

ATTACHMENT A - STATEMENT OF WORK
First Coast Expressway- Shoreline Submerged Aquatic Vegetation (SAV) Restoration

I. INTRODUCTION/BACKGROUND

The proposed project is located along the existing Shands Bridge along SR 16 in both Clay and St. Johns County (Figure 1). The existing bridge was dedicated in October of 1963. The bridge is 6,662-feet long and anchors to man-made causeways extending into the river on both the east and west side. The west side causeway extends approximately 580-feet into the river and the east side extends approximately 1,300-feet into the river.

The Submerged Aquatic Vegetation (SAV) restoration is proposed to provide a portion of the mitigation required to offset unavoidable adverse impacts associated with the First Coast Expressway (FCX). The SAV restoration area consists of excavating the existing road causeway to restore 2.21-acres of river bottom. The scrape down area excavation was completed in summer 2021 and was designed to match the elevation in the adjacent submerged community. The excavation reestablished the natural hydrology present before the bridge causeway was constructed. The mitigation area is below the mean high-water line (MHW). The St. Johns River Water Management District is requesting specialized planting services for the newly created SAV restoration area.

II. OBJECTIVES

The objective of this contract is to provide harvest of 2.24-acres of SAV from the impact site on the east and west side of the river (Figure 2 and 3) and planting of 2.21-acres of SAV within the donor site (Figure 2). The impact site is located approximately 200-feet south of the donor site on the east side of the St Johns River.

III. SCOPE OF WORK

The scope includes the harvest of the following species from the river bottom at the impact site (Figure 2 and 3) and replanting at the donor/mitigation site (Figure 2). Species for harvest include tape grass (*Vallisneria americana*), water naiad (*Najas guadalupensis*), and widgeon grass (*Ruppia maritima*). Other freshwater species include: muskgrass (*Chara sp.*), spikerush (*Eleocharis sp.*), baby's-tears (*Micranthemum sp.*), sago pondweed (*Potamogeton pectinatus*), small pondweed (*Potamogeton pusillus*), awl-leaf arrowhead (*Sagittaria subulata*), horned pondweed (*Zannichellia palustris*), and coontail (*Ceratophyllum demersum*) southern naiad (*Najas guadalupensis*).

Plants will be counted as the number of plant units for each species. Some allowable methods can plant more than one plant unit at a time. The weekly report to the District project manager will include each plant unit tallied and classified as to plant species, cultivar or field type, depth harvested, depth planted, and planting method. The harvest depths and install depths should be similar. The planting install should be spread evenly throughout the mitigation area.

The IFAS document “A Comparison of Planting Techniques for Submerged Aquatic Vegetation” (Appendix 4) should be followed for techniques to ensure survival of the transplanted material. The following methods are described in this document:

1. Hand Planting Individual Plants Underwater
2. Surface Distribution using Eco-friendly Fishing Weights
3. Surface Planting using Plaster of Paris Blocks
4. Coir Mats
5. Peat and Coconut Coir Pots
6. Burlap Wraps
7. Burlap Bag Blocks

As least two methods described in this document should be employed to maximize variability in planting methods and minimize potential loss of transplanted material. The methods chosen for transplanting need to ensure that plants will stay in place and upright. Additional measures may need to be implemented if marine herbivores become a problem during the project. This may involve the utilization of turbidity barriers or cages.

IV. PROJECT ADMINISTRATION AND DELIVERABLES

The Recipient shall be responsible for the following:

- The RECIPIENT shall be responsible identification of the impact/donor site and not collect species from outside of the impact/donor site.
- All planting must occur from the water with the use of a shallow draft motorboat or airboat in order to not damage existing river bottom.
- The RECIPIENT must assure all plants are planted within the excavated areas shown in the as-builts provided on both the north and south side of the project site.
- The RECIPIENT must adhere to the guidance in the attached IFAS Document: “A Comparison of Planting Techniques for Submerged Aquatic Vegetation”. As least two methods described in this document should be employed to maximize variability in planting methods and minimize potential loss of transplanted material. Any deviation from this document will require written permission from the DISTRICT PROJECT MANAGER.
- Additional measures may need to be implemented if marine herbivores become a problem during the project. This may involve the utilization of turbidity barriers or cages. Any additional measures will need prior approval from the DISTRICT PROJECT MANAGER.
- The RECIPIENT shall assure compliance with all permits and permit conditions.
- The RECIPIENT will provide weekly progress reports identifying project progress to date, total plants removed and type, total plants planted and type and which method used, depth removed, depth of installation, key milestones reached, overall project schedule versus time for project completion, and key issues to be resolved, and project photos, if needed.
- The RECIPIENT will review provided monthly invoices for planting work completed as or one final invoice not to exceed the total cost of the project.

- The DISTRICT PROJECT MANAGER and the RECIPIENT will meet in the field weekly, as needed to review the progress.
- The RECIPIENT shall be responsible for complying with all federal, state, and local laws pertaining to project or project activities including locating any utilities. The DEP permit File No. 54-0382645-001-EG, should be accessible during all field work. It is attached under Appendix II below.

V. TIME FRAMES/DELIVERABLES

Work shall begin immediately after execution of the agreement. The expiration date of this agreement is September 29, 2023.

VI. BUDGET/COST SCHEDULE

The District budget for this task will be based upon the prospective bids for this activity in the 2022-2023 FY for this project design and construction management phase. The Recipient shall provide an itemized bid as shown above showing the total cost of all work for this bid. The contract will be awarded on total lowest bid for all work.

The final invoice shall be submitted with the final project report and As built. The Recipient may invoice monthly as work is completed and approved by the District project manager. All invoices submitted will require general status information, with all weekly progress reports stating how many plants removed and how many plants planted and what method utilized for the amount billed and work completed.

Attachments:

Figure 1 - General Location of Submerged Aquatic Vegetation Restoration Area

Figure 2 - Submerged Aquatic Vegetation Mitigation Site Impact/Donor Site (east side)

Figure 3 - Submerged Aquatic Vegetation Mitigation Site Impact Site (west side)

Appendix I - As-Built Construction Survey of the Mitigation Area

Appendix II - FDEP permit

Appendix III - USACOE Permit

Appendix IV – IFAS Document “A Comparison of Planting Techniques for Submerged Aquatic Vegetation”

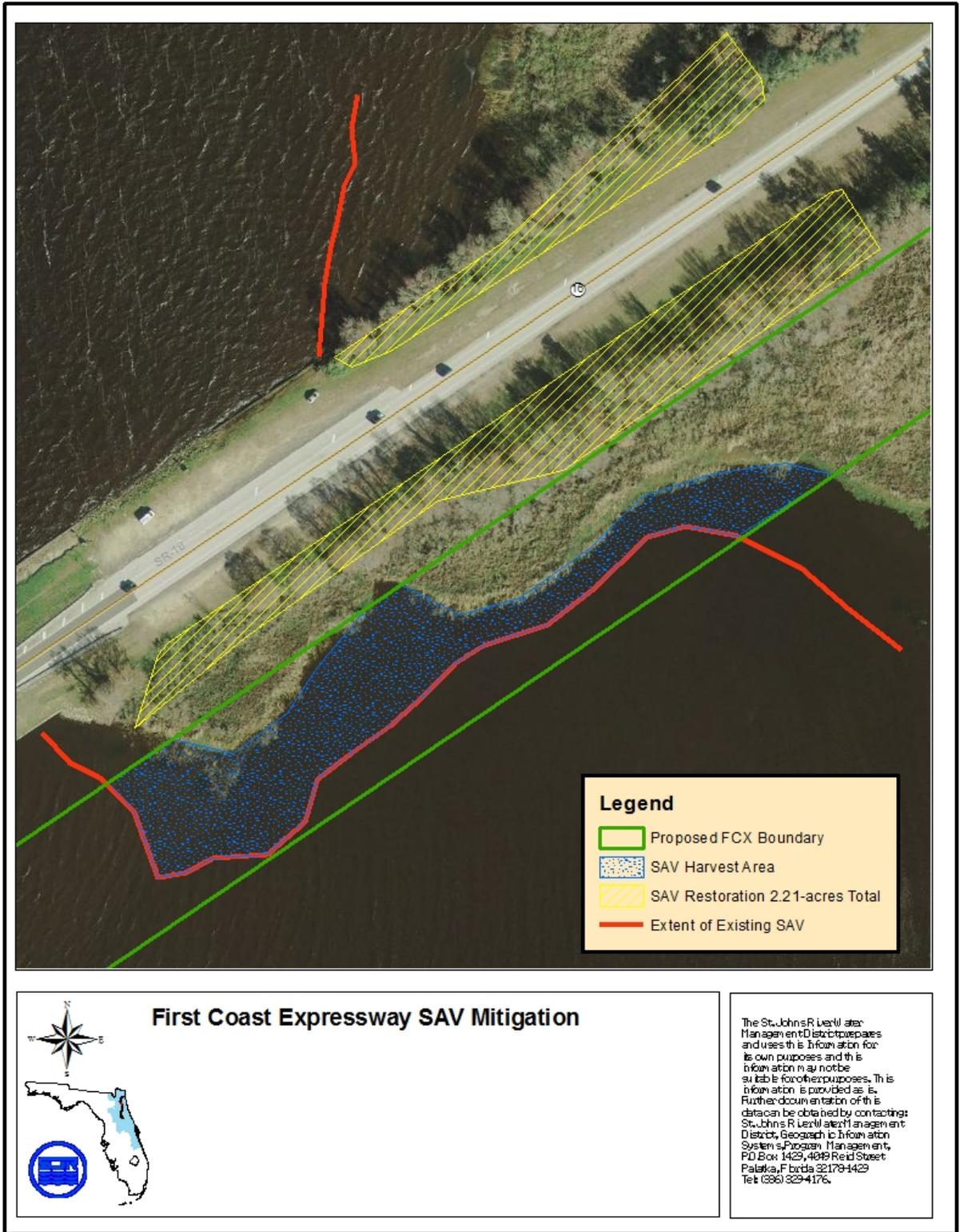


FIGURE 2: Submerged Aquatic Vegetation Impact/Donor Site (east side)

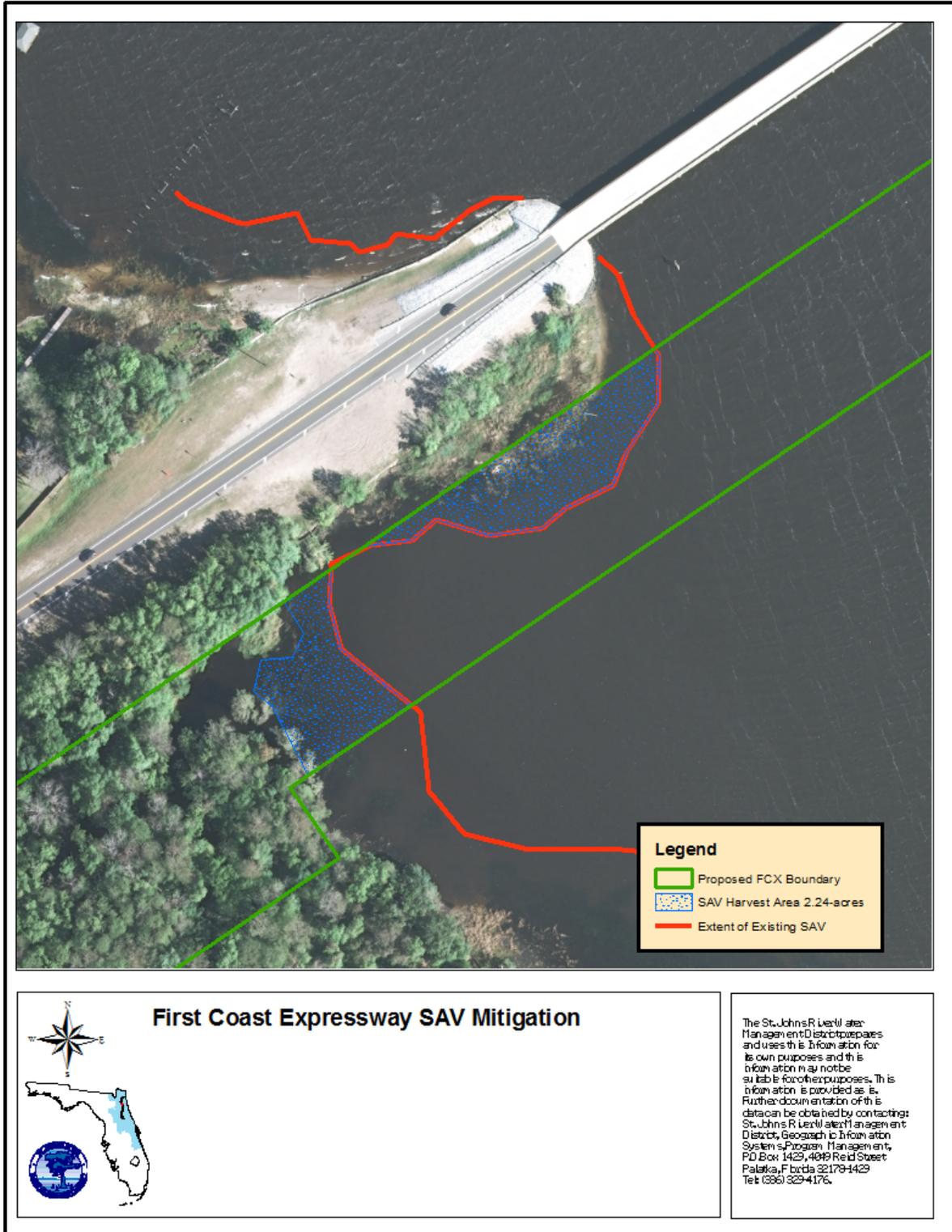


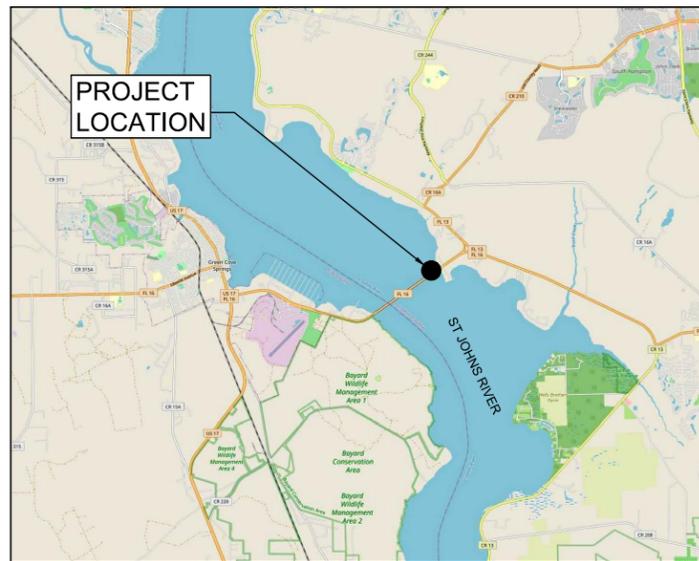
FIGURE 3: Submerged Aquatic Vegetation Impact Site (west side)

Appendix 1. As-Built Construction Survey of the Mitigation Area

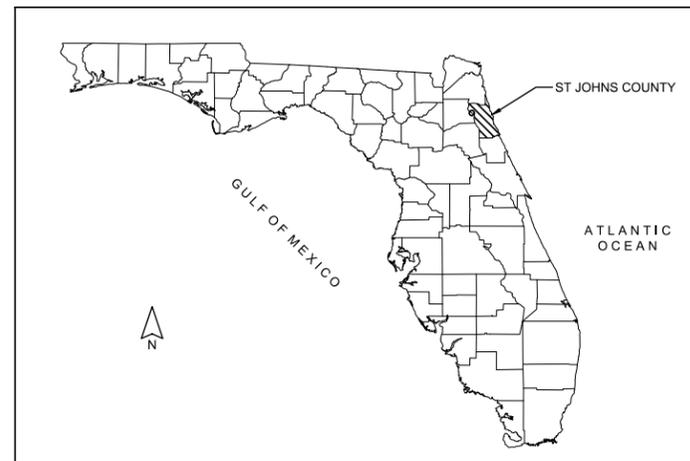
CONSTRUCTION DRAWINGS FOR: FIRST COAST EXPRESSWAY SAV RESTORATION

ST JOHNS COUNTY, FLORIDA

PREPARED FOR:
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT



PROJECT LOCATION:



LOCATION MAP:



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1

DATE: SEPTEMBER 2020

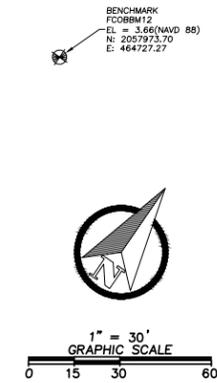
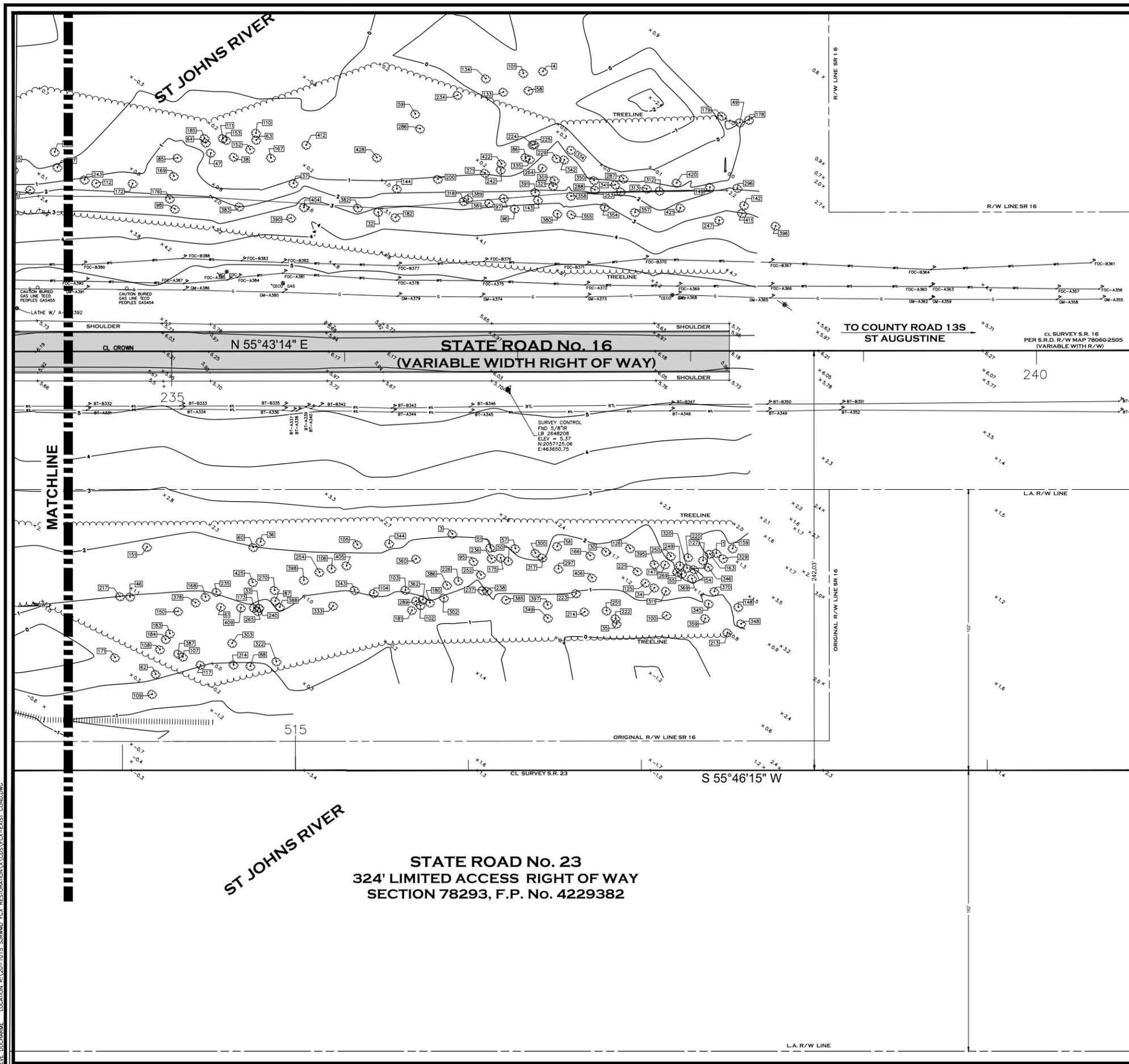
ISSUE: BID

PREPARED BY:



PROJECT #: 20-1015

REV NO	DATE	DRWN BY	CHKD BY	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
4				
5				
6				



A MAP SHOWING A TOPOGRAPHIC SURVEY OF A PORTION OF S.R. No. 16 & S.R. 23, TOWNSHIP 6 SOUTH, RANGE 27 EAST, CLAY COUNTY & ST. JOHNS COUNTY, FLORIDA

GEOMATICS CORP.
 SURVEYING—MAPPING—GPS
 2804 N. FIFTH STREET, UNIT 101
 ST. AUGUSTINE, FL 32084
 PHONE (904) 824-3866 FAX (904) 824-6783

LICENSED BUSINESS
 FLORIDA #9797 GEORGIA #980 ALABAMA #794
 NORTH CAROLINA COA #9762

POINT #	BDH/TREE TYPE
1	5'SWEETGUM
3	5 CEDAR
4	5 SWEETGUM
30	6'SWEETGUM
32	6/7 OAK
33	6'CYPRESS
34	6'ELM
35	6'ELM
36	6'ELM
37	6'ELM
38	6'ELM
46	6'HACKBERRY
47	6'HACKBERRY
49	6'OAK
50	6'OAK
51	6'OAK
54	6'SWEETGUM
55	6'SWEETGUM
56	6'SWEETGUM
57	6'SWEETGUM
58	6'SWEETGUM
59	6'SWEETGUM
60	6'SWEETGUM
61	6'SWEETGUM
62	6'SWEETGUM
63	6'SWEETGUM
64	6'SWEETGUM
85	7/11 ELM
86	7'ELM
87	7'ELM
88	7'ELM
95	7'OAK
96	7'OAK
97	7'OAK
98	7'OAK
100	7'SWEETGUM
101	7'SWEETGUM
102	7'SWEETGUM
103	7'SWEETGUM
104	7'SWEETGUM
105	7'SWEETGUM
106	7'SWEETGUM
107	7'SWEETGUM
108	7'SWEETGUM
109	7'SWEETGUM
110	7'SWEETGUM
111	7'SWEETGUM
112	7'SWEETGUM
117	7'UNKNOWN
125	8'ELM

POINT #	BDH/TREE TYPE
126	8'ELM
127	8'GUM
133	8'SWEETGUM
134	8/9/10/9/6'SWEETGUM
137	8'ELM
142	8'OAK
143	8'OAK
144	8'OAK
147	8'PINE
148	8'SWEETGUM
149	8'SWEETGUM
150	8'SWEETGUM
151	8'SWEETGUM
152	8'SWEETGUM
153	8'SWEETGUM
159	9' PINE
163	9'GUM
166	9'SWEETGUM
167	9/6 SWEETGUM
168	9/7 ELM
169	9/7 SWEETGUM
171	9/9 SWEETGUM
172	9/11 SWEETGUM
173	9'CYPRESS
175	9'OAK
176	9'OAK
178	9'SWEETGUM
179	9'SWEETGUM
180	9'SWEETGUM
181	9'SWEETGUM
182	9'SWEETGUM
183	9'SWEETGUM
184	9'SWEETGUM
185	9'SWEETGUM
186	9'SWEETGUM
200	10'ELM
213	10'SWEETGUM
214	10/5/11' ELM
217	10'ELM
220	10'SWEETGUM
221	10'SWEETGUM
222	10'SWEETGUM
223	10'SWEETGUM
224	10'SWEETGUM
225	10'SWEETGUM
226	10'SWEETGUM
229	10'UNKNOWN
234	11/6/6'SWEETGUM
235	11/8 ELM
236	11'ELM

POINT #	BDH/TREE TYPE
237	11'SWEETGUM
238	11'SWEETGUM
240	11'CYPRESS
242	11'ELM
243	11'ELM
247	11'OAK
249	11'PINE
250	11'SWEETGUM
251	11'SWEETGUM
252	11'SWEETGUM
253	11'SWEETGUM
254	11'SWEETGUM
264	12'CYPRESS
265	12'ELM
269	12'SWEETGUM
270	12'SWEETGUM
286	13/9/6'ELM
287	13'CYPRESS
288	13'CYPRESS
289	13'CYPRESS
296	13'OAK
297	13'OAK
300	13'PINE
301	13'SWEETGUM
302	13'SWEETGUM
303	13'SWEETGUM
311	14'CYPRESS
312	14'CYPRESS
313	14'CYPRESS
314	14'CYPRESS
317	14'OAK
318	14'OAK
320	14'PINE
321	14'SWEETGUM
322	14'SWEETGUM
329	15'PINE
333	15/11/23 SWEETGUM
334	15'CYPRESS
335	15'CYPRESS
341	15'SWEETGUM
342	15'SWEETGUM
343	15'SWEETGUM
344	15'UNKNOWN
345	16'CYPRESS
346	16'PINE
348	16'CYPRESS
349	16'CYPRESS
350	16'CYPRESS
354	16'OAK
355	16'OAK

POINT #	BDH/TREE TYPE
357	16'SWEETGUM
358	16'UNKNOWN
359	17'CYPRESS
360	17/13 SWEETGUM
362	17'CYPRESS
369	17'PINE
370	18'CYPRESS
371	18'CYPRESS
378	18'CYPRESS
380	18'OAK
381	18'OAK
382	18'OAK
383	18'OAK
385	18'SWEETGUM
386	18'SWEETGUM
387	18'SWEETGUM
388	19'CYPRESS
389	19'OAK
390	19'OAK
391	19'SWEETGUM
395	20'PINE
396	20'PINE
397	20'SWEETGUM
398	20'SWEETGUM
404	21'OAK
405	21'PINE
406	21'SWEETGUM
409	23'CYPRESS
411	23'PINE
412	23'SWEETGUM
420	25'CYPRESS
421	25'OAK
422	26'CYPRESS
425	26'SWEETGUM
428	27'SWEETGUM

Signature: Michael R. Altm, P.E., FL Professional Eng. #71640
 Date: _____

REV	DATE	BY	DESCRIPTION
1	9/22/20	SLD	BID ADDENDUM PLANS
2			
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DRWN: CHKO
 CHKD: _____
 DATE: _____

FIRST COAST EXPRESSWAY SAV RESTORATION
 STATE ROAD 16

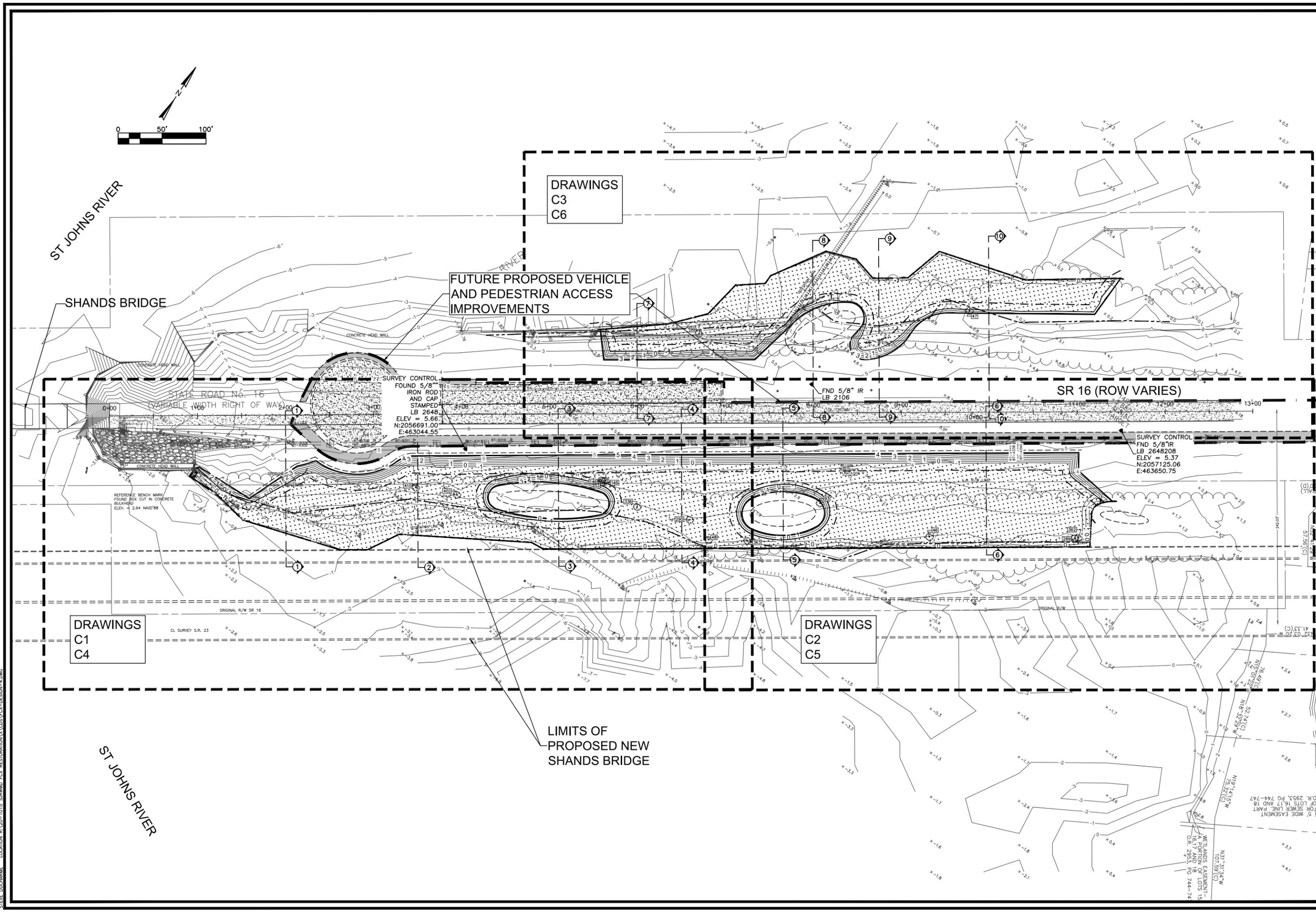
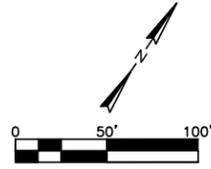
EXISTING CONDITIONS

ST JOHNS COUNTY FLORIDA
 ST JOHNS RIVER WATER MANAGEMENT DISTRICT

DESIGN: DRAWN: SLD
 MRK: JOB: 20-015
 NUMBER: NUMBER: 2020
 ISSUE: ISSUE: SEPTEMBER 2020
 DATE: DATE: 2020
 ISSUE: ISSUE: BID

FOUR WATERS ENGINEERING
 324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
 904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

DRAWING NUMBER: **G-3**



STEVE DUCHARME LOCATION B:\20-1015_SRWMD_ECX_RESTORATION\A\CD\5_ECX-DESIGN-4.DWG

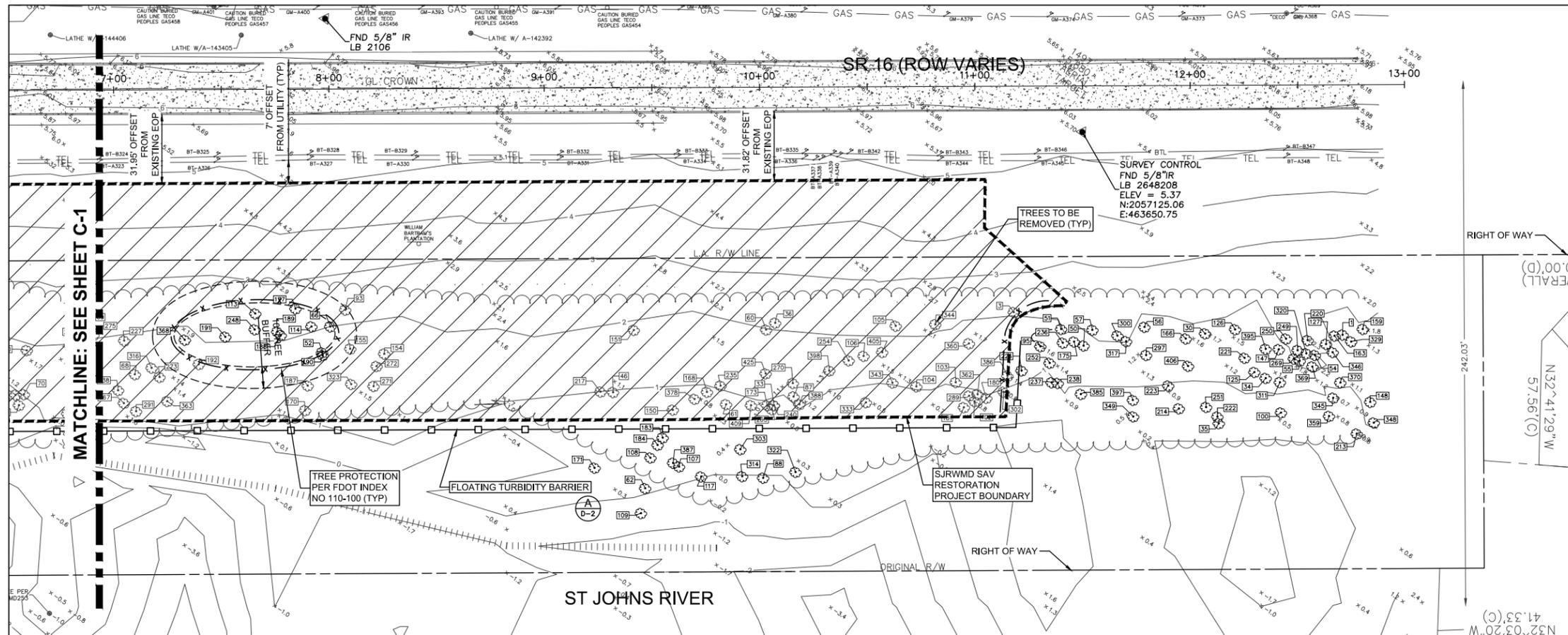
OVERALL PROJECT AND DRAWING KEY MAP		DESIGN MKR NUMBER 20-015	DRAWN SLD NUMBER 20-015	JOB NUMBER 20-015	ISSUE DATE SEPTEMBER 2020	BID NUMBER 20-015	
		FIRST COAST EXPRESSWAY SAV RESTORATION STATE ROAD 16					
OVERALL PROJECT AND DRAWING KEY MAP		ST JOHNS COUNTY FLORIDA ST JOHNS RIVER WATER MANAGEMENT DISTRICT				SIGNATURE Michael R. Klimm, P.E. FL Professional Eng. #71640	DATE
		REVISIONS					
REV	DATE	BY	CHKD	DESCRIPTION			
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS			
2							
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5							
6							

FOUR WATERS
 ENGINEERING

324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
 904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

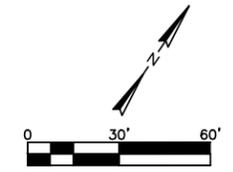
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G-4



TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE	TREE TABLE									
POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE
1	5'SWEETGUM	59	6'SWEETGUM	100	7'SWEETGUM	143	8'OAK	179	9'SWEETGUM	226	10'SWEETGUM	268	12'ELM	315	14'CYPRRESS	355	16'OAK	394	20'CYPRRESS
3	5'CEDAR	60	6'SWEETGUM	101	7'SWEETGUM	144	8'OAK	180	9'SWEETGUM	227	10'SWEETGUM	269	12'SWEETGUM	316	14'ELM	356	16'OAK	395	20'PINE
4	5'SWEETGUM	61	6'SWEETGUM	102	7'SWEETGUM	145	8'OAK	181	9'SWEETGUM	228	10'SWEETGUM	270	12'SWEETGUM	317	14'OAK	357	16'SWEETGUM	396	20'PINE
30	6'SWEETGUM	62	6'SWEETGUM	103	7'SWEETGUM	146	8'OAK	182	9'SWEETGUM	229	10'UNKNOWN	271	12'SWEETGUM	318	14'OAK	358	16'UNKNOWN	397	20'SWEETGUM
32	6/7 OAK	63	6'SWEETGUM	104	7'SWEETGUM	147	8'PINE	183	9'SWEETGUM	233	11/6 SWEETGUM	272	12'SWEETGUM	319	14'PALM	359	17'CYPRRESS	398	20'SWEETGUM
33	6'CYPRRESS	64	6'SWEETGUM	105	7'SWEETGUM	148	8'SWEETGUM	184	9'SWEETGUM	234	11/6/6'SWEETGUM	273	12'SWEETGUM	320	14'PINE	360	17/13 SWEETGUM	399	21/6'ELM
34	6'ELM	65	6'SWEETGUM	106	7'SWEETGUM	149	8'SWEETGUM	185	9'SWEETGUM	235	11/8 ELM	274	12'SWEETGUM	321	14'SWEETGUM	361	17/15' SWEETGUM	400	21'CYPRRESS
35	6'ELM	66	6'SWEETGUM	107	7'SWEETGUM	150	8'SWEETGUM	186	9'SWEETGUM	236	11' ELM	275	12'SWEETGUM	322	14'SWEETGUM	362	17'CYPRRESS	401	21'CYPRRESS
36	6'ELM	67	6'SWEETGUM	108	7'SWEETGUM	151	8'SWEETGUM	187	9'SWEETGUM	237	11' SWEETGUM	276	12'SWEETGUM	323	14'SWEETGUM	363	17'CYPRRESS	402	21'CYPRRESS
37	6'ELM	68	6'SWEETGUM	109	7'SWEETGUM	152	8'SWEETGUM	188	9'SWEETGUM	238	11' SWEETGUM	277	12'SWEETGUM	324	14'SWEETGUM	364	17'CYPRRESS	403	21'HACKBERRY
38	6'ELM	69	6'SWEETGUM	110	7'SWEETGUM	153	8'SWEETGUM	189	9'SWEETGUM	239	11'CHINA BERRY	278	13'CYPRRESS	329	15'PINE	365	17'CYPRRESS	404	21'OAK
39	6'ELM	70	6'SWEETGUM	111	7'SWEETGUM	154	8'SWEETGUM	190	9'SWEETGUM	240	11'CYPRRESS	288	13'CYPRRESS	333	15/11/23 SWEETGUM	366	17'ELM	405	21'PINE
40	6'ELM	71	6'SWEETGUM	112	7'SWEETGUM	155	8'SWEETGUM	191	9'SWEETGUM	241	11'CYPRRESS	289	13'CYPRRESS	334	15'CYPRRESS	367	17'ELM	406	21'SWEETGUM
41	6'ELM	72	6'SWEETGUM	113	7'SWEETGUM	156	8'SWEETGUM	192	9'SWEETGUM	242	11'ELM	290	13'CYPRRESS	335	15'CYPRRESS	368	17'OAK	407	22'CYPRRESS
42	6'ELM	73	6'SWEETGUM	114	7'SWEETGUM	157	8'SWEETGUM	193	9'SWEETGUM	243	11'ELM	291	13'ELM	336	15'CYPRRESS	369	17'PINE	408	22'ELM
43	6'ELM	74	6'TOPLAR	115	7'SWEETGUM	158	8'SWEETGUM	194	9'SWEETGUM	244	11'ELM	292	13'ELM	337	15'CYPRRESS	370	18'CYPRRESS	409	23'CYPRRESS
44	6'ELM	75	7/11 ELM	116	7'SWEETGUM	159	9' PINE	195	9'UNKNOWN	245	11'ELM	293	13'ELM	338	15'ELM	371	18'CYPRRESS	410	23'CYPRRESS
45	6'ELM	76	7'ELM	117	7'UNKNOWN	160	9'GUM	200	10'ELM	246	11'ELM	294	13'ELM	339	15'ELM	372	18'CYPRRESS	411	23'PINE
46	6'HACKBERRY	77	7'ELM	125	8'ELM	166	9'SWEETGUM	213	10'SWEETGUM	247	11'OAK	295	13'ELM	341	15'SWEETGUM	373	18'CYPRRESS	412	23'SWEETGUM
47	6'HACKBERRY	78	7'ELM	126	8'ELM	167	9/6 SWEETGUM	214	10/5/11' ELM	248	11'OAK	296	13'OAK	342	15'SWEETGUM	374	18'CYPRRESS	418	24'SWEETGUM
48	6'HACKBERRY	79	7'ELM	127	8'GUM	168	9/7 ELM	215	10'CYPRRESS	249	11'PINE	297	13'OAK	343	15'SWEETGUM	375	18'OAK	419	24'SWEETGUM
49	6'OAK	80	7'ELM	133	8'SWEETGUM	169	9/7 SWEETGUM	216	10'CYPRRESS	250	11'SWEETGUM	298	13'OAK	344	15'UNKNOWN	376	18'OAK	420	25'CYPRRESS
50	6'OAK	81	7'ELM	134	8/9/10/9/6'SWEETGUM	170	9/7/7 SWEETGUM	217	10'ELM	251	11'SWEETGUM	299	13'PALM	345	16'CYPRRESS	377	18'CYPRRESS	421	25'OAK
51	6'OAK	82	7'ELM	135	8'CYPRRESS	171	9/9 SWEETGUM	218	10'ELM	252	11'SWEETGUM	300	13'PINE	346	16'PINE	378	18'CYPRRESS	422	26'CYPRRESS
52	6'OAK	83	7'HACKBERRY	136	8'CYPRRESS	172	9/11 SWEETGUM	219	10'ELM	253	11'SWEETGUM	301	13'SWEETGUM	348	16'CYPRRESS	379	18'CYPRRESS	423	26'CYPRRESS
53	6'OAK	84	7'HACKBERRY	137	8'ELM	173	9'CYPRRESS	220	10'SWEETGUM	254	11'SWEETGUM	302	13'SWEETGUM	349	16'CYPRRESS	380	18'SWEETGUM	424	26'ELM
54	6'SWEETGUM	85	7'OAK	138	8'ELM	174	9'ELM	221	10'SWEETGUM	255	11'SWEETGUM	303	13'SWEETGUM	350	16'CYPRRESS	381	18'SWEETGUM	425	26'SWEETGUM
55	6'SWEETGUM	86	7'OAK	139	8'ELM	175	9'OAK	222	10'SWEETGUM	256	12'CYPRRESS	304	13'SWEETGUM	351	16'CYPRRESS	382	18'SWEETGUM	426	26'SWEETGUM
56	6'SWEETGUM	87	7'OAK	140	8'ELM	176	9'OAK	223	10'SWEETGUM	257	12'ELM	305	13'SWEETGUM	352	16'CYPRRESS	383	18'SWEETGUM	427	27'CYPRRESS
57	6'SWEETGUM	88	7'OAK	141	8'ELM	177	9'OAK	224	10'SWEETGUM	258	12'ELM	306	13'SWEETGUM	353	16'CYPRRESS	384	18'SWEETGUM	428	27'SWEETGUM
58	6'SWEETGUM	89	7'OAK	142	8'OAK	178	9'SWEETGUM	225	10'SWEETGUM	259	12'ELM	307	13'SWEETGUM	354	16'OAK	385	18'SWEETGUM	429	27'SWEETGUM

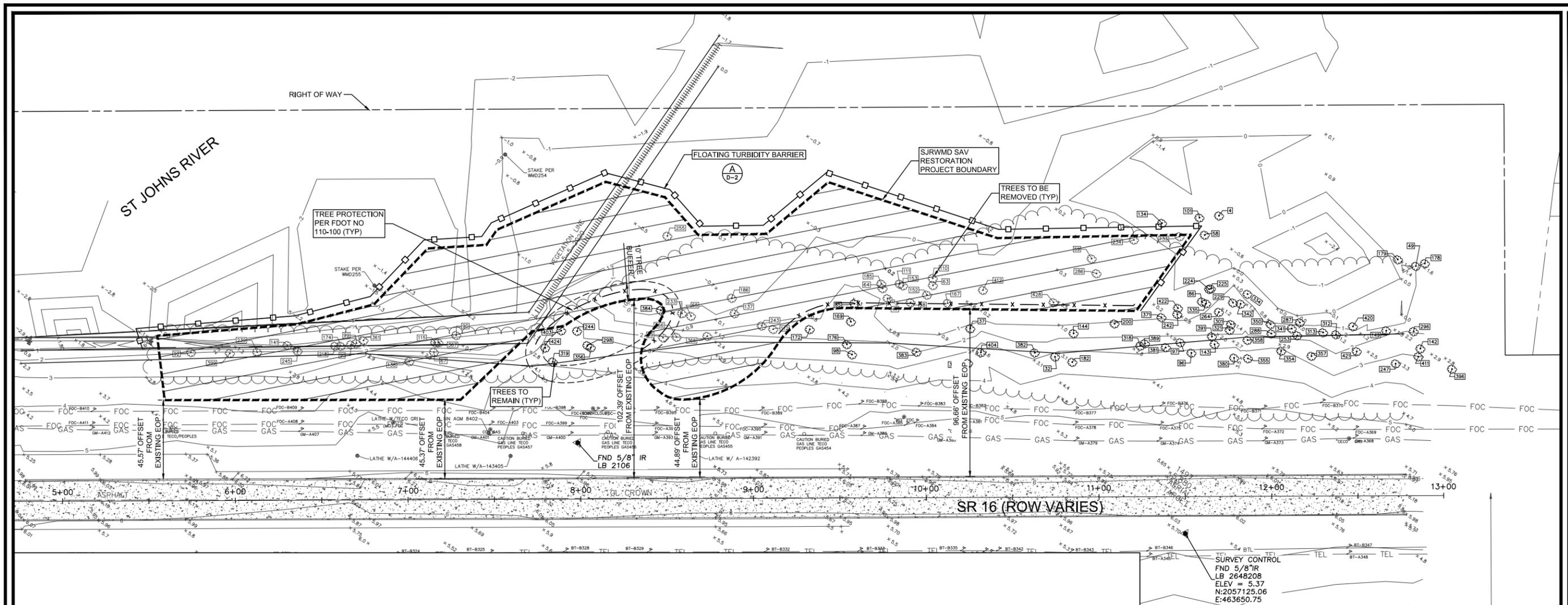
NOTE:
SEE SHEET C4, C5 AND C6
FOR STAKING PLAN.



FIRST COAST EXPRESSWAY SAV RESTORATION STATE ROAD 16		DRAWN SLD	JOB NUMBER 20-015	ISSUE DATE SEPTEMBER 2020	ISSUE DATE 2020
SOUTH OF SR16 PROJECT BOUNDARY, TREE REMOVAL AND EROSION CONTROL		DESIGN MIRK BY SLD			
ST JOHNS COUNTY FLORIDA ST JOHNS RIVER WATER MANAGEMENT DISTRICT		DESIGN MIRK BY SLD			
C.O.# 31101 WWW.FOURWATERS.COM		DESIGN MIRK BY SLD			
904-414-2400		DESIGN MIRK BY SLD			
DRAWING NUMBER C-2		DESIGN MIRK BY SLD			

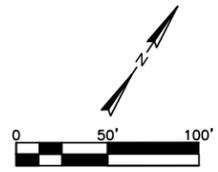
Signature: Michael R. Mirk, P.E.
FL Professional Eng. #71640
Date: _____

STEVE DUCHARNE LOCATION: B-20-1015_SJRWMD_ECX_RESTORATION_VA_C051_ECX_DEMOLITION.DWG



TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE	
POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE	POINT #	BDH/TREE TYPE
1	5'SWEETGUM	59	6'SWEETGUM	100	9'SWEETGUM	143	8'OAK	179	9'SWEETGUM	226	10'SWEETGUM	268	12'ELM	315	14'CYPRESS
3	5'CEDAR	60	6'SWEETGUM	101	7'SWEETGUM	144	8'OAK	180	9'SWEETGUM	227	10'SWEETGUM	269	12'SWEETGUM	316	14'ELM
4	5'SWEETGUM	61	6'SWEETGUM	102	7'SWEETGUM	145	8'OAK	181	9'SWEETGUM	228	10'SWEETGUM	270	12'SWEETGUM	317	14'OAK
30	6'SWEETGUM	62	6'SWEETGUM	103	7'SWEETGUM	146	8'OAK	182	9'SWEETGUM	229	10'UNKNOWN	271	12'SWEETGUM	318	14'OAK
32	6/7 OAK	63	6'SWEETGUM	104	7'SWEETGUM	147	8'PINE	183	9'SWEETGUM	233	11/6 SWEETGUM	272	12'SWEETGUM	319	14'PALM
33	6'CYPRESS	64	6'SWEETGUM	105	7'SWEETGUM	148	8'SWEETGUM	184	9'SWEETGUM	234	11/6/6'SWEETGUM	273	12'SWEETGUM	320	14'PINE
34	6'ELM	65	6'SWEETGUM	106	7'SWEETGUM	149	8'SWEETGUM	185	9'SWEETGUM	236	11'ELM	274	12'SWEETGUM	321	14'SWEETGUM
35	6'ELM	66	6'SWEETGUM	107	7'SWEETGUM	150	8'SWEETGUM	186	9'SWEETGUM	237	11'ELM	275	12'SWEETGUM	322	14'SWEETGUM
36	6'ELM	67	6'SWEETGUM	108	7'SWEETGUM	151	8'SWEETGUM	187	9'SWEETGUM	238	11'SWEETGUM	276	12'SWEETGUM	323	14'SWEETGUM
37	6'ELM	68	6'SWEETGUM	109	7'SWEETGUM	152	8'SWEETGUM	188	9'SWEETGUM	239	11'CHINA BERRY	277	13'CYPRESS	324	14'SWEETGUM
38	6'ELM	69	6'SWEETGUM	110	7'SWEETGUM	153	8'SWEETGUM	189	9'SWEETGUM	240	11'CYPRESS	278	13'CYPRESS	325	15'PINE
39	6'ELM	70	6'SWEETGUM	111	7'SWEETGUM	154	8'SWEETGUM	190	9'SWEETGUM	241	11'CYPRESS	279	13'CYPRESS	326	15'PINE
40	6'ELM	71	6'SWEETGUM	112	7'SWEETGUM	155	8'SWEETGUM	191	9'SWEETGUM	242	11'ELM	280	13'CYPRESS	327	17'ELM
41	6'ELM	72	6'SWEETGUM	113	7'SWEETGUM	156	8'SWEETGUM	192	9'SWEETGUM	243	11'ELM	281	13'CYPRESS	328	17'ELM
42	6'ELM	73	6'SWEETGUM	114	7'SWEETGUM	157	8'SWEETGUM	193	9'SWEETGUM	244	11'ELM	282	13'CYPRESS	329	17'ELM
43	6'ELM	74	6'TOPLAR	115	7'SWEETGUM	158	8'SWEETGUM	194	9'SWEETGUM	245	11'ELM	283	13'CYPRESS	330	17'ELM
44	6'ELM	75	7/11 ELM	116	7'SWEETGUM	159	9' PINE	195	9'UNKNOWN	246	11'ELM	284	13'CYPRESS	331	17'ELM
45	6'ELM	76	7'ELM	117	7'UNKNOWN	160	9'GUM	196	10'ELM	247	11'ELM	285	13'CYPRESS	332	17'ELM
46	6'HACKBERRY	77	7'ELM	125	8'ELM	166	9'SWEETGUM	213	10'SWEETGUM	248	11'ELM	286	13'CYPRESS	333	15/11/23 SWEETGUM
47	6'HACKBERRY	78	7'ELM	126	8'ELM	167	9/6 SWEETGUM	214	10/5/11' ELM	249	11'PINE	287	13'CYPRESS	334	17'ELM
48	6'HACKBERRY	79	7'ELM	127	8'GUM	168	9/7 ELM	215	10'CYPRESS	250	11'SWEETGUM	288	13'CYPRESS	335	17'ELM
49	6'OAK	80	7'ELM	133	8'SWEETGUM	169	9/7 SWEETGUM	216	10'CYPRESS	251	11'SWEETGUM	289	13'CYPRESS	336	17'ELM
50	6'OAK	81	7'ELM	134	8/9/10/9/6'SWEETGUM	170	9/7/7 SWEETGUM	217	10'ELM	252	11'SWEETGUM	290	13'PALM	337	17'ELM
51	6'OAK	82	7'ELM	135	8'CYPRESS	171	9/9 SWEETGUM	218	10'ELM	253	11'SWEETGUM	291	13'PALM	338	17'ELM
52	6'OAK	83	7'HACKBERRY	136	8'CYPRESS	172	9/11 SWEETGUM	219	10'ELM	254	11'SWEETGUM	292	13'PALM	339	17'ELM
53	6'OAK	84	7'HACKBERRY	137	8'ELM	173	9/11 SWEETGUM	220	10'ELM	255	11'SWEETGUM	293	13'PALM	340	17'ELM
54	6'SWEETGUM	85	7'OAK	138	8'ELM	174	9'ELM	221	10'SWEETGUM	256	11'SWEETGUM	294	13'PALM	341	17'ELM
55	6'SWEETGUM	86	7'OAK	139	8'ELM	175	9'ELM	222	10'SWEETGUM	257	11'SWEETGUM	295	13'PALM	342	17'ELM
56	6'SWEETGUM	87	7'OAK	140	8'ELM	176	9'OAK	223	10'SWEETGUM	258	11'SWEETGUM	296	13'PALM	343	17'ELM
57	6'SWEETGUM	88	7'OAK	141	8'ELM	177	9'OAK	224	10'SWEETGUM	259	11'SWEETGUM	297	13'PALM	344	17'ELM
58	6'SWEETGUM	89	7'OAK	142	8'OAK	178	9'SWEETGUM	225	10'SWEETGUM	260	11'SWEETGUM	298	13'PALM	345	17'ELM

NOTE:
SEE SHEET C4, C5 AND C6
FOR STAKING PLAN.



NORTH OF SR16 PROJECT BOUNDARY, TREE REMOVAL AND EROSION CONTROL

FIRST COAST EXPRESSWAY SAV RESTORATION
STATE ROAD 16
ST JOHNS COUNTY FLORIDA
ST JOHNS RIVER WATER MANAGEMENT DISTRICT

REV	DATE	DRWN	CHKD	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
4				
5				
6				

DESIGN	MRK	SLD	20-015
JOB	NUMBER	DATE	2020
ISSUE	DATE	ISSUE	BID

FOUR WATERS ENGINEERING

324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
904-414-2400 C.O.# 31101 WWW.4WENG.COM

DRAWING NUMBER
C-3

Signature: Michael R. Klim, P.E.
FL Professional Eng. #71640
Date:

LEGEND:

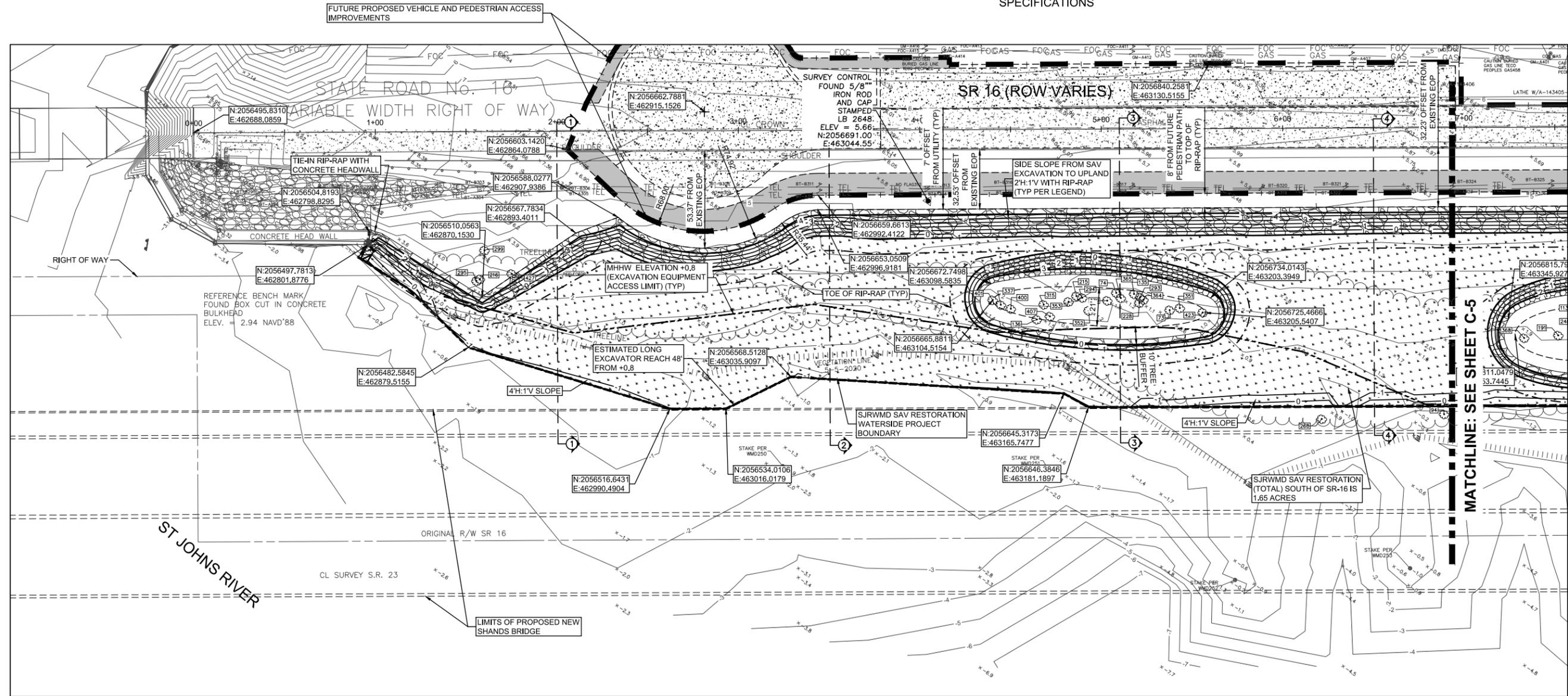
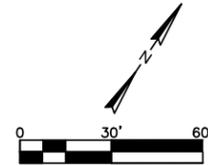
 SAV EXCAVATION TO (-) 1.2'

 RIP-RAP (BANK AND SHORE PROTECTION) $\text{\textcircled{A}}$
D-1

 RIP-RAP (DITCH LINING) $\text{\textcircled{B}}$
D-1

NOTE:

1. SLOPES WITH RIP-RAP ARE TO BE 2'H:1'V
2. SLOPES WITHOUT RIP-RAP ARE TO BE 4'H:1'V
3. CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
4. ALL UPLAND LAND DISTURBANCE TO HAVE PERMANENT SEEDING PER FDOT SPECIFICATIONS



MATCHLINE: SEE SHEET C-5

Signature
Michael R. Minn, P.E.
FL Professional Eng. #71640
Date

REV	DATE	BY	CHKD	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
4				
5				
6				

FIRST COAST EXPRESSWAY SAV RESTORATION
 STATE ROAD 16
SOUTH OF SR16
GRADING, RIP-RAP AND STAKING PLAN
 ST. JOHNS COUNTY FLORIDA
 ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

DESIGN	DRAWN
MRK	SLD
NUMBER	NUMBER
DATE	DATE
ISSUE	ISSUE

FOUR WATERS ENGINEERING
 324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
 904-414-2400 C.O.A.# 31101 WWW.FWENG.COM

DRAWING NUMBER
C4

STEVE DUCHARNE LOCATION: E:\20-1015_SJRWM_FCA_RESTORATION\A_CDS\FCA-DESIGN-4.DWG

LEGEND:

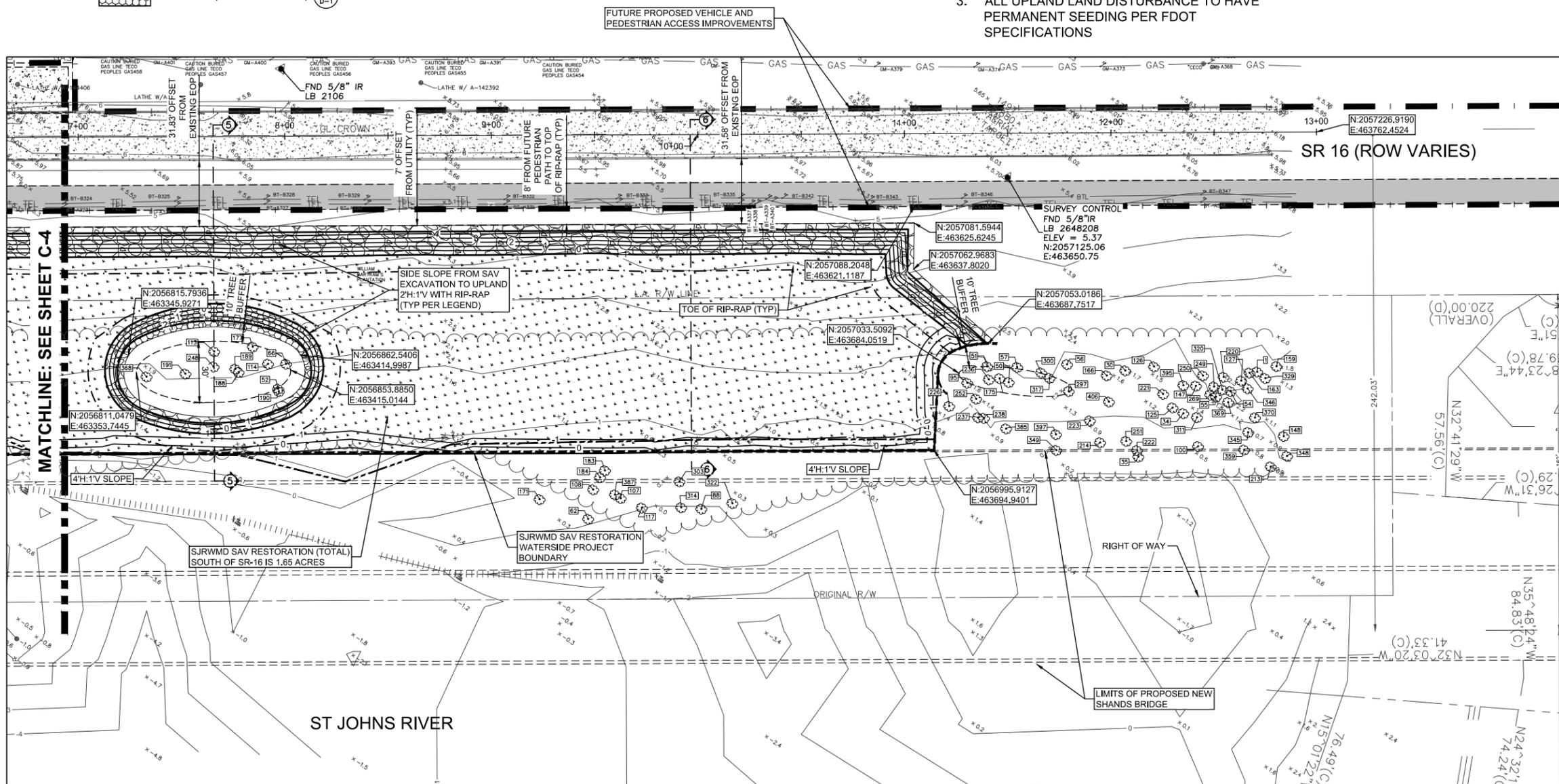
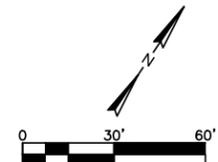
 SAV EXCAVATION TO (-) 1.2'

 RIP-RAP (BANK AND SHORE PROTECTION) $\text{\textcircled{A}}$
 $\text{\textcircled{D-1}}$

 RIP-RAP (DITCH LINING) $\text{\textcircled{B}}$
 $\text{\textcircled{D-1}}$

NOTE:

1. SLOPES WITH RIP-RAP ARE TO BE 2'H:1'V
SLOPES WITHOUT RIP-RAP ARE TO BE 4'H:1'V
2. CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
3. ALL UPLAND LAND DISTURBANCE TO HAVE PERMANENT SEEDING PER FDOT SPECIFICATIONS



MATCHLINE: SEE SHEET C-4

STEVE DUCHARNE LOCATION: E:\20-1015_SJRWMD_ECX_RESTORATION\X\CDSI_ECX-DESIGN-4.DWG

Signature
Michael R. Minn, P.E.
FL Professional Eng. #71640
Date

REV	DATE	BY	CHKD	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
4				
5				
6				

FIRST COAST EXPRESSWAY SAV RESTORATION
STATE ROAD 16
SOUTH OF SR16
GRADING, RIP-RAP AND STAKING PLAN
ST. JOHNS COUNTY FLORIDA
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

DESIGN	DRAWN	DATE	ISSUE
MRK	SLD	20-09-15	2020
NUMBER	NUMBER	NUMBER	NUMBER
76.491(C)	N15°07'22"	74.241(C)	N24°32'1"

FOUR WATERS ENGINEERING
324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

DRAWING NUMBER
C-5

LEGEND:

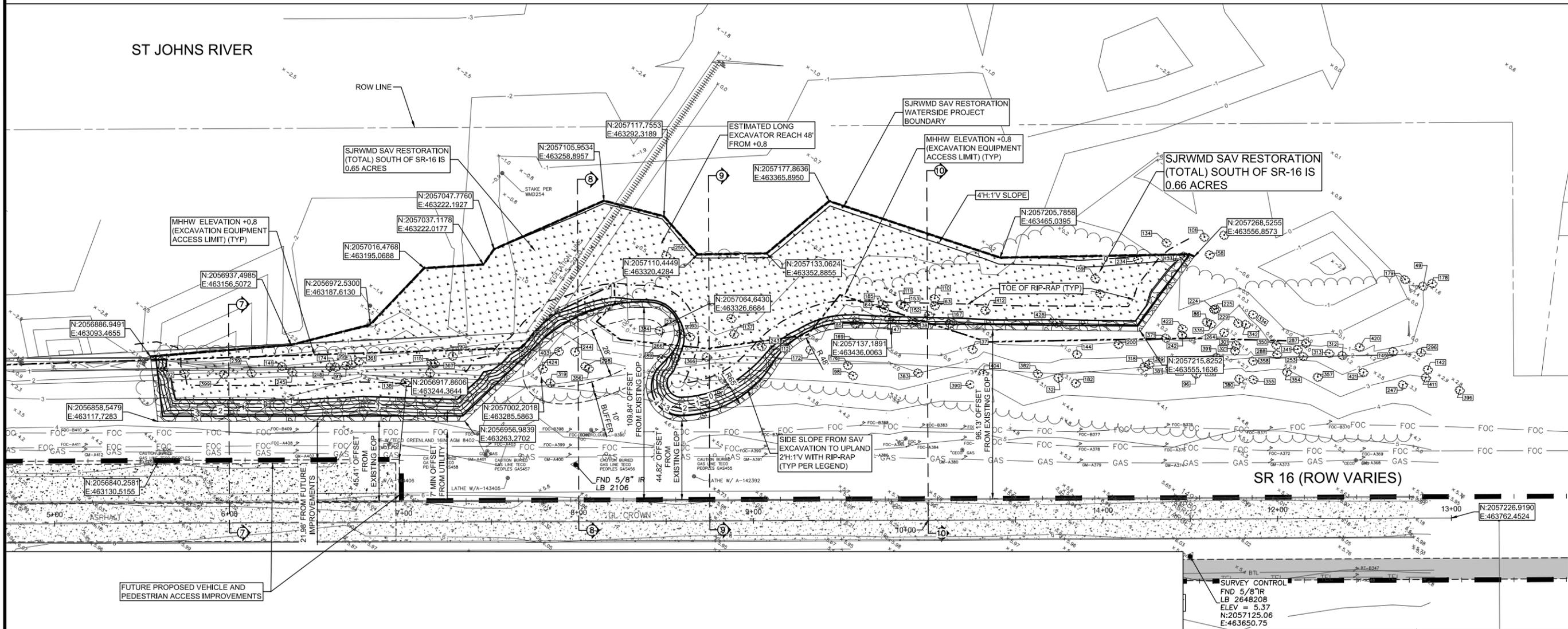
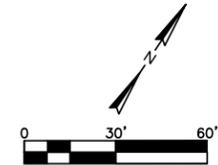
 SAV EXCAVATION TO (-) 1.2'

 RIP-RAP (BANK AND SHORE PROTECTION) $\text{\textcircled{A}}$

 RIP-RAP (DITCH LINING) $\text{\textcircled{B}}$

NOTE:

1. SLOPES WITH RIP-RAP ARE TO BE 2'H:1'V
2. SLOPES WITHOUT RIP-RAP ARE TO BE 4'H:1'V
3. CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
4. ALL UPLAND LAND DISTURBANCE TO HAVE PERMANENT SEEDING PER FDOT SPECIFICATIONS



REV	DATE	DRWN	CHKD	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
4				
5				
6				

FIRST COAST EXPRESSWAY SAV RESTORATION
STATE ROAD 16
NORTH OF SR16
GRADING, RIP-RAP AND STAKING PLAN
ST. JOHNS COUNTY FLORIDA
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

