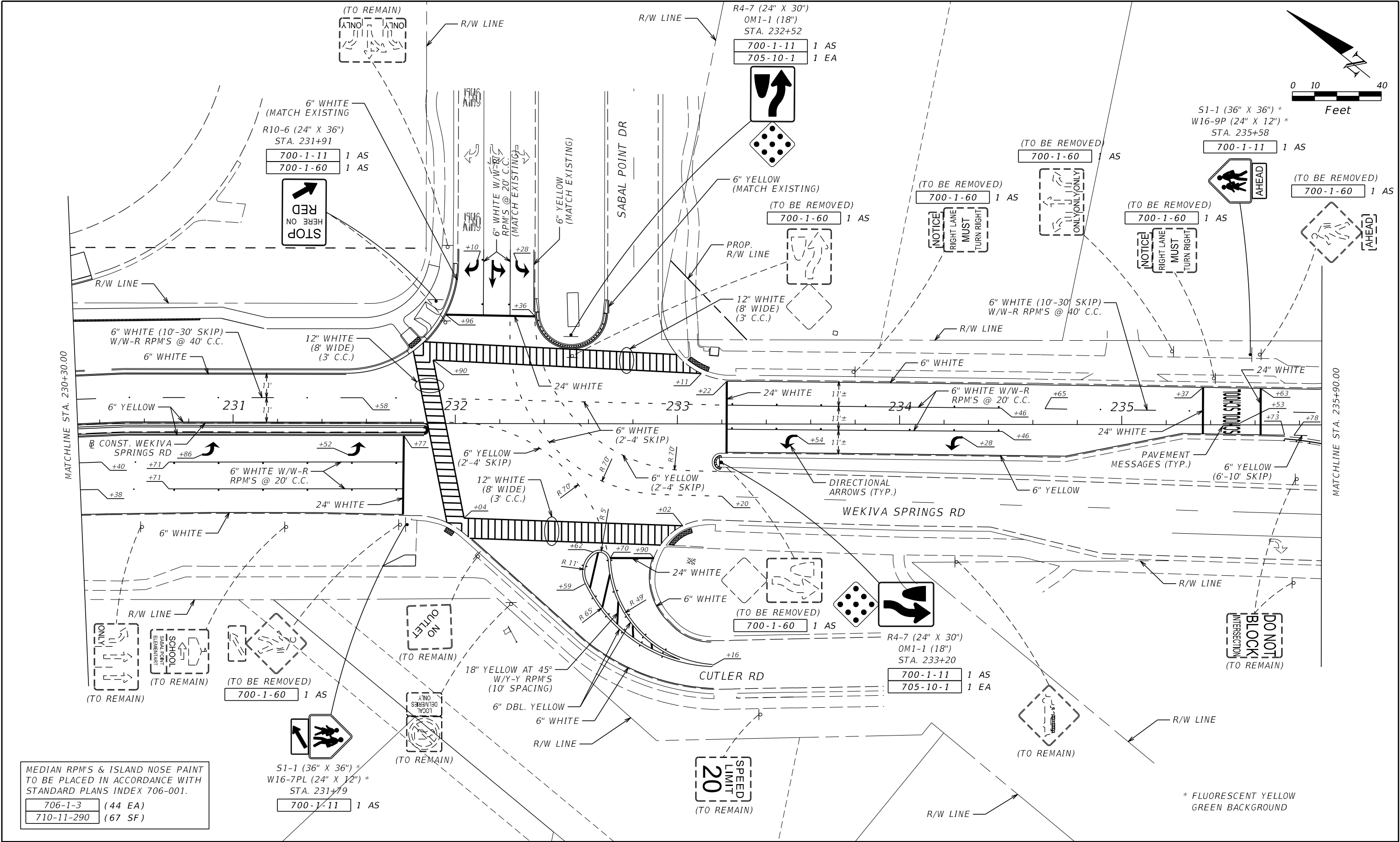
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNING & PAVEMENT MARKING	SHEET NO.  S-5
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		




REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNING & PAVEMENT MARKING	SHEET NO.  S-6
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

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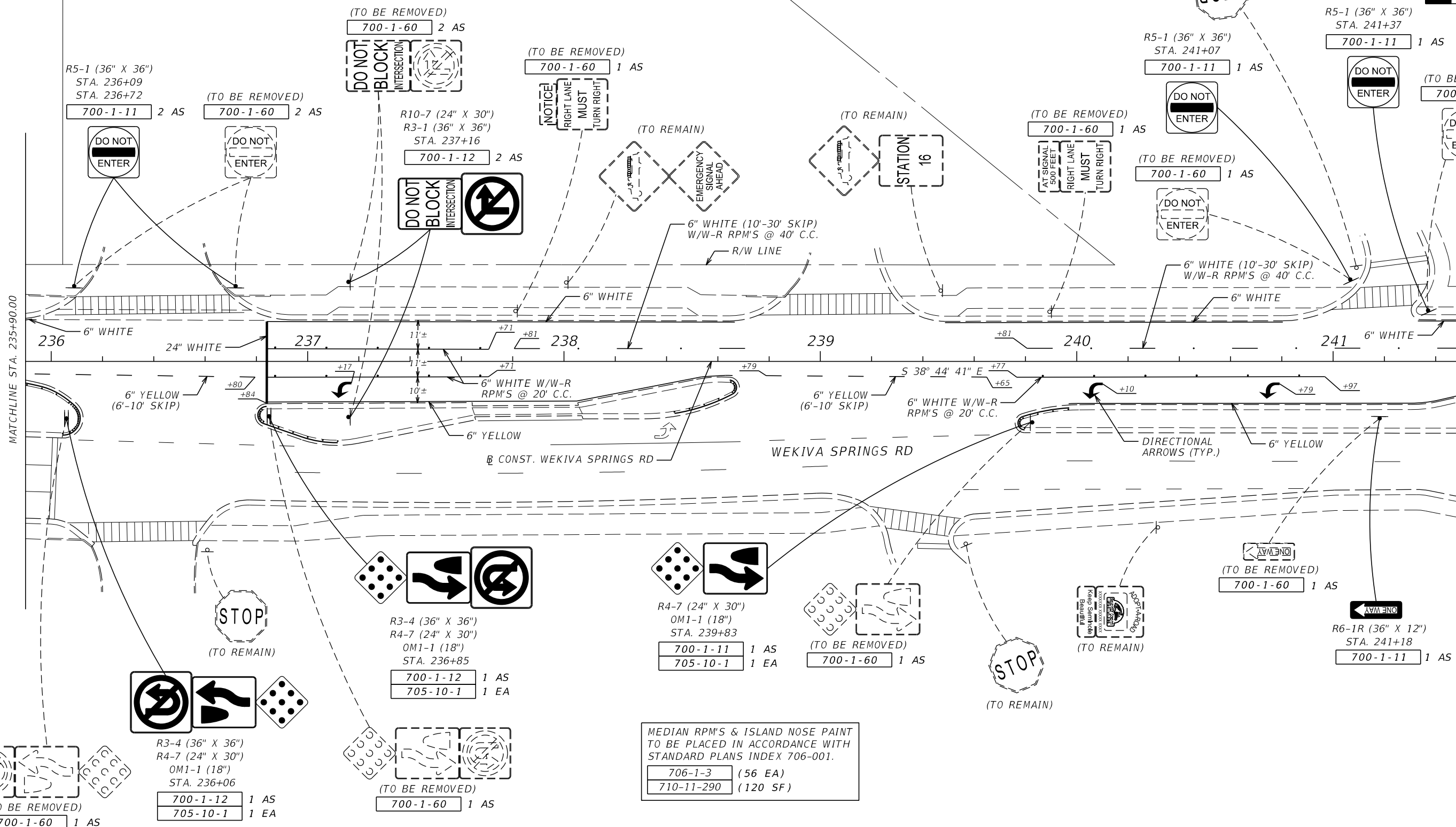
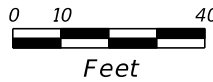




REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNING & PAVEMENT MARKING	SHEET NO.  S-7
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

FIRE STATION #16

R/W LINE



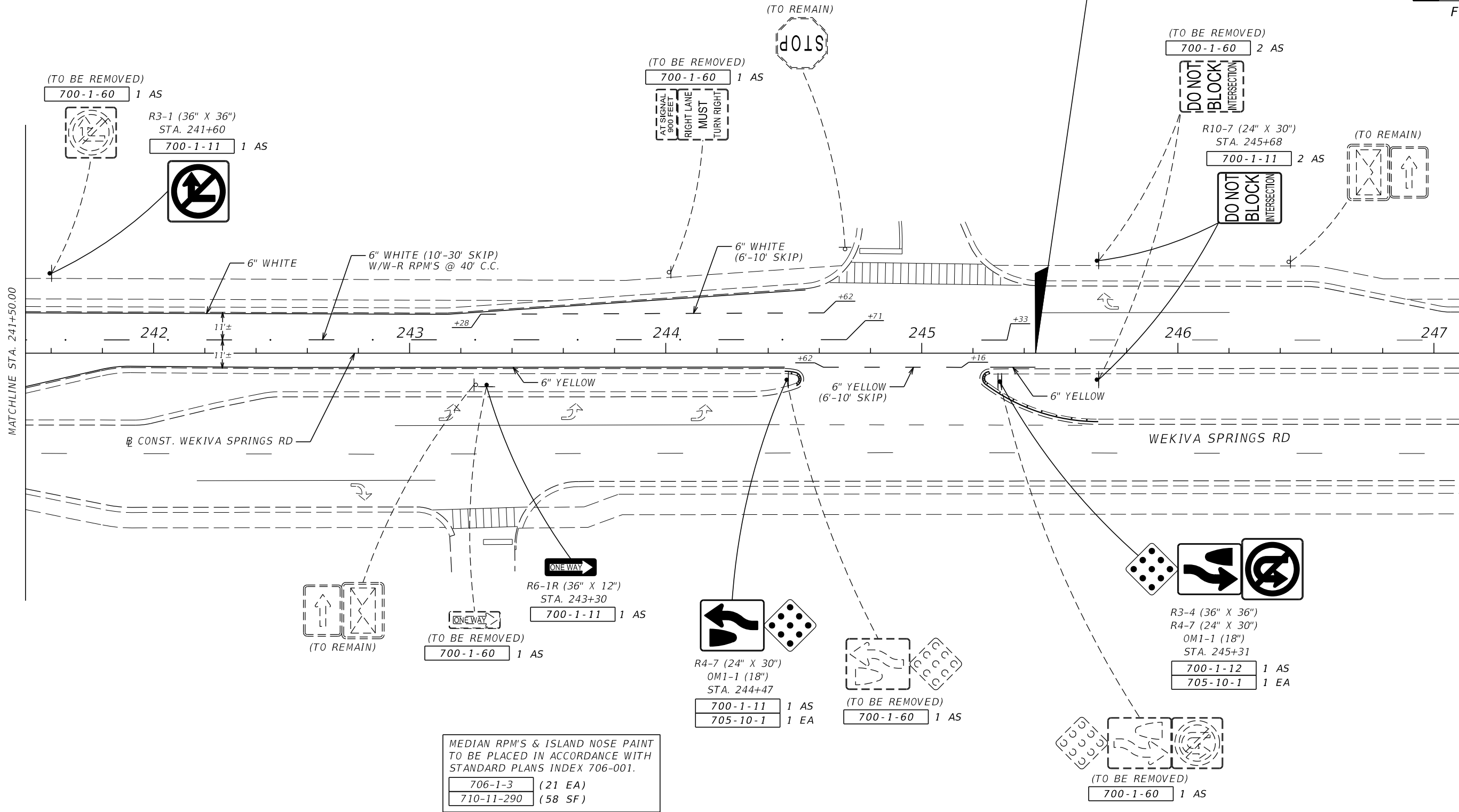
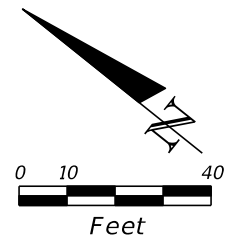
MEDIAN RPM'S & ISLAND NOSE PAINT  
TO BE PLACED IN ACCORDANCE WITH  
STANDARD PLANS INDEX 706-001.

706-1-3	(56 EA)
710-11-290	(120 SF)

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNING & PAVEMENT MARKING		SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			S-8
					WEKIVA SPRINGS ROAD	02007027			

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END PROJECT  
END SIGNING & PAVEMENT MARKING  
CONST. WEKIVA SPRINGS RD.  
MATCH EXISTING  
STATION 245+44.43



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNING & PAVEMENT MARKING		SHEET NO.  S-9
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			
					WEKIVA SPRINGS ROAD	02007027			

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SEMINOLE COUNTY  
ENGINEERING DIVISION

CONTRACT PLANS

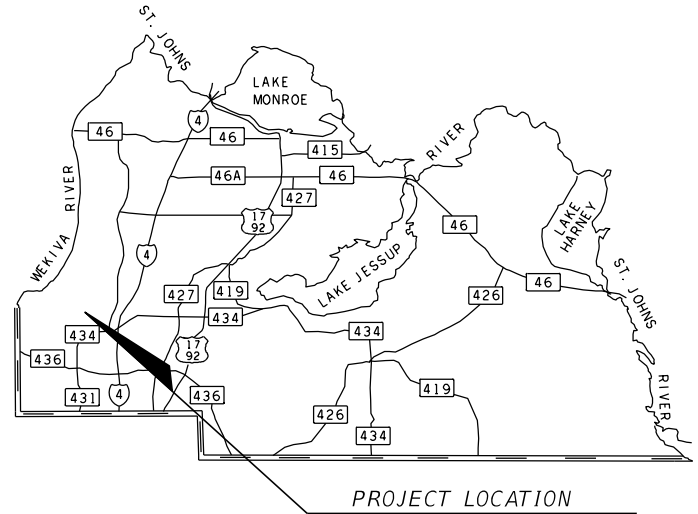
INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3	GENERAL NOTES
T-4 TO T-7	SIGNALIZATION PLAN SHEETS
T-8	MAST ARM TABULATION
T-9	GUIDE SIGN WORKSHEET
T-10 TO T-18	MAST ARM DETAIL SHEETS
T-19 & T-20	COMMUNICATION PLANS
T-21 & T-22	REPORT OF CORE BORINGS
T-23 - T-30	SUBSURFACE UTILITY INFORMATION



WEKIVA SPRINGS ROAD  
INTERSECTION IMPROVEMENTS  
SEMINOLE COUNTY CIP No. 02007027  
DISTRICT 3

SIGNALIZATION PLANS



SEMINOLE COUNTY ENGINEERING  
PROJECT MANAGER: ANGELA CARDONA, P.E.  
100 EAST FIRST STREET  
SANFORD, FLORIDA 32771  
407-665-5661

SIGNALIZATION SHOP DRAWINGS  
TO BE SUBMITTED TO:

FURSAN S. MUNJED, P.E.  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
PHONE 407-992-9160, X-302

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

90% SUBMITTAL  
MARCH 29, 2022

BOARD OF COUNTY COMMISSIONERS

BOB DALLARI	DISTRICT 1
JAY ZEMBOWER	DISTRICT 2
LEE CONSTANTINE	DISTRICT 3
AMY LOCKHART	DISTRICT 4
ANDRIA HERR	DISTRICT 5

JOE ABEL, INTERIM COUNTY MANAGER

PUBLIC WORKS DIRECTOR: JEAN JREIJ, P.E.


SIGNALIZATION PLANS  
ENGINEER OF RECORD: FURSAN S. MUNJED, P.E.

P.E. NO.: 51446

FISCAL YEAR	SHEET NO.
21	T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS										GRAND TOTAL		REF. SHEET
			T-4		T-5		T-6		T-7		T-19 - T-20				
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
630-2-11	CONDUIT (F&I), (OPEN TRENCH) (UNDERGROUND)	LF	605				675				20		1300		
630-2-12	CONDUIT (F&I), (DIRECTIONAL BORE) (UNDERGROUND OR UNDERPAVEMENT)	LF	265				820				1560		2645		
630-2-14	CONDUIT (F&I), (ABOVEGROUND)	LF									40		40		
632-7-1	SIGNAL CABLE WITHIN INTERSECTION (F&I)	PI	1				1						2		
632-7-6	SIGNAL CABLE WITHIN INTERSECTION (REMOVE)	PI	1				1						2		
633-1-122	FIBER OPTIC CABLE (F&I) (UNDERGROUND) (13 TO 48 FIBERS) (24 SM)	LF									215		215		
633-1-123	FIBER OPTIC CABLE (F&I) (UNDERGROUND) (49 TO 96 FIBERS) (72 SM)	LF									2600		2600		
633-1-620	FIBER OPTIC CABLE (REMOVE) (UNDERGROUND)	LF									1610		1610		
633-2-31	FIBER OPTIC CONNECTION (INSTALL) (SPLICE)	EA									168		168		
633-2-32	FIBER OPTIC CONNECTION (INSTALL) (ST CONNECTORS)	EA									12		12		
633-3-11	FIBER OPTIC CONNECTION HARDWARE (F&I) (SPLICE ENCLOSURE)	EA									5		5		
633-3-12	FIBER OPTIC CONNECTION HARDWARE (F&I) (SPLICE TRAY)	EA									15		15		
635-2-11	PULL & SPLICE BOXES (F&I) (13" X 24" COVER SIZE) (W/APRON)	EA	11				13						24		
635-2-12	PULL & SPLICE BOXES (F&I) (24" X 36" COVER SIZE)	EA					5				3		8		
635-2-13	PULL & SPLICE BOXES (F&I) (36" ROUND VAULT) (W/APRON)	EA									4		4		
639-1-122	ELECTRICAL POWER SERVICE (F&I) (UNDERGROUND) (PURCHASED BY CONTRACTOR FROM POWER COMPANY)	AS					1						1		
639-2-1	ELECTRICAL SERVICE WIRE (F&I)	LF					100						100		
641-2-12	PRESTRESSED CONCRETE POLE (F&I) (TYPE P-II SERVICE POLE)	EA					1						1		
641-2-60	PRESTRESSED CONCRETE POLE (COMPLETE REMOVAL) (PEDESTAL/SERVICE POLE)	EA					1						1		
646-1-11	ALUMINUM SIGNALS POLE (F&I) (PEDESTAL)	EA	3				6						9		
646-1-60	ALUMINUM SIGNALS POLE (REMOVE)	EA	2										2		
647-B	GEOTECHNICAL TESTING	PI					1						1		
647-F	FOUNDATION INSPECTION	PI					1						1		
648-1C	MAST ARM FOUNDATION (F&I)	LF					120						120		
648-11-50NF-4	MAST ARM ASSEMBLY (F&I) SINGLE ARM (TYPE 4) (50' ARM) (W/LUMINAIRE)	EA					1						1		
648-11-60NF-4	MAST ARM ASSEMBLY (F&I) SINGLE ARM (TYPE 4) (60' ARM) (W/LUMINAIRE)	EA					2						2		
648-11-70NF-4	MAST ARM ASSEMBLY (F&I) SINGLE ARM (TYPE 4) (70' ARM) (W/LUMINAIRE)	EA					1						1		
649-26-3	STEEL MAST ARM ASSEMBLY (REMOVE) (SHALLOW, BOLT ON ATTACHMENT)	EA					4						4		
650-1-14	TRAFFIC SIGNAL (F&I) (ALUMINUM) (3-SECTION, 1-WAY)	AS							7				7		
650-1-16	TRAFFIC SIGNAL (F&I) (ALUMINUM) (4-SECTION, 1-WAY)	AS							2				2		
650-1-19	TRAFFIC SIGNAL (F&I) (ALUMINUM) (5-SECTION, 1-WAY)	AS							2				2		
650-1-70	TRAFFIC SIGNAL (RELOCATE)	AS			2								2		
653-1-11	PEDESTRIAN SIGNAL (F&I) (LED-COUNTDOWN) (1 WAY)	AS			3				6				9		
660-2-102	LOOP ASSEMBLY (F&I) (TYPE B)	AS	3				4						7		
660-2-106	LOOP ASSEMBLY (F&I) (TYPE F)	AS	3				6						9		
663-1-112	SIGNAL PRIORITY AND PREEMPTION SYSTEM, (F&I) (OPTICAL) (DETECTOR)	EA					4						4		
663-1-600	SIGNAL PRIORITY AND PREEMPTION SYSTEM (OPTICOM) (REMOVE)	EA					1						1		
665-1-11	DETECTOR, PEDESTRIAN (F&I) (STANDARD)	EA			3				6				9		
670-5-400	TRAFFIC CONTROLLER ASSEMBLY (MODIFY)	AS	1				1						2		
682-1-113	CCTV CAMERA, F&I, PTZ DOME ENCLOSURE PRESSURIZED, IP, HIGH DEFINTION	EA					1						1		
700-3-201	SIGN PANEL (F&I, OVERHEAD MOUNT) (UP TO 12 SF)	EA							4				4		
700-5-22	INTERNALLY ILLUMINATED SIGN (F&I, OVERHEAD MOUNT) (STREET NAME)	EA							4				4		
700-5-50	INTERNALLY ILLUMINATED SIGN (RELOCATE)	EA			1								1		
700-11-391	ELECTRONIC DISPLAY SIGN (F&I - OVERHEAD MOUNT - AC POWERED) (BLANK OUT SIGN) (UP TO 12 SF)	AS							3				3		
700-11-500	ELECTRONIC DISPLAY SIGN (RELOCATE)	AS			1								1		
715-11-114A	LUMINAIRE, SHOE BOX, LED (F&I)	EA					4						4		