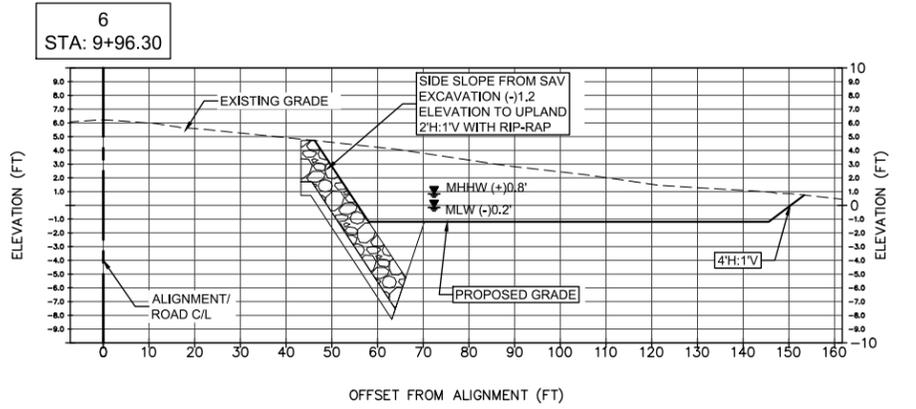
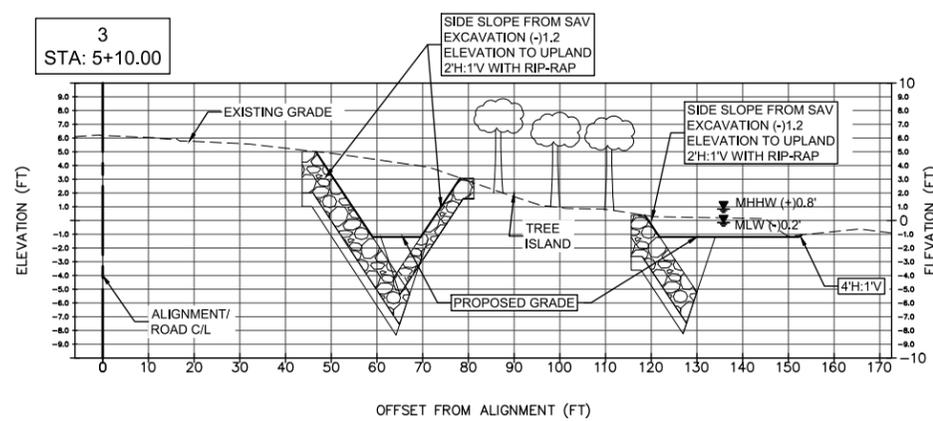
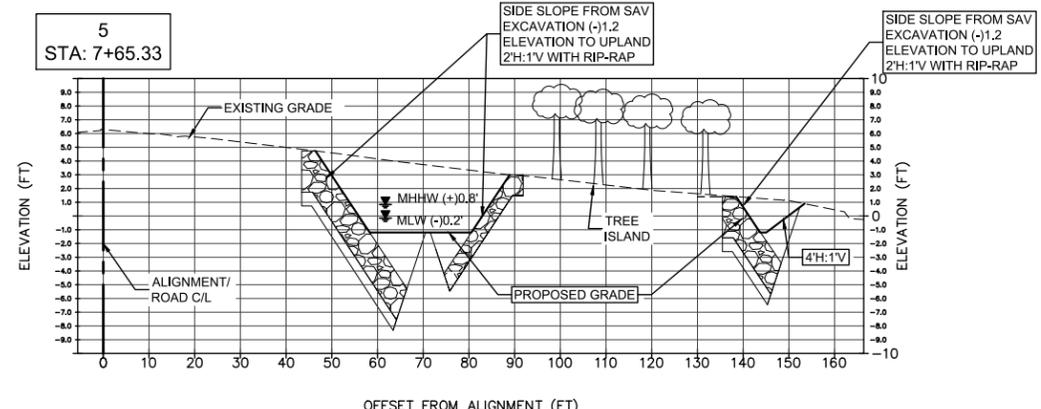
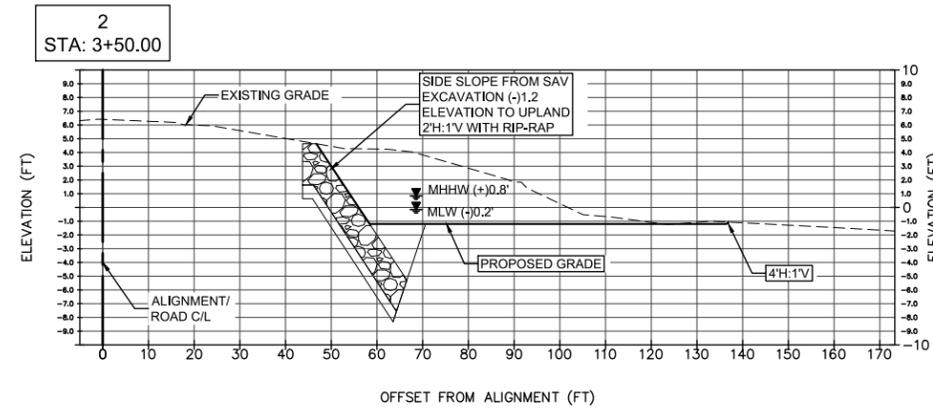
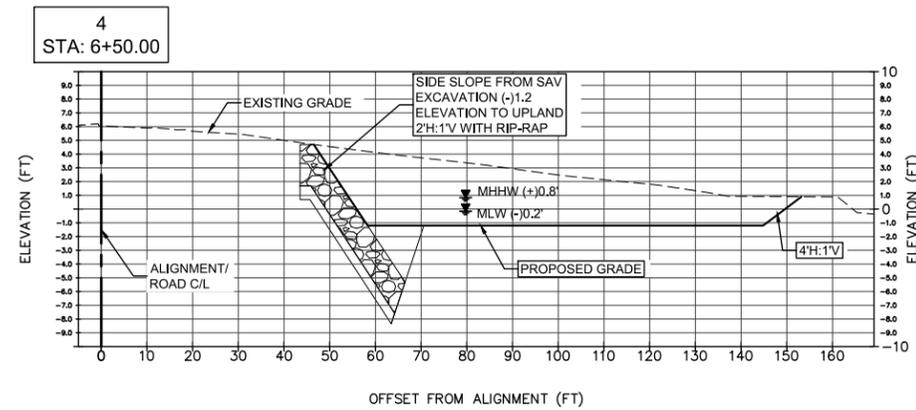
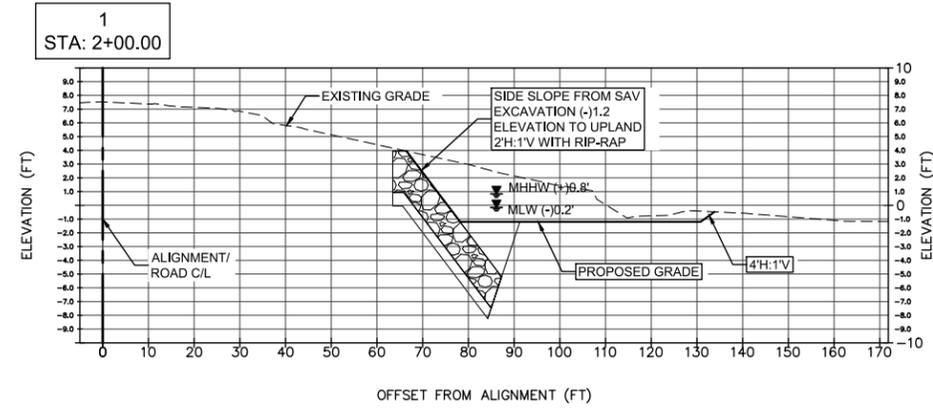
DESIGN	MRK	SLD	DATE	ISSUE
		20-015	SEPTEMBER 2020	

FOUR WATERS ENGINEERING
324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
904-414-2400 C.O.A.# 31101 WWW.FOURWATERS.COM

DRAWING NUMBER
C-6

STEVE DUCHARME LOCATION: E:20-1015 SJRWMD_FCA RESTORATION\A\GIS\FCA-DESIGN-4.DWG

STEVE DUCHARNE LOCATION: B:\20-1015_SJRWMD_ECX_RESTORATION\X\CD\5\ECX-DESIGN-4.DWG



Signature
Michael R. Klim, P.E.
FL Professional Eng. #71640
Date

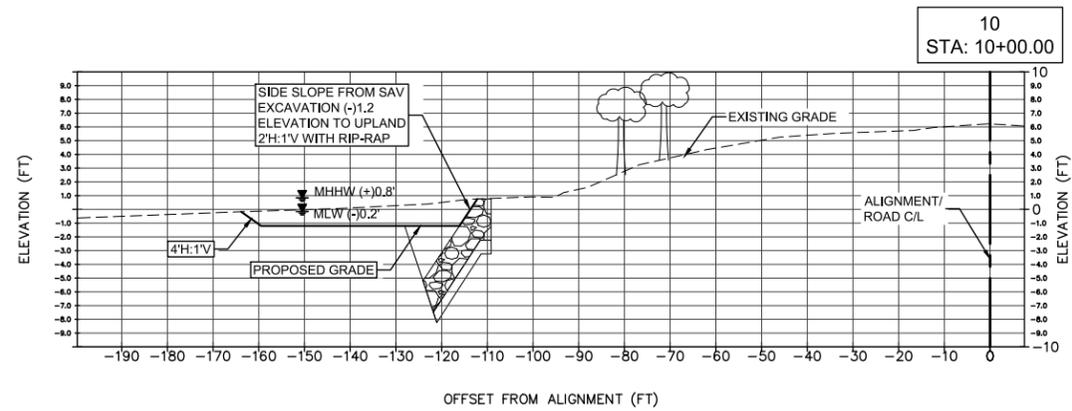
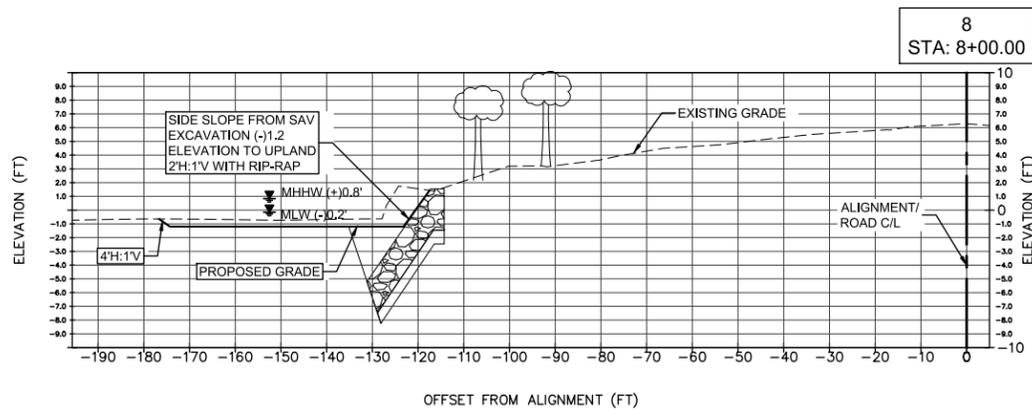
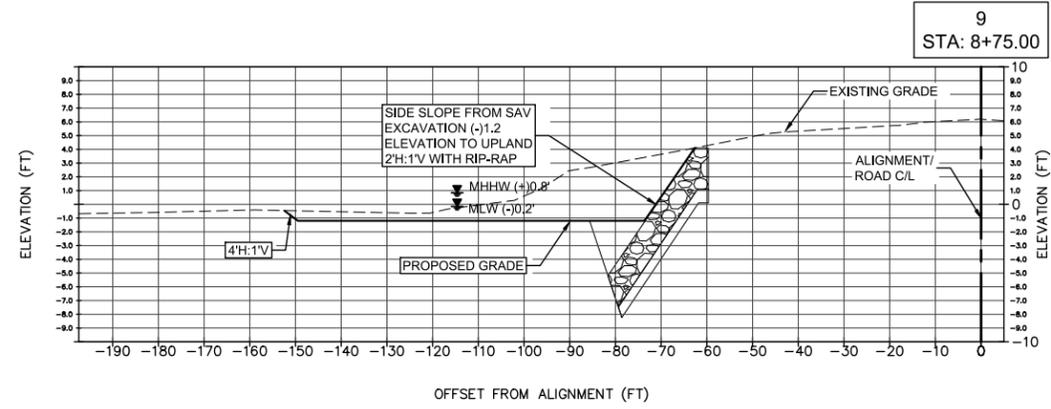
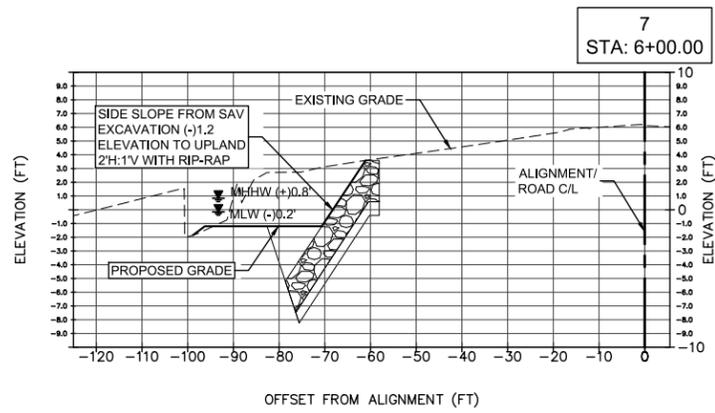
REV	DATE	DRWN	CHKD	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
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FIRST COAST EXPRESSWAY SAV RESTORATION
STATE ROAD 16
CONSTRUCTION SECTIONS - SOUTH OF SR16
ST. JOHNS COUNTY FLORIDA
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

DESIGN	MRK	SLD	DATE	ISSUE
20-1015			20-1015	SEPTEMBER 2020

FOUR WATERS ENGINEERING
324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

STEVE DUCHARNE LOCATION: E:\20-1015_SRWMD_ECX_RESTORATION\X\GIS\ECX-DESIGN-4.DWG



FIRST COAST EXPRESSWAY SAV RESTORATION
STATE ROAD 16

CONSTRUCTION SECTIONS - NORTH OF SR16

ST. JOHNS COUNTY FLORIDA
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

DESIGN	DRAWN	DATE	ISSUE
MRK	SLD	20-015	SEPTEMBER 2020
NUMBER	NUMBER	DATE	ISSUE

FOUR WATERS ENGINEERING
324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

DRAWING NUMBER

C-8

REV	DATE	BY	CHKD	DESCRIPTION
1	9/22/20	MRK	SLD	BID ADDENDUM PLANS
2				
3				
4				
5				
6				

Signature
Michael R. Klimm, P.E.
FL Professional Eng. #71640
Date

CONSTRUCTION SPECIFICATIONS AND NOTES FOR RIPRAP SYSTEM:

- GENERAL: THIS SECTION SHALL COVER THE WORK OF FURNISHING AND CONSTRUCTING THE RIPRAP WHICH SHALL CONSIST OF A PROTECTIVE COURSE OF STONE OR OTHER APPROVED MATERIALS ON EMBANKMENT SLOPES, IN CHANNELS, OR OTHER WORK AS SHOWN ON THE PLANS OR DIRECTED, WITH A FILTER BLANKET, ALL IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN CONFORMITY WITH THE LINES AND GRADES NOTED IN THE PLAN DETAILS.
- RELATED DOCUMENTS:
 - DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION.
 - FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) SECTION 530, AND FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). WORK SHALL COMPLY WITH THE REQUIREMENTS OF FDOT SPECIFICATIONS AND STANDARD INDEX AS MODIFIED HEREIN.
- UNLESS OTHERWISE NOTED, RUBBLE RIPRAP FOR CHANNEL PROTECTION ON DISTRICT LAND FOR THIS PROJECT SHALL CONSIST ENTIRELY OF BROKEN STONE OR CONCRETE AND SHALL COMPLY WITH THE REQUIREMENTS SECTION 530-2.2.2 (DITCH LINING) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).
- CONCRETE RECYCLED RIPRAP MAY BE SUBSTITUTED PER THE APPROVAL OF THE DISTRICT. CONCRETE RECYCLED RIPRAP SHALL BE CLEAN, FREE OF EXPOSED METAL AND MEET SIZING PER RUBBLE RIPRAP (BANK AND SHORE PROTECTION) OF SECTION 530-2.1.3 OR SECTION 530-2.2.2 (DITCH LINING) FDOT SPECIFICATIONS AS SPECIFIED IN THE CONSTRUCTION PLANS.
- BEDDING STONE SHALL COMPLY WITH THE REQUIREMENTS SECTION 530-2.3 (BEDDING STONE) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).
- GEOTEXTILE FABRIC SHALL BE NEEDLE-PUNCHED NON-WOVEN FABRIC (OR APPROVED EQUAL) AND SHALL COMPLY WITH THE REQUIREMENTS SECTION 514 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). ADDITIONALLY, THE GEOTEXTILE FABRIC MATERIAL SHALL CONFORM TO THE REQUIREMENTS FOR TYPE D-2 OF THE FDOT SPECIFICATIONS SECTION 985.
- CONSTRUCTION REQUIREMENTS: ALL SLOPES TO BE TREATED WITH RIPRAP SHALL BE TRIMMED TO THE LINES AND GRADES INDICATED BY THE PLANS OR DIRECTED, LOOSE MATERIAL SHALL BE COMPACTED BY METHODS APPROVED BY THE DISTRICT OR REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. SLOPES SHALL REQUIRE BEDDING STONE WITH FILTER BLANKET (GEOTEXTILE MATERIAL) UNDER THE RIPRAP SHALL, IN ADDITION TO THE ABOVE, BE PREPARED AS NOTED BELOW. PLACEMENT OF ANY RIPRAP ON A FILTER BLANKET SHALL BE BY SUCH MEANS THAT WILL NOT DAMAGE OR DESTROY THE BLANKET. ANY DAMAGE TO THE BLANKET SHALL BE REPAIRED OR REPLACED; TO THE DISTRICT'S APPROVAL, WITHOUT ADDITIONAL COMPENSATION. IF DIRECTED BY THE DISTRICT OR SHOWN BY PLAN DETAILS, ALL OUTER EDGES AND THE TOP OF RIPRAP WHERE THE RIPRAP TERMINATES SHALL BE FORMED SO THAT THE SURFACE OF THE RIPRAP WILL BE EMBEDDED AND EVEN WITH THE SURFACE OF THE GROUND AND/OR SLOPE. ALL RIPRAP CONSTRUCTION SHALL BEGIN AT THE BOTTOM OF THE SLOPE AND PROGRESS UPWARD.

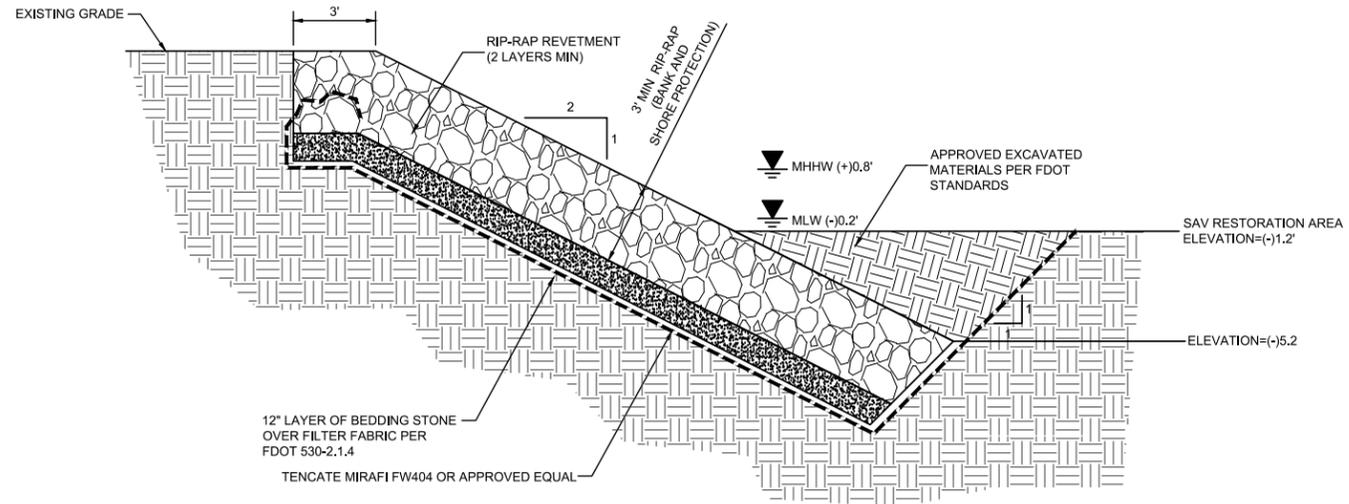
FOUNDATION PREPARATION: AREAS ON WHICH FILTER FABRICS ARE TO BE PLACED SHALL BE UNIFORMLY TRIMMED AND DRESSED TO CONFORM TO CROSS-SECTIONS SHOWN BY THE PLANS AND SHALL ALSO CONFORM TO THE REQUIREMENTS UNDER "EARTHWORK" AND ANY OTHER APPLICABLE SPECIFICATIONS ON REFERENCE DRAWINGS.

FILTER FABRIC (GEOTEXTILE MATERIAL): FILTER FABRIC SHALL BE PLACED IN THE MANNER AND AT THE LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE DISTRICT. AT THE TIME OF INSTALLATION, FABRIC SHALL BE REJECTED IF IT HAS DEFECTS, RIPS, HOLES, FLAWS, DETERIORATION OR DAMAGE INCURRED DURING MANUFACTURE, TRANSPORTATION OR STORAGE. THE FABRIC SHALL BE PLACED WITH THE LONG DIMENSION PARALLEL TO THE CENTERLINE OF THE CHANNEL OR SHORELINE UNLESS OTHERWISE DIRECTED BY THE DISTRICT, AND SHALL BE LAID SMOOTH AND FREE OF TENSION, STRESS, FOLDS, WRINKLES OR CREASES. THE STRIPS SHALL BE PLACED TO PROVIDE A MINIMUM WIDTH OF 24 INCHES OF OVERLAP FOR EACH JOINT WITH THE UPSTREAM STRIP OF FABRIC OVERLAPPING THE DOWNSTREAM STRIP. OVERLAP JOINTS AND SEAMS SHALL BE MEASURED AS A SINGLE LAYER OF CLOTH. SECURING PINS WITH WASHERS SHALL BE INSERTED THROUGH BOTH STRIPS OF OVERLAPPED CLOTH AT NOT GREATER THAN THE FOLLOWING INTERVALS ALONG A LINE THROUGH THE MIDPOINT OF THE OVERLAP.

PIN SPACING	SLOPE
3 FT.	3:1 TO 4:1
5 FT.	FLATTER THAN 4:1

THE FABRIC SHALL BE TURNED DOWN AND BURIED TWO FEET AT ALL EXTERIOR LIMITS EXCEPT WHERE A STONE-FILLED KEY IS PROVIDED BELOW NATURAL GROUND OR OTHERWISE SHOWN. ADDITIONAL PINS REGARDLESS OF LOCATION SHALL BE INSTALLED AS NECESSARY TO PREVENT ANY SLIPPAGE OF THE FILTER FABRIC. OVERLAPS IN THE FABRIC SHALL BE PLACED SO THAT ANY UPSTREAM STRIP OF FABRIC WILL OVERLAP THE DOWNSTREAM STRIP. SHOULD THE DISTRICT DIRECT THAT THE FABRIC BE PLACED WITH THE LONG DIMENSION PERPENDICULAR TO THE CENTERLINE OF THE CHANNEL OR SHORELINE, THE LOWER STRIP OF FABRIC SHALL UNDERLAP THE NEXT HIGHER STRIP. EACH SECURING PIN SHALL BE PUSHED THROUGH THE FABRIC UNTIL THE WASHER BEARS AGAINST THE FABRIC AND SECURES IT FIRMLY TO THE FOUNDATION. THE FABRIC SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION FROM CONTAMINATION BY SURFACE RUNOFF AND ANY FABRIC SO CONTAMINATED SHALL BE REMOVED AND REPLACED WITH UNCONTAMINATED FABRIC. ANY DAMAGE TO THE FABRIC DURING ITS INSTALLATION OR DURING PLACEMENT OF RIPRAP SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST. THE WORK SHALL BE SCHEDULED SO THAT 5 DAYS DOES NOT EXPIRE BETWEEN PLACEMENT OF THE FABRIC AND THE COVERING OF THE FABRIC WITH RIPRAP.

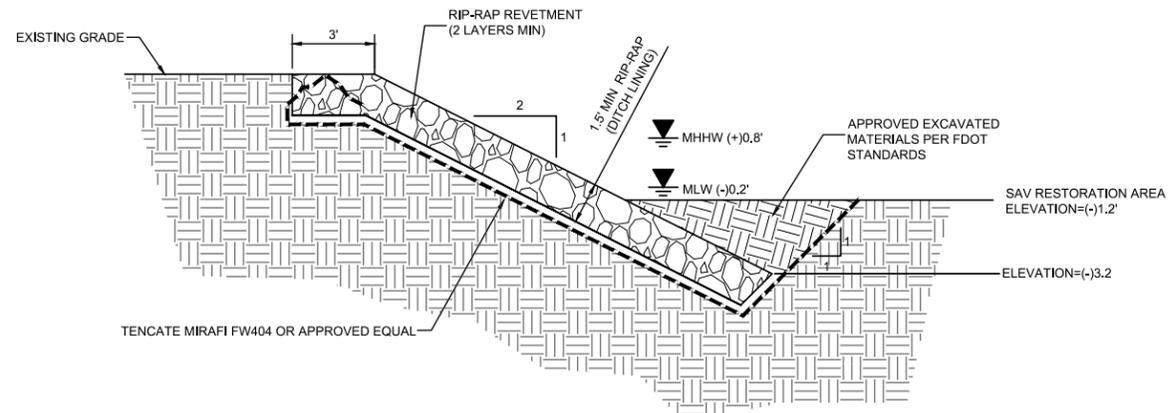
STONE AND CONCRETE RUBBLE RIPRAP: PLACEMENT OF STONE OR CONCRETE MAY, UNLESS OTHERWISE NOTED HEREINAFTER, BE PLACED BY METHODS AND EQUIPMENT APPROVED BY THE DISTRICT SUITABLE FOR THE PURPOSE OF PLACING THE RIPRAP IN ACCORDANCE WITH THE REQUIREMENTS FOR THE CLASS RIPRAP INVOLVED WITHOUT DAMAGING ANY EXISTING FACILITY OR CONSTRUCTION FEATURE. THE STONE OR CONCRETE SHALL BE PLACED IN SUCH A MANNER AS TO PRODUCE A REASONABLY WELL GRADED MASS OF ROCK WITH THE MINIMUM PRACTICAL PERCENTAGE OF VOIDS. STONE OR CONCRETE SHALL BE LAID WITH CLOSE BROKEN JOINTS AND RESTING ON THE EMBANKMENT SLOPE. THE RIPRAP SHALL BE CONSTRUCTED TO THE LINES, GRADES AND THICKNESS SHOWN BY THE PLANS OR AS DIRECTED. RIPRAP SHALL BE PLACED TO ITS FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACING OR DAMAGING THE FILTER BLANKET MATERIAL. THE LARGER STONE OR CONCRETES SHALL BE WELL DISTRIBUTED AND THE ENTIRE MASS OF STONE OR CONCRETES IN THEIR FINAL POSITION SHALL CONFORM TO A REASONABLE UNIFORM GRADATION. THE FINISHED RIPRAP SHALL BE FREE FROM OBJECTIONABLE POCKETS OF SMALL STONE OR CONCRETES AND CLUSTERS OF LARGER STONE OR CONCRETES. OPEN JOINTS SHALL BE FILLED WITH SPALLS, OR SMALL STONE OR CONCRETES IN SUCH MANNER THAT ALL STONE OR CONCRETES ARE TIGHTLY WEDGED OR KEYED. PLACING RIPRAP BY DUMPING INTO CHUTES OR BY OTHER METHODS LIKELY TO CAUSE SEGREGATION OF SIZES SHALL NOT BE PERMITTED. THE DESIRED DISTRIBUTION OF THE VARIOUS SIZES OF STONE OR CONCRETES THROUGHOUT THE MASS SHALL BE OBTAINED BY SELECTIVE LOADING OF THE MATERIAL AT THE SOURCE, BY CONTROLLED DUMPING OF SUCCESSIVE LOADS DURING FINAL PLACING, OR BY OTHER METHODS OF PLACEMENT WHICH WILL PRODUCE THE SPECIFIED RESULTS. THE INDIVIDUAL PIECES OF STONE OR CONCRETE IN EACH HORIZONTAL COURSE SHALL BE LAID SO THAT THEY WILL BREAK AWAY FROM EMBANKMENT. REARRANGING OF INDIVIDUAL STONE OR CONCRETES BY MECHANICAL EQUIPMENT, OR BY HAND, WILL BE REQUIRED TO THE EXTENT NECESSARY TO OBTAIN A REASONABLY WELL GRADED DISTRIBUTION OF STONE OR CONCRETE AS SPECIFIED HEREIN.



NOTES

- REVETMENT STONE OR CONCRETE SHALL BE A MINIMUM OF TWO UNITS THICK AND BE PLACED TO MAXIMIZE CONTACT BETWEEN ADJACENT STONES OR CONCRETE PIECES
- SMALLER STONES OR CONCRETE PIECES SHALL BE UTILIZED FOR CHINKING TO ACHIEVE UNIFORM INSTALLATION CONFORMITY TO LINES AND GRADES
- ROCK AND CONCRETE SIZE SHOWN IS BASED ON A MINIMUM DRY UNIT WEIGHT OF 150 PCF.
- EXISTING GRADE SHOWN AT TIME OF SURVEY. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
- GEOTEXTILE FABRIC SHALL HAVE A MINIMUM OVERLAP OF TWO FEET AND PLACED BETWEEN STONE LAYERS AT TOP OF BANK AND AS SHOWN AT TOE.

RIP-RAP (BANK AND SHORE PROTECTION) DETAIL A



NOTES

- REVETMENT STONE OR CONCRETE SHALL BE A MINIMUM OF TWO UNITS THICK AND BE PLACED TO MAXIMIZE CONTACT BETWEEN ADJACENT STONES OR CONCRETE PIECES
- SMALLER STONES OR CONCRETE PIECES SHALL BE UTILIZED FOR CHINKING TO ACHIEVE UNIFORM INSTALLATION CONFORMITY TO LINES AND GRADES
- ROCK AND CONCRETE SIZE SHOWN IS BASED ON A MINIMUM DRY UNIT WEIGHT OF 150 PCF.
- EXISTING GRADE SHOWN AT TIME OF SURVEY. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
- GEOTEXTILE FABRIC SHALL HAVE A MINIMUM OVERLAP OF TWO FEET AND PLACED BETWEEN STONE LAYERS AT TOP OF BANK AND AS SHOWN AT TOE.

RIP-RAP (DITCH LINING) DETAIL B

Signature
Michael R. Alim, P.E.
FL Professional Eng. #71640
Date

REV	DATE	DRWN	CHKD	DESCRIPTION
1	9/22/20	SLD	MRK	BID ADDENDUM PLANS
2				
3				
4				
5				
6				

FIRST COAST EXPRESSWAY SAV RESTORATION
STATE ROAD 16
CONSTRUCTION DETAILS
ST. JOHNS COUNTY FLORIDA
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

DESIGN	DRAWN	ISSUE	BID
MRK	SLD	204-015	
NUMBER		SEPTEMBER	
		2020	
		DATE	
		ISSUE	

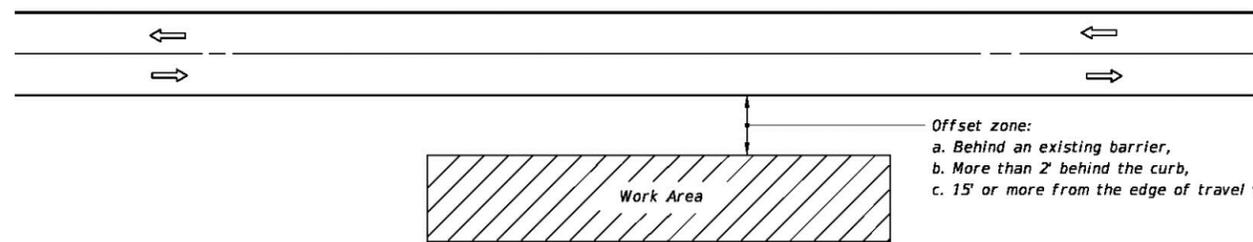
FOUR WATERS ENGINEERING
324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

DRAWING NUMBER

D-1

STEVE DUCHARNE LOCATION: R-20--1015_SJRWMD_FCA_RESTORATION\A\GIS\FCA-GENERAL.DWG

2/26/2020 12:29:40 PM



SYMBOLS

-  Work Area
-  Lane Identification + Direction of Traffic

GENERAL NOTES

1. If the work operation (excluding establishing and terminating the work area) requires that two or more work vehicles cross the offset zone in any one hour, traffic control will be in conformance with Index 102-602.
2. No special signing is required.
3. When a side road intersects the highway within the work area, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
4. When construction activities encroach on a sidewalk refer to Index 102-660.
5. For general TCZ requirements and additional information, refer to Index 102-600.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE BEHIND AN EXISTING BARRIER, MORE THAN 2' BEHIND THE CURB, OR 15' OR MORE FROM THE EDGE OF TRAVEL WAY.

LAST REVISION 11/01/17	DESCRIPTION:		FY 2020-21 STANDARD PLANS	TWO-LANE, TWO-WAY, WORK OUTSIDE SHOULDER	INDEX 102-601	SHEET 1 of 1
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Signature
 Michael R. Minn, P.E.
 FL Professional Eng. #71640
 Date

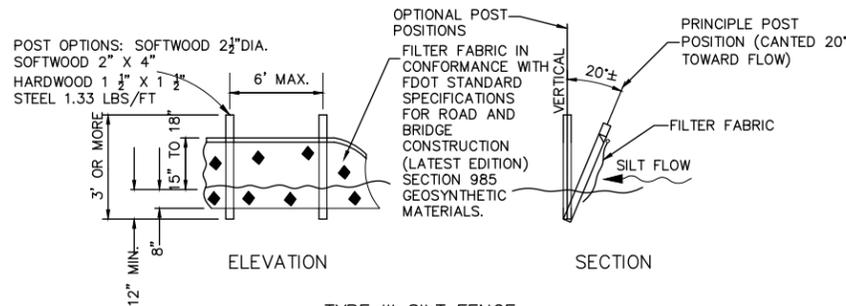
REV NO	DATE	DRWN	CHKD	BY	DESCRIPTION
1	9/22/20	SLD	MRK		BID ADDENDUM PLANS
2					
3					
4					
5					
6					

FIRST COAST EXPRESSWAY SAV RESTORATION
 STATE ROAD 16
CONSTRUCTION DETAILS
 ST JOHNS COUNTY FLORIDA
 ST JOHNS RIVER WATER MANAGEMENT DISTRICT

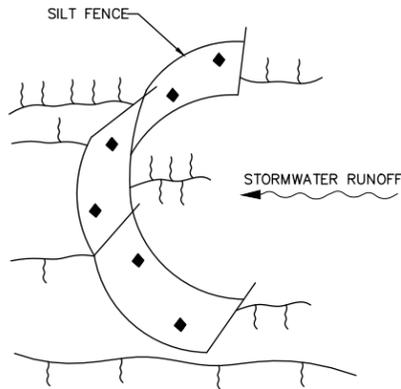
DESIGN	MRK	JOB	NUMBER	ISSUE	DATE	ISSUE	BID
		20-1015		SEPTEMBER	2020		

FOUR WATERS ENGINEERING
 324 6th AVE N. JACKSONVILLE BEACH, FLORIDA 32250
 904-414-2400 C.O.A.# 31101 WWW.4WENG.COM

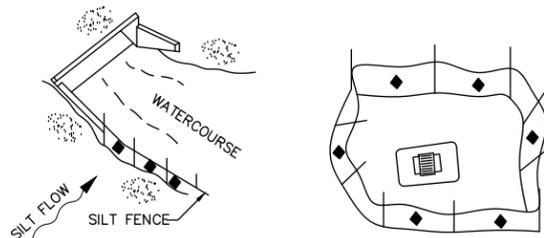
DRAWING NUMBER
D-2



TYPE III SILT FENCE



SILT FENCE PROTECTION IN DITCHES WITH INTERMITTENT FLOW

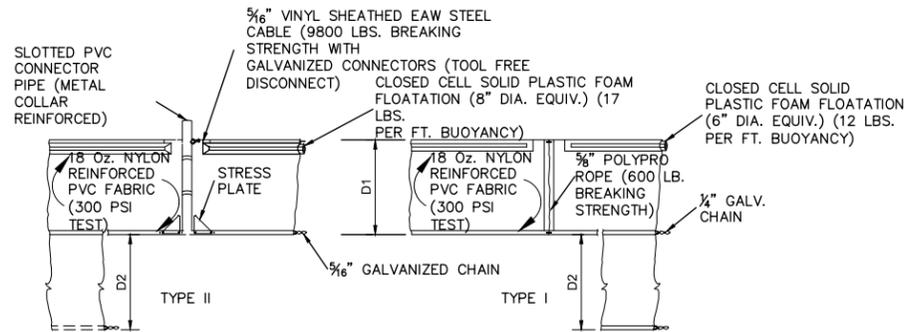


SILT FENCE APPLICATIONS

NOTES FOR SILT FENCES

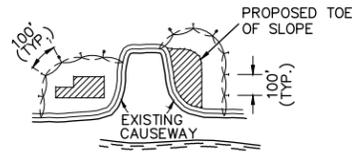
- TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH SECTION V OF THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (JULY 2013).
- TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.
- DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.
- SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, (LF).

TEMPORARY SILT FENCE DETAIL
NOT TO SCALE



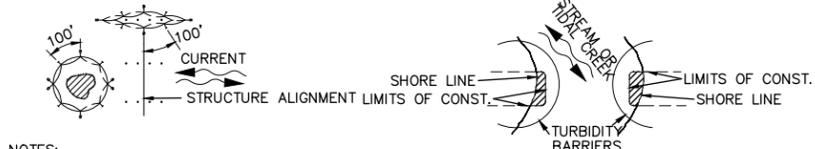
D1= 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D2= 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5')
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.
NOTICE: COMPONENTS OF TYPE I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGN. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS (A)
NOT TO SCALE



GENERAL NOTES:

- FLOATING TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR FLOATING TURBIDITY BARRIER, LF.
- STAKED TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED TURBIDITY BARRIER, LF.



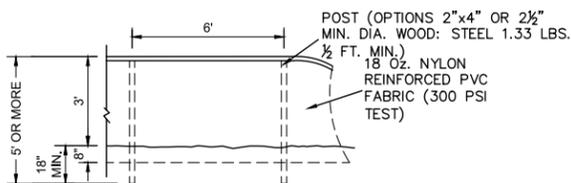
NOTES:

- TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
- NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
- DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
- NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
- TURBIDITY BARRIERS SHALL CONFORM TO SECTION 104 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).

LEGEND

- PILE LOCATIONS
- ▨ DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

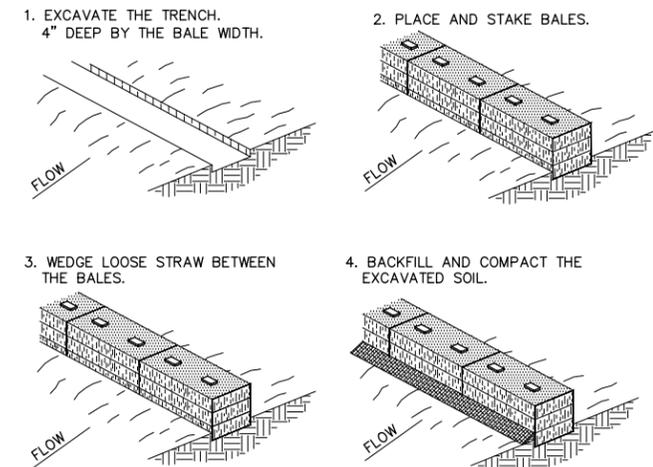
TURBIDITY BARRIER APPLICATIONS
NOT TO SCALE



STAKED TURBIDITY BARRIER
NOT TO SCALE

NOTES:

TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE(S) WILL BE AT THE CONTRACTORS OPTIONS UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE DISTRICT.



NOTES:

- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE BARRIER
NOT TO SCALE

EROSION AND SEDIMENT CONTROL NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL WORK AT COMPLETION OF CONSTRUCTION.
- ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND GRASSED.
- THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS, PERMITS, AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT CRITERIA.
- FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (LATEST EDITION).
- ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, WATERED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. GRASSING SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 570 AND 981 THRU 983 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITIONS). NOTE THAT OTHER GRASSING ALTERNATIVES MAY BE USED WITH PRIOR DISTRICT APPROVAL.

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NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE	NO	DATE	NO	DATE	NO	DATE
20-015	20-015	SEPTEMBER 2020	2020	1	9/22/20	2		3	
NUMBER	JOB	ISSUE	DATE						

Appendix II - FDEP Permit- File No. 54-0382645-001 EG



FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

December 23, 2019

St. Johns River Water Management District (SJRWMD)
c/o Ms. Sandy Smith
4049 Reid Street, Suite 1429
Palatka, Florida 32177
ssmith@sjrwmd.com

File No. 54-0382645-001-EG, St. Johns County

Dear Ms. Smith:

On December 4, 2019, we received your notice of intent to use a General Permit (GP), pursuant to Rule 62-330.485, Florida Administrative Code (F.A.C.) to conduct 2.21 acres of submerged aquatic vegetation restoration near the Shands Bridge Causeway within the St. Johns River, a Class III Florida Waterbody, Sections 38 and 47, Township 6 South, Range 27 East, in St. Johns County. In addition, the permittee is authorized to restore 8.32 acres of tidally-influenced forested freshwater essential fish habitat, enhance 88.51 acres of hardwood forested wetlands from restoring a hydrological connection, and enhancement of 59.59 acres of hardwood forested wetlands by eliminating agricultural activity, which are located at 139 Pearce Road, Hastings, Florida 32145, Section 6, Township 9, Range 28 East, in St. Johns County. These projects are part of the mitigation required by the SJRWMD permit 113964-8 and USACOE permit SAJ-2017-00571.

Your intent to use a general permit has been reviewed by Department staff for three types of authorizations: (1) regulatory authorization, (2) proprietary authorization (related to state-owned submerged lands), and (3) federal authorization. The authority for review and the outcomes of the reviews are listed below. Please read each section carefully.

Your project did not qualify for the federal authorization, therefore, additional authorization must be obtained prior to commencement of the proposed activity. This letter does not relieve you from the responsibility of obtaining other federal, state, or local authorizations that may be required for the activity. Please refer to the specific section(s) dealing with that portion of the review below for advice on how to proceed.

If you change the project from what you submitted, the authorization(s) granted may no longer be valid at the time of commencement of the project. Please contact us prior to beginning your project if you wish to make any changes.

1. Regulatory Review – Approved

Based on the forms, drawings, and documents submitted with your notice, it appears that the project meets the requirements for the General Permit under Rule 62-330.458, F.A.C. Any activities performed under a general permit are subject to general conditions required in Rule 62-330.405, F.A.C. (attached), and the specific conditions of Rule 62-330.485, F.A.C. (attached). Any deviations from these conditions may subject the permittee to enforcement action and possible penalties.

Please be advised that the construction phase of the GP must be completed within five years from the date the notice to use the GP was received by the Department. If you wish to continue this GP beyond the expiration date, you must notify the Department at least 30 days before its expiration.

Authority for review- Part IV of Chapter 373, F.S., Title 62, F.A.C. and in accordance with the operating agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C.

2. Proprietary Review – Granted

The Department acts as staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) and issues certain authorizations for the use of sovereign submerged lands. The Department has the authority to review activities on sovereign submerged lands under Chapter 253 of the Florida Statutes (F.S.) and 258, F.S. if located within an aquatic preserve, and Chapters 18-20 and 18-21 of the Florida Administrative Code. [

The activity appears to be located on sovereign submerged lands owned by the Board of Trustees. The activity is not exempt from the need to obtain the applicable proprietary authorization. As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the activity qualifies for a letter of consent under Section 253.77, Florida Statutes, to construct and use the activity on the specified sovereign submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein.

During the term of this Letter of Consent you shall maintain satisfactory evidence of sufficient upland interest as required by paragraph 18-21.004(3)(b), Florida Administrative Code. If such interest is terminated or the Board of Trustees determines that such interest did not exist on the date of issuance of this Letter of Consent, this Letter of Consent may be terminated by the Board of Trustees at its sole option. If the Board of Trustees terminates this Letter of Consent, you agree not to assert a claim or defense against the Board of Trustees arising out of this Letter of Consent.

Please be advised that any use of sovereign submerged lands without specific prior authorization from the Board of Trustees will be considered a violation of Chapter 253, Florida Statutes and

may subject the affected upland riparian property owners to legal action as well as potential fines for the prior unauthorized use of sovereign land.

Authority for review - Chapter 253 F.S., and Chapter 18-21, F.A.C., and Section 62-330.075, F.A.C. as required.

3. Federal Review- SPGP Not Approved

Your proposed activity as outlined on your application and attached drawings does not qualify for Federal authorization pursuant to the State Programmatic General Permit and a SEPARATE permit or authorization shall be required from the Corps. You must apply separately to the Corps using the Application for Department of the Army Permit (ENG 4345) or alternative as allowed by Corps regulations. More information on Corps permitting may be found online in the Jacksonville District Regulatory Division Sourcebook (<https://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/>).

Authority for review - an agreement with the USACOE entitled “Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection (or Duly Authorized Designee), State Programmatic General Permit”, Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Additional Information

Please retain this general permit. The activities may be inspected by authorized state personnel in the future to ensure compliance with appropriate statutes and administrative codes. If the activities are not in compliance, you may be subject to penalties under Chapter 373, F.S., and Chapter 18-14, F.A.C.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the subsequent order may modify or take a different position than this action.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department’s action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the

presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver will not apply to persons who have not received written notice of this action.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

FLAWAC Review

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when this order is filed with the Clerk of the Department.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Thomas G. Kallemeyn
Permitting Program Administrator

Enclosures:

62-330.485, 1 page
General Conditions for All General Permits, Ch. 62-330.405, F.A.C., 3 pages
Special Consent Conditions, 1 page
General Conditions for Authorizations for Activities on State-Owned Submerged Lands, 1 page
Standard Manatee Conditions for In-Water Work 2011, 2 pages
Project drawings

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this document and all

Sandy Smith, SJRWMD (ssmith@sjrwmd.com)
Thomas Kallemeyn, FDEP NED
Brian Durden, FDEP NED
Kim Pearce, FDEP NED
Janice Price, FDEP NED

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

December 23, 2019
Date

62-330.485 General Permit to the Department and Water Management Districts for Environmental Restoration or Enhancement.

(1) A general permit is granted to the Department and Districts for the construction, alteration, operation, maintenance, removal and abandonment of projects to implement Department or District environmental restoration or enhancement projects.

(2) The environmental restoration or enhancement project must comply with any one of the following procedures:

(a) The project is part of a Surface Water Improvement and Management Plan developed pursuant to section 373.453, F.S.; or

(b) The project is approved by the District Governing Board or the Secretary of the Department after conducting at least one public meeting; or

(c) The project is wholly or partially funded through the Land Acquisition Trust Fund pursuant to Article X, Section 28 of the Florida Constitution, or through any successor trust fund.

(3) When the activity is to be conducted by the Department, the Department shall provide the notice and any processing fee required by rule 62-330.071, F.A.C., to the appropriate District.

(4) When the activity is to be conducted by a District, the District shall provide the notice and any required fee to the appropriate Department office.

Rulemaking Authority 373.026(7), 373.043, 373.118(1), 373.406(5), 373.4131, 373.414(9), 373.4145, 373.418, 403.805(1) FS. Law Implemented 373.118(1), 373.406(5), 373.413, 373.4131, 373.414(9), 373.4145, 373.416, 373.418, 373.426, 403.814(1) FS. History—New 10-3-95, Amended 10-1-07, Formerly 62-341.485, Amended 10-1-13, 6-1-18.

62-330.405 General Conditions for All General Permits

The following general permit conditions are binding upon the permittee and are enforceable under chapter 373, F.S. These conditions do not apply to the general permit for stormwater management systems under section 403.814(12), F.S.

(1) The general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit and may subject the permittee to enforcement action and revocation of the permit under chapter 373, F.S.

(2) The general permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any construction, alteration, operation, maintenance, removal or abandonment authorized by this permit; and it does not authorize any violation of any other applicable federal, state, local, or special district laws (including, but not limited to, those governing the “take” of listed species).

(3) The general permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the general permit.

(4) The general permit does not relieve the permittee from liability and penalties when the permitted activity causes harm or injury to: human health or welfare; animal, plant or aquatic life; or property. It does not allow the permittee to cause pollution that violates state water quality standards.

(5) Section 253.77, F.S., provides that a person may not commence any excavation, construction, or other activity involving the use of state-owned or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required consent, lease, easement, or other form of authorization authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on state-owned lands.

(6) The authorization to conduct activities under a general permit may be modified, suspended or revoked in accordance with chapter 120, F.S., and section 373.429, F.S.

(7) The general permit is not transferable to a new third party. To be used by a different permittee, a new notice to use a general permit must be submitted in accordance with rule 62-330.402, F.A.C. Activities constructed in accordance with the terms and conditions of a general permit are automatically authorized to be operated and maintained by the permittee and subsequent owners in accordance with subsection 62-330.340(1), F.A.C. Any person holding the general permit, persons working under the general permit, and owners of land while work is conducted under the general permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to sale, conveyance, or other transfer of ownership or control of the permitted project, activity, or the real property at which the permitted project or activity is located.

(8) Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the permitted system to ensure conformity with the plans and specifications approved by the general permit.

(9) The permittee shall maintain any permitted project or activity in accordance with the plans submitted to the Agency and authorized in the general permit.

(10) A permittee's right to conduct a specific activity under the general permit is authorized for a duration of five years.

(11) Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be implemented and maintained immediately prior to, during, and after construction as needed to stabilize all disturbed areas, including other measures specified in the permit to prevent adverse impacts to the water resources and adjacent lands. Erosion and sediment control measures shall be installed and maintained in accordance with the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007)*, available at <https://www.flrules.org/Gateway/reference.asp?No=Ref-04227>, and the *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008)*, available at http://publicfiles.dep.state.fl.us/DEAR/Stormwater_Training_Docs/erosion-inspectors-manual.pdf.

(12) Unless otherwise specified in the general permit, temporary vehicular access within wetlands during construction shall be performed using vehicles generating minimum ground pressure to minimize rutting and other environmental impacts. Within forested wetlands, the permittee shall choose alignments that minimize the destruction of mature wetland trees to the greatest extent practicable. When needed to prevent rutting or soil compaction, access vehicles shall be operated on wooden, composite, metal, or other non-earthen construction mats. In all cases, access in wetlands shall comply with the following:

(a) Access within forested wetlands shall not include the cutting or clearing of any native wetland tree having a diameter four inches or greater at breast height;

(b) The maximum width of the construction access area shall be limited to 15 feet;

(c) All mats shall be removed as soon as practicable after equipment has completed passage through, or work has been completed, at any location along the alignment of the project, but in no case longer than seven days after equipment has completed work or passage through that location; and

(d) Areas disturbed for access shall be restored to natural grades immediately after the maintenance or repair is completed.

(13) Barges or other work vessels used to conduct in-water activities shall be operated in a manner that prevents unauthorized dredging, water quality violations, and damage to submerged aquatic communities.

(14) The construction, alteration, or use of the authorized project shall not adversely impede navigation or create a navigational hazard in the water body.

(15) Except where specifically authorized in the general permit, activities must not:

(a) Impound or obstruct existing water flow, cause adverse impacts to existing surface water storage and conveyance capabilities, or otherwise cause adverse water quantity or flooding impacts to receiving water and adjacent lands; or

(b) Cause an adverse impact to the maintenance of surface or ground water levels or surface water flows established pursuant to section 373.042, F.S., or a Works of the District established pursuant to section 373.086, F.S.

(16) If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that

could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S.

(17) The activity must be capable, based on generally accepted engineering and scientific principles, of being performed and of functioning as proposed, and must comply with any applicable District special basin and geographic area criteria.

(18) The permittee shall comply with the following when performing work within waters accessible to federally- or state-listed aquatic species, such as manatees, marine turtles, smalltooth sawfish, and Gulf sturgeon:

(a) All vessels associated with the project shall operate at “Idle Speed/No Wake” at all times while in the work area and where the draft of the vessels provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

(b) All deployed siltation or turbidity barriers shall be properly secured, monitored, and maintained to prevent entanglement or entrapment of listed species.

(c) All in-water activities, including vessel operation, must be shut down if a listed species comes within 50 feet of the work area. Activities shall not resume until the animal(s) has moved beyond a 50-foot radius of the in-water work, or until 30 minutes elapses since the last sighting within 50 feet. Animals must not be herded away or harassed into leaving. All onsite project personnel are responsible for observing water-related activities for the presence of listed species.

(d) Any listed species that is killed or injured by work associated with activities performed shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1(888)404-3922 and ImperiledSpecies@myFWC.com.

(e) Whenever there is a spill or frac-out of drilling fluid into waters accessible to the above species during a directional drilling operation, the FWC shall be notified at ImperiledSpecies@myfwc.com with details of the event within 24 hours following detection of the spill or frac-out.

(19) The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any activity authorized by the general permit.

(20) The permittee shall immediately notify the Agency in writing of any submitted information that is discovered to be inaccurate.

Rulemaking Authority 373.026(7), 373.043, 373.118(1), 373.406(5), 373.4131, 373.414(9), 373.4145, 373.418, 403.805(1) FS. Law Implemented 373.044, 373.118(1), 373.129, 373.136, 373.406(5), 373.413, 373.4131, 373.414(9), 373.4145, 373.416, 373.422, 373.423, 373.429, 403.814(1) FS. History–New 10-3-95, Amended 10-1-07, Formerly 62-341.215, Amended 10-1-13, 6-1-18.

Special Consent Conditions

1. The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.
2. Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.
3. Applicant binds itself and its successors and assigns to abide by the provisions and conditions set forth in the authorization. If the applicant or its successors or assigns fails or refuses to comply with the provisions and conditions of the authorization, the authorization may be terminated by the Board of Trustees after written notice to the applicant or its successors or assigns. Upon receipt of such notice, the applicant or its successors or assigns will have thirty (30) days in which to correct the violations. Failure to correct the violations within this period will result in the automatic revocation of this authorization.
4. All costs incurred by the Board of Trustees in enforcing the terms and conditions of the authorization will be paid by the applicant. Any notice required by law will be made by certified mail at the address shown on page one of the authorization. The applicant will notify the Board of Trustees in writing of any change of address at least ten days before the change becomes effective.
5. This authorization does not allow any activity prohibited in a conservation easement or restrictive covenant that prohibits the activity.

General Conditions for Authorizations for Activities on State-Owned Submerged Lands:

All authorizations granted by rule or in writing under rule 18-21.005, F.A.C., except those for geophysical testing, shall be subject to the general conditions as set forth in paragraphs (a) through (j) below. The general conditions shall be part of all authorizations under this chapter, shall be binding upon the grantee, and shall be enforceable under chapter 253 or 258, part II, F.S.

(a) Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.

(b) Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.

(c) Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in sections 253.04 and 258.46, F.S., or chapter 18-14, F.A.C.

(d) Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.

(e) Construction, use, or operation of the structure or activity shall not adversely affect any species which is endangered, threatened or of special concern, as listed in rules 68A-27.003, 68A-27.004 and 68A-27.005, F.A.C.

(f) Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.

(g) Structures or activities shall not create a navigational hazard.

(h) Activities shall not interfere with the public easement for traditional uses of the sandy beaches provided in section 161.141, F.S.

(i) Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident, or fire.

(j) Structures or activities shall be constructed, operated, and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(g), F.A.C., or any other applicable law.

Rulemaking Authority 253.03(7), 253.73 FS. Law Implemented 253.001, 253.03, 253.141, 253.0347, 253.665, 253.71, 253.68, 253.72, 253.74, 253.75, 253.77 FS. History—New 3-27-82, Amended 8-1-83, Formerly 16Q-21.04, 16Q-21.004, Amended 12-25-86, 1-25-87, 3-15-90, 8-18-92, 10-15-98, 12-11-01, 10-29-03, 12-16-03, 3-8-04, 10-27-05, 4-14-08, 9-1-09, 3-21-19.

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

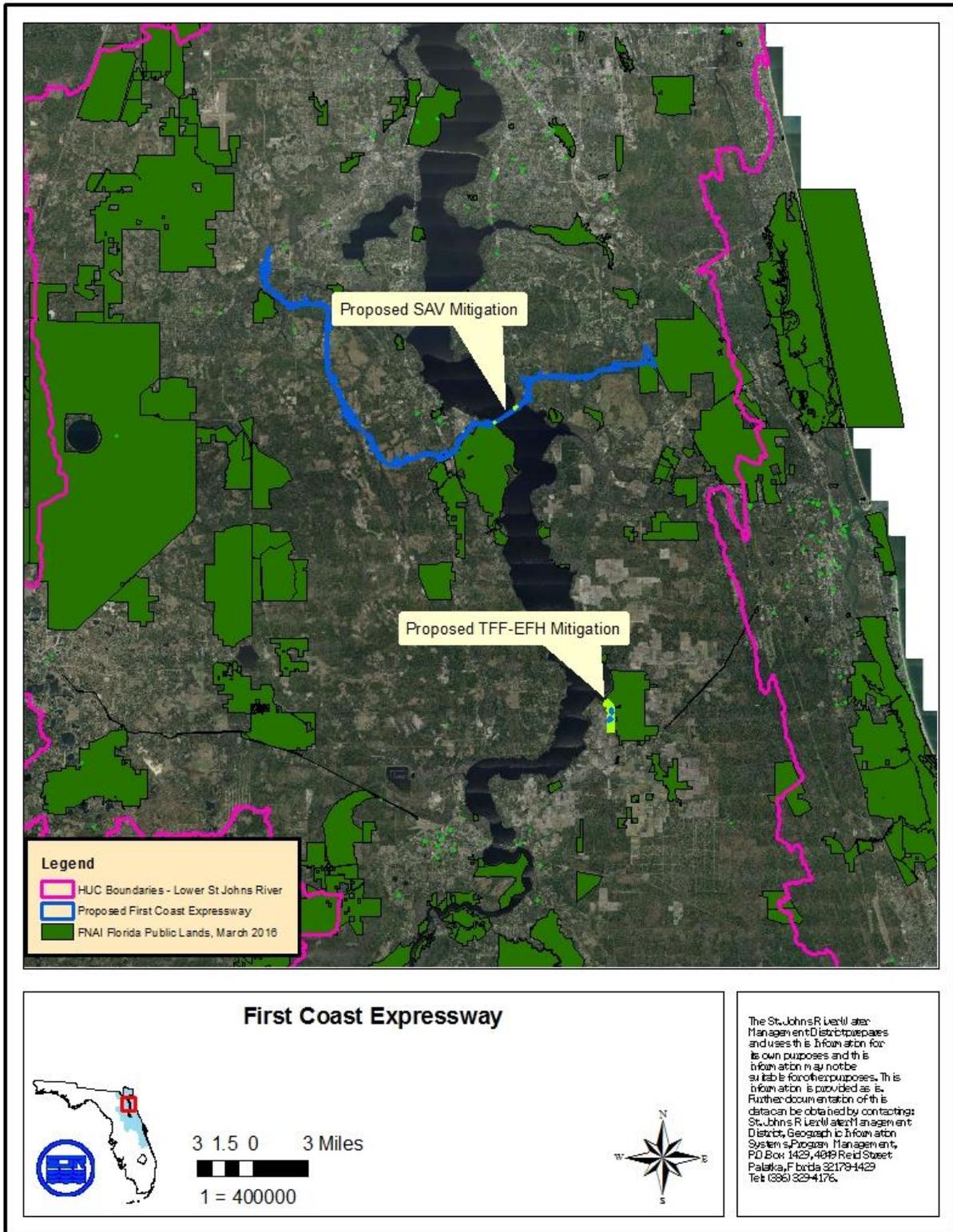


Figure 1. General location of road impacts and mitigation areas Goals 1-4 with respect to public lands