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DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			
					WEKIVA SPRINGS ROAD	02007027			

GENERAL

1. UNLESS OTHERWISE NOTED ALL REMOVED EQUIPMENT SHALL BE TURNED OVER TO SEMINOLE COUNTY AT 140 BUSH LOOP, SANFORD, FL, 32773 AS DIRECTED BY THE ENGINEER, EXCEPT CONCRETE POLES, WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR. CONTRACTOR TO NOTIFY SEMINOLE COUNTY (CHARLES WETZEL, P.E. ☎ 407-665-5670) 2 BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION.
2. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING, DIRECTIONAL BORING, OR TRENCHING. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE SPECIFICATIONS.
3. THE CONTRACTOR SHALL HAND DIG THE FIRST 4 FEET AT EACH POLE LOCATION AND THE FIRST 2 FEET AT EACH PEDESTAL LOCATION TO VERIFY NO UTILITY CONFLICTS.
4. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR BOTH SIGNAL CABLE AND INTERCONNECT CABLE WITH SEMINOLE COUNTY BEFORE ORDERING.
5. THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FDOT SPECIFICATION 105-8.10. THE CONTRACTOR SHALL COORDINATE THE FINAL ACCEPTANCE INSPECTION IN ACCORDANCE WITH FDOT SPECIFICATION 611-2.2 WITH THE ENGINEER AT LEAST TEN DAYS IN ADVANCE. SEMINOLE COUNTY AND TRAFFIC SIGNAL QUALITY ASSURANCE MANAGER AT (386)943-5318 SHOULD ALSO BE CONTACTED TEN DAYS BEFORE THE INSPECTION IS TO BE PERFORMED SO THEY MAY BE PRESENT.
6. THE CONTRACTOR SHALL MAINTAIN THE EXISTING TRAFFIC SIGNALS DURING THIS PROJECT.
7. THE CONTRACTOR HAS THE OPTION TO USE DIRECTIONAL BORE AS THE CONDUIT INSTALLATION METHOD FOR PAY ITEM 630-2-II.
8. THE LOCAL (PERMIT MANAGER/PROJECT ADMINISTRATOR) SHOULD BE INFORMED TWO BUSINESS DAYS BEFORE ANY DIRECTIONAL BORES.
9. IN THE EVENT PERMANENT VEHICLE DETECTION IS DISRUPTED, PROVIDE AN ALTERNATIVE MEANS OF DETECTION TO ALL LANES APPROACHING THE INTERSECTION, SEPARATING EACH MOVEMENT WHICH PREVIOUSLY HAD DETECTION. THE TYPE OF DETECTOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. EQUIPMENT SHALL ONLY DETECT THE INTENDED MOVEMENT.
10. FOR ADDITIONAL DETAILS OF TRAFFIC SIGNAL INSTALLATIONS FOR THIS PROJECT SEE FDOT STANDARD PLANS, DATED 2021-22, INDEX NOS. 659-010, 630-001, 634-001, 639-002, 653-001, 660-001, 665-001, 676-010, AND 671-001.
11. THE CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST 2 BUSINESS DAYS IN ADVANCE OF ANY OPERATION THAT MAY CONFLICT WITH OVERHEAD OR UNDERGROUND UTILITIES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION.
13. THE MAINTENANCE OF SIGNALS, OTHER THAN TIMINGS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR, FROM THE TIME CONTRACT WORK BEGINS UNTIL FINAL ACCEPTANCE BY SEMINOLE COUNTY, ON A BY INTERSECTION BASIS. THE CONTRACTOR SHALL HAVE A I.M.S.A. LEVEL 2 SIGNAL TECHNICIAN ON SITE THROUGH ALL PHASES OF CONSTRUCTION AND ON CALL WITH A 2 HOUR MAXIMUM RESPONSE TIME.
14. A TRAFFIC CONTROL OFFICER SHALL BE PRESENT TO DIRECT TRAFFIC WHEN THE CONTRACTOR IS WORKING ON THE SIGNAL WITHIN THE INTERSECTION.
15. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE FDOT STANDARD PLANS, DATED 2021-22. ATTENTION IS DIRECTED TO THE INDEX 102 SERIES.
16. A CLEARANCE OF NO LESS THAN 17'- 6" SHALL BE MAINTAINED BETWEEN THE SIGNAL HEADS AND THE ROADWAY.
17. SIGNAL CABLE AND LOOP WIRE ARE NOT TO BE IN THE SAME PULL BOX.
18. LANE CLOSURES WILL BE PERMITTED ONLY DURING ACTIVE WORK PERIODS WHEN THE LANE CLOSURE IS NEEDED TO ACCOMPLISH THE WORK. NO LONG TERM LANE CLOSURES WILL BE PERMITTED. NO LANE CLOSURES WILL BE PERMITTED DURING BUSY TRAFFIC HOURS, BETWEEN THE HOURS OF 6 AM - 9 PM.
19. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ATTACHMENT HEIGHTS PRIOR TO ORDERING AND FABRICATION OF POLES.
20. ALL VEHICLE AND PEDESTRIAN DISPLAYS, STREET IDS, LUMINAIRES AND BLANK OUT SIGNS SHALL BE L.E.D. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
21. ALL INSTALLATIONS TO BE AS PER SEMINOLE COUNTY AND FDOT STANDARDS.
22. ALL EQUIPMENT/MATERIALS TO BE APPROVED BY SEMINOLE COUNTY TRAFFIC ENGINEERING AND FDOT.
  - A. ALL SIGNAL HEADS TO BE ALUMINUM WITH TUNNEL VISORS.
  - B. ALL PULL BOXES TO BE 20K RATED NON-METALLIC, LOCATED A MINIMUM OF 10' FROM RADI AND 10' OFF EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
23. DELAY TIMES SHALL BE SET TO 5 SECONDS.
24. PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH SEMINOLE COUNTY AND FDOT ONE SET EACH OF CONSTRUCTION AS-BUILT PLANS.
25. EXISTING LOOPS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
26. ALL CABLES WILL HAVE THREE SPARE CONDUCTORS.
27. ALL POLES, FOUNDATIONS, AND CABINET ASSEMBLIES SHALL HAVE 50' OF GROUND ROD AND BE BONDED IN THE SIGNAL PULL BOX NEXT TO THE TRAFFIC SIGNAL CABINET

## PED FEATURES

28. THE CABINET FOUNDATION PAD SHALL BE NO MORE THAN 4" ABOVE SURROUNDING GRADE.
- PED FEATURES
1. THREE (3) SPARE CONDUCTORS ARE TO BE RUN TO THE FURTHEST PEDESTRIAN SIGNAL HEAD.
  2. CONTRACTOR TO ENSURE THAT A 4-FOOT X 4-FOOT FLAT LANDING AREA IS ADJACENT TO ALL DETECTORS FOR PEDESTRIAN ACCESS. THESE LANDING AREAS SHALL COMPLY WITH ADA STANDARDS.
  3. ALL PEDESTRIAN DETECTORS SHALL BE POLARA ENGINEERING BRAND VANDAL RESISTANT PUSH BUTTON OR APPROVED EQUIVALENT.

MAST ARMS

1. IF A CONTINUOUS RUN OF SIGNAL CABLE IS NOT POSSIBLE FROM THE CABINET TO THE SIGNAL HEAD, THEN A TERMINAL BLOCK SHALL BE USED. (THIS SHALL BE VERIFIED WITH THE MAINTAINING AGENCY, AS SOME AGENCIES PREFER CONTINUOUS WIRING TO THE SIGNAL HEADS)
2. SIX FEET OF ADDITIONAL SIGNAL CABLE SLACK SHALL BE WOUND AND NEATLY STORED INSIDE THE UPRIGHT AND SUPPORTED BY THE CABLE CLAMP SUCH THAT THE TERMINAL BLOCK CAN BE REMOVED FROM THE UPRIGHT TO ALLOW FOR TROUBLE SHOOTING.
3. THE CABLE GRIP SHALL BE OF SUFFICIENT SIZE TO NOT COMPROMISE THE INSULATION ON THE SIGNAL CABLE.
4. FOR MISCELLANEOUS STRUCTURES THAT HAVE BEEN COMPLETED AND SCHEDULED FOR ACCEPTANCE, THE CONTRACTOR SHALL CONTACT DISTRICT FIVE STRUCTURES MAINTENANCE OFFICE AT (386) 740-3463 ONE MONTH PRIOR TO COMPLETION OF PROJECT TO SCHEDULE AN INSPECTION OF STRUCTURES INCLUDING" CABLE SIGNS, CANTILEVER SIGNS, TRUSS SIGNS, HIGH MAST LIGHT POLES, ITS, DMS AND TRAFFIC SIGNAL MAST ARMS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING APPROVED SHOP DRAWINGS SHOWING THE BOLT PATTERN AND ARM ORIENTATION PRIOR TO THE PRE-DRILL SHAFT MEETING.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING A CERTIFIED DRILLED SHAFT CTQP LEVEL I CONSTRUCTION ENGINEERING AND INSPECTION (CEI) FIRM, AND A CONCRETE TESTING LABORATORY FOR THE PURPOSE OF INSPECTING ALL DRILLED SHAFT INSTALLATION PER FOOT STANDARDS. THE FIRM SHALL THEN SUBMIT A SIGNED AND SEALED REPORT VERIFIED BY THE P.E. IN RESPONSIBLE CHARGE OF THE DRILLED SHAFT INSPECTOR TO THE DEPARTMENT FOR APPROVAL. FAILURE TO OBTAIN THESE SERVICES PRIOR TO THE CONSTRUCTION OF THE DRILLED SHAFT(S) SHALL RESULT IN THE REJECTION OF THE DRILLED SHAFT(S).
7. THE TOP OF THE TRAFFIC SIGNAL MAST ARM FOUNDATION SHOULD BE AT LEAST 6 INCHES ABOVE GRADE TO PREVENT THE ANCHOR BOLTS FROM BEING SUBMERGED IN WATER AND/OR BURIED, UNLESS IT'S ADJACENT TO AN EXISTING, OR PROPOSED SIDEWALK, THEN THE TOP OF THE FOUNDATION SHOULD BE FLUSH WITH THE SIDEWALK

## PULL BOXES

1. PULL BOXES AND COVERS SHALL BE NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE.

## SIGNAL HEADS

1. ALL VEHICULAR SIGNAL HEAD ASSEMBLIES SHALL BE ALUMINUM.

PAY ITEM NOTES

1. PAY ITEM NO. 635-2-II SHALL INCLUDE REMOVAL AND RESTORATION OF CONCRETE SIDEWALK NECESSARY TO INSTALL THE PULL BOXES.
2. PAY ITEM NO. 646-1-II TO INCLUDE A BREAK AWAY BASE AND SLIP FOOTER.
3. PAY ITEM NO. 665-1-II INCLUDES FTP-68B-06.

## FIELD TESTS

1. THE CONTRACTOR SHALL HAVE A QUALIFIED REPRESENTATIVE PRESENT AT ALL INSPECTIONS. FOR FDOT SIGNALS, A SIGNAL INSPECTION IS TO BE SCHEDULED WITH FDOT TRAFFIC SIGNAL QUALITY ASSURANCE MANAGER (386)943-5318, OF TRAFFIC OPERATIONS, 10 DAYS PRIOR TO THE SIGNAL BEING PLACED IN TO OPERATION. SHOULD THE CONTRACTOR REQUEST AN INSPECTION AND THE CONTRACTOR IS NOT PREPARED FOR THE INSPECTION, THE CONTRACTOR WILL BE BACK CHARGED FOR THE CONSULTANT INSPECTOR'S TIME. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A 90 DAY WARRANTY PERIOD AS OUTLINED IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED JANUARY 2022.
2. SEMINOLE COUNTY HAS UNIQUE PHASING. ALL INTERSECTIONS SHALL BE BUILT TO SEMINOLE COUNTY STANDARDS. CALL TRAFFIC SIGNAL SHOP AT 407-665-5680 FOR FURTHER INFORMATION.
3. ALL SIGNAL HEADS, PEDESTRIAN HEADS AND PEDESTRIAN BUTTONS SHALL HAVE WEEP HOLES.
4. THE LUMINARIES / ILLUMINATED STREET I.D.S SHALL BE L.E.D. AND POWERED FROM A SEPARATE BREAKER LOCATED IN THE BREAKER BOX; NOT THE SIGNAL CABINET. ALL PHOTOCELLS SHALL BE MOUNTED ON THE BREAKER BOX AND BE 15 AMPERE CAPACITY MINIMUM. ALL ILLUMINATED STREET I.D.'S SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY. ON DIAGONAL MAST ARMS, SWIVEL BRACKETS SHOULD BE USED.

UTILITY OWNERS:

ZAYO GROUP/FORMERLY LIGHTWAVE LLC  
MATT RICHARDS  
(813) 587-2584

MCI/VERIZON  
INVESTIGATIONS@VERIZON.COM  
(469) 886-4091

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(407) 665-5644

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BRYAN GONGRE  
(866) 842-8432


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LAZLO WAGNER  
(407) 215-5716

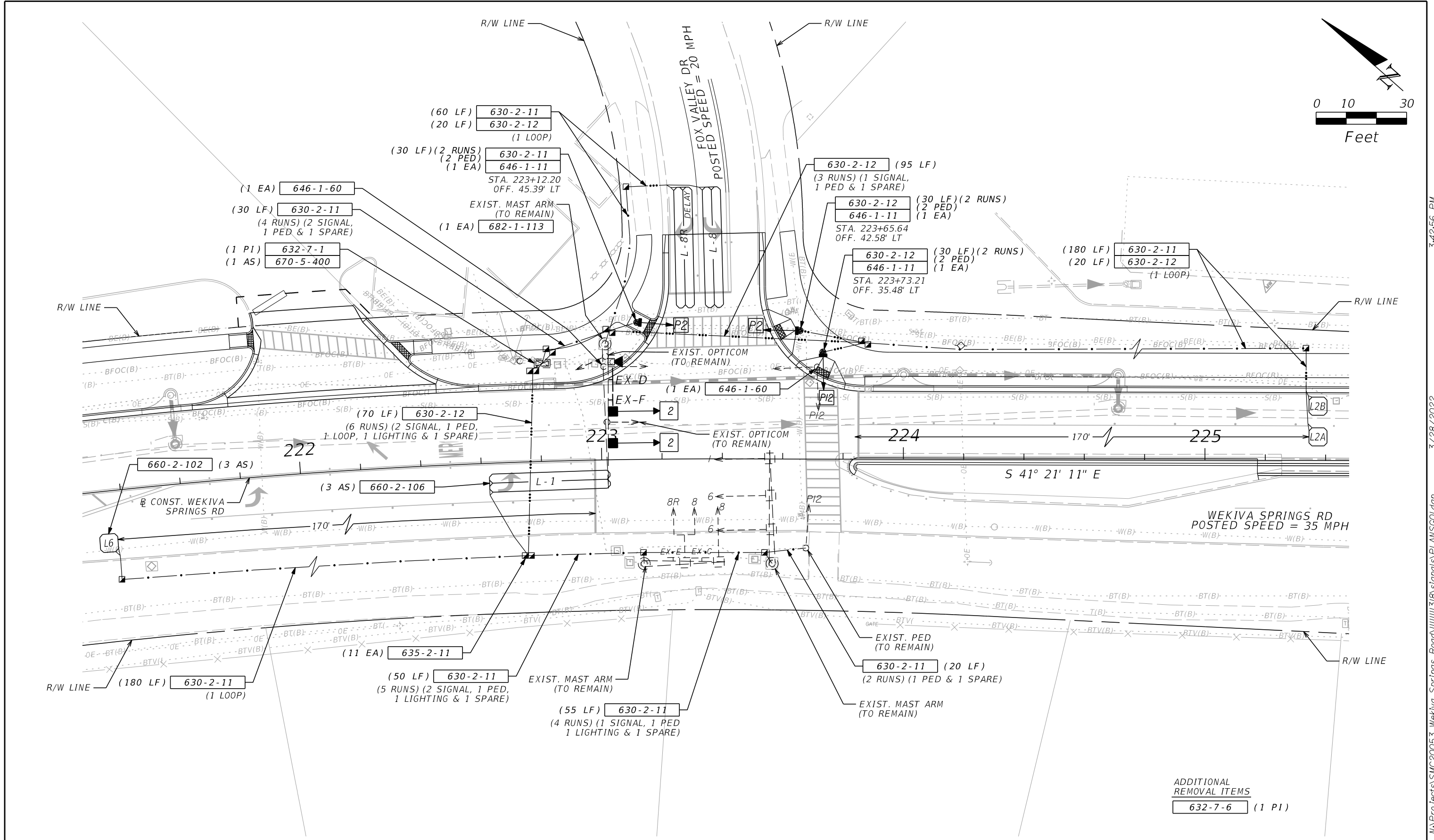
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JOHN WALKER  
(913) 458-2516

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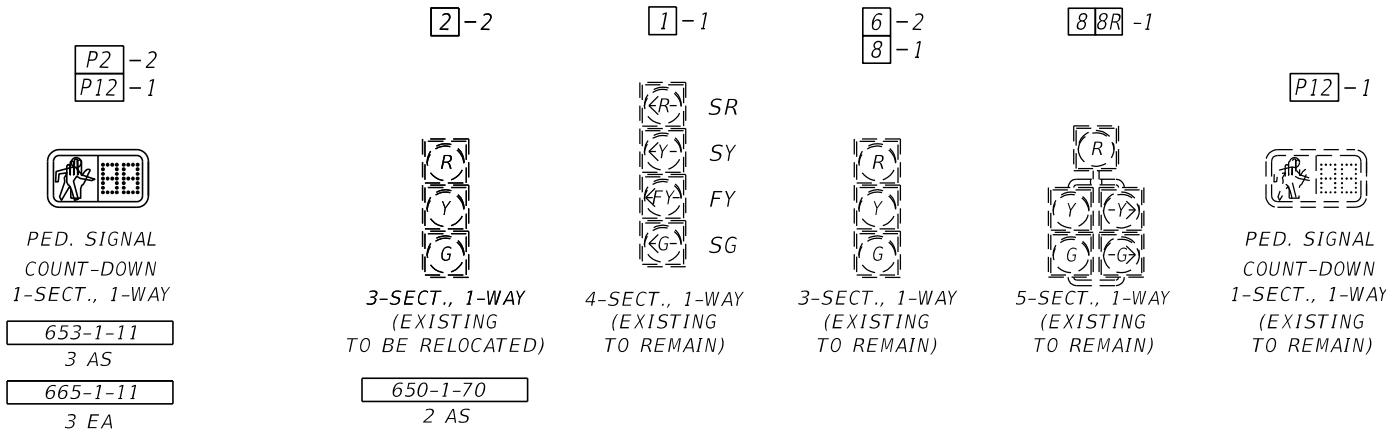
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DEFTRANSMISSIONGOV@DUKE-ENERGY.COM

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  GENERAL NOTES	SHEET NO.
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		T-3

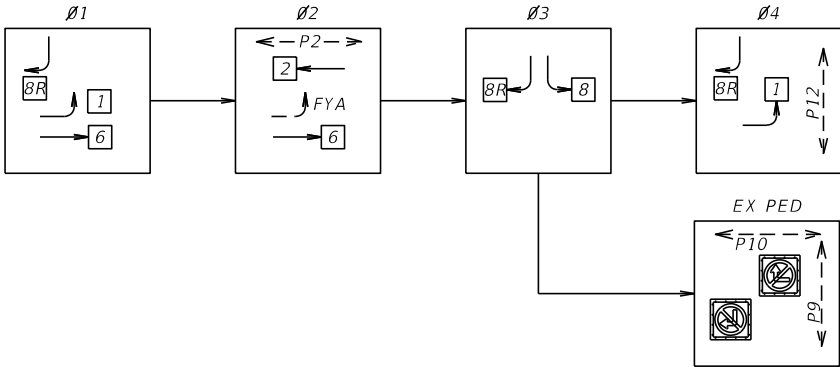


REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNALIZATION PLAN		SHEET NO.  T-4
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.			
					WEKIVA SPRINGS ROAD	02007027			

SIGNAL HEAD DETAILS

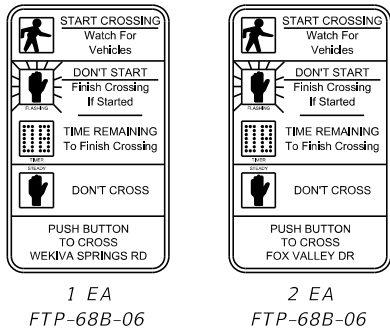


MOVEMENT CHART  
SPECIAL S.O.P.