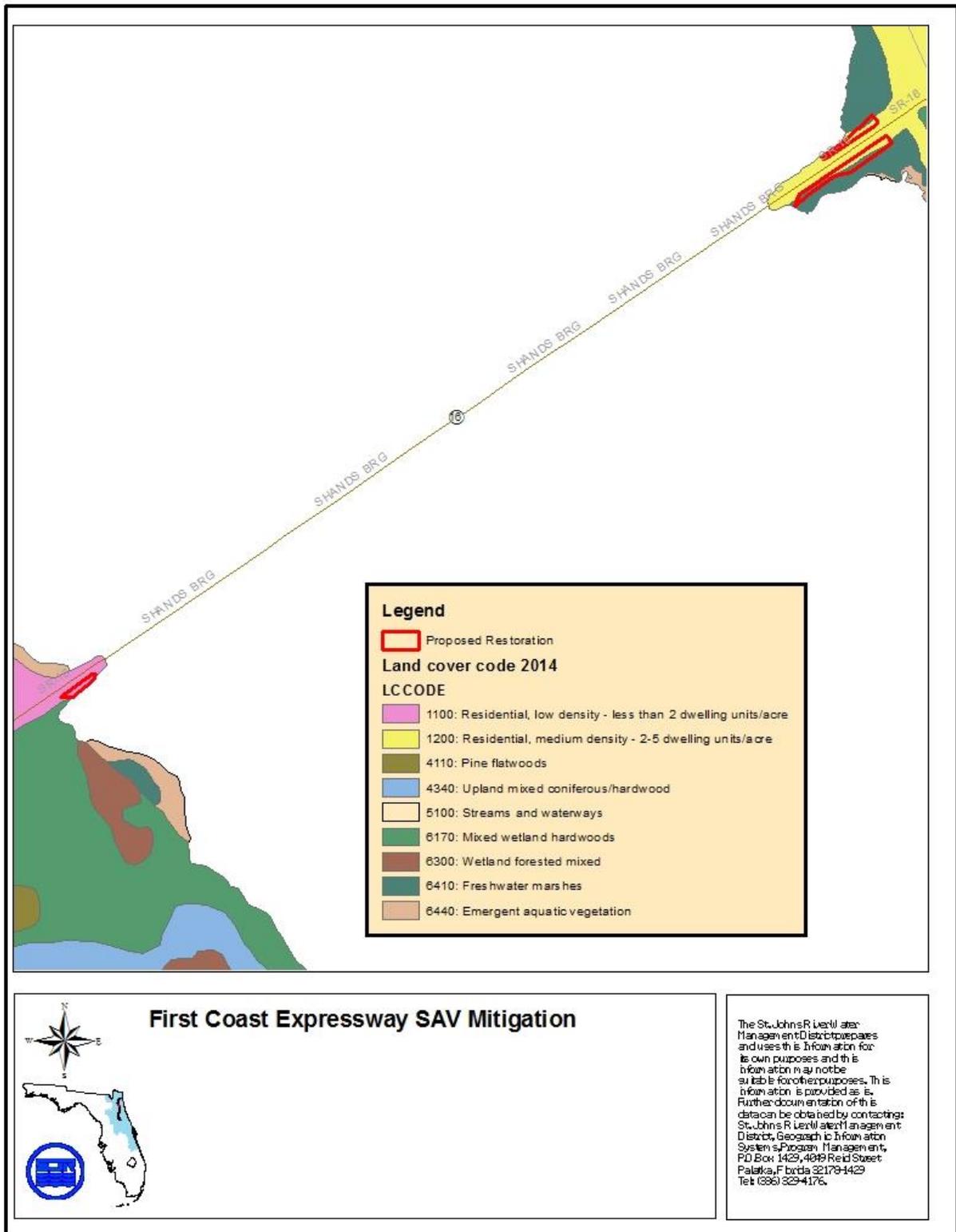


Figure 2. SAV Mitigation –FLUCCS Codes

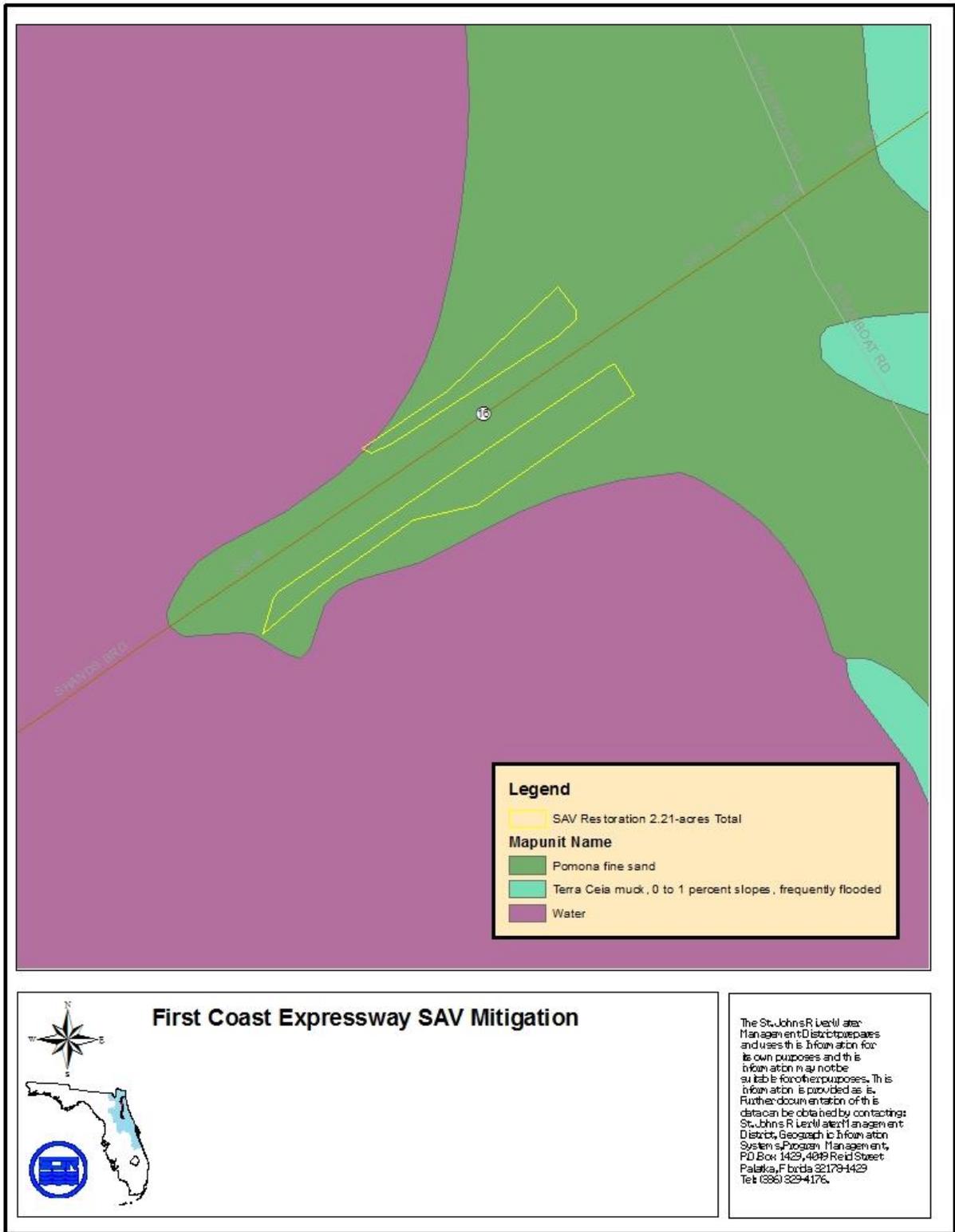


Figure 3. SAV Mitigation mapped soils - east

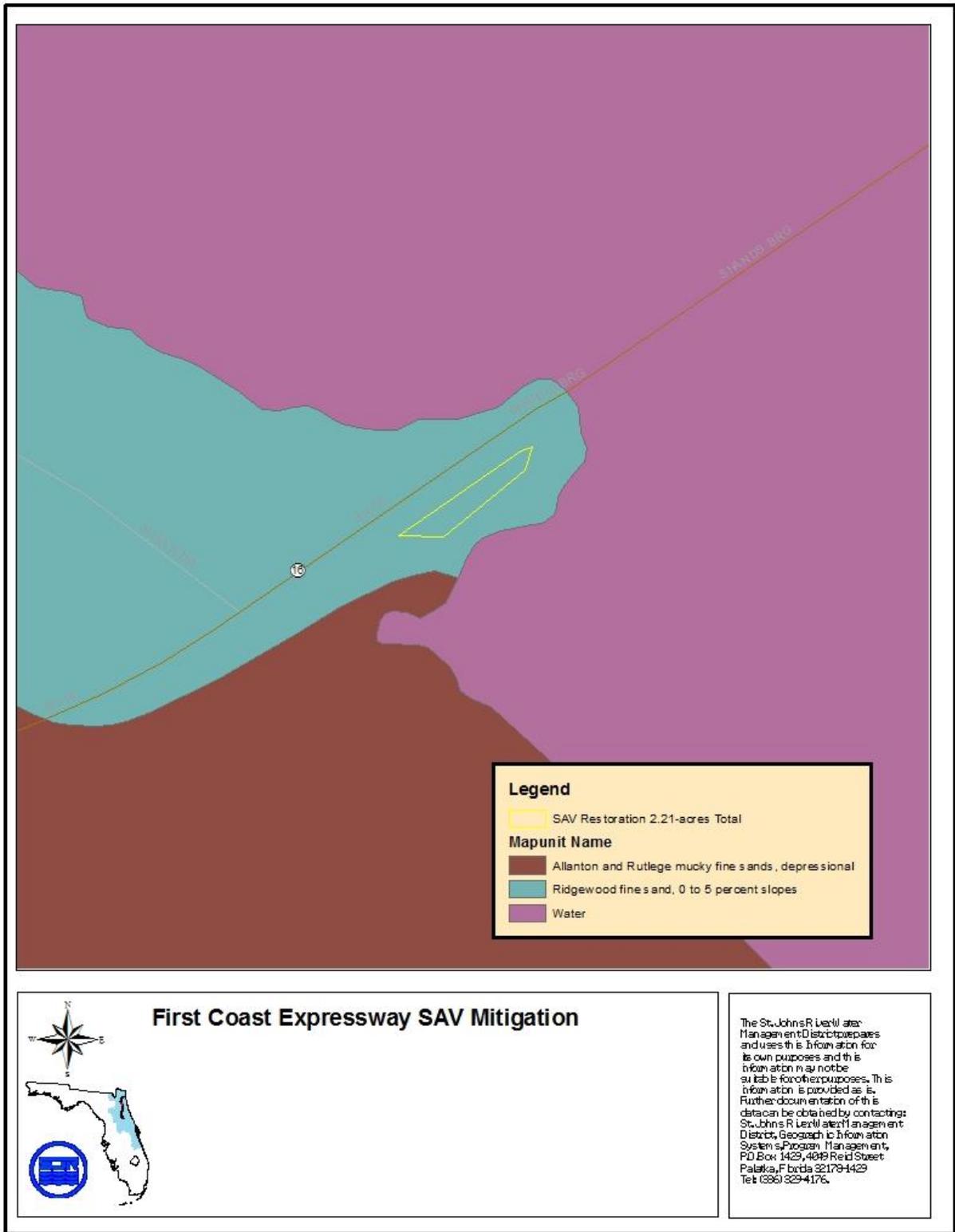


Figure 4. SAV Mitigation mapped soils - west



Figure 5. SAV mitigation detail east along St Johns River

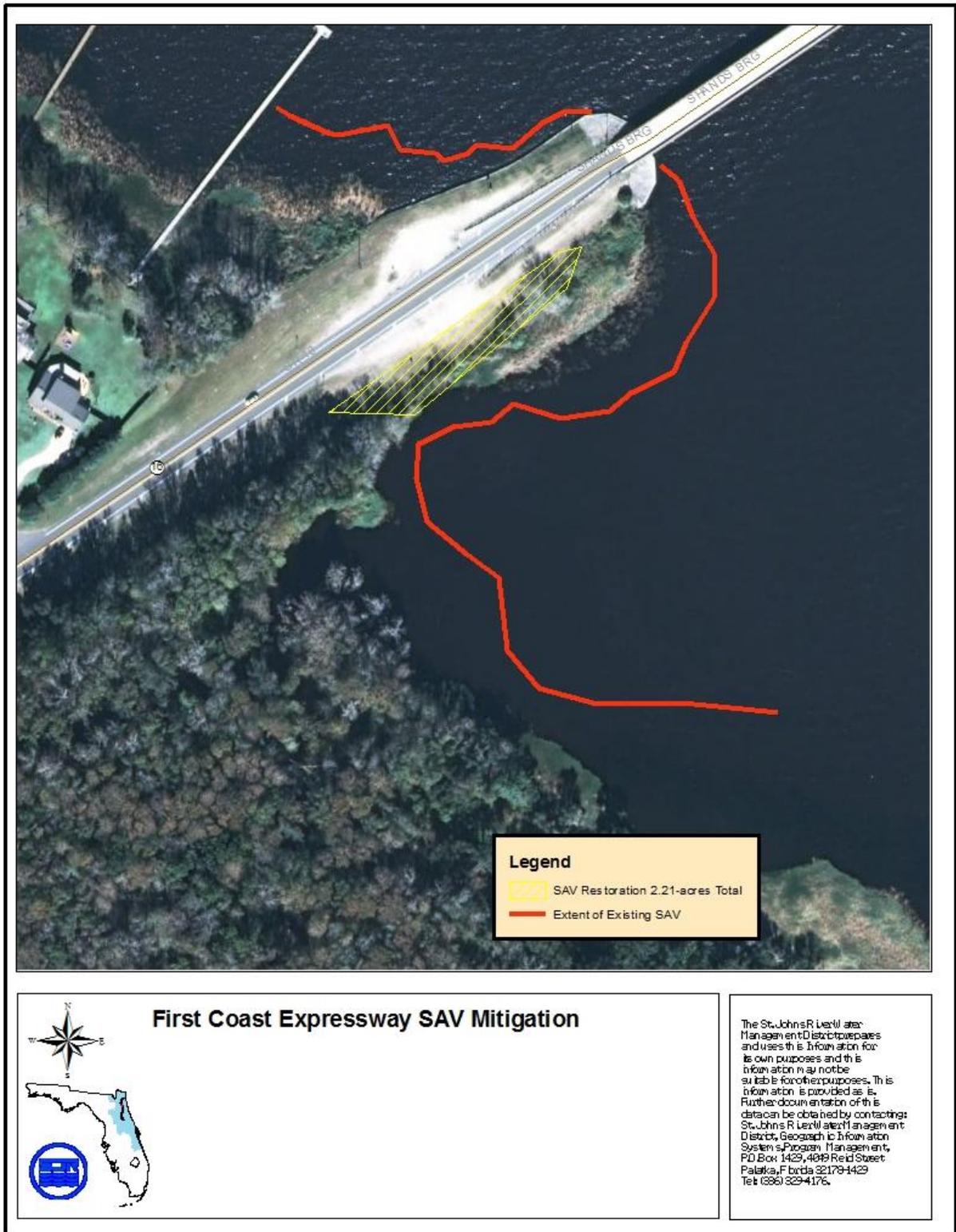


Figure 6. SAV mitigation detail west along St Johns River

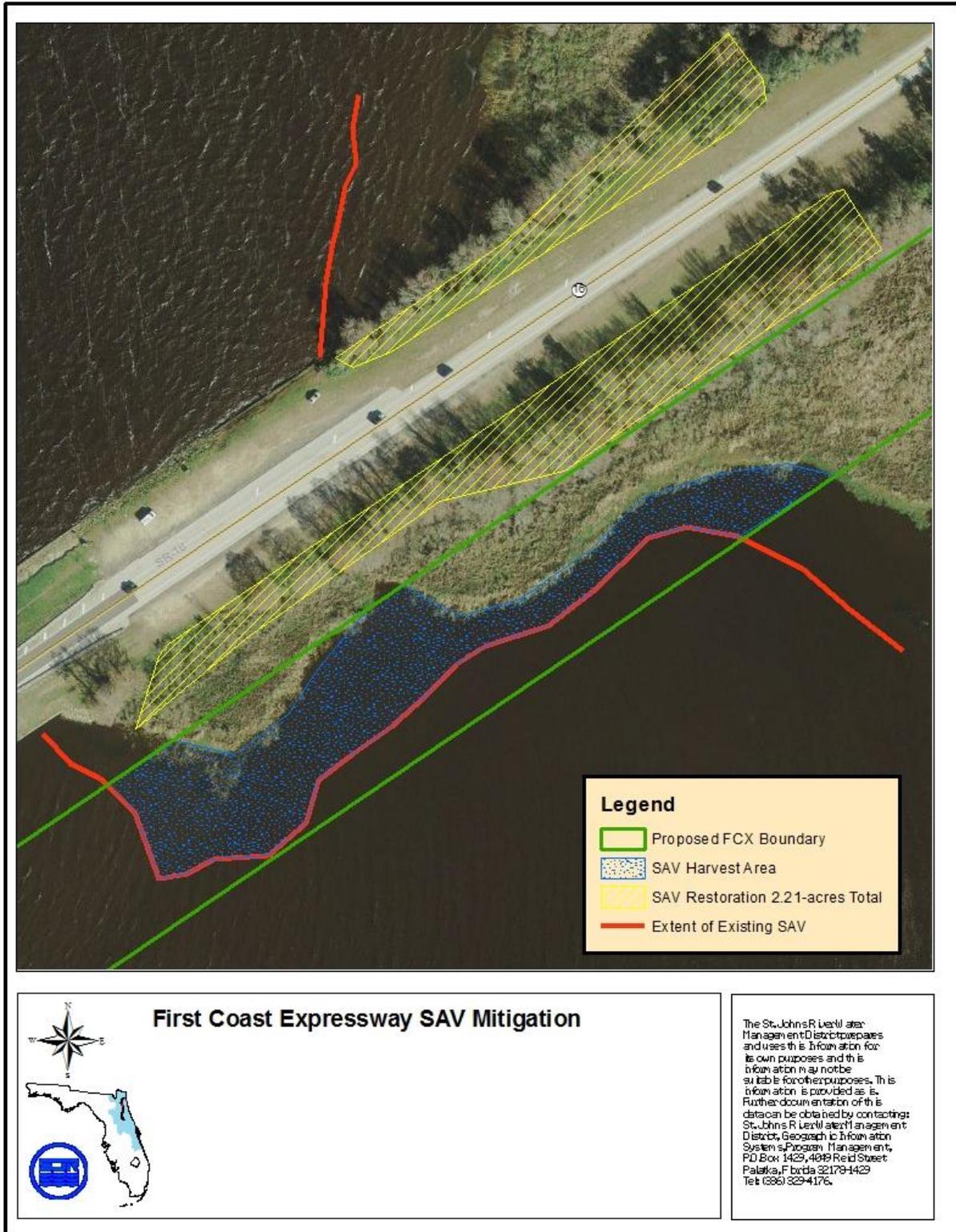


Figure 7. SAV Mitigation harvest area detail - east

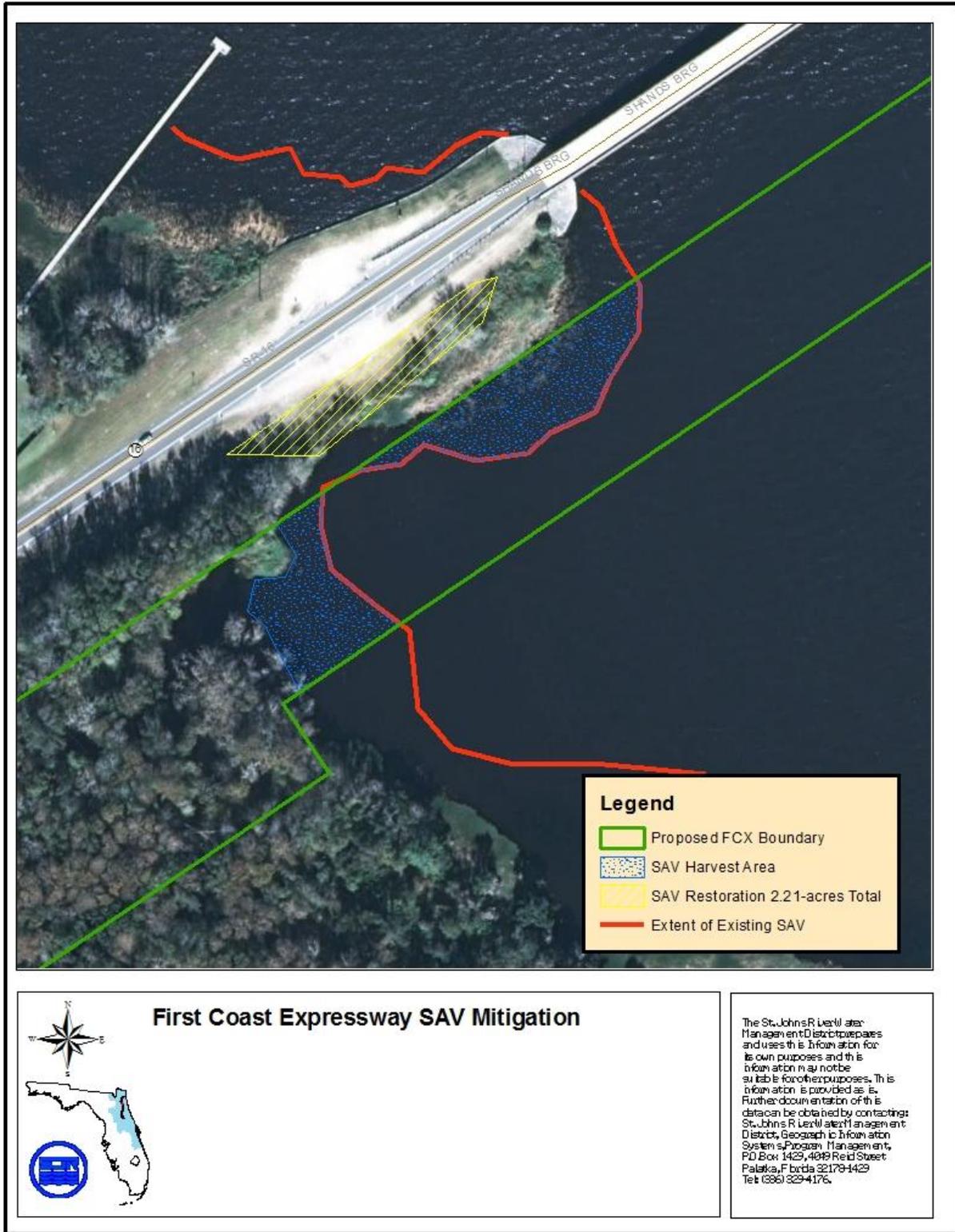


Figure 8. SAV Mitigation harvest area detail - west.

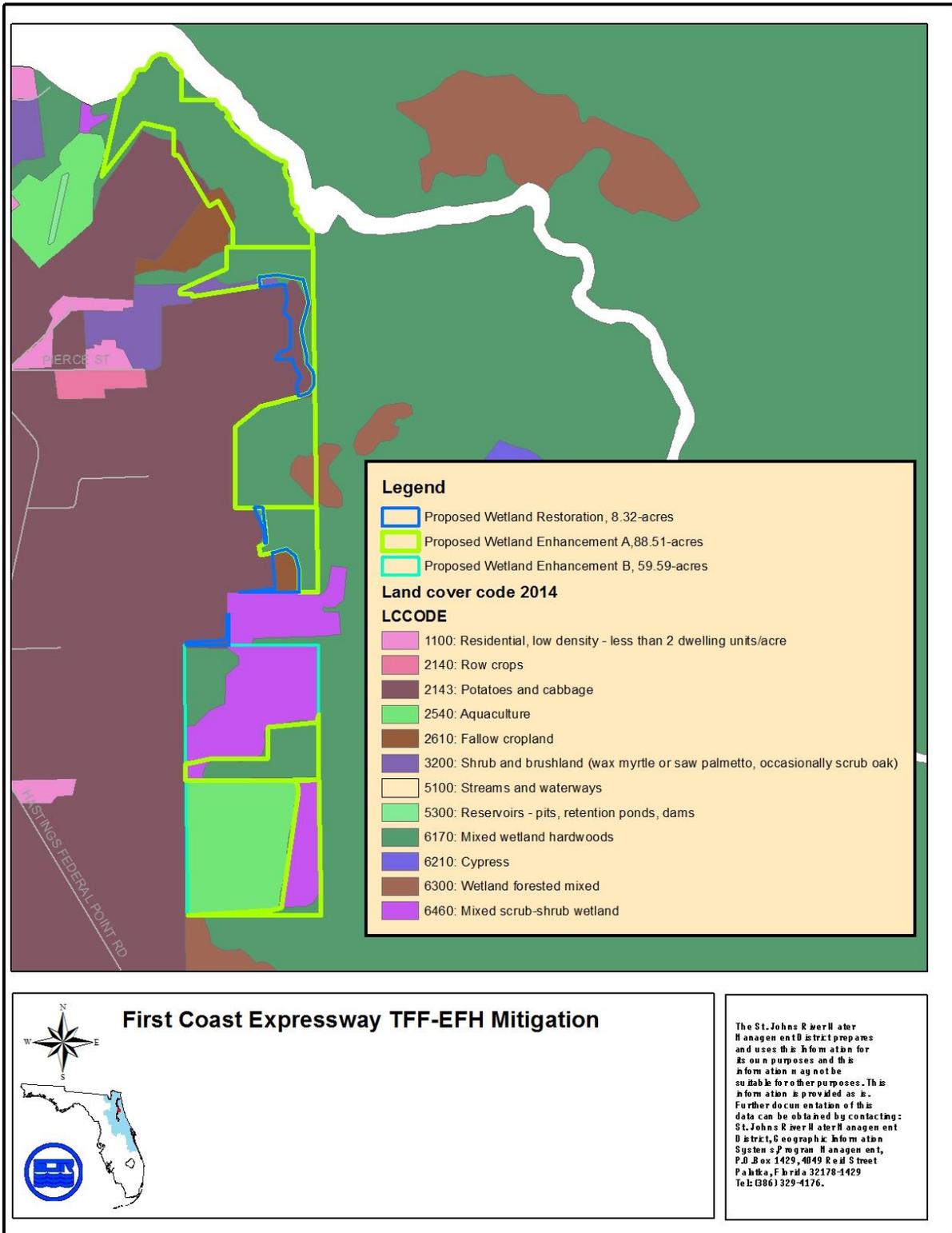


Figure 9. TFF-EFH Mitigation mapped soils.

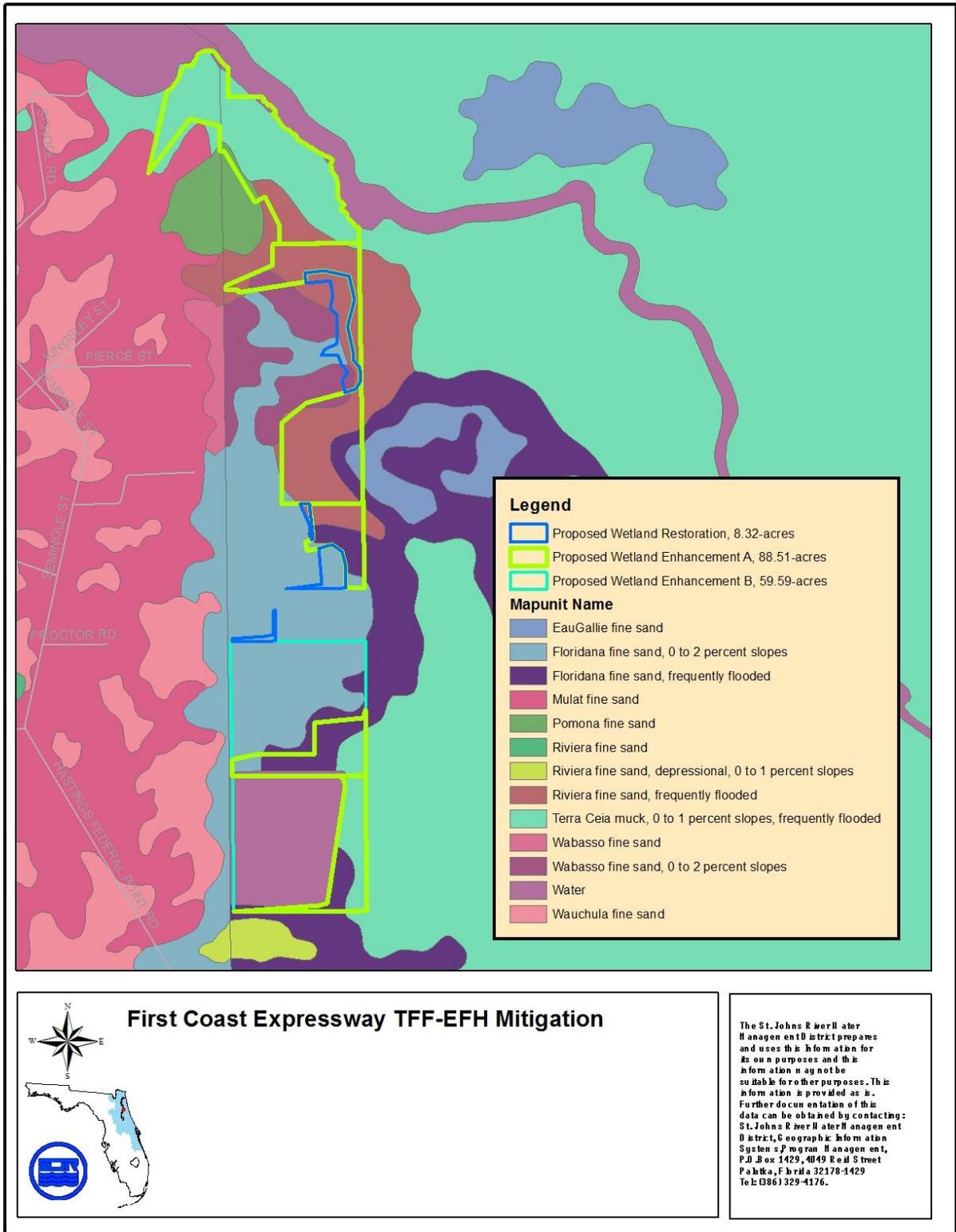


Figure 10. TFF-EFH Mitigation mapped soils.

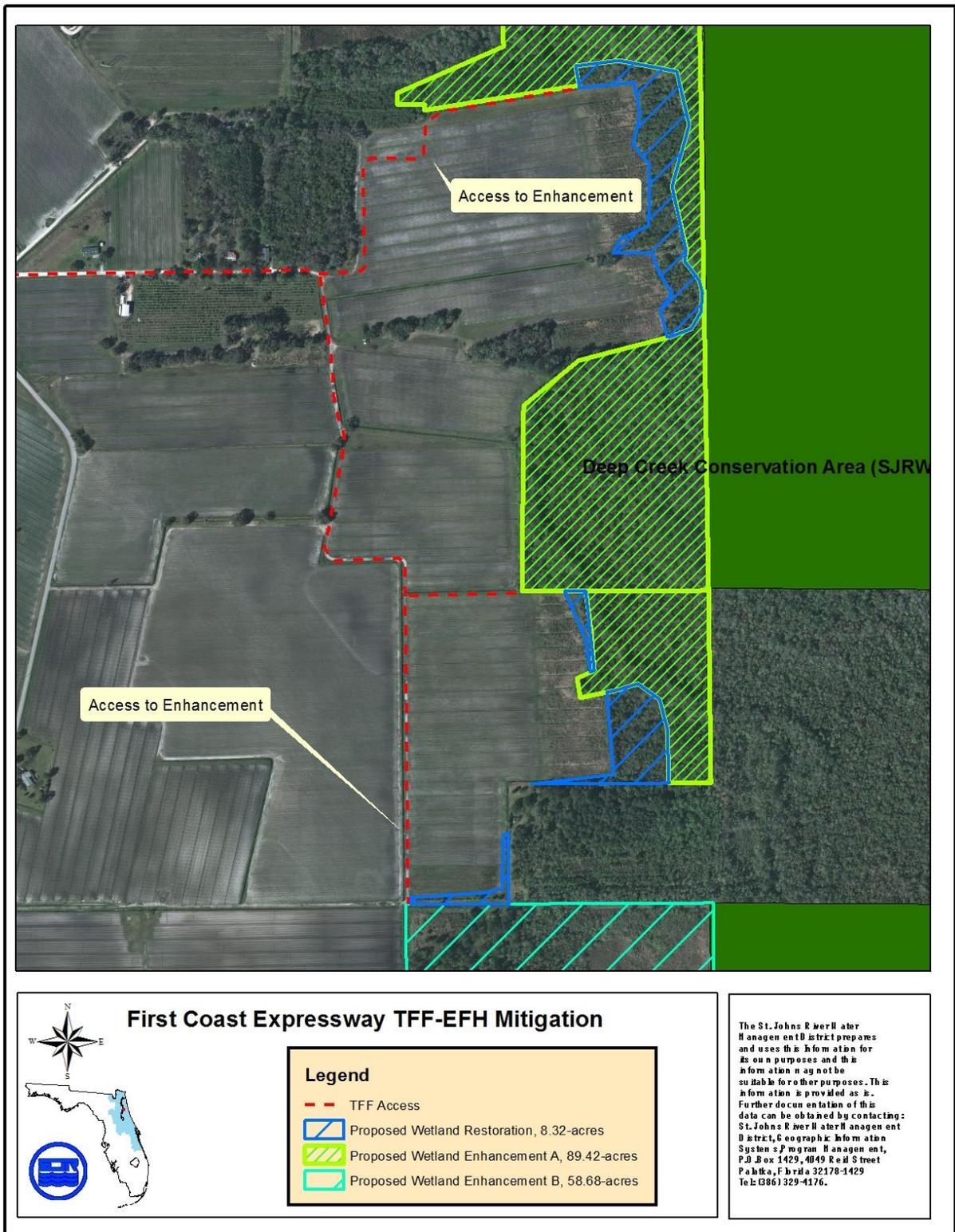


Figure 11. TFF-EFH restoration detail

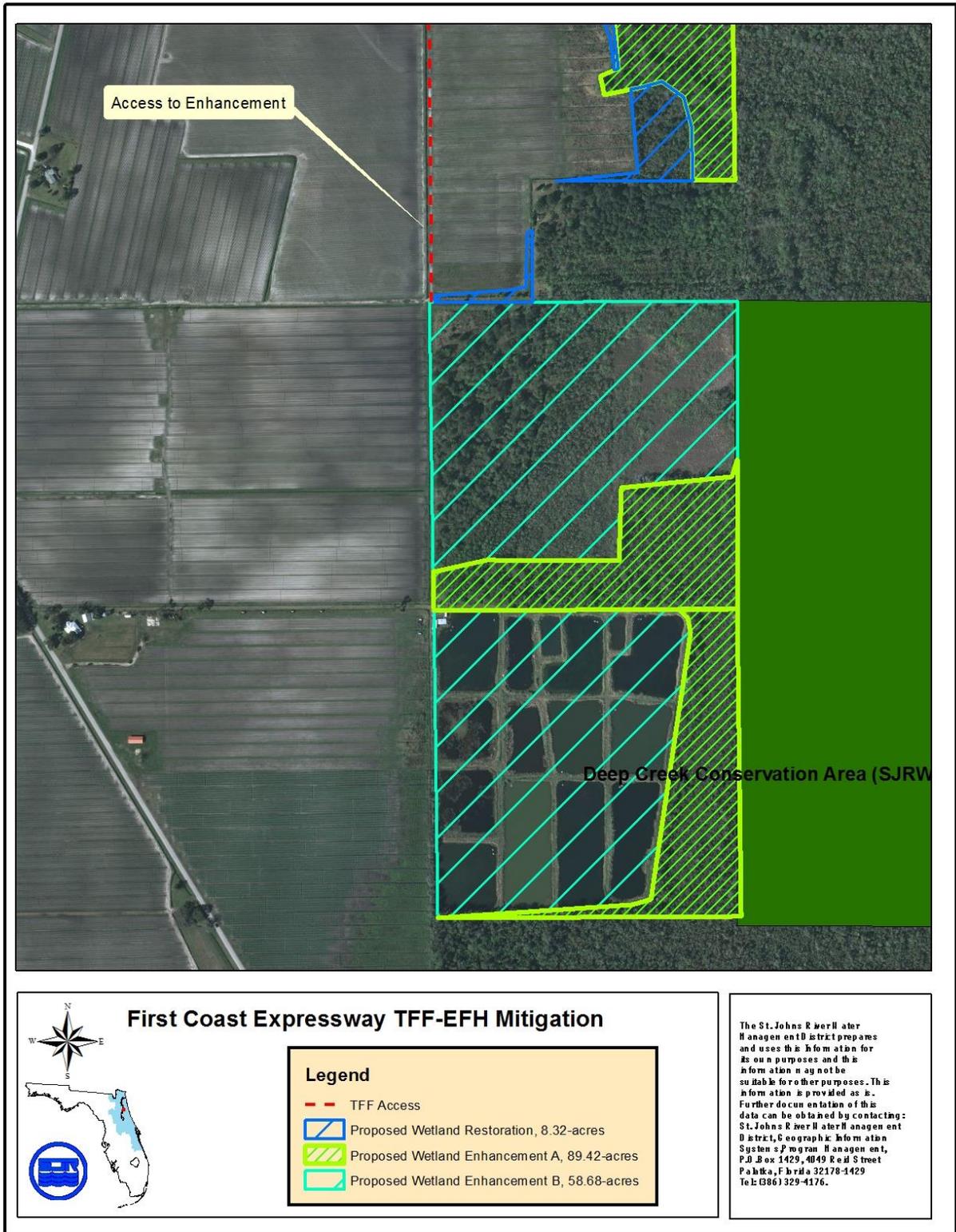


Figure 12. TFF-EFH enhancement detail

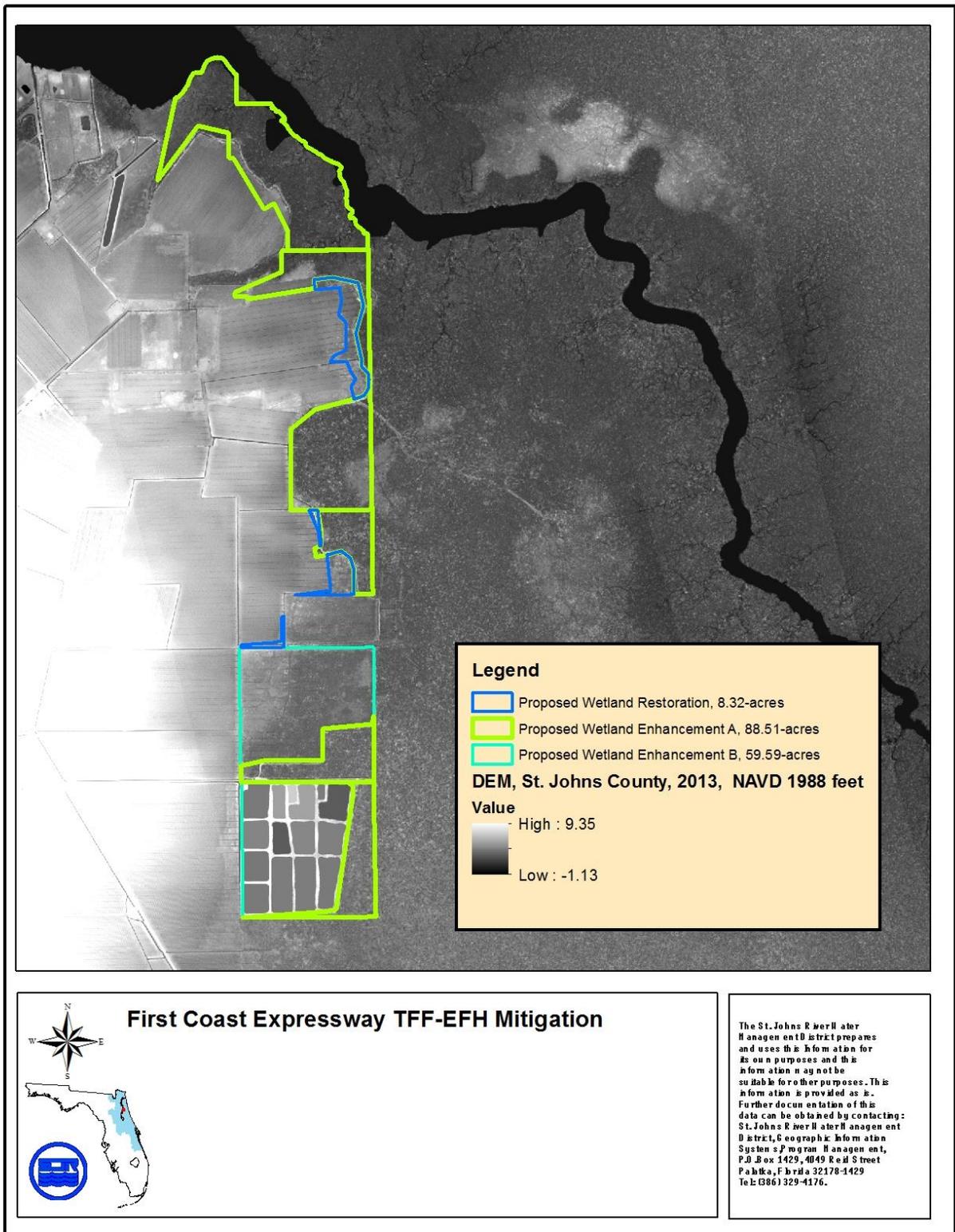


Figure 13. TFF-EFH Mitigation digital elevation map.

Appendix III - USACOE Permit

DEPARTMENT OF THE ARMY PERMIT

Permittee: Florida Department of Transportation, District 2
Attn: Mr. Van Humphreys
1109 South Marion Avenue
Lake City, Florida 32025

Permit No: SAJ-2017-00571 (SP-RLT)

Issuing Office: U.S. Army Engineer District, Jacksonville

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The permittee is authorized to discharge fill material over 540.90 acres of waters of the United States to construct an 8-lane limited access toll road and associated facilities that spans 32 miles. Wetland impacts consist of 508.37 acres including 35.73 acres of Tidal Freshwater Forested–Essential Fish Habitat (TFF-EFH). Surface water impacts consist of 32.53 acres. In addition, the project would incur approximately 432.33 acres of secondary impacts to wetlands and surface waters and 7.85 acres of temporary impacts to wetlands. The work described above is to be completed in accordance with the 62 pages of drawings and 4 other attachments affixed at the end of this permit instrument.

Project Location: The project consists of construction of a new limited access tolled roadway between the southern extent of SR 23 near SR 21 (Blanding Blvd.) and Interstate 95. The project is located within Section 31, Township 4 South, Range 25 East; Sections 6-10, 14-16, 22, 23, 26, 34, 35, 37, and 38, Township 5 South, Range 25 East; Sections 2 and 11-13, Township 6 South, Range 25 East; Sections 18, 19, and 38, Township 6 South, Range 26 East; and Section 47, Township 6 South, Range 27 East, Clay County. The project is also located within Sections 33-36, Township 5 South, Range 26 East; Sections 28 and 31-33, Township 5 South, Range 28 East; and Sections 1-5, 8, 9, and 38, Township 6 South, Range 27 East, St. Johns County, Florida.

Directions to site: The project area extends from Interstate 95 between the CR 210 and International Golf Parkway Interchanges, in St. Johns County, to Blanding Boulevard (State Road 21) in Middleburg, Clay County, Florida.

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PERMITTEE: Florida Department of Transportation, District 2
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Approximate Central Coordinates: Latitude: 30.02748° North
Longitude: -81.6623° West

Permit Conditions
General Conditions:

1. The time limit for completing the work authorized ends on **April 11, 2028.** If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature and the mailing address of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. **Reporting Address:** All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232 or e-mail to: SAJ-RD-Enforcement@usace.army.mil. The Permittee shall reference this permit number, SAJ-2017-00571 (SP-RLT), on all submittals.

2. **Commencement Notification:** Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.

3. Cultural Resources/Historic Properties:

a. No structure or work shall adversely affect impact or disturb properties listed in the National Register of Historic Places (NRHP) or those eligible for inclusion in the NRHP.

b. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps within the same business day (8 hours). The Corps shall then notify the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.

c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the above Special Condition ; and if deemed necessary by the SHPO, THPO(s), or Corps, in accordance with 36 CFR 800 or 33 CFR 325, Appendix C (5). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume on non-federal lands without written authorization from the SHPO for finds under his or her jurisdiction, and from the Corps.

d. In the unlikely event that unmarked human remains are identified on non-federal lands, they will be treated in accordance with Section 872.05 Florida Statutes. All work

and ground disturbing activities within a 100-meter diameter of the unmarked human remains shall immediately cease and the Permittee shall immediately notify the medical examiner, Corps, and State Archeologist within the same business day (8-hours). The Corps shall then notify the appropriate SHPO and THPO(s). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume without written authorization from the State Archeologist and from the Corps.

4. Erosion Control: Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

5. Turbidity Barriers: Prior to the initiation of any of the work authorized by this permit, the permittee shall install floating turbidity barriers with weighted skirts that extend to within 1 foot of the bottom around all work areas that are in, or adjacent to, surface waters. The turbidity barriers shall remain in place and be maintained until the authorized work has been completed and all suspended and erodible materials have been stabilized. Turbidity barriers shall be removed upon stabilization of the work area.

6. Fill Material: The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

7. Manatee Conditions: The permittee shall comply with the *Standard Manatee Conditions for In-Water Work, 2011* (Attachment 4).

8. Eastern Indigo Snake Protection Measures and Inspection: Permittee shall comply with U.S. Fish and Wildlife Service's "Standard Protection Measures for the Eastern Indigo Snake" dated August 12, 2013, as provided in Attachment 5 of this permit. All gopher tortoise burrows, active or inactive, shall be evacuated prior to site manipulation in the vicinity of the burrow. If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and

Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agent permit. The excavation method selected shall minimize the potential for injury of an indigo snake. The Permittee shall follow the excavation guidance provided in the most current FWC Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise>. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Holes, cavities, and snake refugia other than gopher tortoise burrows shall be inspected each morning before planned site manipulation of a particular area, and if occupied by an indigo snake, no work shall commence until the snake has vacated the vicinity of the proposed work.

9. Temporary Wetland Impacts: Within 30 days from the date of completing the work authorized by this permit, the Permittee shall restore the 7.85 acres of temporary wetland impacts within the construction zone to pre-existing contours, elevations, habitat type, and hydrology.

10. As-Builts: Within 60 days of completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, the Permittee shall submit as-built drawings of the authorized work and a completed As-Built Certification Form (Attachment 3) to the Corps. The drawings shall be signed and sealed by a registered professional engineer and include the following:

a. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings (8½-inch by 11-inch). The drawing should show all "earth disturbance," including wetland impacts, water management structures, and any on-site mitigation areas.

b. List any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the As-Built Certification Form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or As-Built Certification Form does not constitute approval of any deviations by the U.S. Army Corps of Engineers.

c. The Department of the Army Permit number.

11. Mitigation Credit Purchase: Within 90 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that the following federal mitigation bank credits have been purchased from the mitigation banks indicated

below. The required verification shall reference this project's permit number (SAJ-2017-00571).

- a. Loblolly (WRAP) and/or Longleaf (WRAP) - 89.70 palustrine forested credits
- b. Tupelo (WRAP) - 142.29 palustrine forested credits
- c. Sundew (WRAP) - 122.97 palustrine forested credits

12. Compensatory Mitigation: Within 12 months from the date of initiating the work authorized by this permit within TFF-EFH, the Permittee shall complete implementation of the approved Permittee Responsible Mitigation Plan, Essential Fish Habitat (EFH) and Submerged Aquatic Vegetation (SAV) Mitigation Plan, dated March 15, 2018 (Attachment 6) for 35.73 acres of TFF-EFH wetland permanent impacts. This compensatory mitigation is the Permittee's responsibility to complete in its entirety as set forth in this special condition and in the mitigation plan, and it will not be considered fulfilled until the permittee has demonstrated mitigation success and has received written verification from the U.S. Army Corps of Engineers.

13. Performance Standards: The Permittee shall meet the performance objectives of the approved compensatory mitigation plan including the following performance standards:

- a. At least 80 percent cover by appropriate wetland species (i.e., FAC or wetter).
- b. Cover of Category I and II invasive exotic plant species, pursuant to the most current list established by the Florida Exotic Pest Plant Council at <http://www.fleppc.org>, and the nuisance species, dogfennel (*Eupatorium capillifolium*), Bermudagrass (*Cynodon* spp.), Bahiagrass (*Paspalum notatum*), and cattail (*Typha* spp.). shall total less than 10% percent.
- c. Less than 20 percent mortality of planted wetland species.
- d. Hydrologic enhancement will result in soils that are, at a minimum, saturated to the surface between 5 and 12.5 percent of the growing season.

The Permittee shall achieve the above performance standards by the end of the 5-year monitoring period, with no maintenance during the 5th year of monitoring. In the event that the above performance standards have not been achieved, the Permittee shall undertake a remediation program approved by the Corps in accordance with the **Remediation** Special Condition of this permit.

14. Monitoring and Reporting Timeframes: To document achievement of the performance standards identified in the approved mitigation plan (Attachment 6) the Permittee shall complete the following:

a. Perform a time-zero monitoring event of the wetland mitigation area(s) within 60 days of completion of the compensatory mitigation construction and implementation activities identified in the approved mitigation plan (Attachment 6).

b. Submit the time-zero report to the Corps within 60 days of completion of the monitoring event. The report will include at least one paragraph depicting baseline conditions of the mitigation sites prior to initiation of the compensatory mitigation objectives and a detailed plan view drawing of all created, enhanced and/or restored mitigation areas.

c. Subsequent to completion of the compensatory mitigation objectives, perform semi-annual monitoring of the wetland mitigation areas for the first 2 years and annual monitoring thereafter for a total of no less than 5 years of monitoring.

d. Submit annual monitoring reports to the Corps within 60 days of completion of the monitoring event. Semi-annual monitoring will be combined into one annual monitoring report.

e. Monitor the mitigation area(s) and submit annual monitoring reports to the Corps until released in accordance with the **Mitigation Release** Special Condition of this permit.

15. Reporting Format: The Permittee shall submit all monitoring documentation to the Corps on 8½-inch by 11-inch paper, and include the following:

a. Project Overview (1 Page):

(1) Department of the Army Permit Number

(2) Name and contact information of Permittee and consultant

(3) Name of party responsible for conducting the monitoring and the date(s) the inspection was conducted

(4) A brief paragraph describing the purpose of the approved project, acreage and type of aquatic resources impacted, and mitigation acreage and type of aquatic resources authorized to compensate for the aquatic impacts.

(5) Written description of the location, any identifiable landmarks of the compensatory mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude, longitudes, UTM's, state plane coordinate system, etc.).

(6) Dates compensatory mitigation commenced and/or was completed

(7) Short statement on whether the performance standards are being met

(8) Dates of any recent corrective or maintenance activities conducted since the previous report submission

(9) Specific recommendations for any additional corrective or remedial actions.

b. Requirements (1 page): List the monitoring requirements and performance standards, as specified in the approved mitigation plan and special conditions of this permit, and evaluate whether the compensatory mitigation project site is successfully achieving the approved performance standards or trending towards success. A table is a recommended option for comparing the performance standards to the conditions and status of the developing mitigation site.

c. Summary Data (maximum of 4 pages): Summary data should be provided to substantiate the success and/or potential challenges associated with the compensatory mitigation project. Photo documentation may be provided to support the findings and recommendations referenced in the monitoring report and to assist the PM in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period. Submitted photos should be formatted to print on a standard 8 ½" x 11" piece of paper, dated, and clearly labeled with the direction from which the photo was taken. The photo location points should also be identified on the appropriate maps.

d. Maps and Plans (maximum of 3 pages): Maps shall be provided to show the location of the compensatory mitigation site relative to other landscape features, habitat types, locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the mitigation plan. In addition, the submitted maps and plans should clearly delineate the mitigation site perimeter(s). Each map or diagram should be formatted to print on a standard 8 ½" x 11" piece of paper and

include a legend and the location of any photos submitted for review. As-built plans may be included.

e. **Conclusions (1 page):** A general statement shall be included that describes the conditions of the compensatory mitigation project. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the Permittee or sponsor, including a timetable, shall be provided. The District Commander will ultimately determine if the mitigation site is successful for a given monitoring period.

16. Remediation: If the compensatory mitigation fails to meet the performance standards 5 years after completion of the compensatory mitigation objectives, the compensatory mitigation will be deemed unsuccessful. Within 60 days of notification by the Corps that the compensatory mitigation is unsuccessful, the Permittee shall submit to the Corps an alternate compensatory mitigation proposal sufficient to create the functional lift required under this permit. The alternate compensatory mitigation proposal may be required to include additional mitigation to compensate for the temporal loss of wetland function associated with the unsuccessful compensatory mitigation activities. The Corps reserves the right to fully evaluate, amend, and approve or reject the alternate compensatory mitigation proposal. Within 120 days of Corps approval, the Permittee will complete the alternate compensatory mitigation proposal.

17. Mitigation Release: The Permittee's responsibility to complete the required compensatory mitigation, as set forth in the **Compensatory Mitigation** Special Condition of this permit will not be considered fulfilled until mitigation success has been demonstrated and written verification has been provided by the Corps. A mitigation area which has been released will require no further monitoring or reporting by the Permittee; however the Permittee, Successors and subsequent Transferees remain perpetually responsible to ensure that the mitigation area(s) remain in a condition appropriate to offset the authorized impacts in accordance with General Condition 2 of this permit.

18. Mitigation project on public lands: As described in Special Condition 12 of this permit, the Permittee must implement and maintain compensatory mitigation as described in the approved Permittee Responsible Mitigation Plan, Essential Fish Habitat (EFH) and Submerged Aquatic Vegetation (SAV) Mitigation Plan, dated March 15, 2018 (Attachment 6). As part of that Plan, the TFF-EFH mitigation area, which consists of 156.42 acres of wetlands, must be managed in accordance with the Management Plan for Deep Creek Conservation Area. The Deep Creek Conservation Area is located on public lands owned and managed by the St. Johns River Water Management District (public agency).

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PERMITTEE: Florida Department of Transportation, District 2

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- a. Prior to conducting any work authorized by this DA permit, the Permittee must provide to the Corps written confirmation from the public agency responsible for managing the public land that the public agency has authorized the Permittee to implement and maintain the compensatory mitigation on the public land required by this permit, and that the public agency grants the Corps access to the public land to inspect the compensatory mitigation for permit compliance.
- b. The Permittee must notify the Corps in writing not less than 60 days before any use is authorized on the property that is or could be incompatible with the compensatory mitigation including, but not limited to, changes in real property interests, management plans, policies or laws governing the use of the property.
- c. The Permittee must notify the Corps in writing not less than 10 days after becoming aware that the public agency authorized a use incompatible with the mitigation on the public land.
- d. The Permittee must provide alternative compensatory mitigation that is acceptable to the Corps for any losses in functions resulting from incompatible use authorized by the public agency. The Permittee must comply with any timelines, as determined by the Corps, for implementation of remedial actions required by the Corps under this special condition.

19. Long Term Financial Assurance:

- a. No later than **30 days** prior to the initiation of long term management, a copy of the draft long term financial assurance instrument shall be provided to the Corps for review and approval.
- b. A copy of the executed approved financial assurance instrument for long term management of the mitigation sites shall be provided to the Corps prior to or concurrent with the initiation of long term management.
 - (1) FDOT will provide funds for the planning, design, maintenance, implementation, and long-term management of the 156.42 acres of wetland mitigation area.
 - (2) FDOT will provide funds and ensure continued St. Johns River Water Management District (SJRWMD) funding for the maintenance and long term management of the Deep Creek Conservation Area.

20. Regulatory Agency Changes: Should any other regulatory agency require changes to the work authorized or obligated by this permit, the Permittee is advised that a modification to this permit instrument is required prior to initiation of those changes. It is the Permittee's responsibility to request a modification of this permit from the Corps.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344)

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

PERMIT NUMBER: SAJ-2017-00571-(SP-RLT)
PERMITTEE: Florida Department of Transportation, District 2
PAGE 13 of 15

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



(PERMITTEE)

4-5-18

(DATE)

Van Humphreys

(PERMITTEE NAME-PRINTED)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



(DISTRICT ENGINEER)

April 11, 2018

(DATE)

For
Timika M. Wilson
Lieutenant Colonel, U.S. Army
District Commander

PERMIT NUMBER: SAJ-2017-00571-(SP-RLT)
PERMITTEE: Florida Department of Transportation, District 2
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When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE-SIGNATURE)

(DATE)

(NAME-PRINTED)

(ADDRESS)

(CITY, STATE, AND ZIP CODE)

PERMIT NUMBER: SAJ-2017-00571-(SP-RLT)
PERMITTEE: Florida Department of Transportation, District 2
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***Attachments to Department of the Army
Permit Number SAJ-2017-00571 (SP-RLT)***

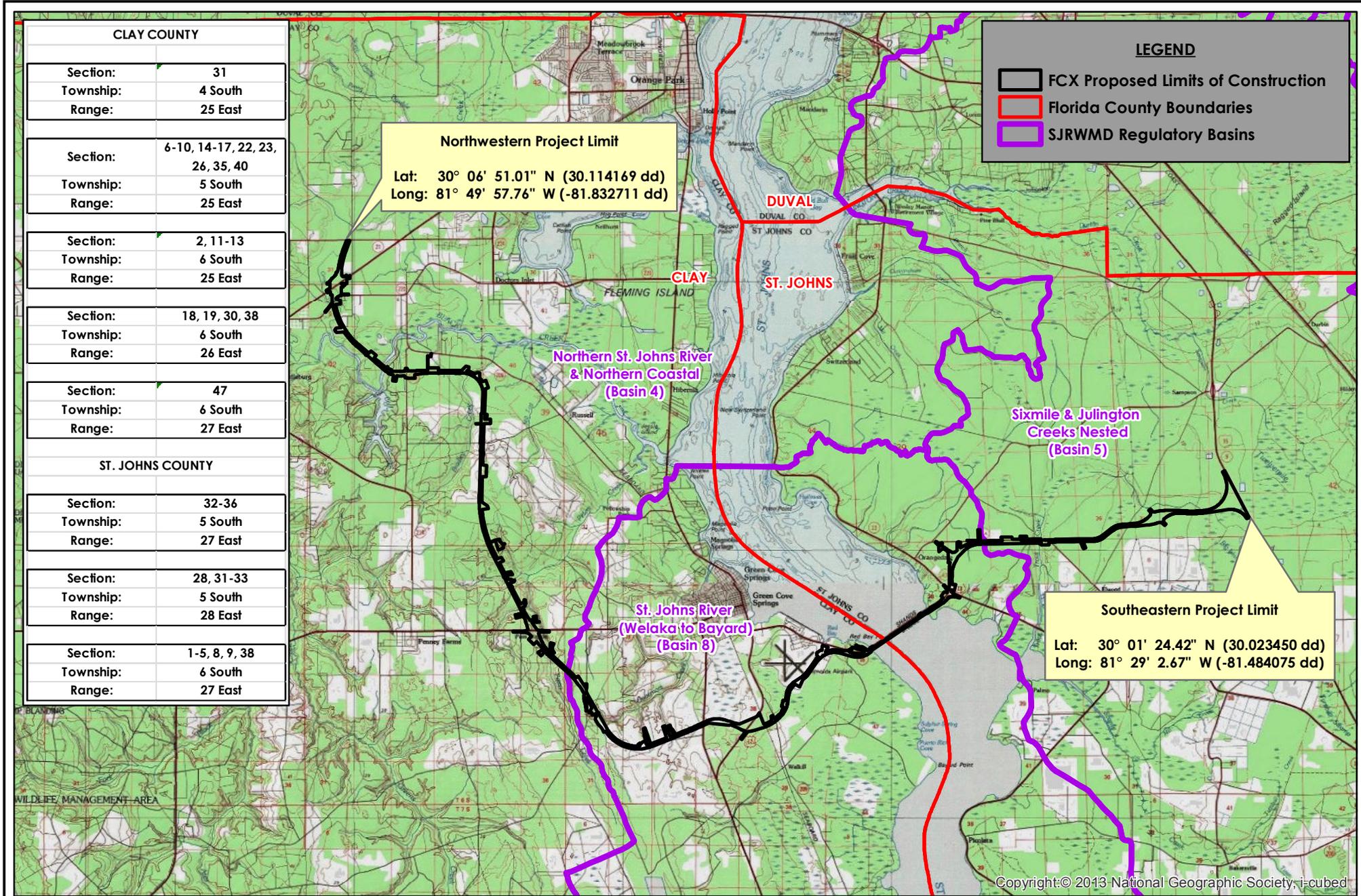
1. PERMIT DRAWINGS: 62 pages, dated October 17, 2017
2. WATER QUALITY CERTIFICATION: Specific Conditions of the water quality permit/certification in accordance with General Condition number 5 on page 2 of this DA permit. 17 pages, dated March 8, 2018
3. AS-BUILT CERTIFICATION FORM: 2 pages
4. MANATEE CONDITIONS: 2 pages
5. EASTERN INDIGO SNAKE CONDITIONS: 6 pages
6. PERMITTEE RESPONSIBLE MITIGATION PLAN, ESSENTIAL FISH HABITAT (EFH) AND SUBMERGED AQUATIC VEGETATION (SAV) MITIGATION PLAN: 111 pages, dated March 15, 2018

CLAY COUNTY	
Section:	31
Township:	4 South
Range:	25 East
Section:	6-10, 14-17, 22, 23, 26, 35, 40
Township:	5 South
Range:	25 East
Section:	2, 11-13
Township:	6 South
Range:	25 East
Section:	18, 19, 30, 38
Township:	6 South
Range:	26 East
Section:	47
Township:	6 South
Range:	27 East
ST. JOHNS COUNTY	
Section:	32-36
Township:	5 South
Range:	27 East
Section:	28, 31-33
Township:	5 South
Range:	28 East
Section:	1-5, 8, 9, 38
Township:	6 South
Range:	27 East

Northwestern Project Limit
 Lat: 30° 06' 51.01" N (30.114169 dd)
 Long: 81° 49' 57.76" W (-81.832711 dd)

LEGEND

- FCX Proposed Limits of Construction
- Florida County Boundaries
- SJRWMD Regulatory Basins



Southeastern Project Limit
 Lat: 30° 01' 24.42" N (30.023450 dd)
 Long: 81° 29' 2.67" W (-81.484075 dd)



First Coast Expressway
 FPN #422938-2-52-01 (St. Johns County)
 FPN #422938-3-52-01 (Clay County)
Location Map

Project No.:	14063
Exhibit No.:	1
Date:	2-6-17
Rev. Date:	

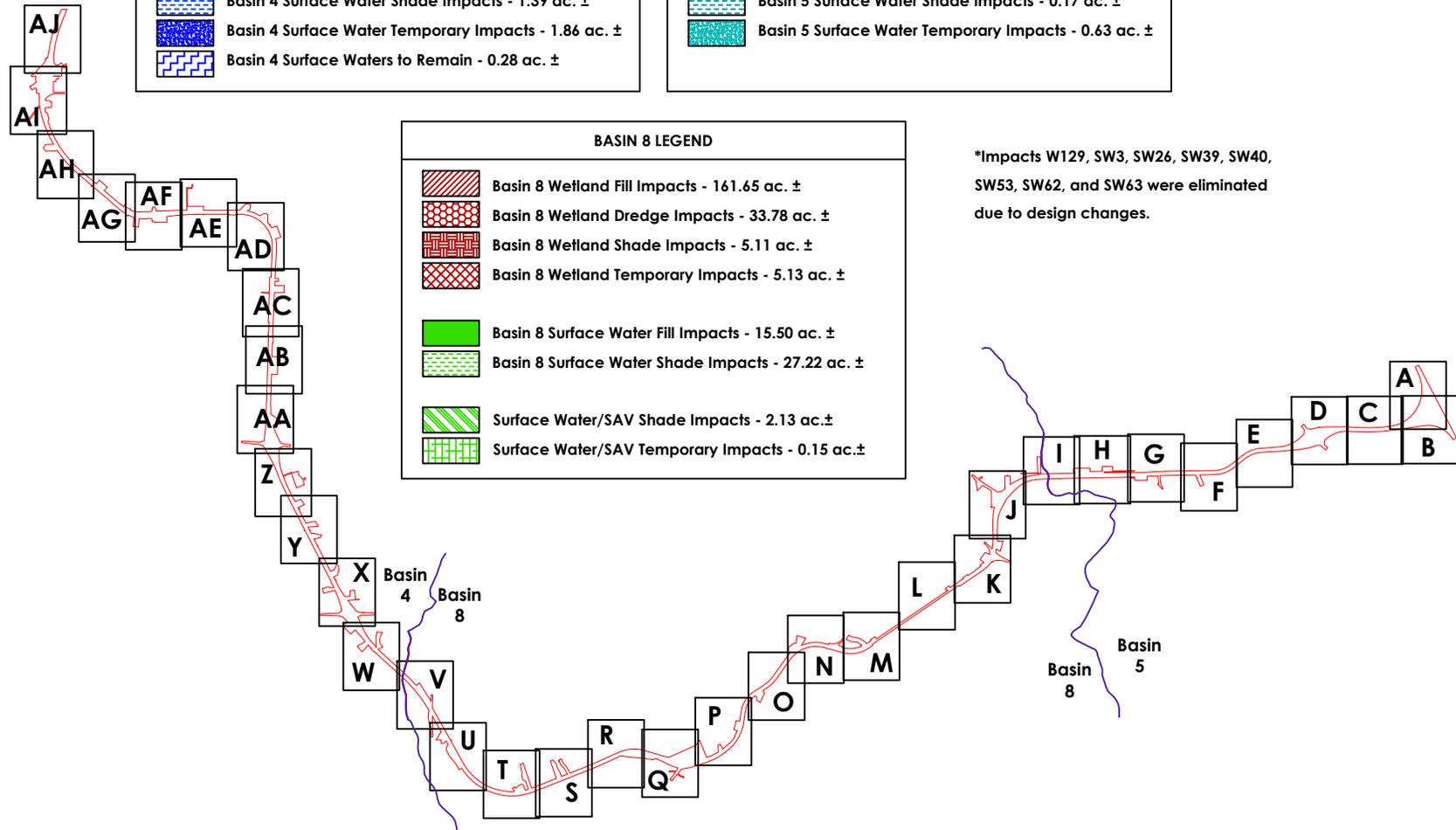


BASIN 4 LEGEND	
	Basin 4 Wetland Fill Impacts - 102.76 ac. ±
	Basin 4 Wetland Dredge Impacts - 9.97 ac. ±
	Basin 4 Wetland Shade Impacts - 1.58 ac. ±
	Basin 4 Wetland Temporary Impacts - 2.18 ac. ±
	Basin 4 Surface Water Fill Impacts - 4.23 ac. ±
	Basin 4 Surface Water Shade Impacts - 1.39 ac. ±
	Basin 4 Surface Water Temporary Impacts - 1.86 ac. ±
	Basin 4 Surface Waters to Remain - 0.28 ac. ±

BASIN 5 LEGEND	
	Basin 5 Wetland Fill Impacts - 167.58 ac. ±
	Basin 5 Wetland Dredge Impacts - 32.63 ac. ±
	Basin 5 Wetland Shade Impacts - 0.14 ac. ±
	Basin 5 Wetland Temporary Impacts - 0.54 ac. ±
	Basin 5 Surface Water Fill Impacts - 12.80 ac. ±
	Basin 5 Surface Water Shade Impacts - 0.17 ac. ±
	Basin 5 Surface Water Temporary Impacts - 0.63 ac. ±

BASIN 8 LEGEND	
	Basin 8 Wetland Fill Impacts - 161.65 ac. ±
	Basin 8 Wetland Dredge Impacts - 33.78 ac. ±
	Basin 8 Wetland Shade Impacts - 5.11 ac. ±
	Basin 8 Wetland Temporary Impacts - 5.13 ac. ±
	Basin 8 Surface Water Fill Impacts - 15.50 ac. ±
	Basin 8 Surface Water Shade Impacts - 27.22 ac. ±
	Surface Water/SAV Shade Impacts - 2.13 ac.±
	Surface Water/SAV Temporary Impacts - 0.15 ac.±

*Impacts W129, SW3, SW26, SW39, SW40, SW53, SW62, and SW63 were eliminated due to design changes.

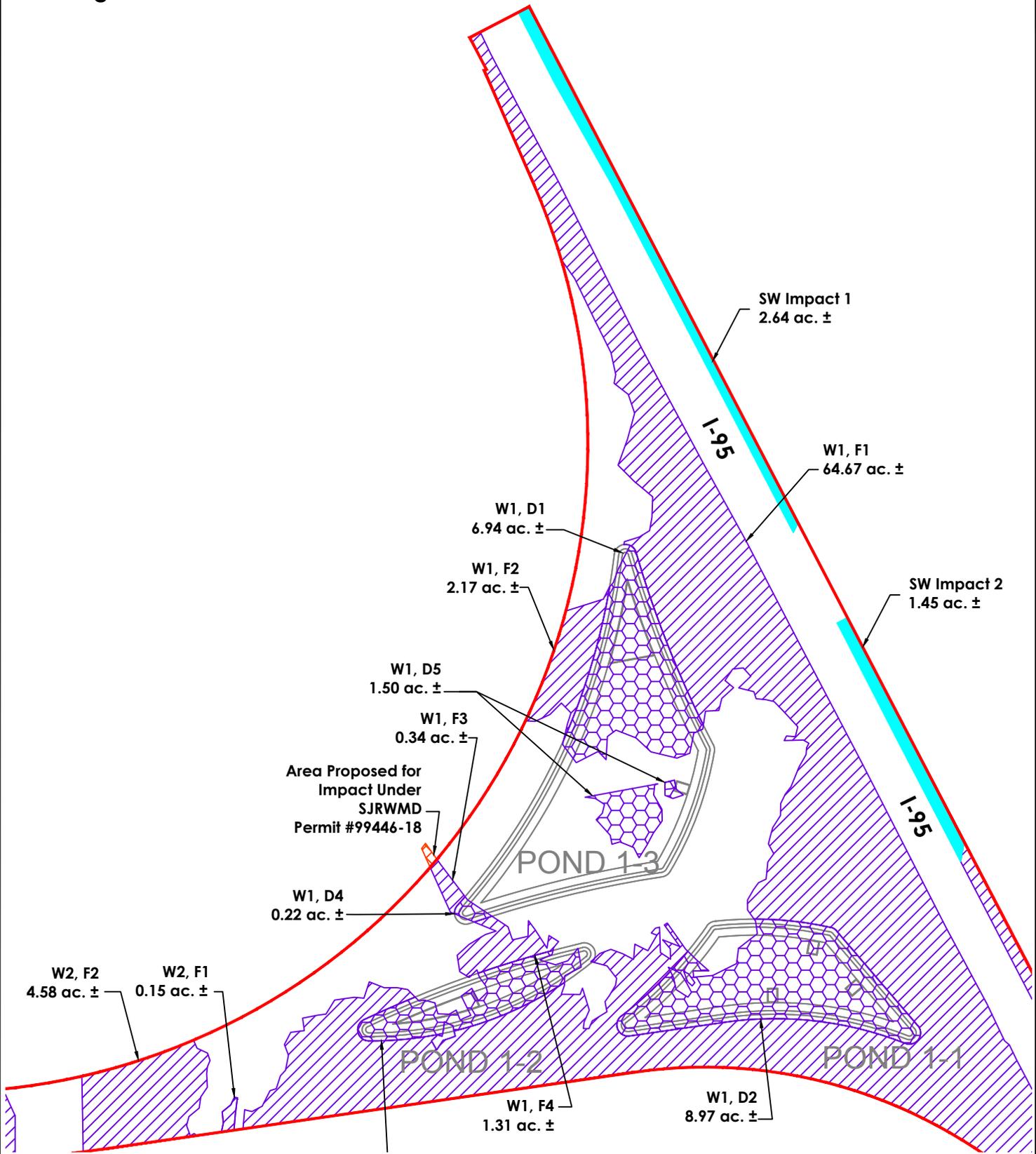


Scale: 1"=2.5 miles

First Coast Expressway FPN 422938-2-52-01 (St. Johns County) FPN 422938-3-52-01 (Clay County) Wetland/Surface Water Impact Map Key		Project No.: 14063 Exhibit No.: 4 key Date: 1-11-16 Rev. Date: 10-10-17	
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See Key Sheet
for Legend

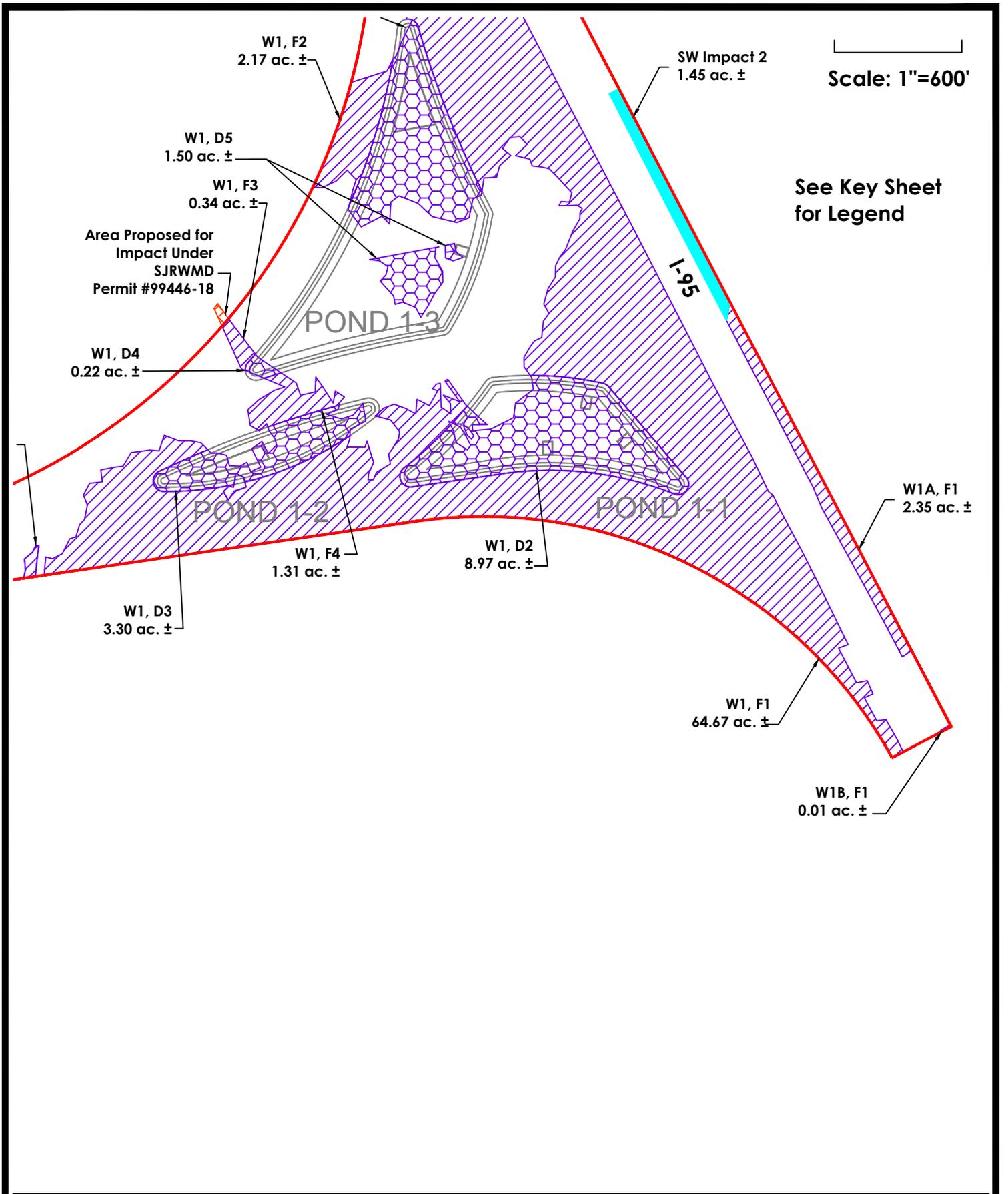
Scale: 1"=600'



First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map A

Project No.:	14063
Exhibit No.:	4A
Date:	1-11-16
Rev. Date:	10-10-17





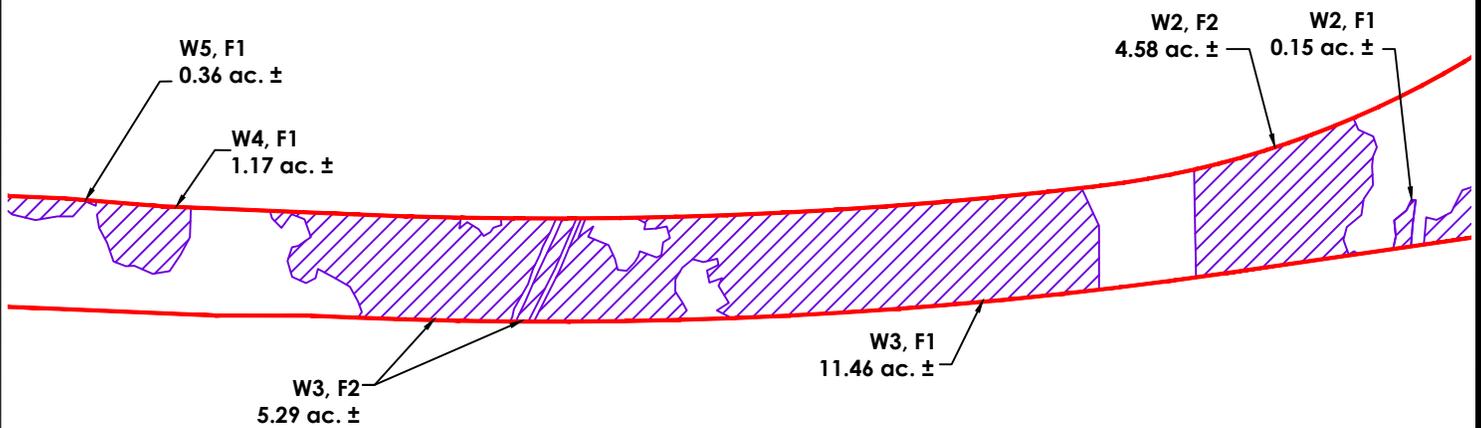
First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map B

Project No.:	14063
Exhibit No.:	4B
Date:	1-11-16
Rev. Date:	10-10-17



See Key Sheet
for Legend

Scale: 1"=600'