NOTE: MAINTAIN EXISTING PHASING INCLUDING SCHOOL RELEASE.

PEDESTRIAN SIGN DETAILS



\* CONTRACTOR SHALL VERIFY STREET NAMES PRIOR TO FABRICATION.

EXISTING CONTROLLER TIMINGS

TIMING FUNCTION									
MOVEMENT NUMBER		1	2	6	8	9	10	12	
TIMING FUNCTION	MINIMUM GREEN	6	15	15	6				
	EXTENSION	3.0	5.0	5.0	4.0				
	MAXIMUM GREEN 1	15	100	100	20				
	MAXIMUM GREEN 2								
	YELLOW CLEARANCE	4.1	4.1	4.1	3.4				
	ALL RED	2.0	2.0	2.0	2.1	3.0	3.0		
	PEDESTRIAN WALK		7			18	18	7	
	PED. CLEARANCE		15			16*	16*	16*	
	RECALL		MIN	MIN					

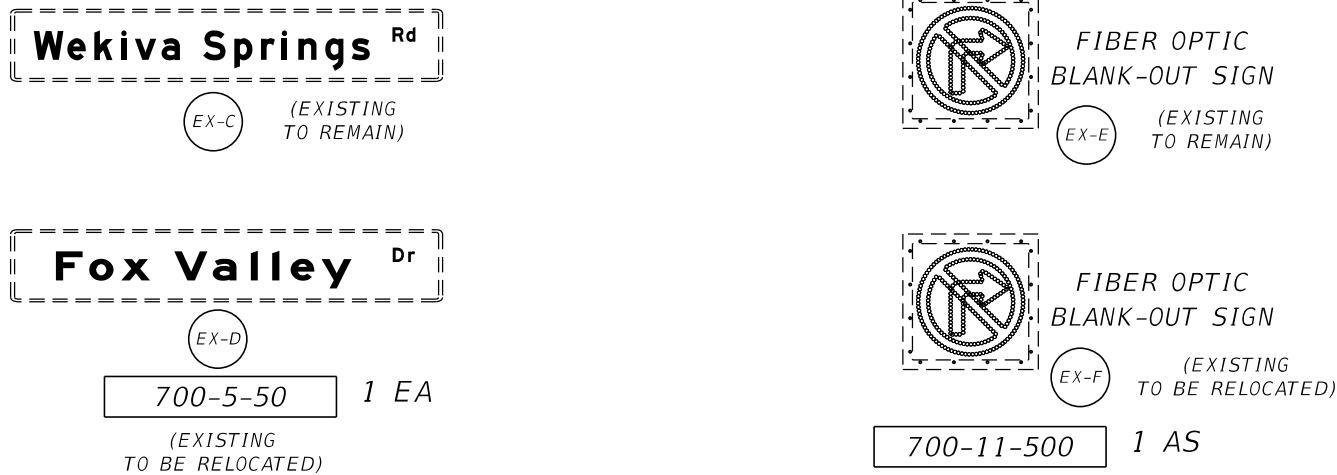
\* UPDATED TIMINGS

DETECTORS FOR LOOPS

LOOP	NO. OF LOOPS	NO. OF NEW DETS.	CHANNEL NO.	DELAY TIME (SEC)
L - 1	1	EXIST.	EXIST.	-
L - (2A&B)	2	EXIST.	EXIST.	-
L - 6	1	EXIST.	EXIST.	-
L - 8	1	EXIST.	EXIST.	-
L - 8R	1	EXIST.	EXIST.	5

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

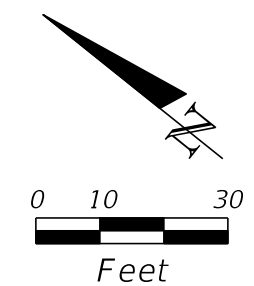
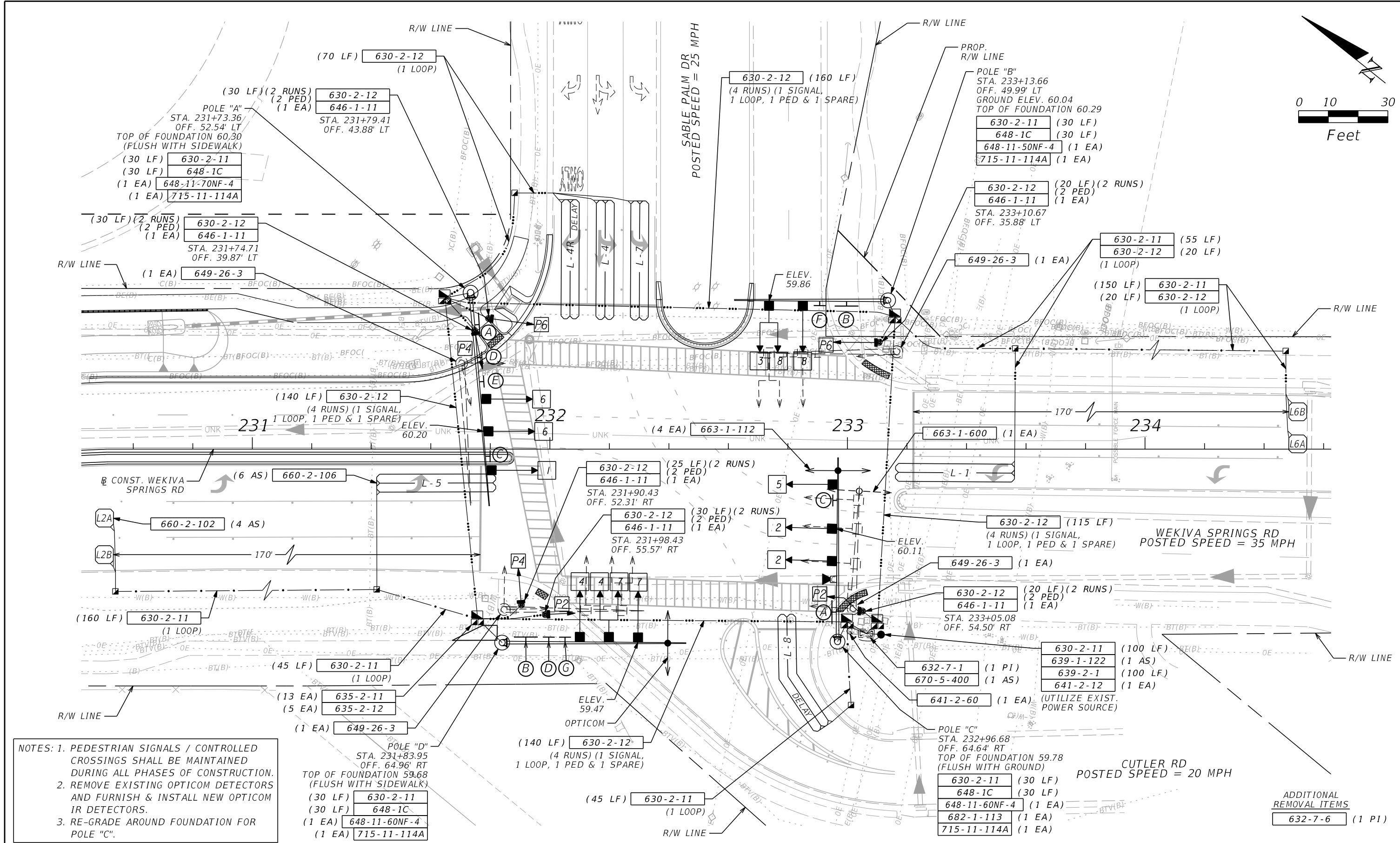
EXISTING OVERHEAD SIGNS  
(TO REMAIN)



POSTED SPEED:  
WEKIVA SPRINGS ROAD = 35 MPH  
FOX VALLEY DRIVE = 20 MPH  
TRAFFIC SIGNAL # 1228

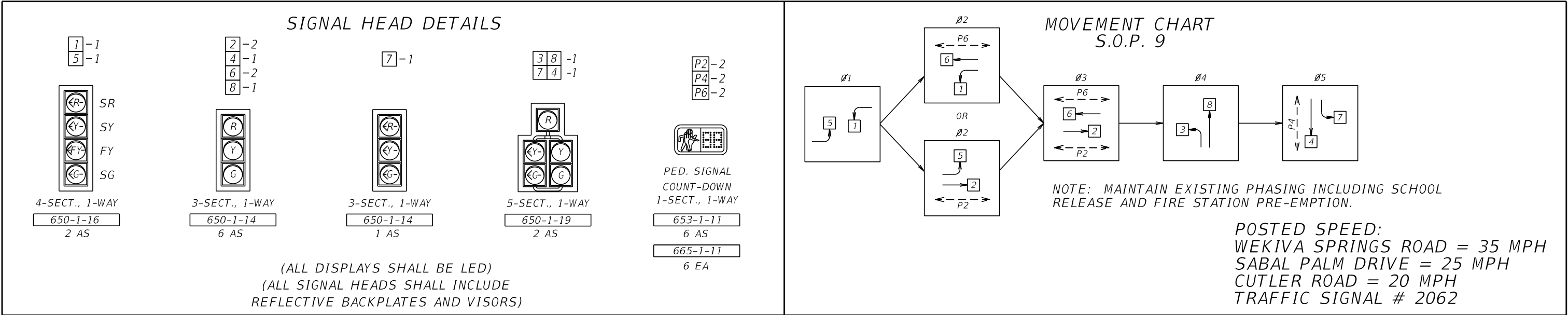
REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNALIZATION PLAN SHEET	SHEET NO. T-5
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		





- NOTES: 1. PEDESTRIAN SIGNALS / CONTROLLED CROSSINGS SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.  
2. REMOVE EXISTING OPTICOM DETECTORS AND FURNISH & INSTALL NEW OPTICOM IR DETECTORS.  
3. RE-GRADE AROUND FOUNDATION FOR POLE "C".

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD SIGNALIZATION PLAN	SHEET NO.  T-6
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



P2-2

P4-2

P6-2

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

653-1-11

6 AS

665-1-11

6 EA

Ø1

5

1

Ø2

6

1

OR

Ø2

5

2

Ø3

6

2

Ø4

3

8

Ø5

4

7

MOVEMENT CHART  
S.O.P. 9

NOTE: MAINTAIN EXISTING PHASING INCLUDING SCHOOL  
RELEASE AND FIRE STATION PRE-EMPTION.

POSTED SPEED:  
WEKIVA SPRINGS ROAD = 35 MPH  
SABAL PALM DRIVE = 25 MPH  
CUTLER ROAD = 20 MPH  
TRAFFIC SIGNAL # 2062

PEDESTRIAN SIGN DETAILS

START CROSSING  
Watch For  
Vehicles

DON'T START  
Finish Crossing  
If Started

TIME REMAINING  
To Finish Crossing

DON'T CROSS

PUSH BUTTON  
TO CROSS  
WEKIVA SPRINGS RD

2 EA

FTP-68B-06

START CROSSING  
Watch For  
Vehicles

DON'T START  
Finish Crossing  
If Started

TIME REMAINING  
To Finish Crossing

DON'T CROSS

PUSH BUTTON  
TO CROSS  
SABAL PALM DR

2 EA

FTP-68B-06

START CROSSING  
Watch For  
Vehicles

DON'T START  
Finish Crossing  
If Started

TIME REMAINING  
To Finish Crossing

DON'T CROSS

PUSH BUTTON  
TO CROSS  
CUTLER RD

2 EA

FTP-68B-06

\* CONTRACTOR SHALL VERIFY STREET  
NAMES PRIOR TO FABRICATION.

INITIAL CONTROLLER TIMINGS

TIMING FUNCTION	1	2	4&7	5	6	3&8
MOVEMENT NUMBER	1	2	4&7	5	6	3&8
MINIMUM GREEN	6	15	6	6	15	6
EXTENSION	3.0	4.0	3.0	3.0	4.0	3.0
MAXIMUM GREEN 1	25	90	35	25	80	20
MAXIMUM GREEN 2						
YELLOW CLEARANCE	4.0	4.0	3.4	4.0	4.0	3.4
ALL RED	2.5	2.5	2.2*	2.5	2.5	2.5
PEDESTRIAN WALK		7	7		7	
PED. CLEARANCE		30	24*		38*	
RECALL		MIN			MIN	

\* UPDATED TIMINGS

DETECTORS FOR LOOPS

LOOP	NO. OF LOOPS	NO. OF NEW DETS.	CHANNEL NO.	DELAY TIME (SEC)
L - 1	1	EXIST.	EXIST.	-
L - (2A&B)	2	EXIST.	EXIST.	-
L - 4	1	EXIST.	EXIST.	-
L - 4R	1	EXIST.	EXIST.	5
L - 5	1	EXIST.	EXIST.	-
L - (6A&B)	2	EXIST.	EXIST.	-
L - 7	1	EXIST.	EXIST.	-
L - 8	1	EXIST.	EXIST.	5

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

SIGN (E) OPERATION

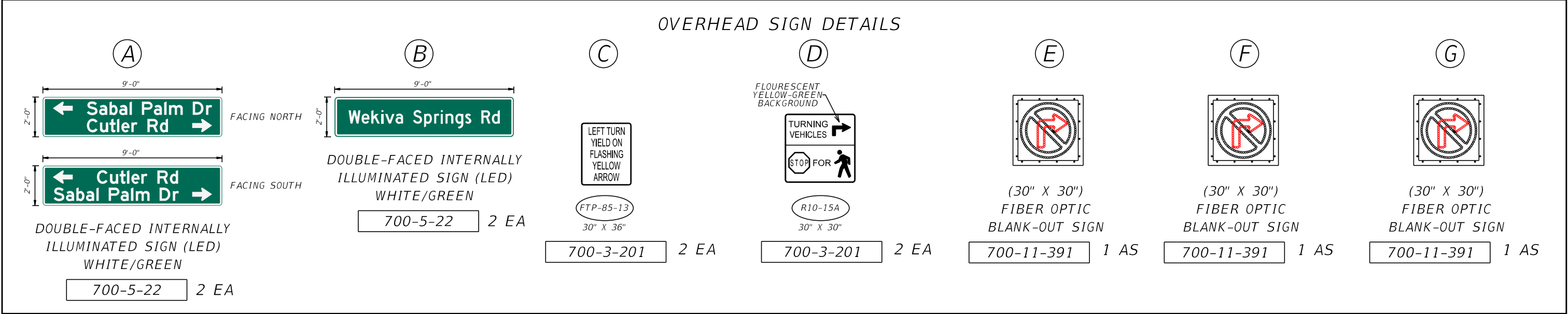
1+5	2+5	2+6	3+8	4+7
NRT	NRT	BL	BL	BL

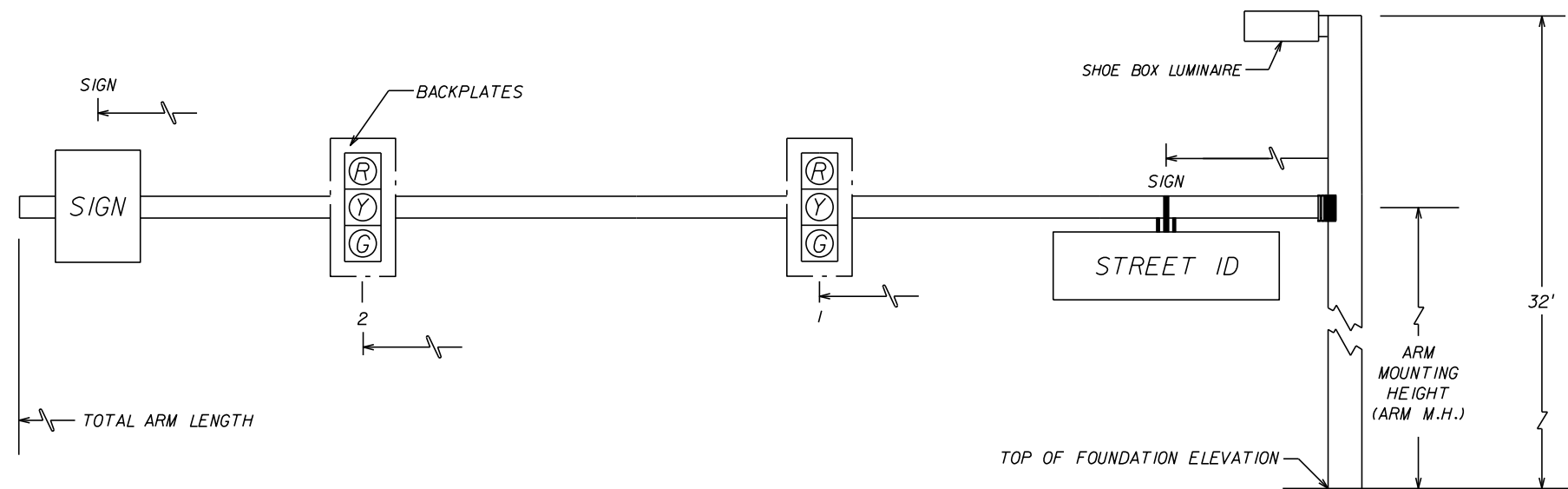
SIGN (F) OPERATION

1+5	2+5	2+6	3+8	4+7
BL	NRT	NRT	BL	NRT

SIGN (G) OPERATION

1+5	1+6	2+6	3+8	4+7
BL	NRT	NRT	NRT	BL



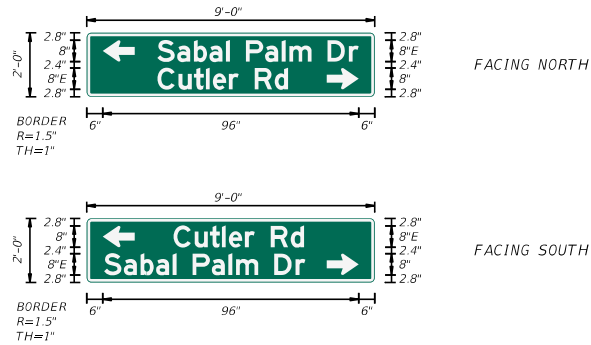
[illegible]

\* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

\*\*\* FIBER OPTIC BLANK-OUT SIGN

REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD MAST ARM TABULATION	SHEET NO.  T-8
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		

SIGN NAME	A		QTY	2	SIGN NUMBER		STATION(S)	
PANEL			BORDER			none		
WIDTH	9'-0"	WIDTH	1"					
HEIGHT	2'-0"	RADII	1.5"					
LEGEND	White	COLOR	White					
COLOR	Green							
SYMBOL(S)	ANGLE	X	Y	WID	HT			
AR_Type D	90	6	13.2	8	12			
AR_Type D	270	90	2.8	8	12			
AR_Type D	90	6	13.2	8	12			
AR_Type D	270	90	2.8	8	12			
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge of Lane	COLUMN SIZE		AVERAGE LENGTH			



NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
-----------------------	--	-----------------	--	-------------------	--	------	--	---------	--

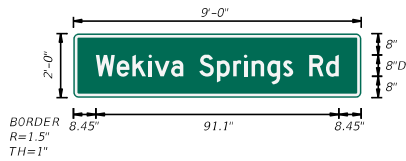
COPY		S	a	b	a	l		P	a	l	m		D	r		L							
SPACE	26.5	7.4	6.2	5.8	6.2	1.4	6	7.2	6.2	2.9	8.3	6	8	3.7	6	75.5							
COPY		C	u	t	l	e	r		R	d		L											
SPACE	26.5	7.9	5.8	4.5	2.6	6	3.7	6	7.5	5	32.5	49											
COPY																							
SPACE																							
COPY		C	u	t	l	e	r		R	d		L											
SPACE	32.5	7.9	5.8	4.5	2.6	6	3.7	6	7.5	5	26.5	49											
COPY		S	a	b	a	l		P	a	l	m		D	r		L							
SPACE	6.5	7.4	6.2	5.8	6.2	1.4	6	7.2	6.2	2.9	8.3	6	8	3.7	26	75.5							
COPY																							
SPACE																							

SIGN NAME			QTY		SIGN NUMBER		STATION(S)	
PANEL			BORDER					
WIDTH		WIDTH						
HEIGHT		RADII						
LEGEND		COLOR						
COLOR								
SYMBOL(S)	ANGLE	X	Y	WID	HT			
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge of Lane	COLUMN SIZE		AVERAGE LENGTH			

NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
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COPY																							
SPACE																							
COPY																							
SPACE																							
COPY																							
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COPY																							
SPACE																							
COPY																							
SPACE																							

SIGN NAME	B		QTY	2	SIGN NUMBER		STATION(S)	
PANEL			BORDER			none		
WIDTH	9'-0"	WIDTH	1"					
HEIGHT	2'-0"	RADII	1.5"					
LEGEND	White	COLOR	White					
COLOR	Green							
SYMBOL(S)	ANGLE	X	Y	WID	HT			
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge of Lane	COLUMN SIZE		AVERAGE LENGTH			



NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
-----------------------	--	-----------------	--	-------------------	--	------	--	---------	--

COPY		W	e	k	i	v	a		S	p	r	i	n	g	s		R	d		L			
SPACE	8.4	7.8	5.8	6.1	2.2	6.2	4.6	6	6.6	6.1	4	2.9	5.9	5.9	3.8	6	6.3	4.8	8.4	91.1			
COPY																							
SPACE																							
COPY																							
SPACE																							
COPY																							
SPACE																							
COPY																							
SPACE																							

SIGN NAME			QTY		SIGN NUMBER		STATION(S)	
PANEL			BORDER					
WIDTH		WIDTH						
HEIGHT		RADII						
LEGEND		COLOR						
COLOR								
SYMBOL(S)	ANGLE	X	Y	WID	HT			
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge of Lane	COLUMN SIZE		AVERAGE LENGTH			

NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
-----------------------	--	-----------------	--	-------------------	--	------	--	---------	--

COPY																							
SPACE																							
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<div>GENERAL NOTES</div> <div><div>1. These Standards are solely for use by Seminole County, Florida for mast arm installations in Seminole County.</div><div>2. These Standards address only the structural details of the Mast Arm and the Drilled Shaft Foundation. Users of these Standards remain responsible for verifying that the complete Mast Arm assembly (structure, foundation, signal heads, sign panels, and luminaries) meets all of the criteria and requirements of the appropriate governing agencies, including, but not limited to, providing adequate vertical &amp; horizontal clearances, adequate sight distance, appropriate signalization, appropriate signal placement, and adequate sign panel size/positioning.</div><div>3. Utilities: Adequate provision shall be made for the protection and/or relocation of existing utilities. Users of these standards are cautioned to verify that there will be no interference between the utilities and the mast arm foundation.</div></div>			<div>GEOTECHNICAL REQUIREMENTS &amp; SOILS DATA LETTER</div> <div><div>1. Site-specific Geotechnical Data is required for all Mast Arms. A Soil Boring shall be performed for each Mast Arm.</div><div>2. A Soils Data Letter shall be prepared by a Geotechnical Engineer and shall be submitted with the Mast Arm Structure Design Calculations and Shop Drawings. The Soils Data Letter shall be based upon a Soil Boring (SPT) not less than 30 feet in depth. Use of methods other than SPT is not permitted.</div><div>The Soils Data Letter shall clearly state the following:<div>Applicable Standard Soil Type(s) Internal Angle of Friction (Phi Angle) Recommended Water Table Elevation for Design Soil Dry Unit Weight Soil Saturated Unit Weight Soil Effective Unit Weight (Saturated Unit Weight minus Water Unit Weight) SPT Blow Count (Uncorrected) Minimum Tip Elevation (if applicable) Shaft Length Extension due to Clay Layer (if applicable) Special Conditions Encountered (Loose Soils, Hardpan, Voids, etc.)</div></div><div>3. The Geotechnical Engineer is advised that the Foundation Capacities have been determined assuming a single soil layer for the entire embedded length of the Drilled Shaft Foundation. The Geotechnical Engineer shall exercise appropriate engineering judgement when using weighted-average and/or other measures to ensure the single-layer soil properties will accurately model the actual existing multi-layer soil conditions. For highly variable soils, more than one Standard Soil Type may need to be provided. For example, one Standard Soil Type may be applicable for a Drilled Shaft Foundation less than 16'-0" long while a different Standard Soil Type may be applicable for a Drilled Shaft Foundation longer than 16'-0". In all cases, the provided Standard Soil Type(s) must be applicable for the entire length of the Drilled Shaft Foundation. I.e., do not provide a Standard Soil Type for the upper soil layers and a different soil type for the lower soil layers.</div><div>4. Drilled Shaft Foundations shall not terminate in a soil layer with an uncorrected SPT Blow Count (N) of 4 or less. The Soils Data Letter shall specifically note all such layers and shall provide a Minimum Tip Elevation. Where the Ground Elevation is not known, the Minimum Tip Elevation shall be expressed as a Minimum Tip Depth Below Grade.</div><div>5. The following criteria must be met in order to qualify as a Standard Soil Type:<div><div>A. The average soils parameters must meet all of the minimum values of the Standard Soil Type.</div><div>B. Within the limit of the Drilled Shaft Foundation, there can be no more than 5'-0" of soils with an uncorrected SPT Blow Count (N) of 4 or less.</div><div>C. At the discretion of the Geotechnical Engineer, the soils within the length of the Drilled Shaft Foundation may contain a clay layer not exceeding 3'-0" thick (see Note #6).</div></div></div><div>6. At the discretion of the Geotechnical Engineer, the following procedure may be used for a soil profile that contains a clay layer not exceeding 3'-0" in thickness, but that otherwise fully meets all of the parameters for a Standard Soil Type:<div><div>A. The Drilled Shaft Foundation capacity shall be based upon the Standard Soil Type.</div><div>B. The Drilled Shaft Foundation shall be extended a minimum of 3'-0" longer than the length required by the Table of Foundation Capacities.</div></div></div><div>7. For each location where a Standard Soil Type applies, the standard foundation details shall be used. A Special Foundation Design is not required for that location.</div><div>8. For locations where no Standard Soil Type is applicable, a Special Foundation Design is required. The Special Foundation shall be designed and detailed using the actual Mast Arm base reactions and the specific soils parameters provided in the Soils Data Letter. The Special Foundation shall be designed by a professional engineer registered in the State of Florida. Signed and sealed design calculations and foundation details shall be submitted concurrently with the mast arm design calculations and shop drawings. The Drilled Shaft Foundation design methodology shall comply with the Foundation Capacity Criteria used for these Standards (see Sheet# T-18).</div></div>			<div>SUBMITTAL REQUIREMENTS</div> <div>The following information shall be provided for every Mast Arm structure:<div><div>1. Mast Arm Design Calculations</div><div>2. Mast Arm Shop Drawings</div><div>3. Soils Data Letter (with Soil Boring Log)</div><div>4. Special Foundation Design (required only for non-standard soils)</div></div></div> <div>SPECIAL CONSTRUCTION REQUIREMENTS</div> <div><div>1. All Construction shall comply with the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction" except for method of payment.</div><div>2. Mast Arm Shop Drawings are required and fabrication shall not begin until the Shop Drawings are approved. Mast Arm Shop Drawings shall include the anchor rod orientation with respect to the arm(s) and the direction of traffic.</div><div>3. Foundation Materials:<div><div>A. Concrete: FDOT Class IV (Drilled Shaft) Minimum 28-Day Compressive Strength = 4,000 psi</div><div>B. Reinforcing Steel: ASTM A615, Grade 60</div></div>Special Requirements apply to FDOT District 5 Submittals. Contact the FDOT District 5 Geotechnical Department for Environmental Classification based upon the FDOT District 5 Corrosion Maps.</div><div>4. The Soils Data Letter may require a Minimum Tip Elevation in order to locate the bottom of the drilled shaft in a competent soil layer or to account for a clay layer. Drilled Shaft Foundations shall not be terminated above the stated Minimum Tip Elevation.</div><div>5. The top of the Drilled Shaft Foundation shall extend a minimum of one inch (1") but not more than six inches (6") above the adjacent finish ground line. The top of Drilled Shaft Foundations located within or abutting a sidewalk shall match the top of sidewalk elevation unless otherwise noted in the Mast Arm Designer's plans.</div><div>6. Natural Slurry shall not be relied upon to prevent caving of the soils and/or to maintain an open hole. Adequate measures shall be taken to control Artesian Water Conditions where encountered. Temporary Casing or other measures may be used. Permanent Casing is prohibited.</div><div>7. The Pole shall not be erected until the foundation concrete has achieved the specified 28-day compressive strength.</div><div>8. If the traffic signals or sign panels are not in place within two working days after the arm is erected, a 3.0 foot by 2.0 foot blank 1/8" thick aluminum sign panel shall be attached to the bottom of the arm within six feet of the arm tip and shall remain in place until the signals and signs are installed.</div></div>		
REVISIONS			<div><div><div><div></div><div>SEMINOLE COUNTY</div><div>FLORIDA'S NATURAL CHOICE</div></div></div><div>2017-18 STANDARD MAST ARM DRAWINGS SEMINOLE COUNTY TRAFFIC ENGINEERING 140 BUSH LOOP - SANFORD, FL 32773 407-665-5677</div></div>		NOTES		SHEET	
DATE	BY	DESCRIPTION						

MAST ARM STRUCTURAL DESIGN CRITERIA

1. Mast Arm Structure Design shall comply with:

A. American Society of State Highway and Transportation Officials  
"LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" (1st Edition with Interim Revisions through 2017)

B. Florida Department of Transportation Structures Manual (January 2017 Edition).

C. Fatigue shall be considered in accordance with the requirements of the Florida Department of Transportation Structures Manual (January 2017 Edition).
2. Basic Wind Speed: 150 mph
3. The Mast Arm Design Calculations shall clearly state the Foundation Reactions.
4. To ensure constructability of the drilled shaft foundations, the Mast Arm Anchor Rod Bolt Circle shall not exceed 24" without prior approval of Seminole County Traffic Engineering. An Anchor Rod Bolt Circle larger than 24" will require more stringent construction tolerances for the Drilled Shaft Construction than those in the FDOT Specifications, including more precise fabrication/placement of the reinforcing bar cage and more precise placement of the anchor rods.
5. A grout pad is required.
6. The mast arm structure details shown herein are not complete details. The details only indicate the appearance of the mast arm structure and the connection styles. The fabricator shall be responsible for the complete design and detailing of the mast arm structure. Calculations and Shop Drawings shall be signed and sealed by a professional engineer registered in the State of Florida in compliance with Florida laws and regulations.

MAST ARM STRUCTURE REQUIREMENTS

1. Materials:

Split-lock washers and self-locking nuts are not permitted.

A. Poles, Mast Arms & Backing Rings:

1) Less than 3⁄16":ASTM A1011 Grade 50, 55, 60, or 65

2) Greater than or equal to 3⁄16":ASTM A572 Grade 50, 55, 60, or 65

3) All thicknesses:ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield)

B. Steel Plates:ASTM A36

C. Weld Metal:E70XX

D. Bolts, Nuts, and Washers:

1) High Strength Bolts:ASTM F3125, Grade A325, Type 1

2) Nuts:ASTM A563 DH Heavy-Hex

3) Washers:ASTM F436, Type 1 (one under turned element)

E. Anchor Rods, Nuts, & Washers:

1) Anchor Rods:ASTM F1554 Grade 55

2) Nuts for Anchor Rods:ASTM A563 Grade A Heavy Hex (5 per anchor rod)

3) Plate Washers:ASTM A36 (2 per anchor rod)

F. Threaded Bars/Studs:ASTM A36 or ASTM A307

G. Handhole Frame:ASTM A709 Grade 36 or ASTM A36

H. Handhole Cover:ASTM A1011 Grade 50, 55, 60, or 65

I. Aluminum Pole Caps and Nut Covers:ASTM B26 (319-F)

J. Stainless Steel Screws:AISI Type 316
2. Fabrication

A. Pole and Mast Arm Taper: Change diameter at a uniform rate of 0.14 inches per foot

B. Upright (Pole) splices are not allowed. Transverse welds in pole are only permitted at the base.

C. Arm camber shall comply with requirements shown on these Standards.

D. Provide bolt hole diameters as follows:

1. Bolts (excludes Anchor Rods): Bolt diameter plus 1⁄16", prior to galvanizing.

2. Anchor Rods:Anchor Rod diameter plus 1⁄2", prior to galvanizing.

E. Unless specifically shown otherwise in the Signalization Plans, face the handhole:

Single Arm Structures: Perpendicular to arm

Double Arm Structures: Perpendicular to first arm

F. Seam weld on bottom side of arm. Seam weld under Arm 1 side of pole.

G. Provide "J" or "C" hook at the top of the pole for signal wiring support.

H. Perform all welding in accordance with Specification Article 460-6.4.

I. Hot Dip Galvanize and Paint after fabrication.
3. Coatings:

A. All Nuts, Bolts, Washers, and Threaded Bars/Studs: ASTM F2329

B. All other steel items: ASTM A123

C. Paint the entire structure after fabrication in accordance with Specification Article 649-4. Surfaces that will not be exposed after erection need not be painted.
4. Construction:

A. Foundation: Specification Section 455 Drilled Shaft, except for method of payment.

B. Install Pole vertically.

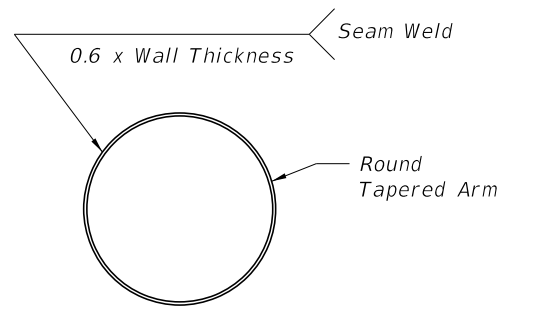
C. Place structural grout pad with drain between the top of the foundation and the bottom of the baseplate in accordance with Specification Article 649-7.

D. Attach Sign Panels and Signals centered on the elevation of the Mast Arm.

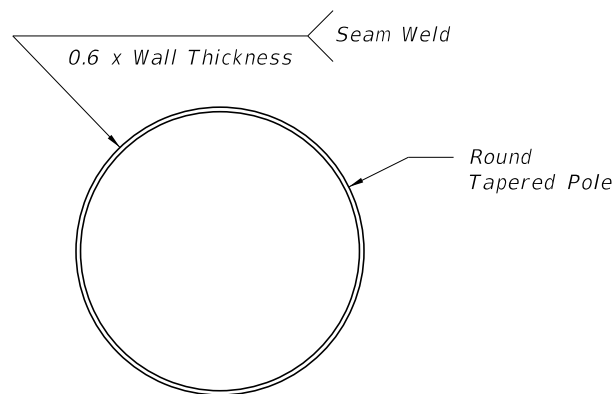
E. Wire Access holes shall be 1½" or less in diameter.

SPECIFICATION OF MAST ARMS

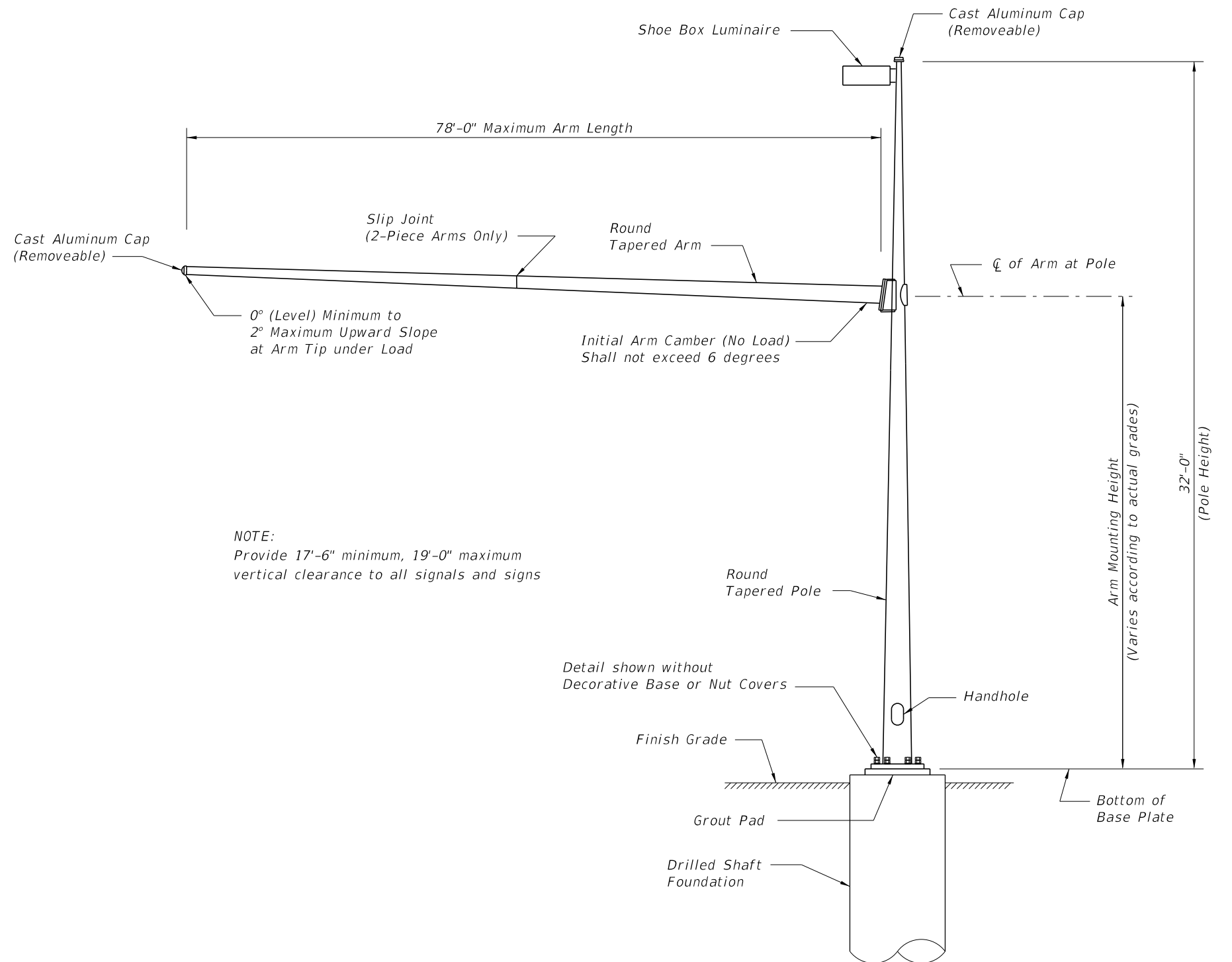
POLE I.D.	POLE TYPE	POLE STYLE	ARM STYLE	COLOR	LUMINAIRE	BASE	BANNER	FIRST ARM LENGTH	SECOND ARM LENGTH	ANGLE BETWEEN ARMS
POLE A	POLE TYPE 4	ROUND	STRAIGHT	BLACK	SHOEBOX	NUT COVERS	NONE	70 '		
POLE B	POLE TYPE 4	ROUND	STRAIGHT	BLACK	SHOEBOX	NUT COVERS	NONE	50 '		
POLE C	POLE TYPE 4	ROUND	STRAIGHT	BLACK	SHOEBOX	NUT COVERS	NONE	60 '		
POLE D	POLE TYPE 4	ROUND	STRAIGHT	BLACK	SHOEBOX	NUT COVERS	NONE	60 '		



TYPICAL SECTION THROUGH ARM



TYPICAL SECTION THROUGH POLE



NOTE:  
Provide 17'-6" minimum, 19'-0" maximum  
vertical clearance to all signals and signs

ELEVATION - POLE TYPE 4

REVISIONS			DESCRIPTION
DATE	BY		



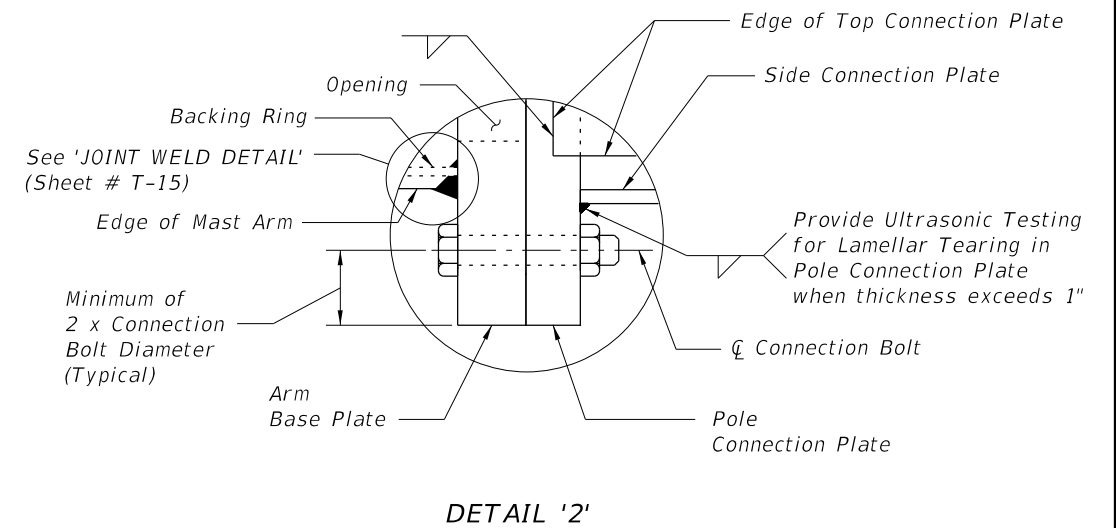
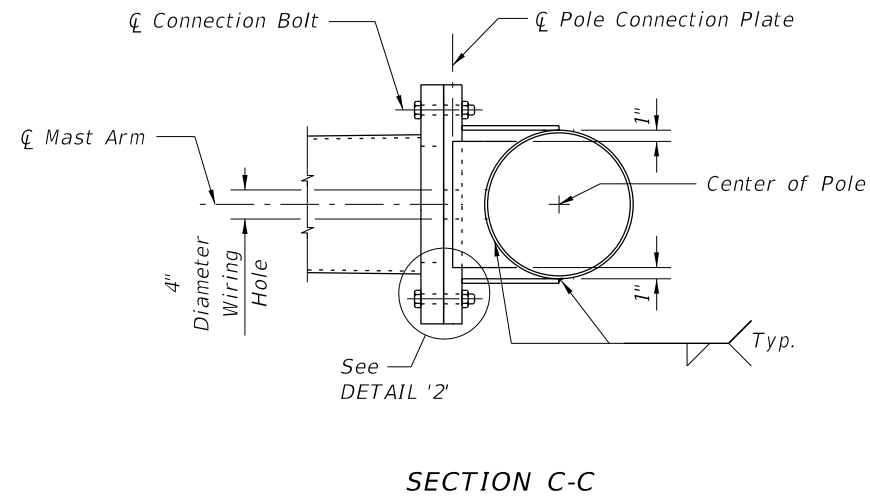
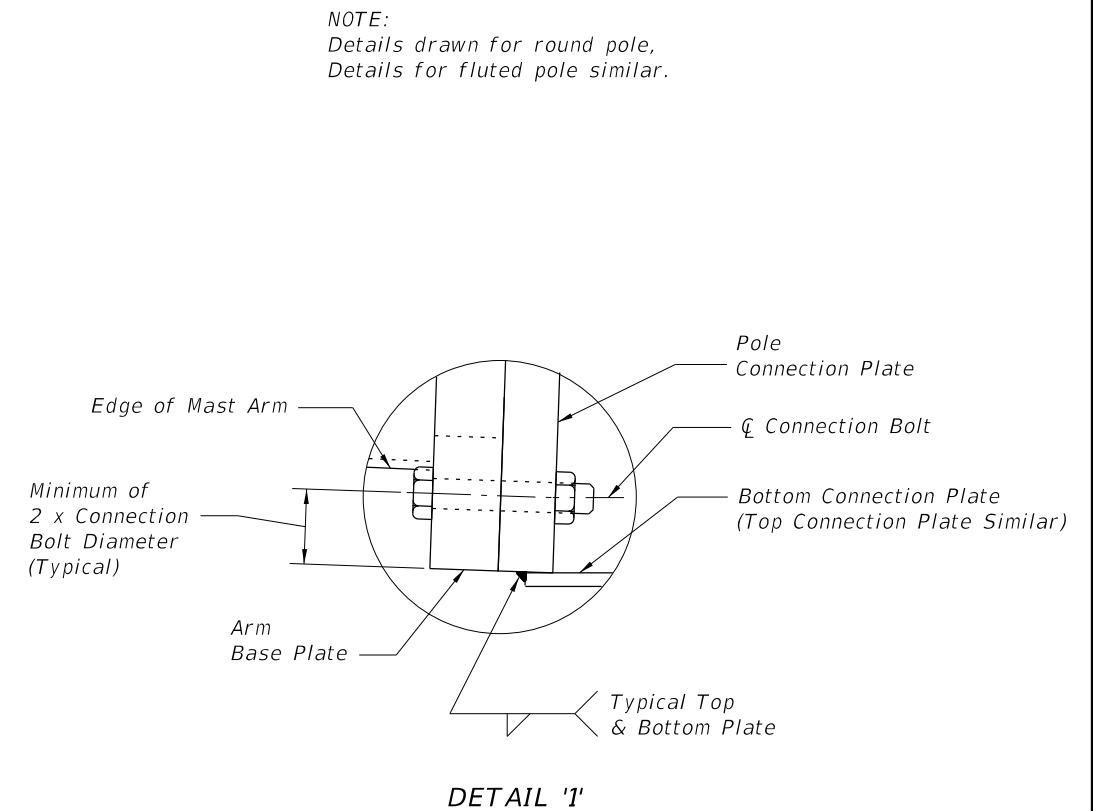
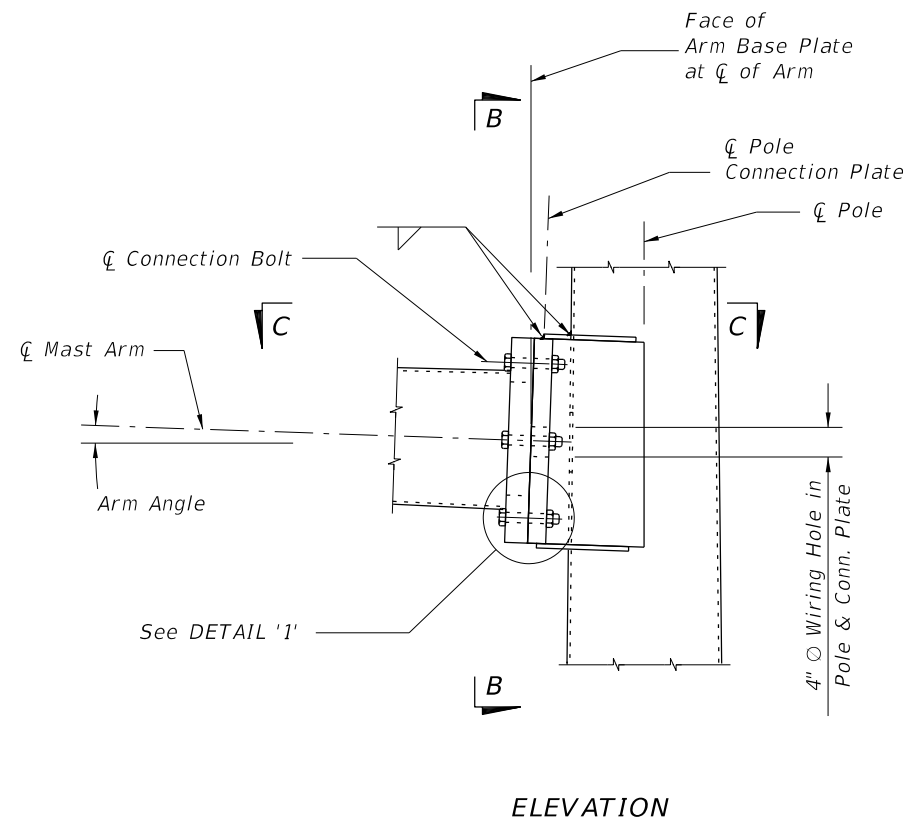
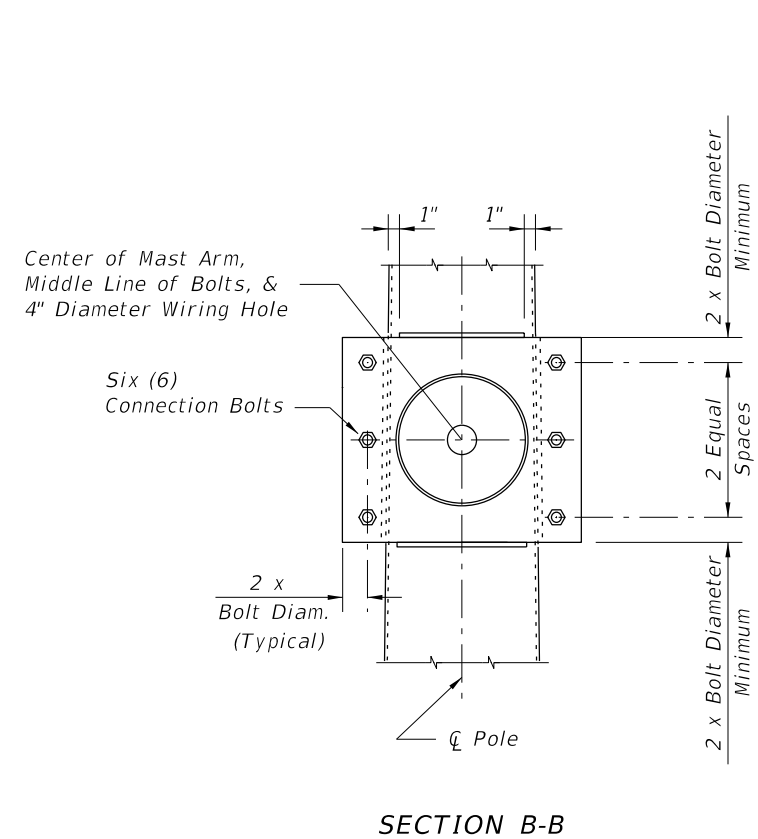
**2017-18**  
**STANDARD MAST ARM DRAWINGS**  
**SEMINOLE COUNTY TRAFFIC ENGINEERING**  
140 BUSH LOOP - SANFORD, FL 32773  
407-665-5677

**POLE TYPE 4**  
**ROUND POLE WITH LUMINAIRE**  
**STRAIGHT ARM**

SHEET

T-13





REVISIONS			DESCRIPTION
DATE	BY		

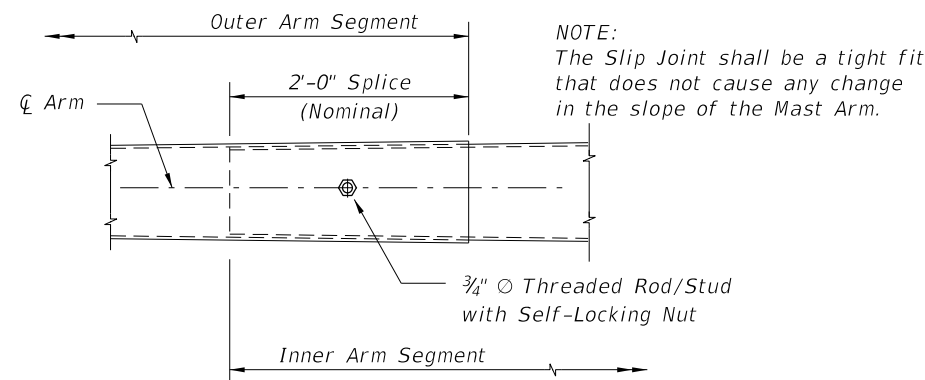


**2017-18**  
**STANDARD MAST ARM DRAWINGS**  
**SEMINOLE COUNTY TRAFFIC ENGINEERING**  
 140 BUSH LOOP - SANFORD, FL 32773  
 407-665-5677

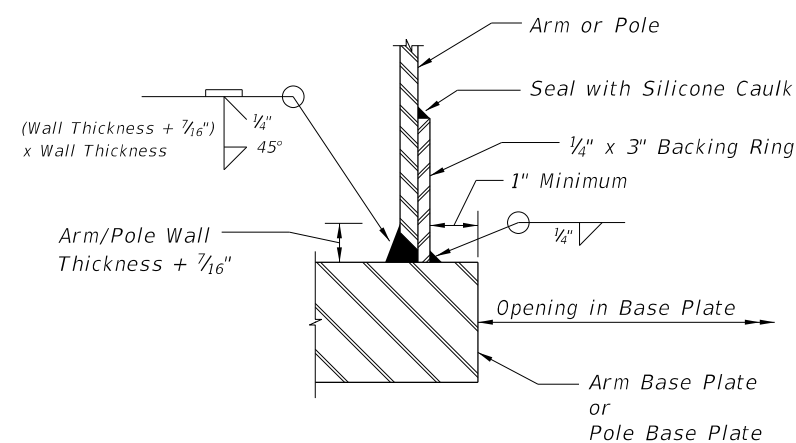
**ARM-TO-POLE CONNECTION**  
**SINGLE ARM**

SHEET

T-14

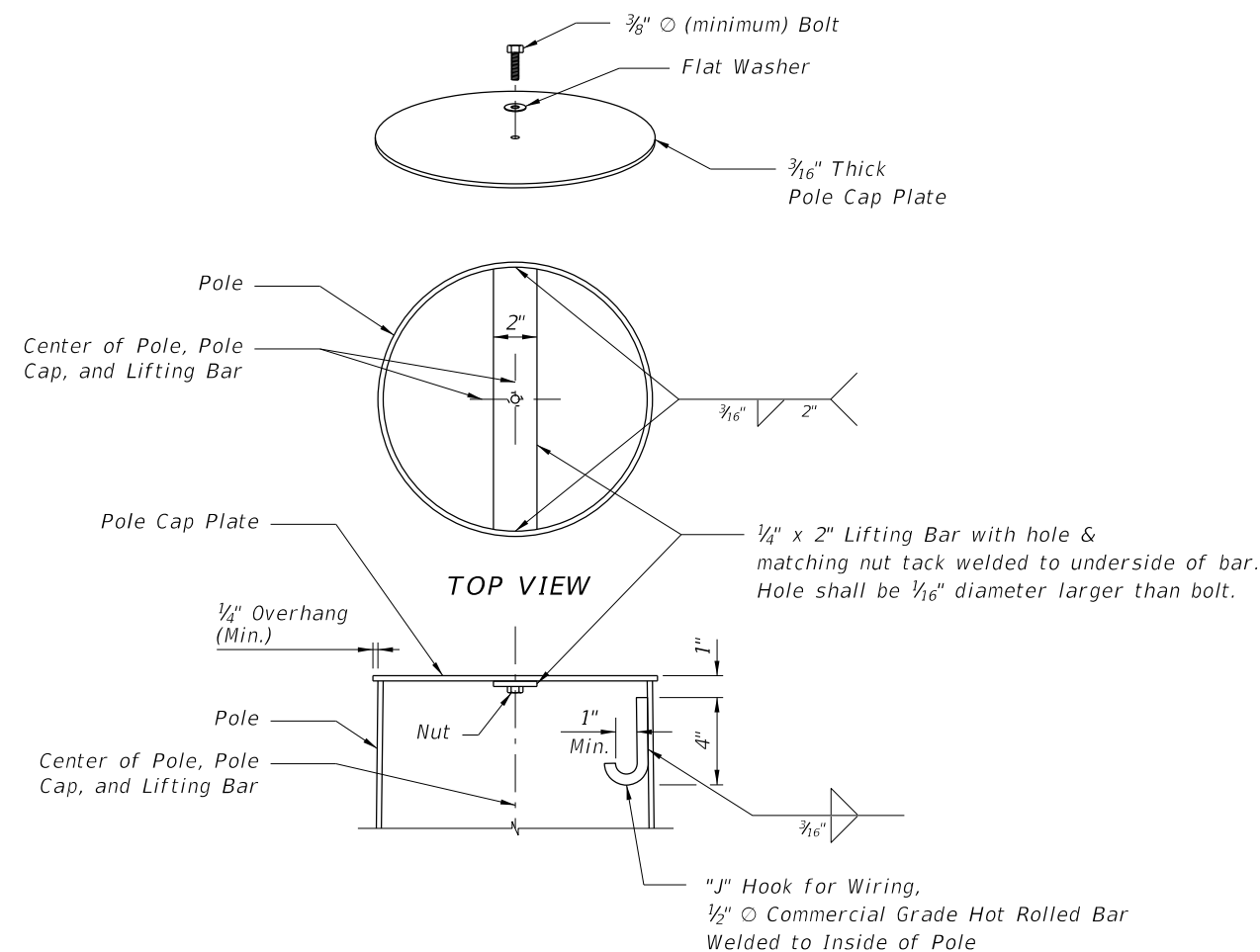


ARM SPLICE DETAIL

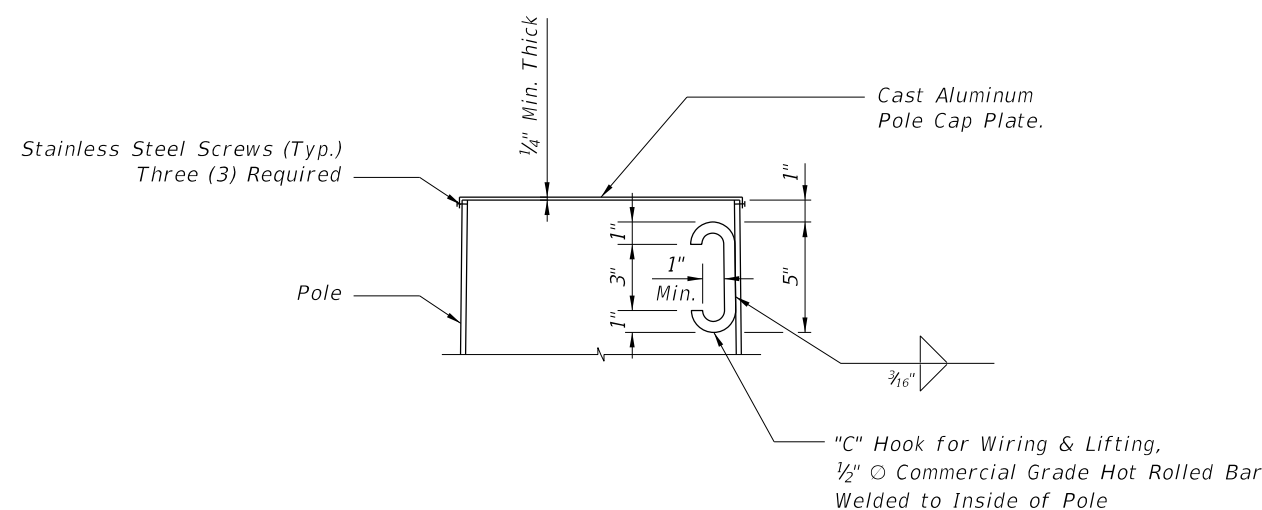


JOINT WELD DETAIL

Arm To Connection Plate  
&  
Pole To Base Plate



OPTION "A"



OPTION "B"

TOP OF POLE DETAILS

NOTE:  
Any combination of the details shown in the two options may be used, provided both lifting and wiring are accommodated.