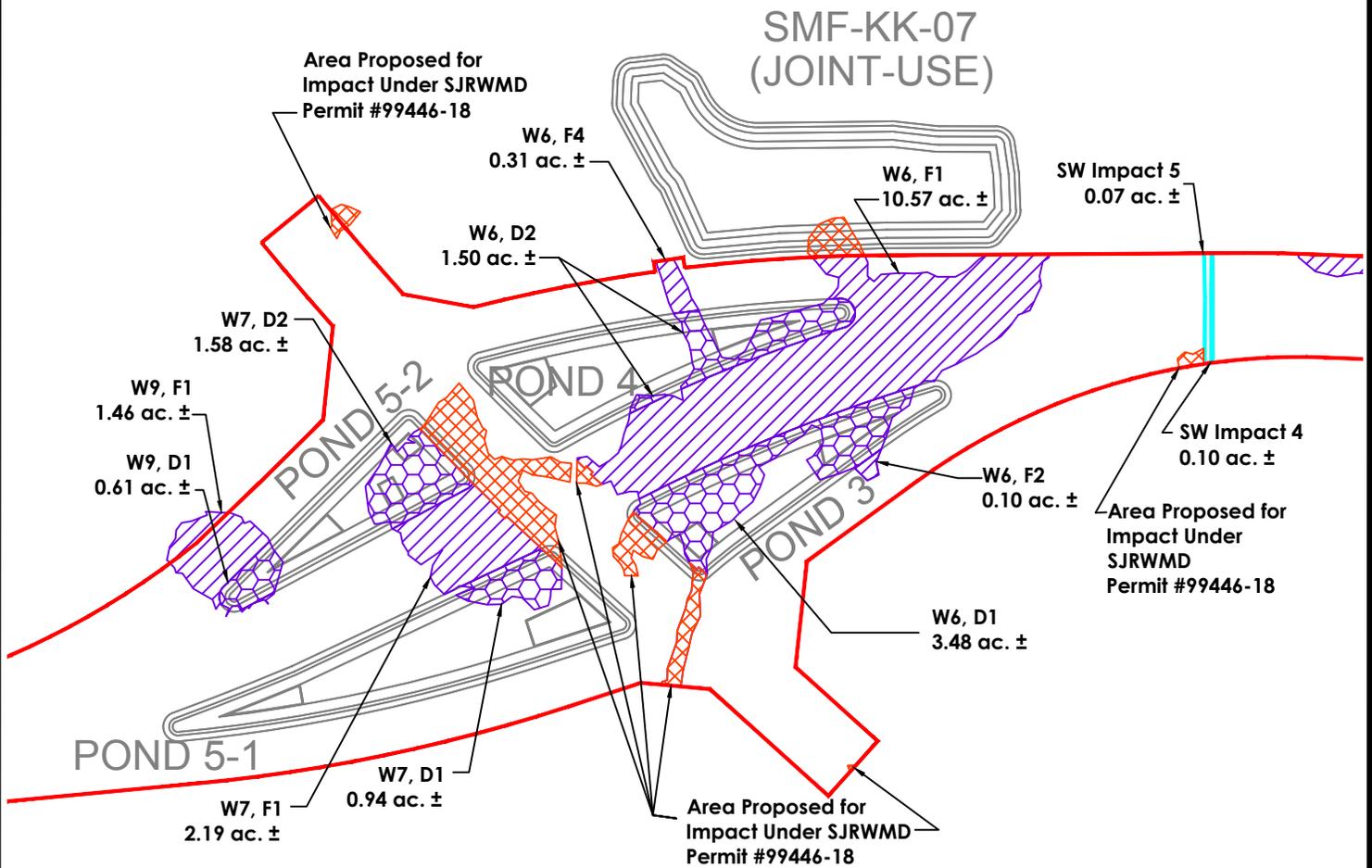


First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map C

Project No.:	14063
Exhibit No.:	4C
Date:	1-11-16
Rev. Date:	10-10-17



See Key Sheet
for Legend

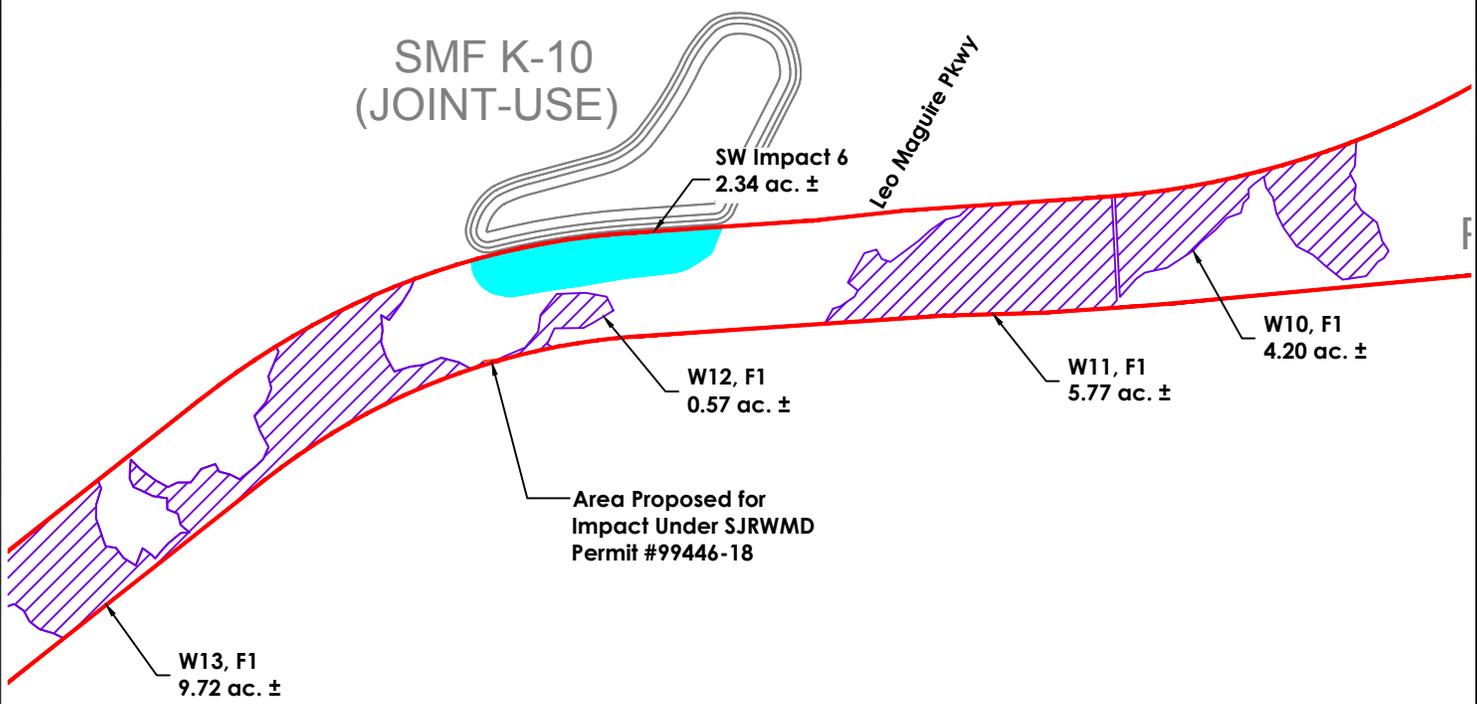


Scale: 1"=600'

First Coast Expressway
 FPN 422938-2-52-01 (St. Johns County)
 FPN 422938-3-52-01 (Clay County)
 Wetland/Surface Water Impact Map D

Project No.:	14063
Exhibit No.:	4D
Date:	1-11-16
Rev. Date:	10-10-17





See Key Sheet
for Legend



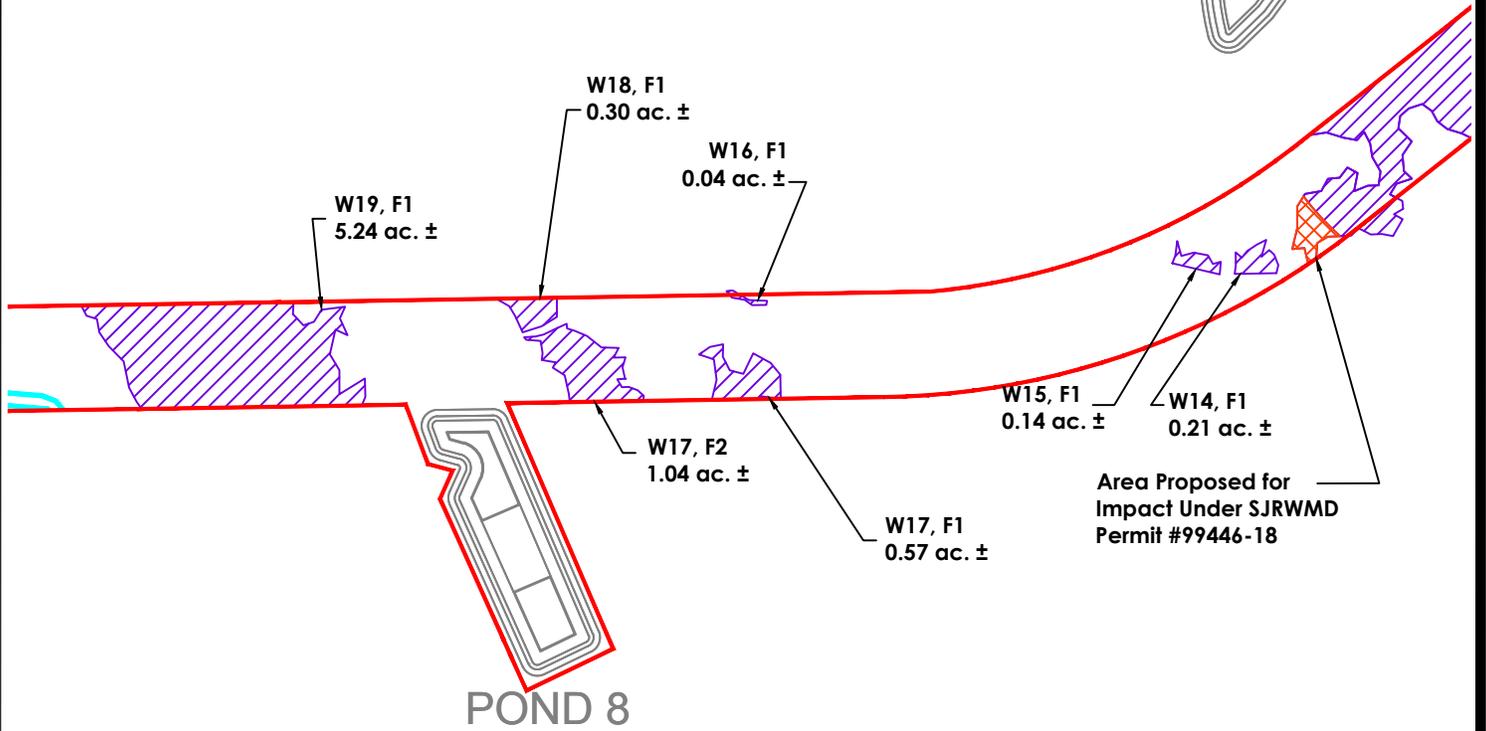
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First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map E

Project No.:	14063
Exhibit No.:	4E
Date:	1-11-16
Rev. Date:	10-10-17



SMF KK-10
(JOINT-USE)



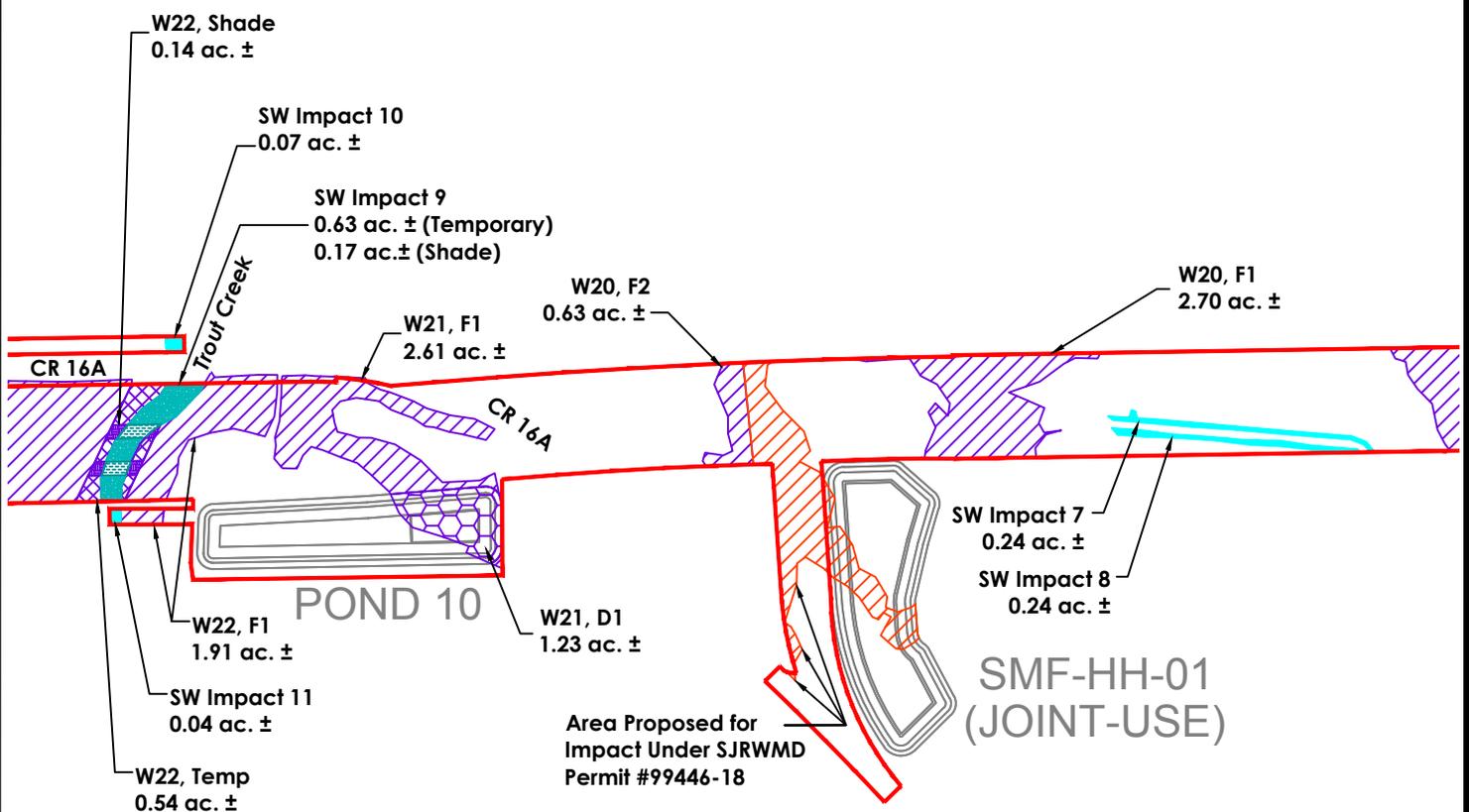
See Key Sheet
for Legend

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First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map F

Project No.:	14063
Exhibit No.:	4F
Date:	1-11-16
Rev. Date:	10-10-17





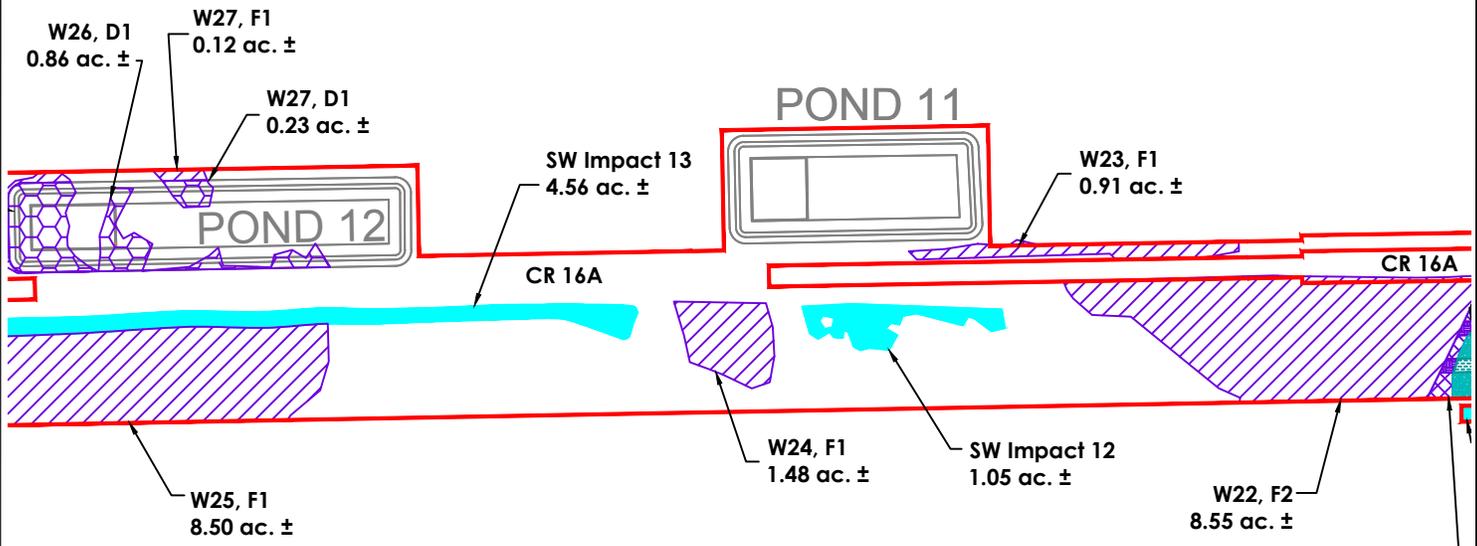
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map G

Project No.:	14063
Exhibit No.:	4G
Date:	1-11-16
Rev. Date:	10-10-17





See Key Sheet
for Legend

Scale: 1"=600'

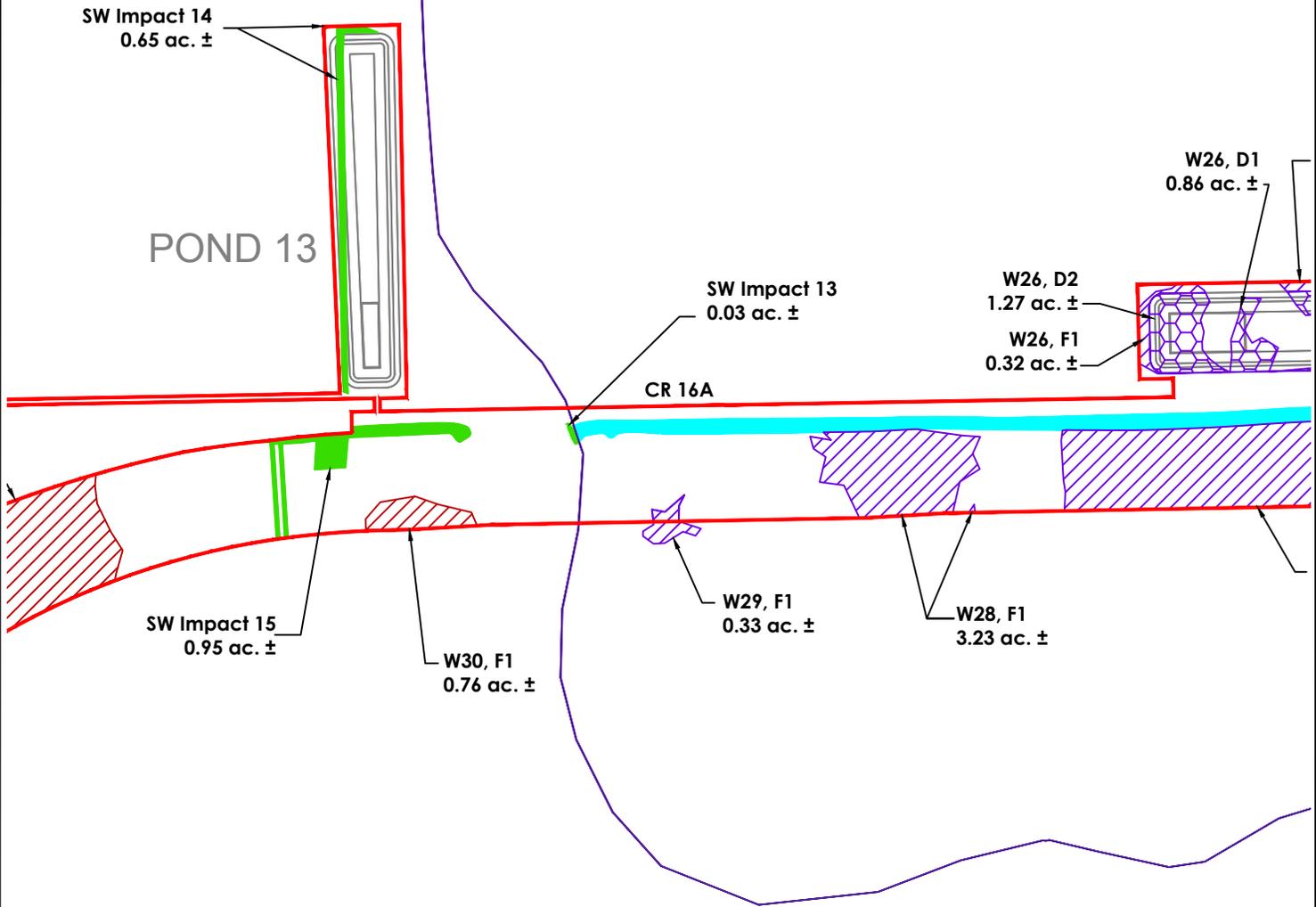
Basin 5
Basin 8

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map H

Project No.:	14063
Exhibit No.:	4H
Date:	1-11-16
Rev. Date:	10-10-17



Basin 8 Basin 5



See Key Sheet
for Legend



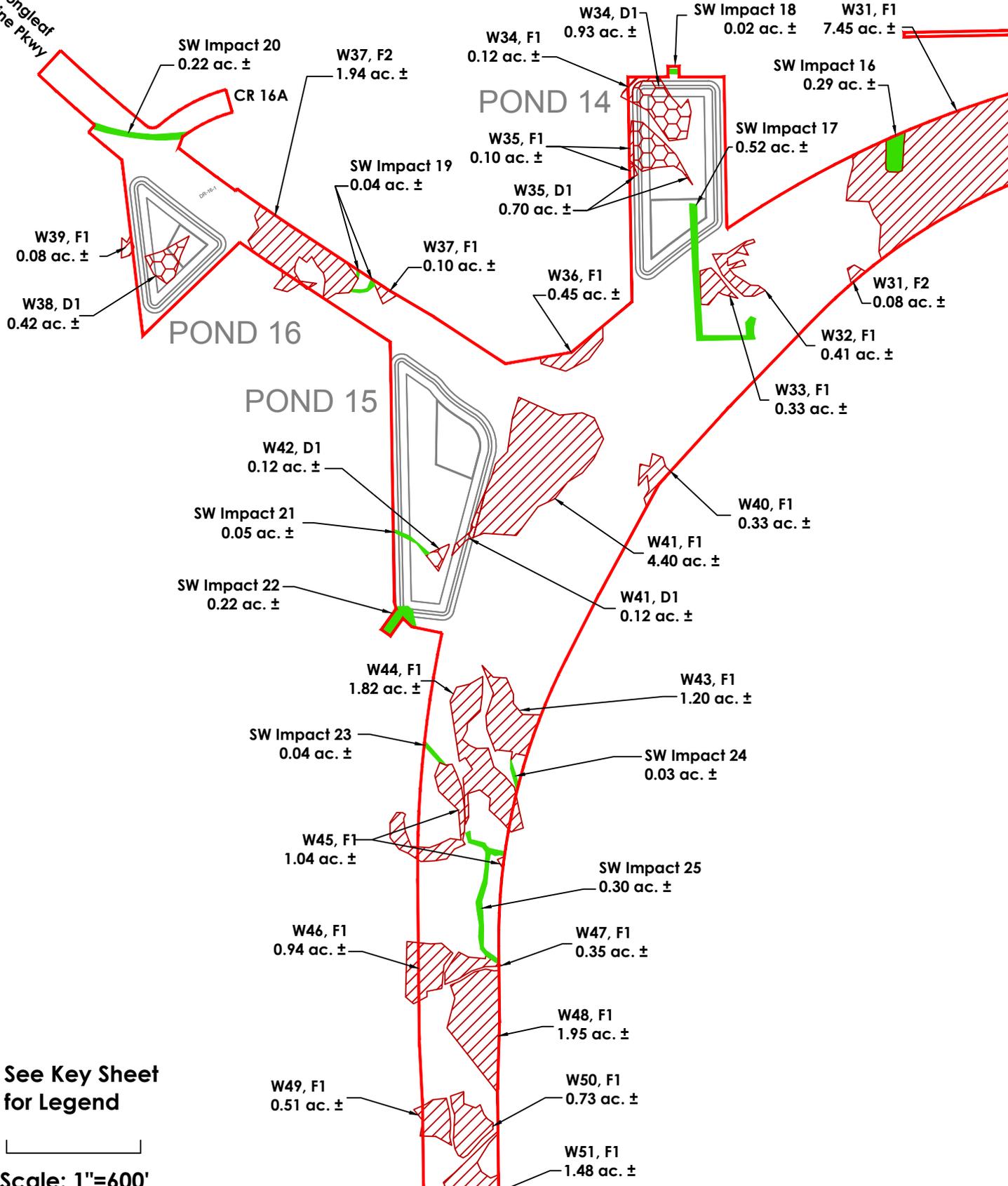
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First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map I

Project No.:	14063
Exhibit No.:	4-I
Date:	1-11-16
Rev. Date:	10-10-17



Longleaf
Pine Pkwy



See Key Sheet
for Legend

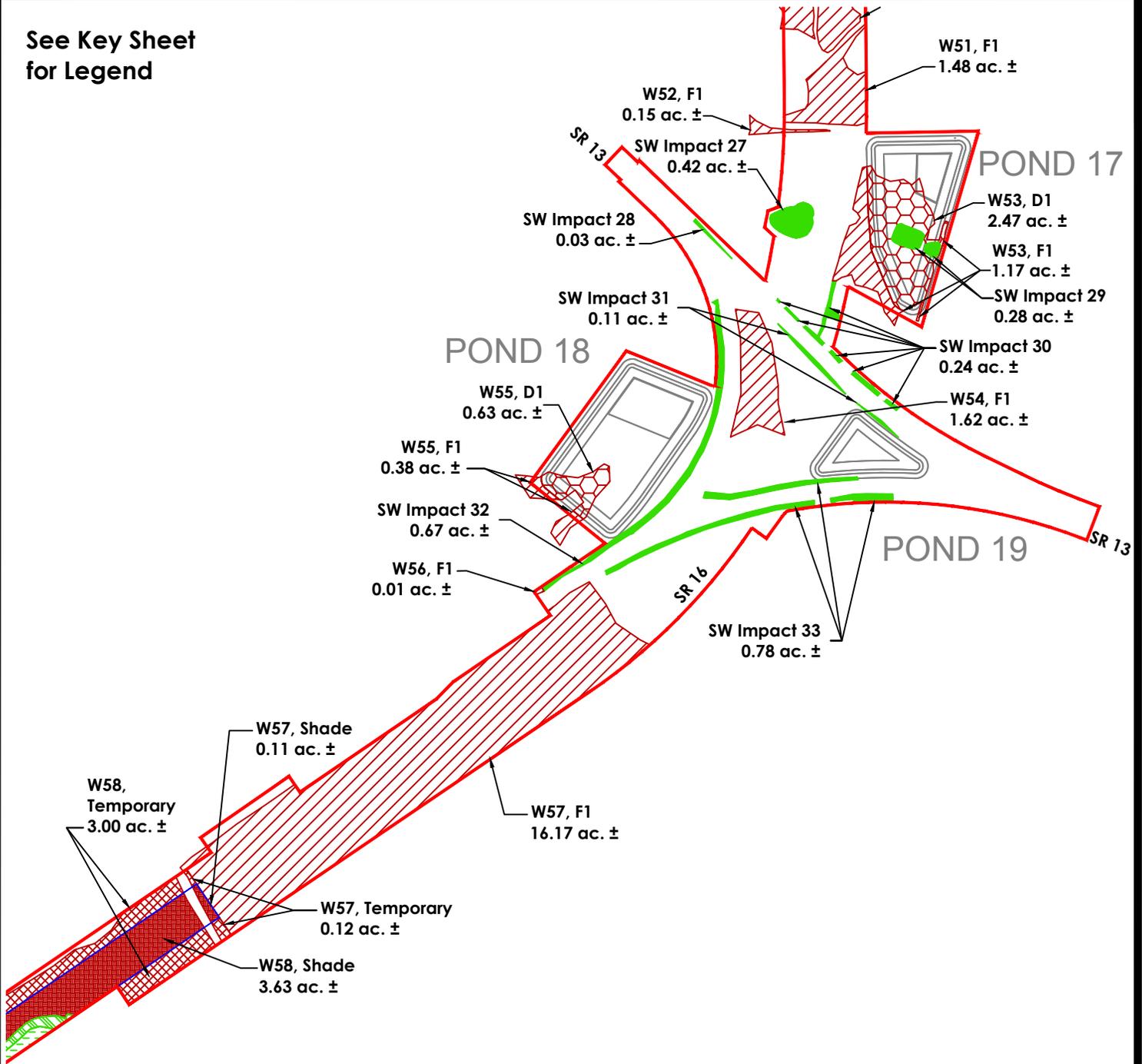
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First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map J

Project No.:	14063
Exhibit No.:	4J
Date:	1-11-16
Rev. Date:	10-10-17



See Key Sheet
for Legend

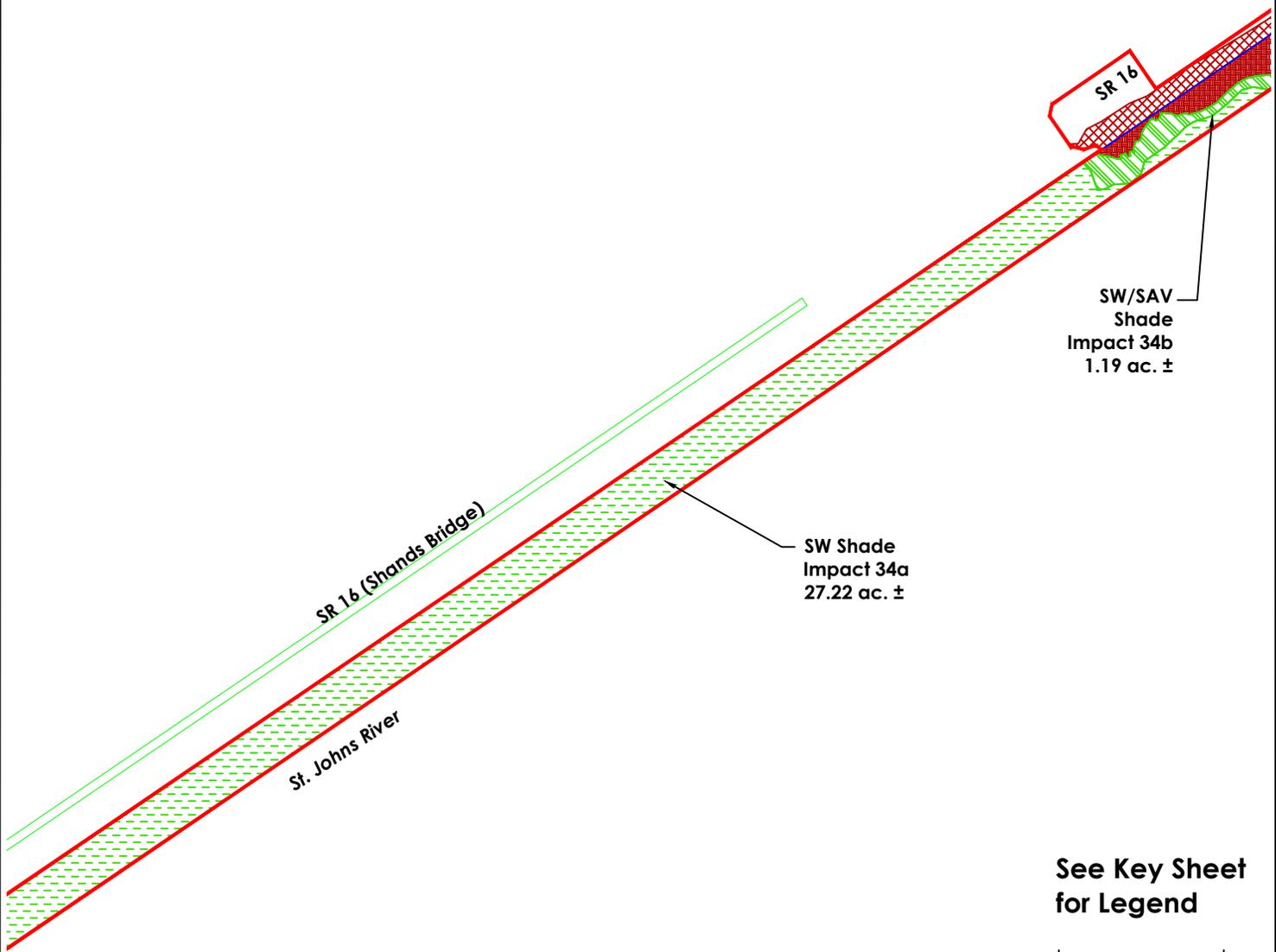


Scale: 1"=600'

First Coast Expressway
 FPN 422938-2-52-01 (St. Johns County)
 FPN 422938-3-52-01 (Clay County)
 Wetland/Surface Water Impact Map K

Project No.:	14063
Exhibit No.:	4K
Date:	1-11-16
Rev. Date:	10-10-17





SR 16 (Shands Bridge)

St. Johns River

SW Shade
Impact 34a
27.22 ac. ±

SW/SAV
Shade
Impact 34b
1.19 ac. ±

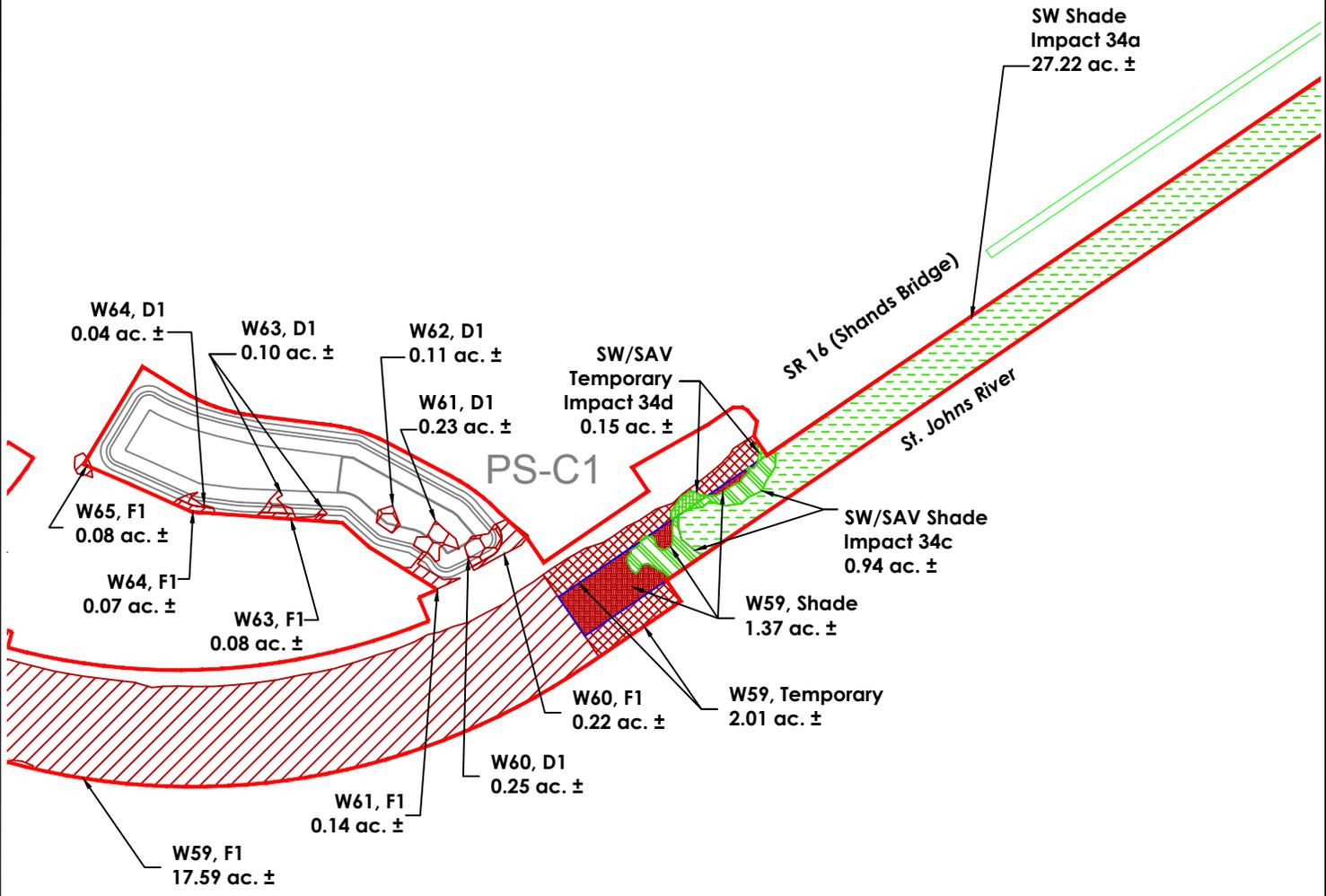
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map L