REVISIONS			DESCRIPTION
DATE	BY		

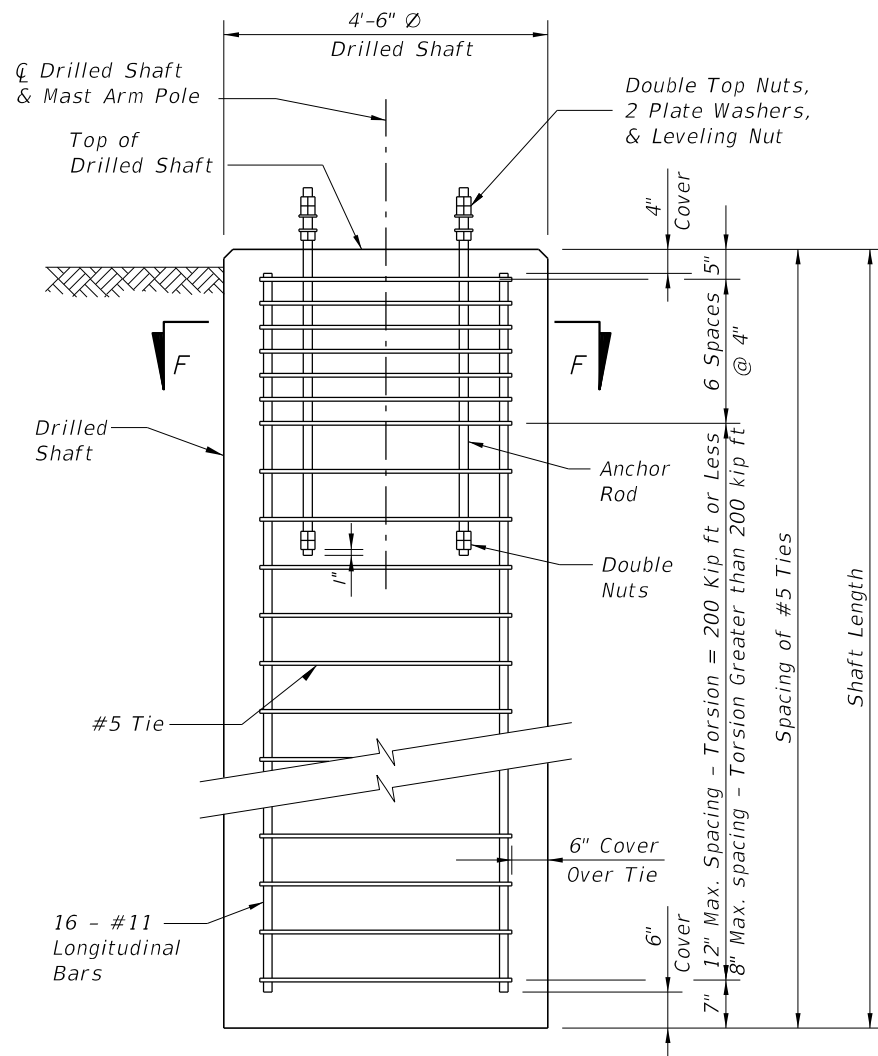
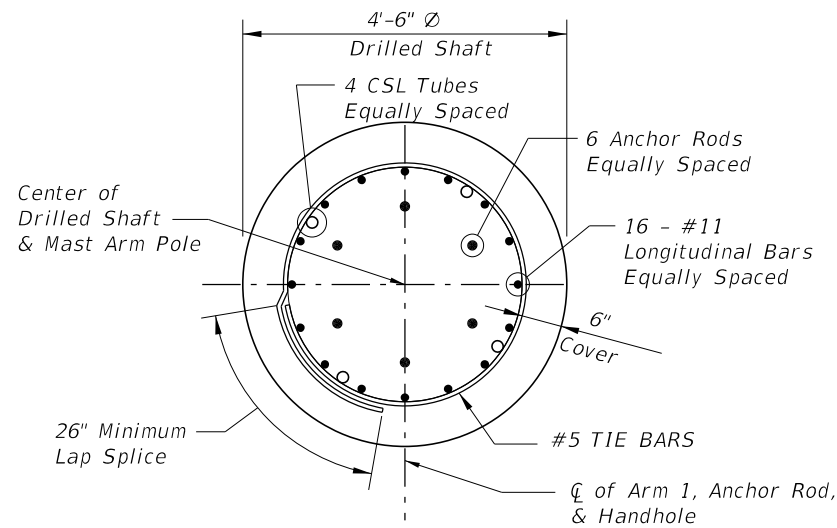


**2017-18**  
**STANDARD MAST ARM DRAWINGS**  
**SEMINOLE COUNTY TRAFFIC ENGINEERING**  
140 BUSH LOOP - SANFORD, FL 32773  
407-665-5677

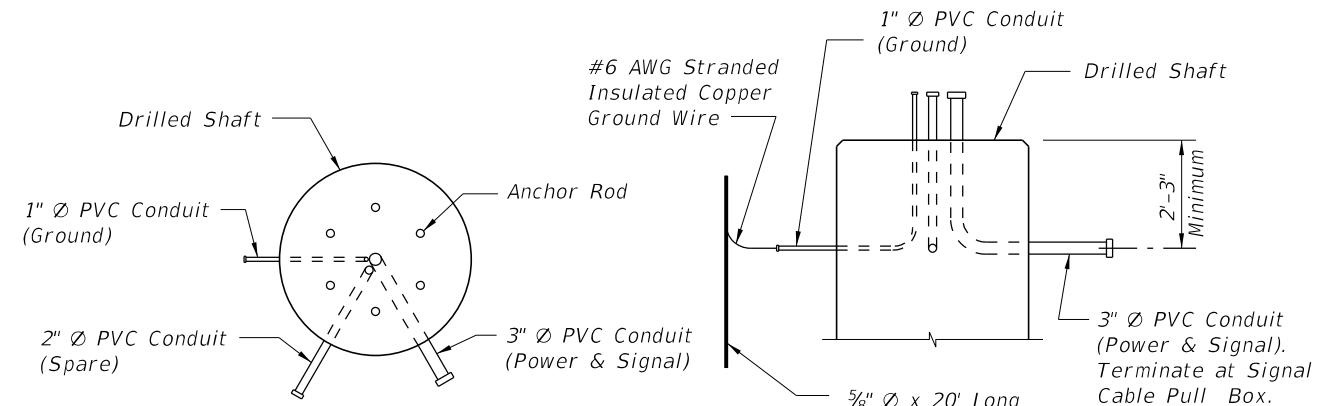
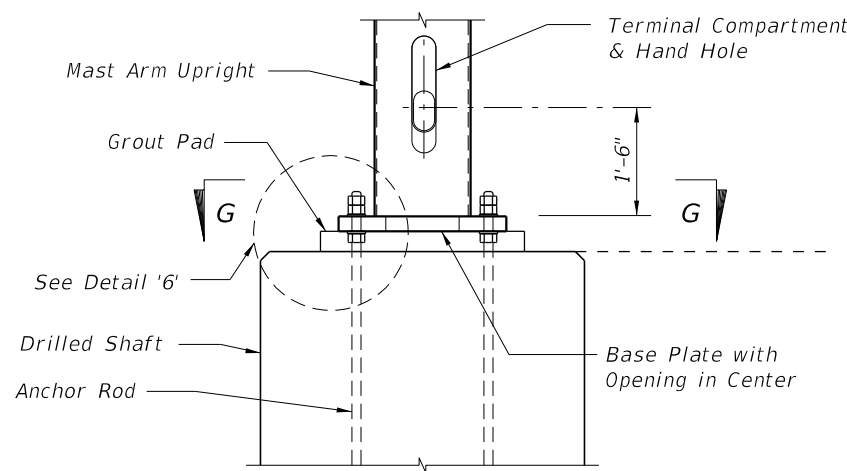
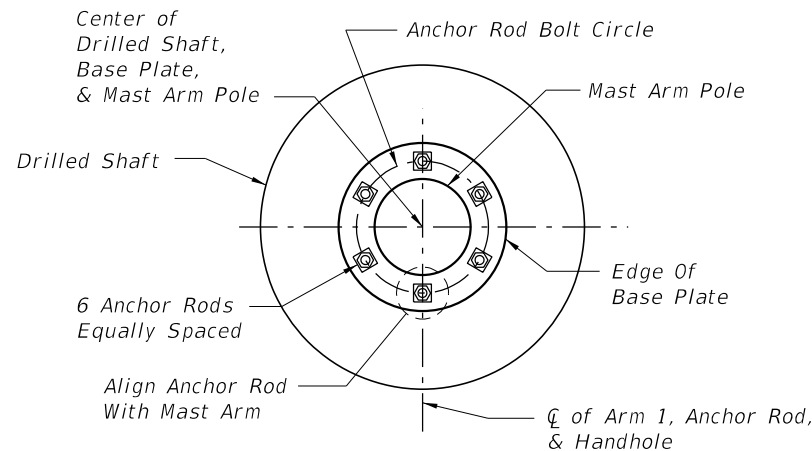
**MAST ARM DETAILS**

SHEET

T-15



NOTE:  
See MAST ARM STRUCTURAL DESIGN CRITERIA,  
Note #4 on Sheet # T-11 for restriction on  
diameter of Anchor Rod Bolt Circle.

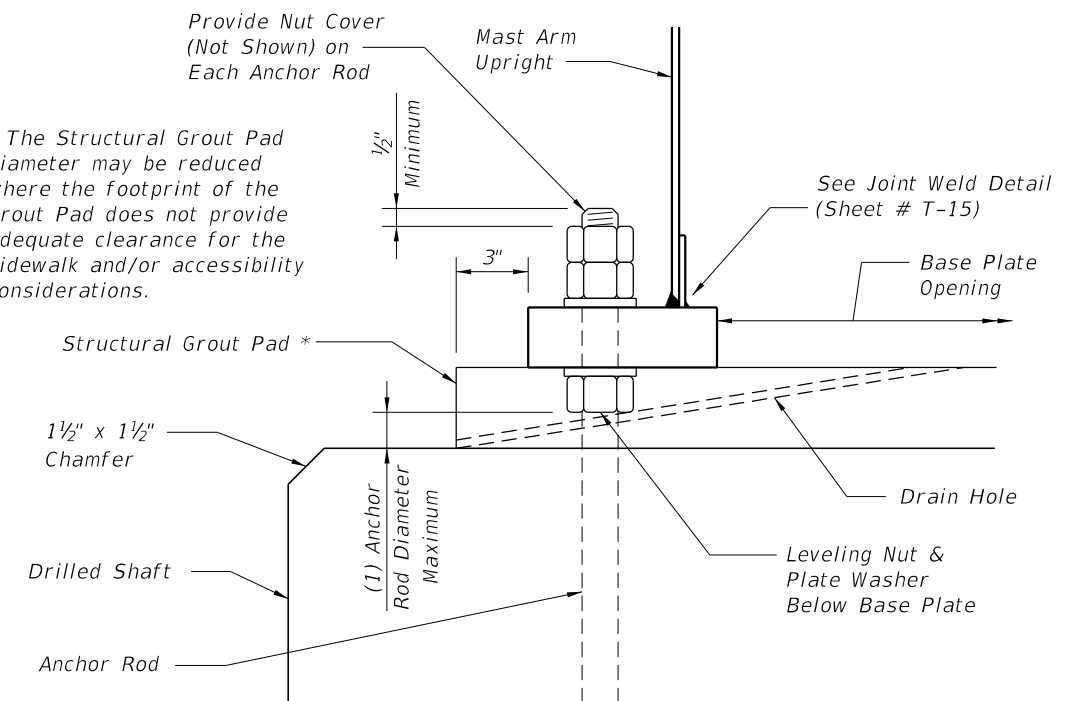


### FOUNDATION CONDUIT DETAIL

Conduit Notes:

- Details shown are schematic.
- Adjust Conduit Orientation as required to clear Anchor Rods, Drilled Shaft Reinforcing, and CSL tubes.
- Extend Conduits to 1" below bottom of Mast Arm Handhole.

\* The Structural Grout Pad diameter may be reduced where the footprint of the Grout Pad does not provide adequate clearance for the sidewalk and/or accessibility considerations.



REVISIONS			DESCRIPTION
DATE	BY		



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**STANDARD MAST ARM DRAWINGS**  
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407-665-5677

**FOUNDATION DETAILS**

SHEET

T-16

TABLE NOTES			TABLE OF FOUNDATION CAPACITIES																	
<div>1. The Moment and Torsion Capacities are LRFD Capacities. The values in the Table of Foundation Capacities are limited to: Overturning Moment: 300 kip*ft Torsion: 375 kip*ft</div>			SOIL TYPE: 28-40-06 Φ: 28 DEGREES γ: 40 PCF N: 9 > N ≥ 6		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	29	68			116	175	245	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	34	42			49	58	67	77	88	99	111	124	137	151	166					
<div>2. The foundation information and details shown are for foundations meeting specific soil properties: Internal Angle of Friction (Phi Angle) Soil Effective Unit Weight (saturated unit weight minus water unit weight) SPT Blow Count (blows per foot) (uncorrected) These parameters are assumed to exist for the entire embedded depth of the drilled shaft.</div>			SOIL TYPE: 28-40-09 Φ: 28 DEGREES γ: 40 PCF N: 12 > N ≥ 9		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	29	68			116	175	245	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	52	62			74	87	101	116	132	149	167	186	206	227	249					
<div>3. The information provided in the Table of Foundation Capacities is only valid if all of the following conditions are met: <div>A. The existing soil conditions meet all of the parameters listed for the standard soil type (see GEOTECHNICAL REQUIREMENTS &amp; SOILS DATA LETTER, Note #6 on Sheet T-10 for exception).</div><div>B. The ground surface slope is 4:1 (Horizontal to Vertical) or flatter for a minimum of 8 feet from the center of the foundation in all directions.</div><div>C. The foundations are constructed in accordance with these standards.</div> If any of these conditions are not met, then the foundation information and details shown herein do not apply and a special foundation must be designed. See Sheet T-10 for foundation design and submittal requirements.</div>			SOIL TYPE: 28-40-12 Φ: 28 DEGREES γ: 40 PCF N: 15 > N ≥ 12		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	29	68			116	175	245	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	69	83			99	116	135	155	176	199	223	248	275	303	333					
			SOIL TYPE: 28-40-15 Φ: 28 DEGREES γ: 40 PCF N: N ≥ 15		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23			
MOMENT (KIP*FEET)	29	68			116	175	245	300	300	300	300	300	300	300						
TORSION (KIP*FEET)	86	104			124	145	168	193	220	248	278	310	344	375						
			SOIL TYPE: 28-50-06 Φ: 28 DEGREES γ: 50 PCF N: 9 > N ≥ 6		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	66	116			179	256	300	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	43	52			62	73	84	97	110	124	139	155	172	189	208					
<div>4. If the Base Moment or Base Torsion exceed the values shown in the Table of Foundation Capacities, then a special foundation must be designed. See requirements this sheet and Sheet T-10 for foundation design criteria and submittal requirements.</div>			SOIL TYPE: 28-50-09 Φ: 28 DEGREES γ: 50 PCF N: 12 > N ≥ 9		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	66	116			179	256	300	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	64	78			93	109	126	145	165	186	209	233	258	284	312					
<div>5. See Sheet T-10 for additional notes.</div>			SOIL TYPE: 28-50-12 Φ: 28 DEGREES γ: 50 PCF N: 15 > N ≥ 12		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23			
MOMENT (KIP*FEET)	66	116			179	256	300	300	300	300	300	300	300	300						
TORSION (KIP*FEET)	86	104			124	145	168	193	220	248	278	310	344	375						
FOUNDATION CAPACITY CRITERIA			SOIL TYPE: 28-50-15 Φ: 28 DEGREES γ: 50 PCF N: N ≥ 15		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21					
					MOMENT (KIP*FEET)	66	116	179	256	300	300	300	300	300	300					
					TORSION (KIP*FEET)	107	130	155	181	210	242	275	310	348	375					
<div>1. The Drilled Shaft Moment and Torsion Capacities are determined in accordance with the FDOT Structures Manual (January 2017 Edition) with parameters and modifications as listed herein.</div>			SOIL TYPE: 28-60-06 Φ: 28 DEGREES γ: 60 PCF N: 9 > N ≥ 6		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	102	165			243	300	300	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	52	62			74	87	101	116	132	149	167	186	206	227	249					
<div>2. Design Parameters: Resistance Factor – Overturning: 0.60 Resistance Factor – Torsion: 0.90 Horizontal Shear (Applied at Top of Drilled Shaft): 10.0 Kips</div>			SOIL TYPE: 28-60-09 Φ: 28 DEGREES γ: 60 PCF N: 12 > N ≥ 9		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24		
MOMENT (KIP*FEET)	102	165			243	300	300	300	300	300	300	300	300	300	300					
TORSION (KIP*FEET)	77	94			111	131	151	174	198	223	250	279	309	341	374					
<div>3. The foundation capacity assumes that: a) The top of the foundation extends 6" above grade b) The top 18" of soil is loose or disturbed To account for these assumptions, the top 2'-0" of the shaft length is considered to provide no contribution to the overturning or torsion resistance and therefore the soil within that limit is totally neglected.</div>			SOIL TYPE: 28-60-12 Φ: 28 DEGREES γ: 60 PCF N: 15 > N ≥ 12		LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22				
MOMENT (KIP*FEET)	102	165			243	300	300	300	300	300	300	300	300							
TORSION (KIP*FEET)	103	125			148	174	202	232	264	298	334	372	375							
<div>4. Torsion resistance is computed solely for skin friction. No contribution from bottom friction is considered.</div>			SOIL TYPE: 28-60-15 Φ: 28 DEGREES γ: 60 PCF N: N ≥ 15		LENGTH (FEET)	12	13	14	15	16	17	18	19	20						
MOMENT (KIP*FEET)	102	165			243	300	300	300	300	300	300									
TORSION (KIP*FEET)	129	156			186	218	252	290	330	372	375									
TABLE LEGEND Φ: Soil Internal Angle of Friction (Phi Angle) γ: Soil Effective Unit Weight N: SPT Blow Count (Blows per Foot) (Uncorrected)																				
REVISIONS			2017-18 STANDARD MAST ARM DRAWINGS SEMINOLE COUNTY TRAFFIC ENGINEERING 140 BUSH LOOP - SANFORD, FL 32773 407-665-5677															FOUNDATION CAPACITIES (1 OF 2)		SHEET T-17
DATE	BY	DESCRIPTION																		

TABLE OF FOUNDATION CAPACITIES														
SOIL TYPE: 30-40-06 Φ: 30 DEGREES γ: 40 PCF N: 9 > N ≥ 6	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	41	84	137	202	279	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	34	42	49	58	67	77	88	99	111	124	137	151	166
SOIL TYPE: 30-40-09 Φ: 30 DEGREES γ: 40 PCF N: 12 > N ≥ 9	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	41	84	137	202	279	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	52	62	74	87	101	116	132	149	167	186	206	227	249
SOIL TYPE: 30-40-12 Φ: 30 DEGREES γ: 40 PCF N: 15 > N ≥ 12	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	41	84	137	202	279	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	69	83	99	116	135	155	176	199	223	248	275	303	333
SOIL TYPE: 30-40-15 Φ: 30 DEGREES γ: 40 PCF N: N ≥ 15	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	
	MOMENT (KIP*FEET)	41	84	137	202	279	300	300	300	300	300	300	300	
	TORSION (KIP*FEET)	86	104	124	145	168	193	220	248	278	310	344	375	
SOIL TYPE: 30-50-06 Φ: 30 DEGREES γ: 50 PCF N: 9 > N ≥ 6	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	81	137	206	289	300	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	43	52	62	73	84	97	110	124	139	155	172	189	208
SOIL TYPE: 30-50-09 Φ: 30 DEGREES γ: 50 PCF N: 12 > N ≥ 9	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	81	137	206	289	300	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	64	78	93	109	126	145	165	186	209	233	258	284	312
SOIL TYPE: 30-50-12 Φ: 30 DEGREES γ: 50 PCF N: 15 > N ≥ 12	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	
	MOMENT (KIP*FEET)	81	137	206	289	300	300	300	300	300	300	300	300	
	TORSION (KIP*FEET)	86	104	124	145	168	193	220	248	278	310	344	375	
SOIL TYPE: 30-50-15 Φ: 30 DEGREES γ: 50 PCF N: N ≥ 15	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21			
	MOMENT (KIP*FEET)	81	137	206	289	300	300	300	300	300	300			
	TORSION (KIP*FEET)	107	130	155	181	210	242	275	310	348	375			
SOIL TYPE: 30-60-06 Φ: 30 DEGREES γ: 60 PCF N: 9 > N ≥ 6	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	121	190	274	300	300	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	52	62	74	87	101	116	132	149	167	186	206	227	249
SOIL TYPE: 30-60-09 Φ: 30 DEGREES γ: 60 PCF N: 12 > N ≥ 9	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22	23	24
	MOMENT (KIP*FEET)	121	190	274	300	300	300	300	300	300	300	300	300	300
	TORSION (KIP*FEET)	77	94	111	131	151	174	198	223	250	279	309	341	374
SOIL TYPE: 30-60-12 Φ: 30 DEGREES γ: 60 PCF N: 15 > N ≥ 12	LENGTH (FEET)	12	13	14	15	16	17	18	19	20	21	22		
	MOMENT (KIP*FEET)	121	190	274	300	300	300	300	300	300	300	300		
	TORSION (KIP*FEET)	103	125	148	174	202	232	264	298	334	372	375		
SOIL TYPE: 30-60-15 Φ: 30 DEGREES γ: 60 PCF N: N ≥ 15	LENGTH (FEET)	12	13	14	15	16	17	18	19	20				
	MOMENT (KIP*FEET)	121	190	274	300	300	300	300	300	300				
	TORSION (KIP*FEET)	129	156	186	218	252	290	330	372	375				

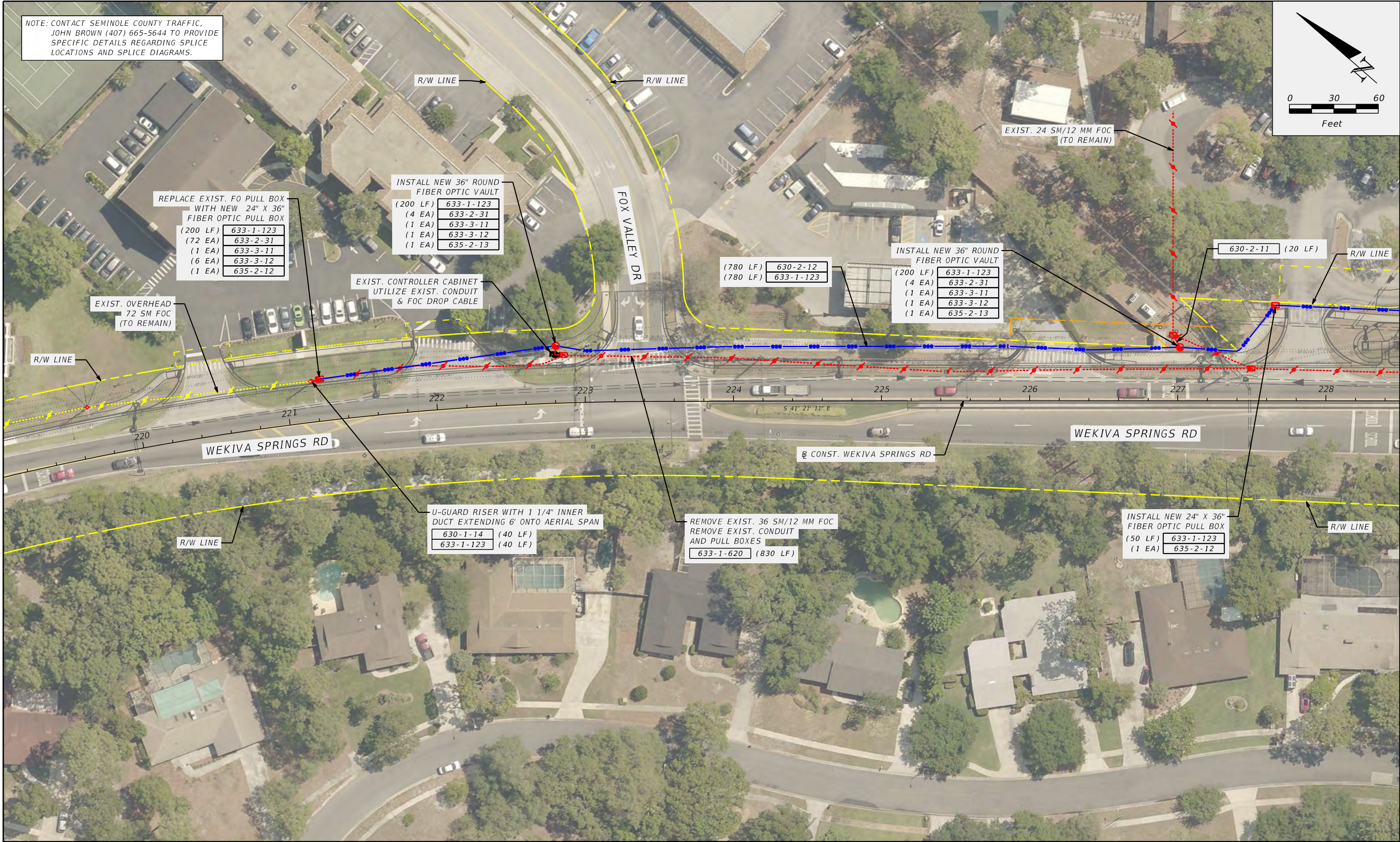
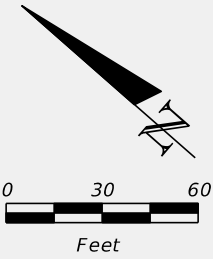
NOTE:  
See Sheet # T-17 for Table Notes &  
Criteria used for Foundation Capacities.

TABLE LEGEND

Φ: Soil Internal Angle of Friction (Phi Angle)  
γ: Soil Effective Unit Weight  
N: SPT Blow Count (Blows per Foot) (Uncorrected)



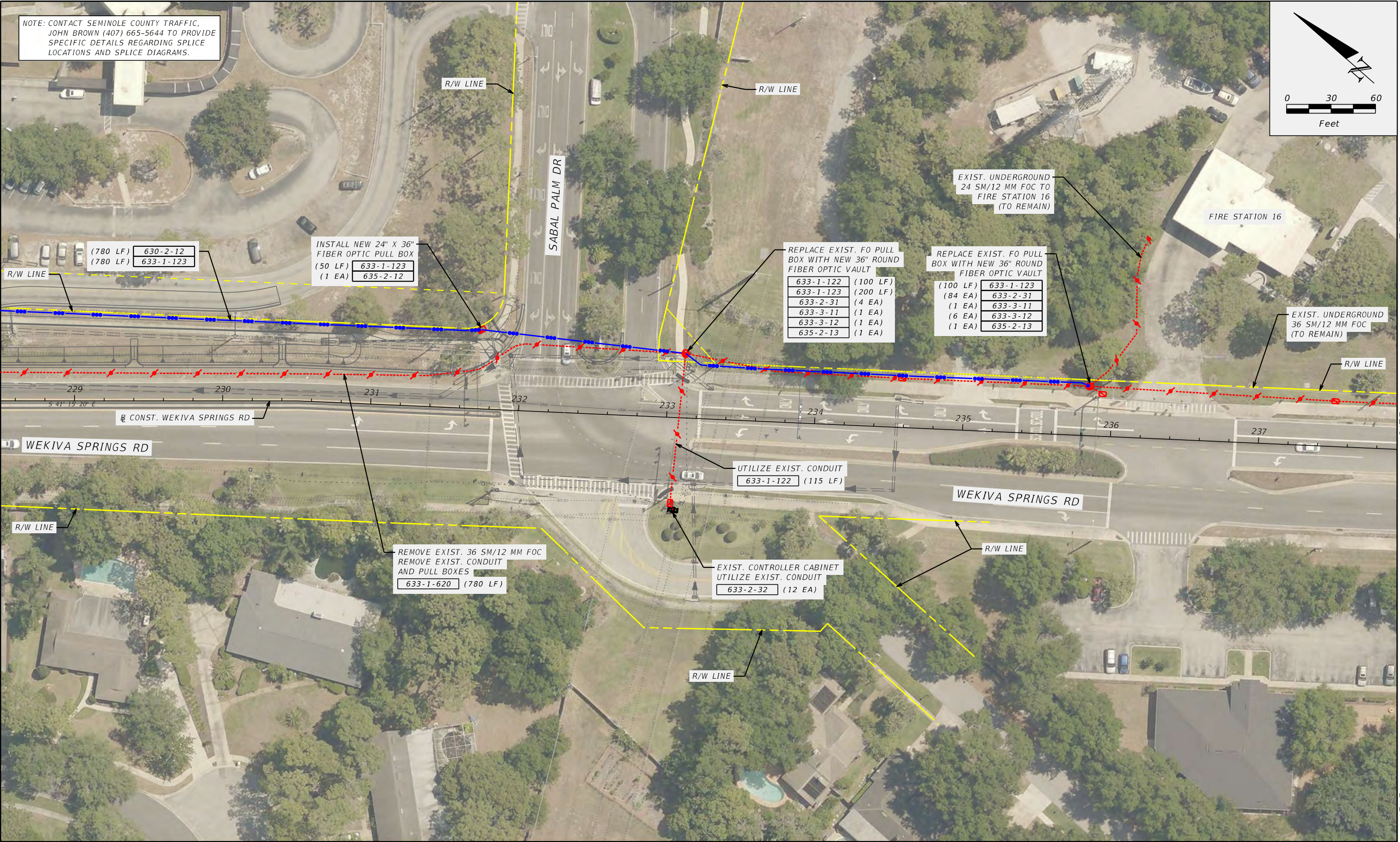
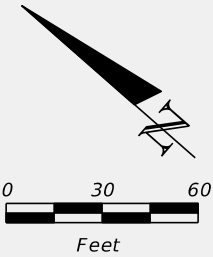
NOTE: CONTACT SEMINOLE COUNTY TRAFFIC,  
JOHN BROWN (407) 665-5644 TO PROVIDE  
SPECIFIC DETAILS REGARDING SPLICE  
LOCATIONS AND SPLICE DIAGRAMS.



REVISIONS			ENGINEER OF RECORD: FURSAN S. MUNJED, P.E. PROFESSIONAL ENGINEER CERTIFICATE NO. 51446 PEGASUS ENGINEERING, LLC 301 WEST STATE ROAD 434, SUITE 309 WINTER SPRINGS, FLORIDA 32708 CERTIFICATE OF AUTHORIZATION NO. 27770		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD COMMUNICATION PLAN	SHEET NO.  T-19
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



NOTE: CONTACT SEMINOLE COUNTY TRAFFIC,  
JOHN BROWN (407) 665-5644 TO PROVIDE  
SPECIFIC DETAILS REGARDING SPLICE  
LOCATIONS AND SPLICE DIAGRAMS.



REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:  
FURSAN S. MUNJED, P.E.  
PROFESSIONAL ENGINEER CERTIFICATE NO. 51446  
PEGASUS ENGINEERING, LLC  
301 WEST STATE ROAD 434, SUITE 309  
WINTER SPRINGS, FLORIDA 32708  
CERTIFICATE OF AUTHORIZATION NO. 27770

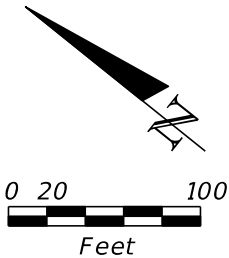
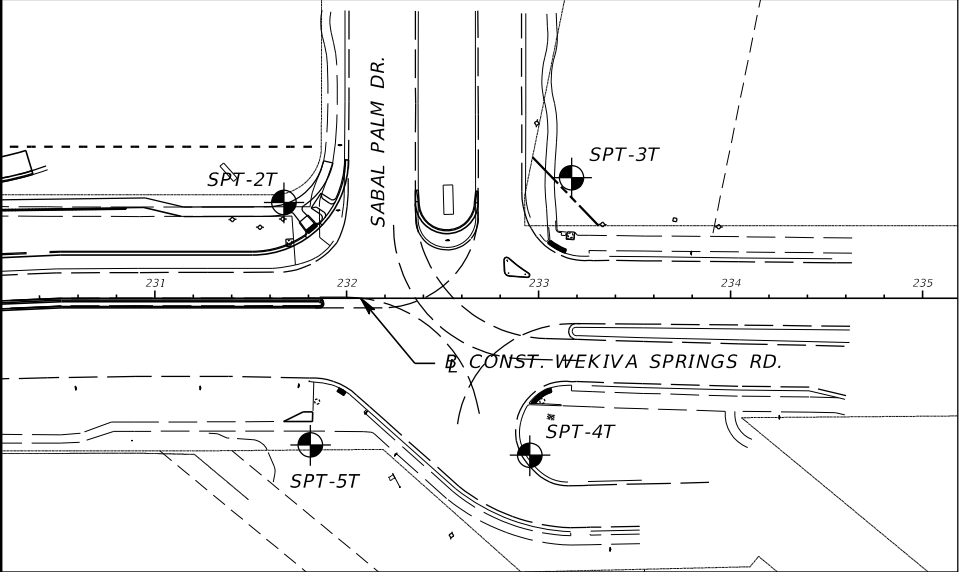


SEMINOLE COUNTY ENGINEERING DIVISION	
ROAD NAME	COUNTY CIP NO.
WEKIVA SPRINGS ROAD	02007027

WEKIVA SPRINGS ROAD  
COMMUNICATION PLAN

SHEET  
NO.  
  
T-20





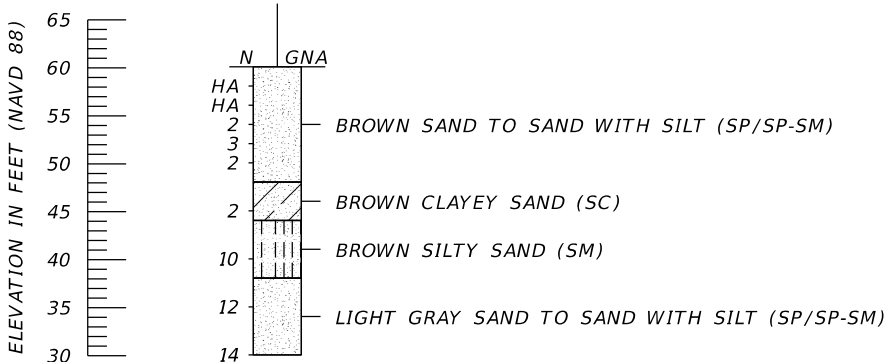
ENVIRONMENTAL CLASSIFICATION:  
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE (ASSUMED)  
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE (ASSUMED)

BORING LOCATION PLAN

TOWNSHIP: 20S  
RANGE: 29E  
SECTION: 33

SOIL TYPE: 28-40-06 - SEE NOTES

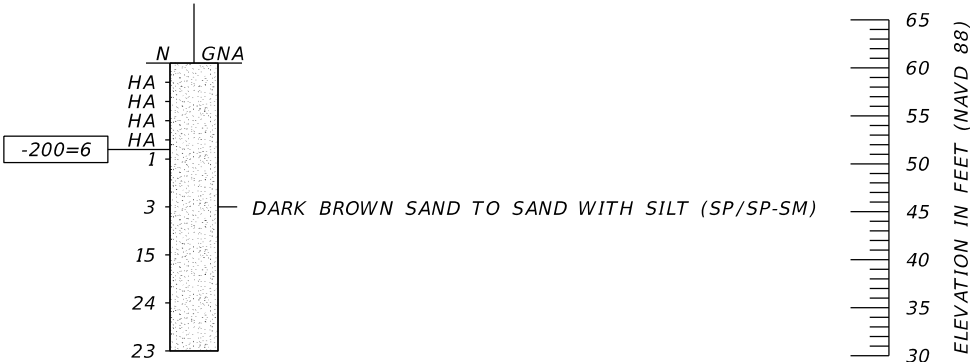
BOR # SPT-2T  
STA. 231+72  
REF. CONST.  
OFF. 57' LT.  
ELEV. 60.1  
DATE 2/4/2021  
DRILLER I. POORAN  
HAMMER AUTOMATIC  
RIG D-25



BORING TERMINATED AT  
ELEVATION 30.1 FT (NAVD 88)  
LATITUDE: N 28.70246  
LONGITUDE: W 81.41887

SOIL TYPE: 28-40-06 - SEE NOTES

BOR # SPT-3T  
STA. 233+17  
REF. CONST.  
OFF. 63' LT.  
ELEV. 60.5  
DATE 12/13/2021  
DRILLER R.SCRUGGS  
HAMMER AUTOMATIC  
RIG D-25



BORING TERMINATED AT  
ELEVATION 30.5 FT (NAVD 88)  
LATITUDE: N 28.70216  
LONGITUDE: W 81.41857

LEGEND

	SAND		CLAYEY SAND
	SILTY SAND		SANDY SILT

- 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).
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE  
NMC NATURAL MOISTURE CONTENT (%)  
LL LIQUID LIMIT (%)  
PI PLASTICITY INDEX (%)
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- APPROXIMATE SPT BORING LOCATION
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.

CONST. BASELINE CONSTRUCTION OF WEKIVA SPRINGS RD.

NOTES:

- DUE TO THE VERY LOOSE TO LOOSE CONDITIONS OF THE SOILS ENCOUNTERED IN THE BORINGS, THE CONTRACTOR SHALL ANTICIPATE THAT CONCRETE OVERRUNS MAY OCCUR DURING THE SHAFT INSTALLATION.
- DUE TO THE VERY LOOSE SOILS ENCOUNTERED IN BORINGS SPT-1T AND SPT-5T TO A DEPTH OF 13 FEET, THE SHAFT SHOULD NOT BE TIPPED AT A DEPTH OF LESS THAN 15 FEET (ELEVATIONS +49.4 AND +45.0 FEET, NAVD 88).
- DUE TO VERY LOOSE TO LOOSE SOIL ENCOUNTERED IN BORINGS SPT-2T THROUGH SPT-4T TO AN AVERAGE DEPTH OF 16 FEET, THE SHAFT SHOULD NOT BE TIPPED AT A DEPTH OF LESS THAN 20 FEET (AVERAGE ELEVATION +43.1 FEET, NAVD 88).

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

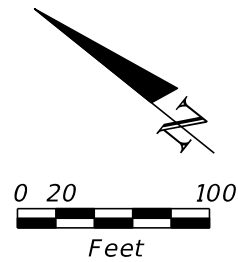
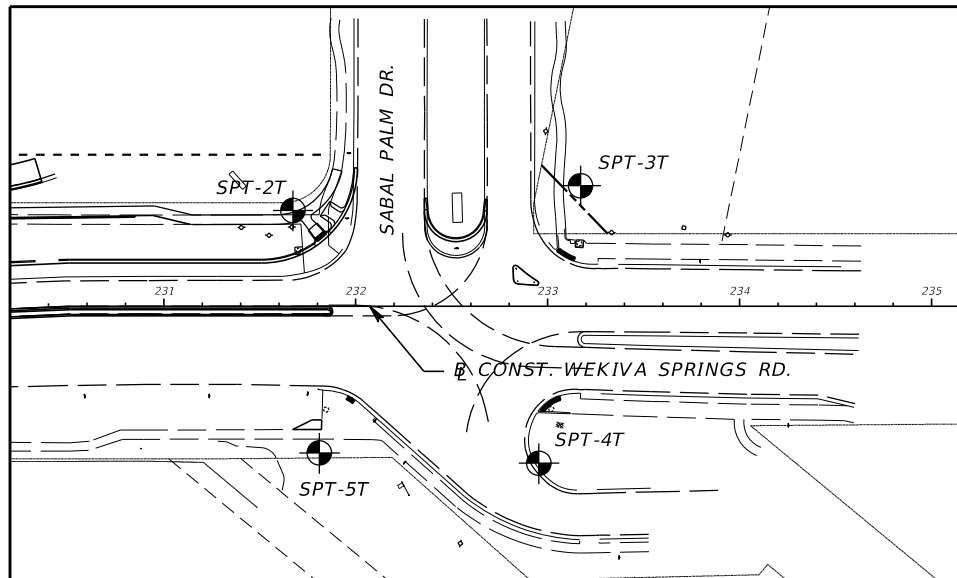
TRAFFIC SIGNAL

REVISIONS				SEMINOLE COUNTY ENGINEERING DIVISION	WEKIVA SPRINGS ROAD REPORT OF CORE BORINGS		SHEET NO.
DATE	BY	DESCRIPTION					
							T-21

JEREMY A. SEWELL, P.E.  
P.E. LICENSE NUMBER 62951  
TIERRA, INC.  
591 SUSAN B. BRITT COURT  
WINTER GARDEN, FLORIDA 34787

ROAD NAME  
WEKIVA SPRINGS ROAD

COUNTY CIP NO.  
02007027



ENVIRONMENTAL CLASSIFICATION:

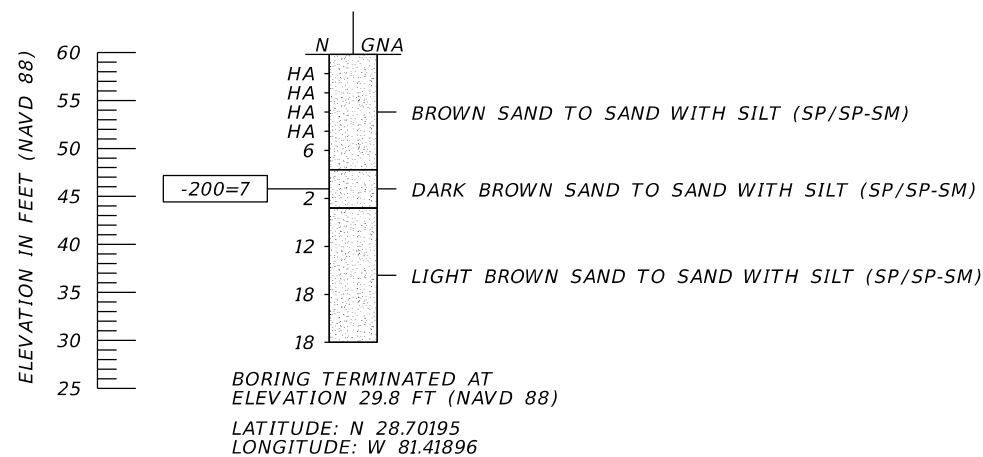
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE (ASSUMED)  
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE (ASSUMED)

BORING LOCATION PLAN

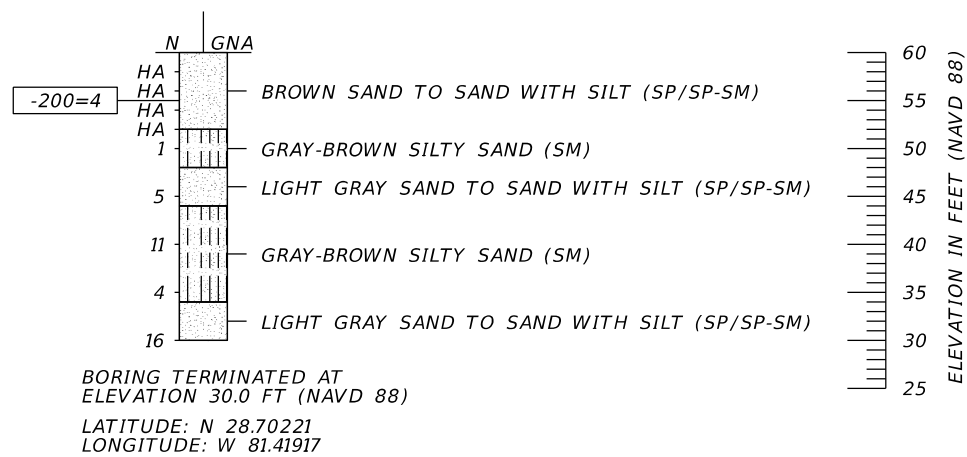
TOWNSHIP: 20S  
RANGE: 29E  
SECTION: 33

SOIL TYPE: 28-40-06 - SEE NOTES

BOR #	SPT-4T
STA.	232+95
REF.	CONST.
OFF.	82' RT.
ELEV.	59.8
DATE	12/13/2021
DRILLER	R.SCRUGGS
HAMMER	AUTOMATIC
RIG	D-25



BOR #	SPT-5T
STA.	231+81
REF.	CONST.
OFF.	76' RT.
ELEV.	60.0
DATE	12/13/2021
DRILLER	R.SCRUGGS
HAMMER	AUTOMATIC
RIG	D-25



*LEGEND*



*SAND*



CLAYEY SAND



*SILTY SAND*



*SANDY SILT*

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).

HA HAND AUGERED TO VERIFY UTILITY CLEARANCE

-200	PERCENT PASSING #200 SIEVE
NMC	NATURAL MOISTURE CONTENT (%)
LL	LIQUID LIMIT (%)
PI	PLASTICITY INDEX (%)

NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988



APPROXIMATE SPT BORING LOCATION

GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.

B CONST. BASELINE CONSTRUCTION OF WEKIVA SPRINGS RD.

NOTES:

1. DUE TO THE VERY LOOSE TO LOOSE CONDITIONS OF THE SOILS ENCOUNTERED IN THE BORINGS, THE CONTRACTOR SHALL ANTICIPATE THAT CONCRETE OVERRUNS MAY OCCUR DURING THE SHAFT INSTALLATION.
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	SAFETY HAMMER	AUTOMATIC HAMMER
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SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT SOFT FIRM STIFF VERY STIFF HARD	LESS THAN 2 1 to 4 4 to 8 8 to 15 15 to 30 GREATER THAN 30	LESS THAN 1 1 to 3 3 to 6 6 to 12 12 to 24 GREATER THAN 24

TRAFFIC SIGNAL

REVISIONS			JEREMY A. SEWELL, P.E. P.E. LICENSE NUMBER 62951 TIERRA, INC. 591 SUSAN B. BRITT COURT WINTER GARDEN, FLORIDA 34787		SEMINOLE COUNTY ENGINEERING DIVISION		WEKIVA SPRINGS ROAD  <b>REPORT OF CORE BORINGS</b>	SHEET NO.  T-22
DATE	BY	DESCRIPTION			ROAD NAME	COUNTY CIP NO.		
					WEKIVA SPRINGS ROAD	02007027		



SUBSURFACE UTILITY ENGINEERING EXPLORATORY REPORT

EXP: Pole A Client Pegasus Engineering, LLC  
Project: Wekiva Springs Road Improvements Project



PROJECT DATA

WO #:	W105878.000	Station:	N/A	PM:	Scott Sowards
JN:	J064492	Offset:	N/A	Chief:	Ean hackworth
Task #:	W105878.000	Date:	03/22/2022	Crew:	Devin okeefe jordan thibault
FPN #:	N/A	Time:	8:20 AM	Weather:	clear sky, 65F

EXPLORATORY DATA

Pole Type:	Mast arm	Ground Cover:	Dirt	Soil Condition:	Dry
Pole Size:	60"	Marker:	Hub, Lath, Nail and Disk	Soil Type:	Dirt

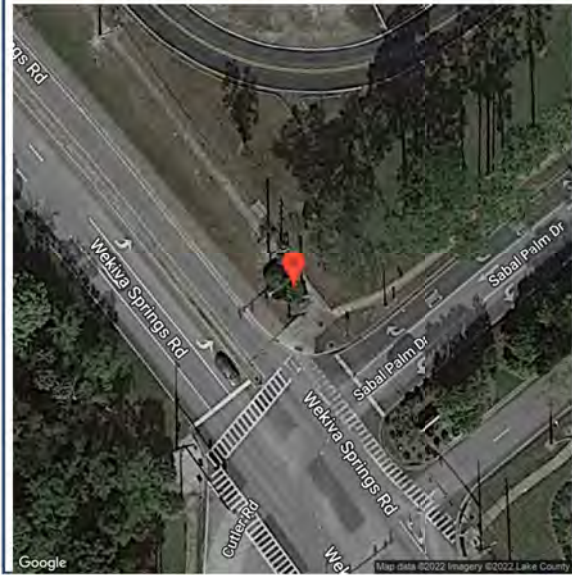
Notes:

Note unknown is possible phone service unable to tone with equipment. Also the electric duct bank is 3x 6.5"

Utility	Type	Height	Width	Material	Depth	From Center	Comments
1	Unknown	1.00	1.000	Direct Buried Cable	1.30	1.35	Possible service line
2	Electric Duct Bank	6.50	13.000	Polyvinyl Chloride	3.00	1.80	N/A

Fgi	Handhole	Back of sidewalk	Latitude/Longitude
FT 15.00	FT 11.30	FT 4.95	28.702457
M: 4.572	M: 3.444	M: 1.508	-81.418940

Location



Site Image



FOR INFORMATION PURPOSES ONLY



Photo Report  
Pole A  
Wekiva Springs Road Improvements Project



Photo No. 1  
Site Image



Photo No. 2  
+ cut location



Photo No. 3  
BE Duct



Photo No. 4  
service line

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAME WEKIVA SPRINGS ROAD	COUNTY CIP NO. 02007027	WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO. T-23
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				





Photo No. 5  
side view



Photo No. 6  
front view



Photo No. 7  
Site

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAME WEKIVA SPRINGS ROAD	COUNTY CIP NO. 02007027	WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO. T-24
DATE	BY	DESCRIPTION	DATE	BY					



SUBSURFACE UTILITY ENGINEERING EXPLORATORY REPORT

EXP: Pole B Client Pegasus Engineering, LLC  
Project: Wekiva Springs Road Improvements Project



PROJECT DATA

WO #:	W105878.000	Station:	N/A	PM:	Scott Sowards
JN:	J064492	Offset:	N/A	Chief:	Ean hackworth
Task #:	W105878.000	Date:	03/23/2022	Crew:	Devin okeefe
FPN #:	N/A	Time:	1:07 PM	Weather:	broken clouds, 84F

EXPLORATORY DATA

Pole Type:	Mast arm	Ground Cover:	Dirt	Soil Condition:	Dry
Pole Size:	60"	Marker:	Hub, Lath, Nail and Disk	Soil Type:	Dirt

Notes:

Dug down to 7 feet air lanced to 10. Location is not clear.

Utility	Type	Height	Width	Material	Depth	From Center	Comments
1	Communication	1.50	1.500	HDPE	3.80	.20	In conflict
2	Sanitary Force Main	12.50	12.500	Metal	7.60	.90	City employee confirmed force main location.

Handhole	Hand hole	Sidewalk	Latitude/Longitude
FT 16.60	FT 6.50	FT 2.30	28.702165
M: 5.059	M: 1.981	M: 0.701	-81.418586



FOR INFORMATION PURPOSES ONLY



Photo Report  
Pole B  
Wekiva Springs Road Improvements Project



Photo No. 1  
Site Image



Photo No. 2  
Side view



Photo No. 3  
Excavated Area



Photo No. 4  
Communication line

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAME WEKIVA SPRINGS ROAD	COUNTY CIP NO. 02007027	WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO. T-25
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				





Photo No. 5  
finished view



Photo No. 6  
finished view



Photo No. 7  
Site Image

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAME WEKIVA SPRINGS ROAD	COUNTY CIP NO. 02007027	WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO. T-26
DATE	BY	DESCRIPTION	DATE	BY					



# SUBSURFACE UTILITY ENGINEERING EXPLORATORY REPORT

EXP: Pole C Client Pegasus Engineering, LLC

Project: Wekiva Springs Road Improvements Project



## PROJECT DATA

WO #:	W105878.000	Station:	N/A	PM:	Scott Sowards
JN:	J064492	Offset:	N/A	Chief:	Ean hackworth
Task #:	W105878.000	Date:	03/22/2022	Crew:	Devin okeef Jordan thibault
FPN #:	N/A	Time:	11:20 AM	Weather:	scattered clouds, 76F

## EXPLORATORY DATA

Pole Type:	Mast arm	Ground Cover:	Dirt	Soil Condition:	Dry
Pole Size:	60"	Marker:	Hub, Lath, Nail and Disk	Soil Type:	Dirt

### Notes:

Heavy amounts of debris and asphalt at location. Unable to clear one side due to debris. Air lanced to 10 feet and excavated to 6 feet. Area not clear, Per EOR moved location 2 feet west to avoid hitting duct bank.

Utility	Type	Height	Width	Material	Depth	From Center	Comments
1	Comm Duct Bank	9.00	9.000	Polyvinyl Chloride	4.50	1.60	3 times 4.5 "

Mast arm	E/p	Hand hole	Latitude/Longitude
FT 10.20	FT 7.50	FT 9.55	28.702101
M: 3.108	M: 2.286	M: 2.910	-81.418893

Location



Site Image



FOR INFORMATION PURPOSES ONLY



## Photo Report Pole C Wekiva Springs Road Improvements Project



Photo No. 1  
Pre- Dig



Photo No. 2  
side view



Photo No. 3  
Excavated location



Photo No. 4  
Site Image

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION	WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO.  T-27
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			
						ROAD NAME	COUNTY CIP NO.	
						WEKIVA SPRINGS ROAD	02007027	





Photo Report  
Pole C  
Wekiva Springs Road Improvements Project



Photo No. 5  
side view

FOR INFORMATION PURPOSES ONLY

R E V I S I O N S						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAMECOUNTY CIP NO. WEKIVA SPRINGS ROAD02007027		WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO. T-28
DATE	BY	DESCRIPTION	DATE	BY					



SUBSURFACE UTILITY ENGINEERING EXPLORATORY REPORT

EXP: Pole D Client Pegasus Engineering, LLC  
Project: Wekiva Springs Road Improvements Project



PROJECT DATA

WO #:	W105878.000	Station:	N/A	PM:	Scott Sowards
JN:	J064492	Offset:	N/A	Chief:	Ean hackworth
Task #:	W105878.000	Date:	03/23/2022	Crew:	Devin okeefe
FPN #:	N/A	Time:	8:35 AM	Weather:	overcast clouds, 71F

EXPLORATORY DATA

Pole Type:	Mast arm	Ground Cover:	Concrete	Soil Condition:	Dry
Pole Size:	60"	Marker:	Chiseled X	Soil Type:	Dirt

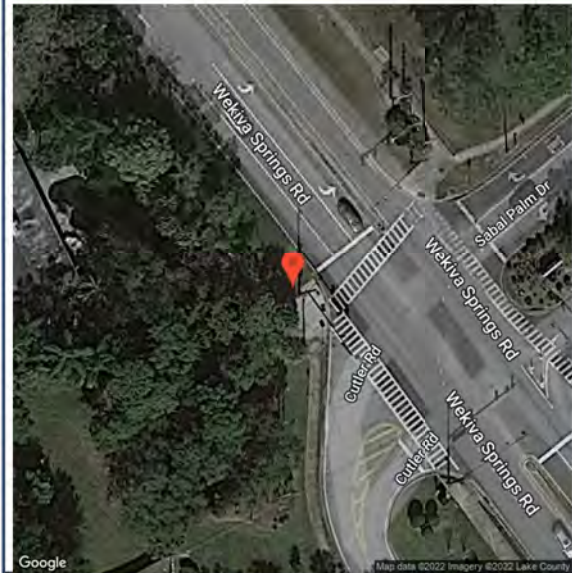
Notes:

Duct bank is in conflict BTE also found in middle of structure. Dug to 5 feet probed with air lance to 10. Note debris in area.  
Location is not clear

Utility	Type	Height	Width	Material	Depth	From Center	Comments
1	Communication	1.00	1.000	Direct Buried Cable	2.00	.10	May be possible to move cable.
2	Comm Duct Bank	12.00	12.000	Plastic	3.40	2.00	Duct bank is encased.

Sidewalk	Mast arm	Traffic Hand hole	Latitude/Longitude
FT 2.30	FT 8.70	FT 9.75	28.702253
M: 0.701	M: 2.651	M: 2.971	-81.419128

Location



Site Image



FOR INFORMATION PURPOSES ONLY



Photo Report  
Pole D  
Wekiva Springs Road Improvements Project



Photo No. 1  
Site Image



Photo No. 2  
side view



Photo No. 3  
Excavated Area



Photo No. 4  
side view finished

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAME WEKIVA SPRINGS ROAD	COUNTY CIP NO. 02007027	WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION	SHEET NO. T-29
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				





Photo No. 5  
Cable



Photo No. 6  
Duct



Photo No. 7  
Duct

FOR INFORMATION PURPOSES ONLY

REVISIONS						SEMINOLE COUNTY ENGINEERING DIVISION ROAD NAME      COUNTY CIP NO. WEKIVA SPRINGS ROAD      02007027		WEKIVA SPRINGS ROAD SUBSURFACE UTILITY INFORMATION		SHEET NO.	
DATE	BY	DESCRIPTION	DATE	BY						T-30	