Project No.:	14063
Exhibit No.:	4L
Date:	1-11-16
Rev. Date:	10-10-17





See Key Sheet
for Legend

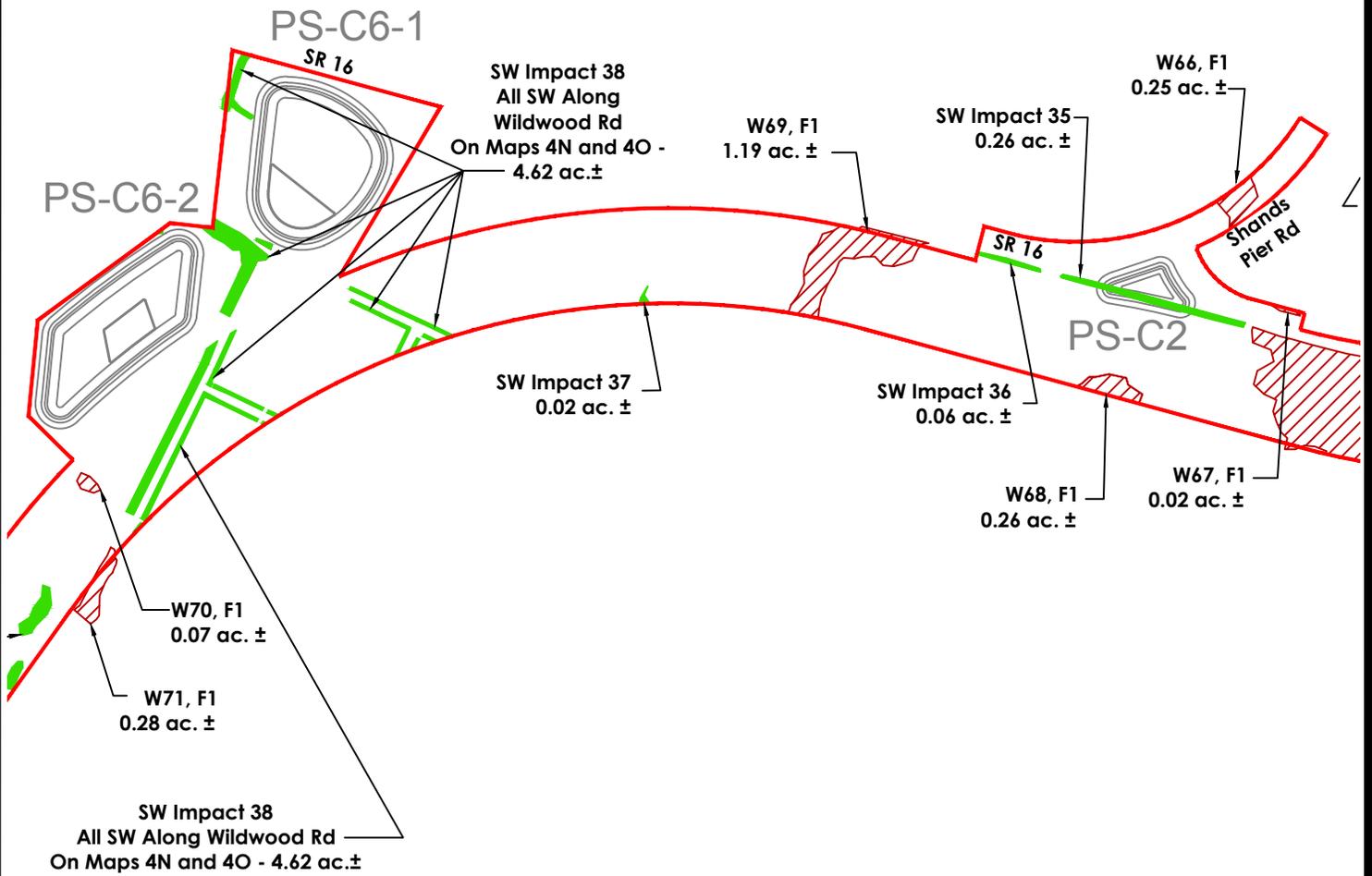


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First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map M

Project No.:	14063
Exhibit No.:	4M
Date:	1-11-16
Rev. Date:	10-10-17





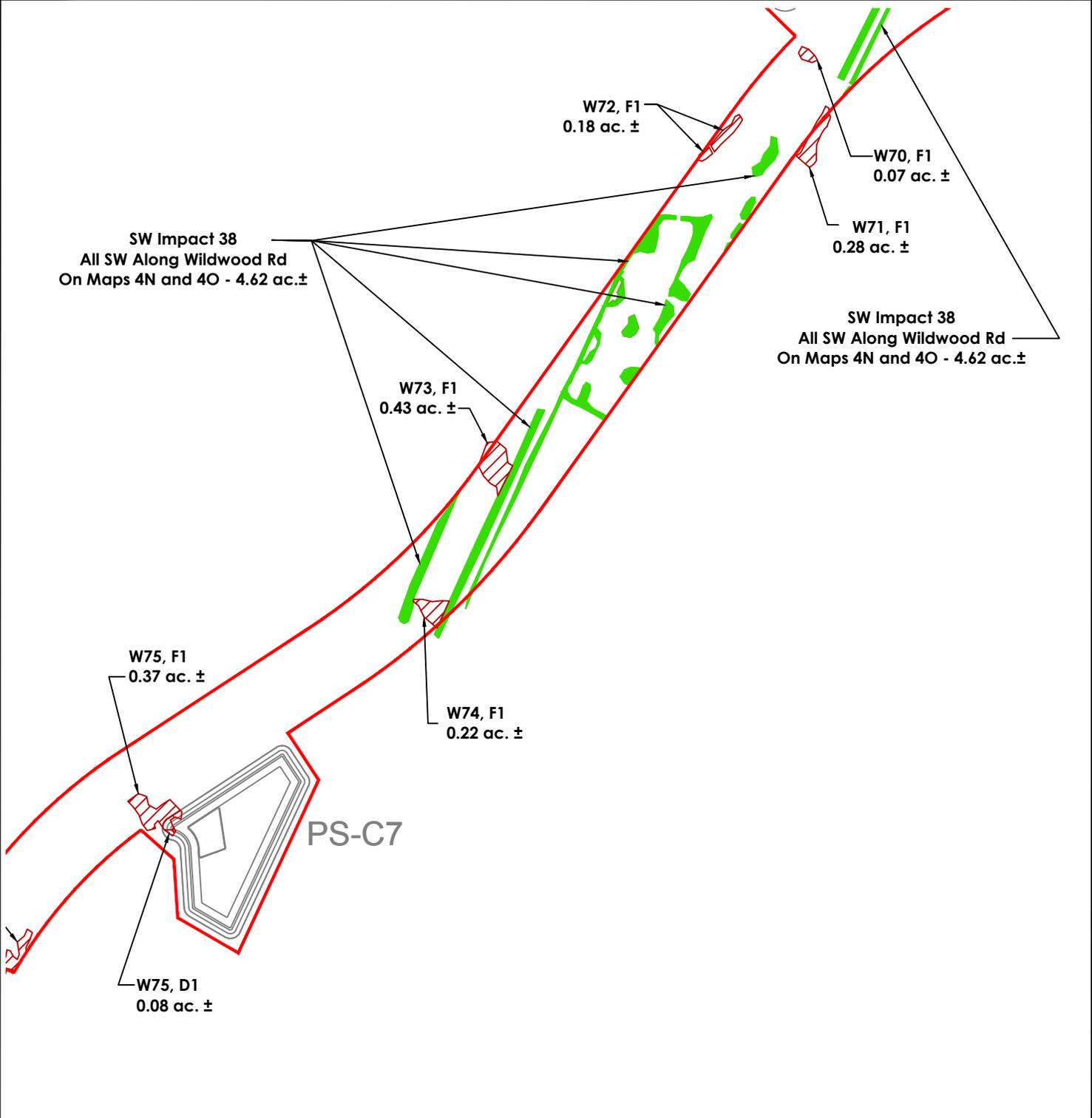
See Key Sheet
for Legend

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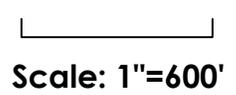
First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map N

Project No.:	14063
Exhibit No.:	4N
Date:	1-11-16
Rev. Date:	10-10-17





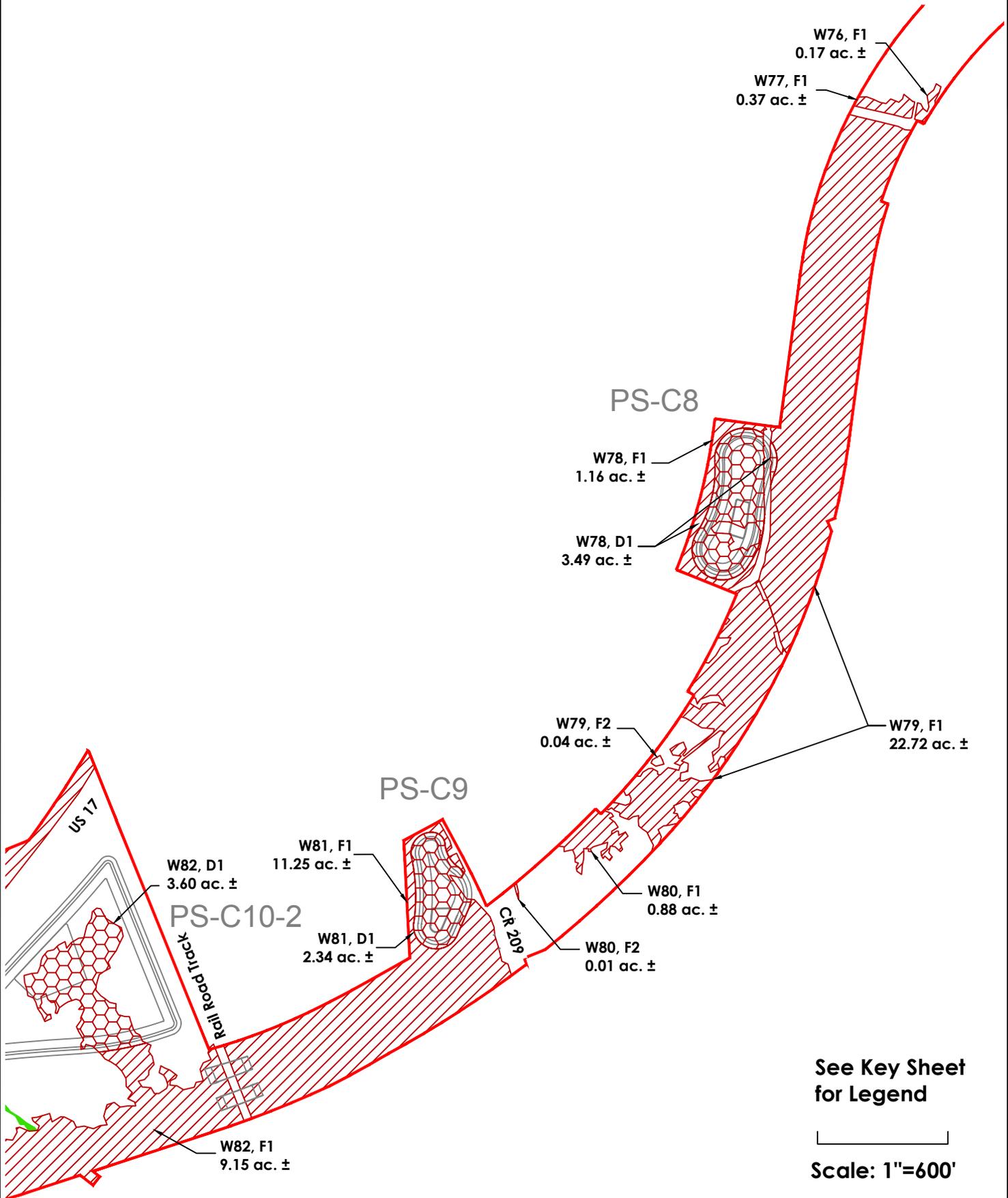
See Key Sheet
for Legend



First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map O

Project No.:	14063
Exhibit No.:	4-O
Date:	1-11-16
Rev. Date:	10-10-17

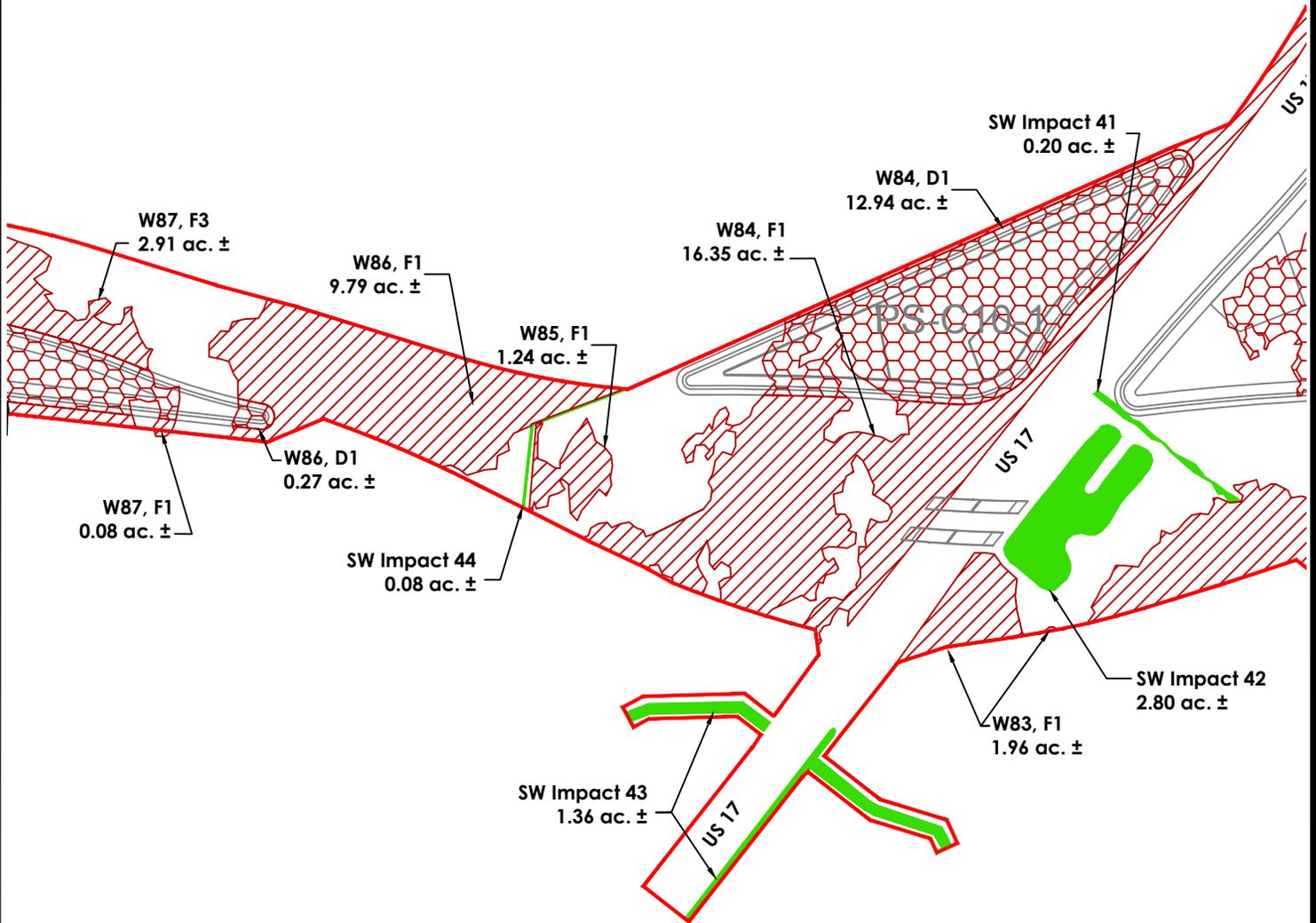




**First Coast Expressway
 FPN 422938-2-52-01 (St. Johns County)
 FPN 422938-3-52-01 (Clay County)
 Wetland/Surface Water Impact Map P**

Project No.:	14063
Exhibit No.:	4P
Date:	1-11-16
Rev. Date:	10-10-17





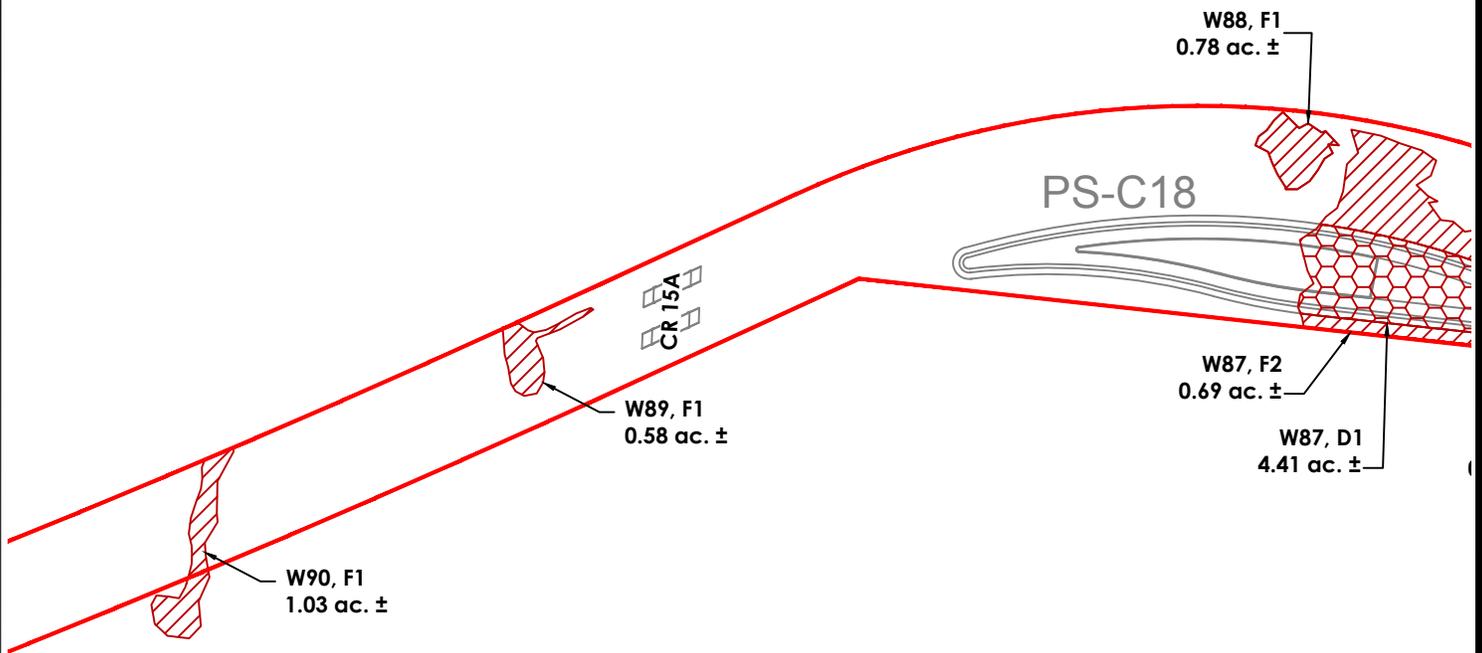
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
 FPN 422938-2-52-01 (St. Johns County)
 FPN 422938-3-52-01 (Clay County)
 Wetland/Surface Water Impact Map Q

Project No.:	14063
Exhibit No.:	4Q
Date:	1-11-16
Rev. Date:	10-10-17





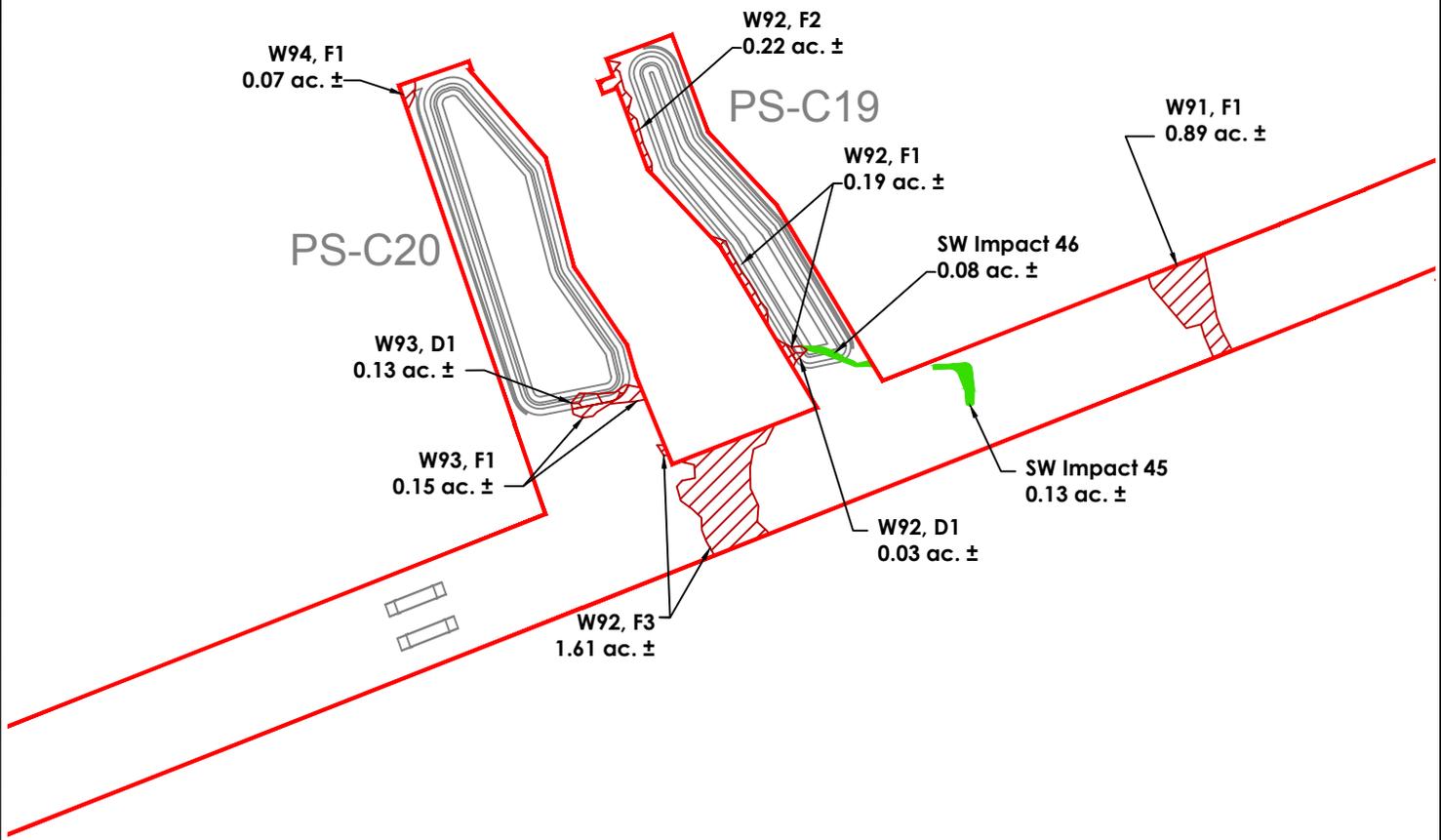
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map R

Project No.:	14063
Exhibit No.:	4R
Date:	1-11-16
Rev. Date:	10-10-17





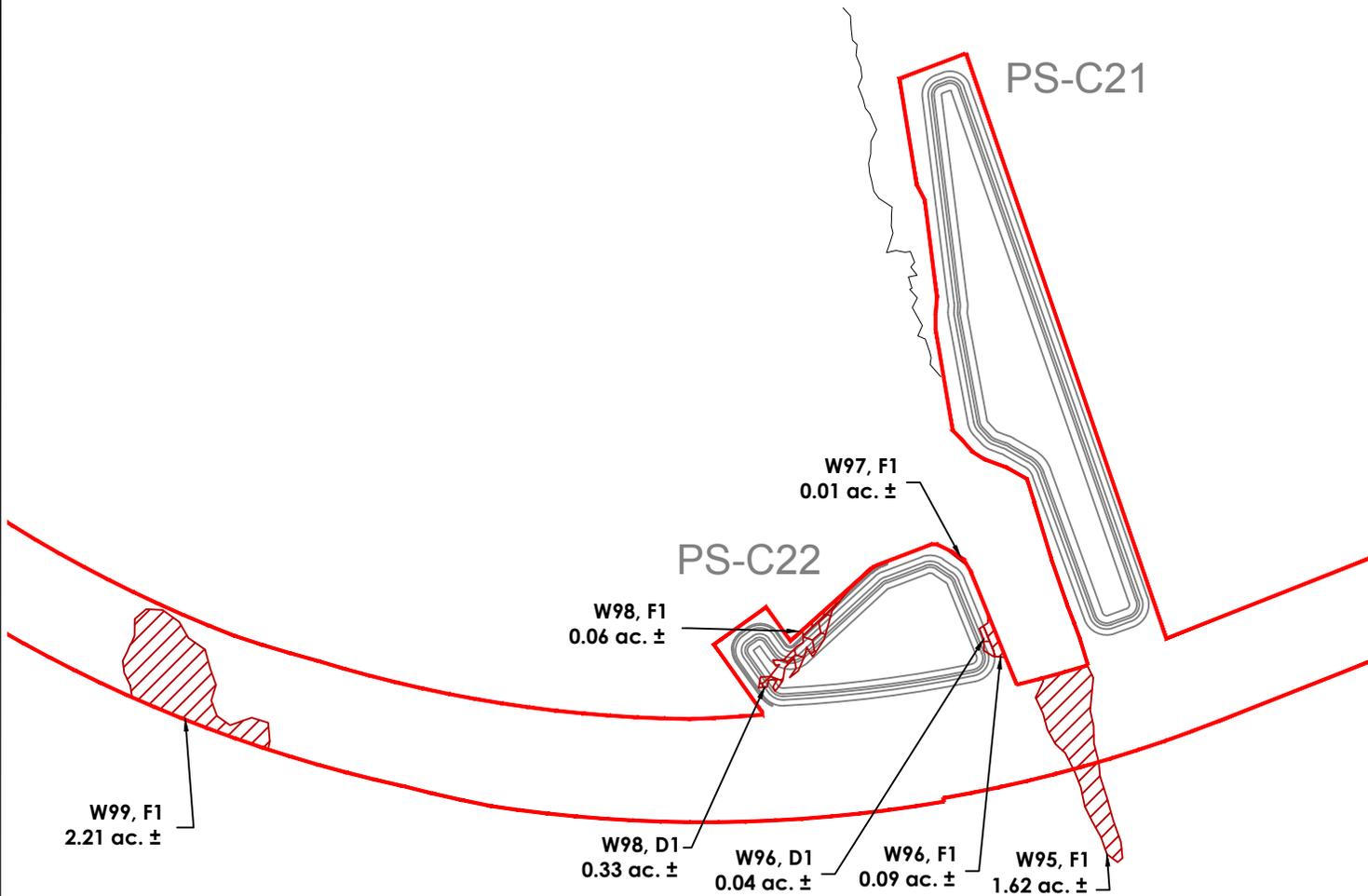
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map S

Project No.:	14063
Exhibit No.:	4S
Date:	1-11-16
Rev. Date:	10-10-17



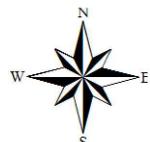


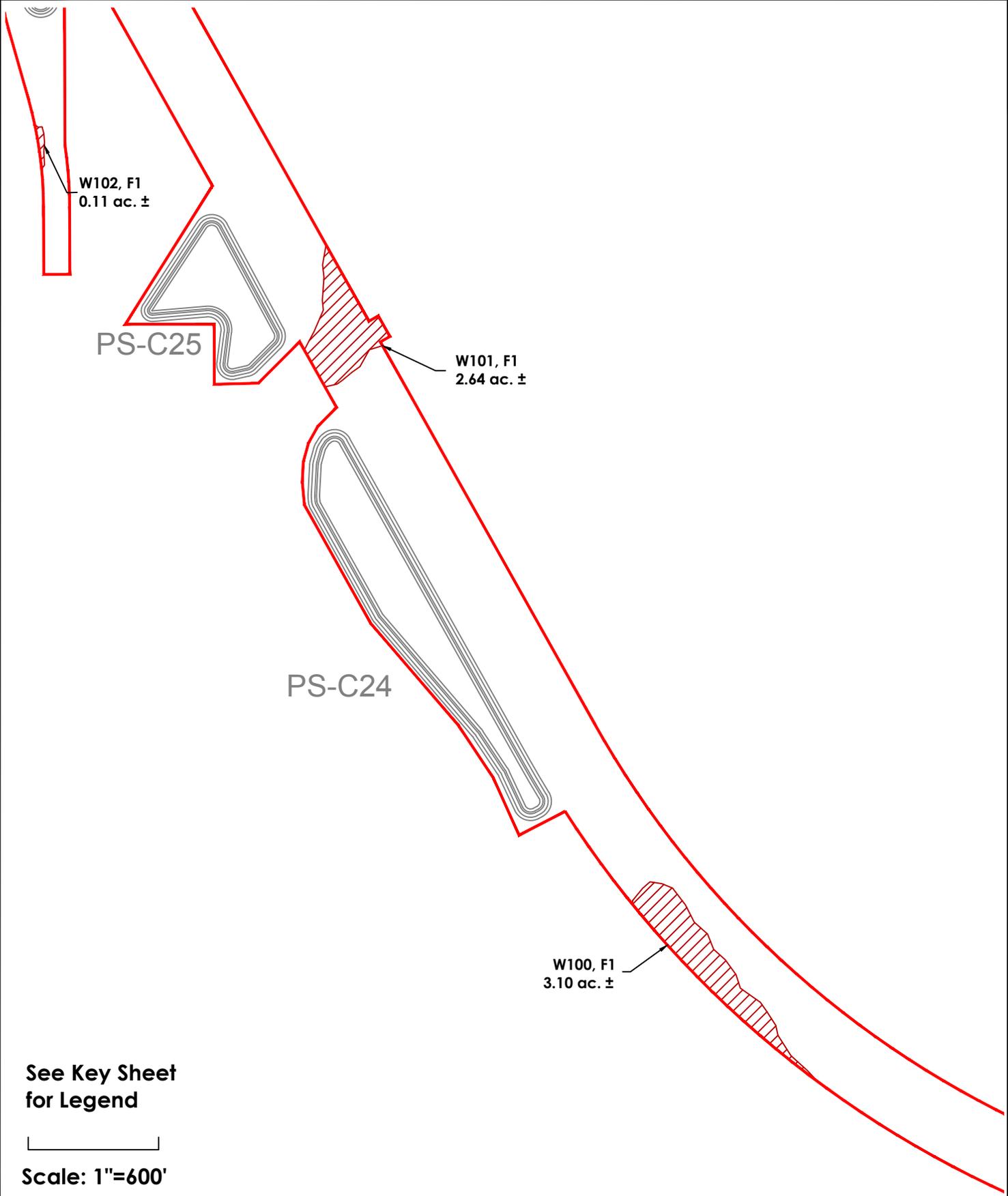
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
 FPN 422938-2-52-01 (St. Johns County)
 FPN 422938-3-52-01 (Clay County)
 Wetland/Surface Water Impact Map T

Project No.:	14063
Exhibit No.:	4T
Date:	1-11-16
Rev. Date:	10-10-17

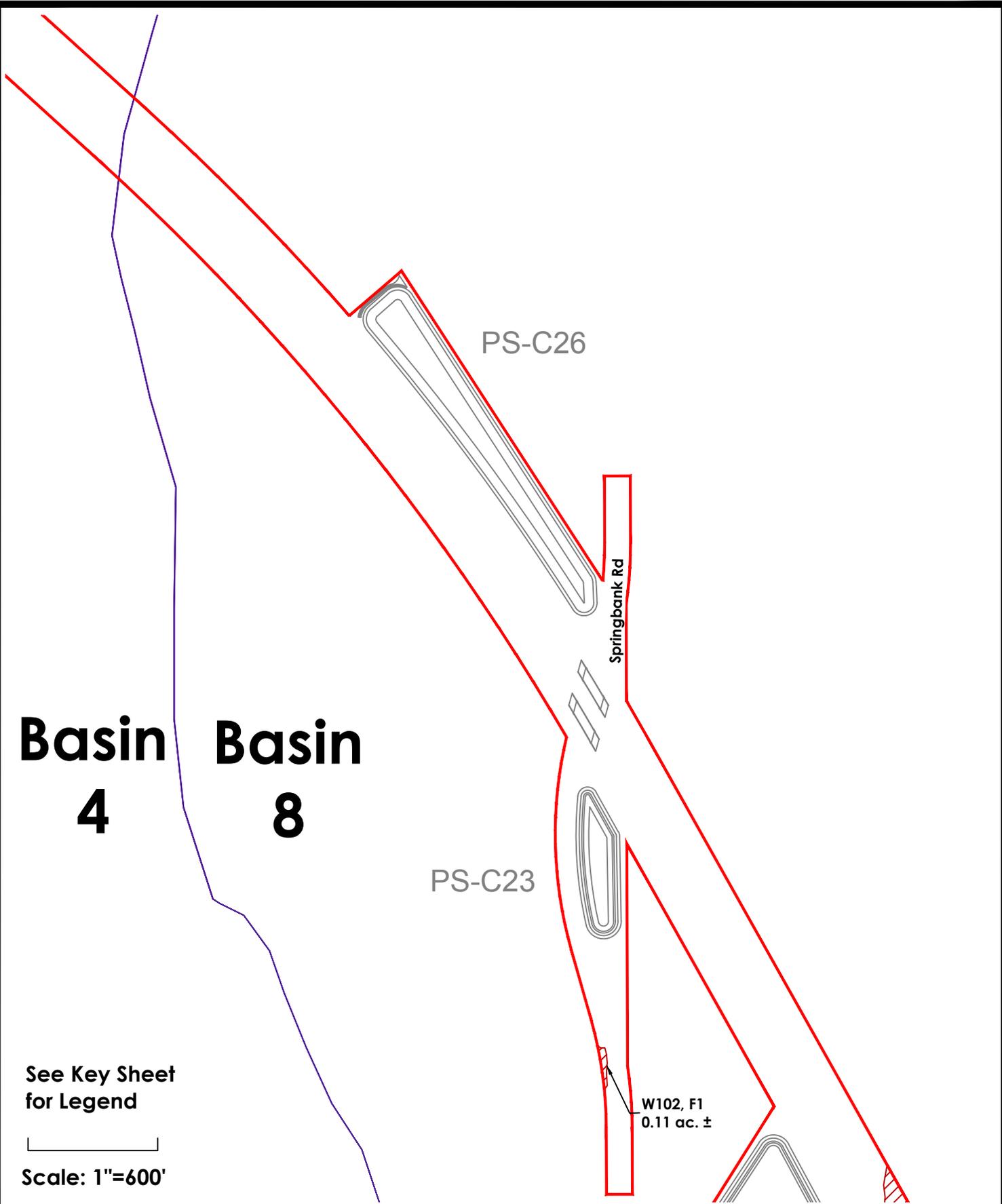




See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway FPN 422938-2-52-01 (St. Johns County) FPN 422938-3-52-01 (Clay County) Wetland/Surface Water Impact Map U	Project No.: 14063	
	Exhibit No.: 4U	
	Date: 1-11-16	
	Rev. Date: 10-10-17	



Basin 4 **Basin 8**

PS-C26

Springbank Rd

PS-C23

W102, F1
0.11 ac. ±

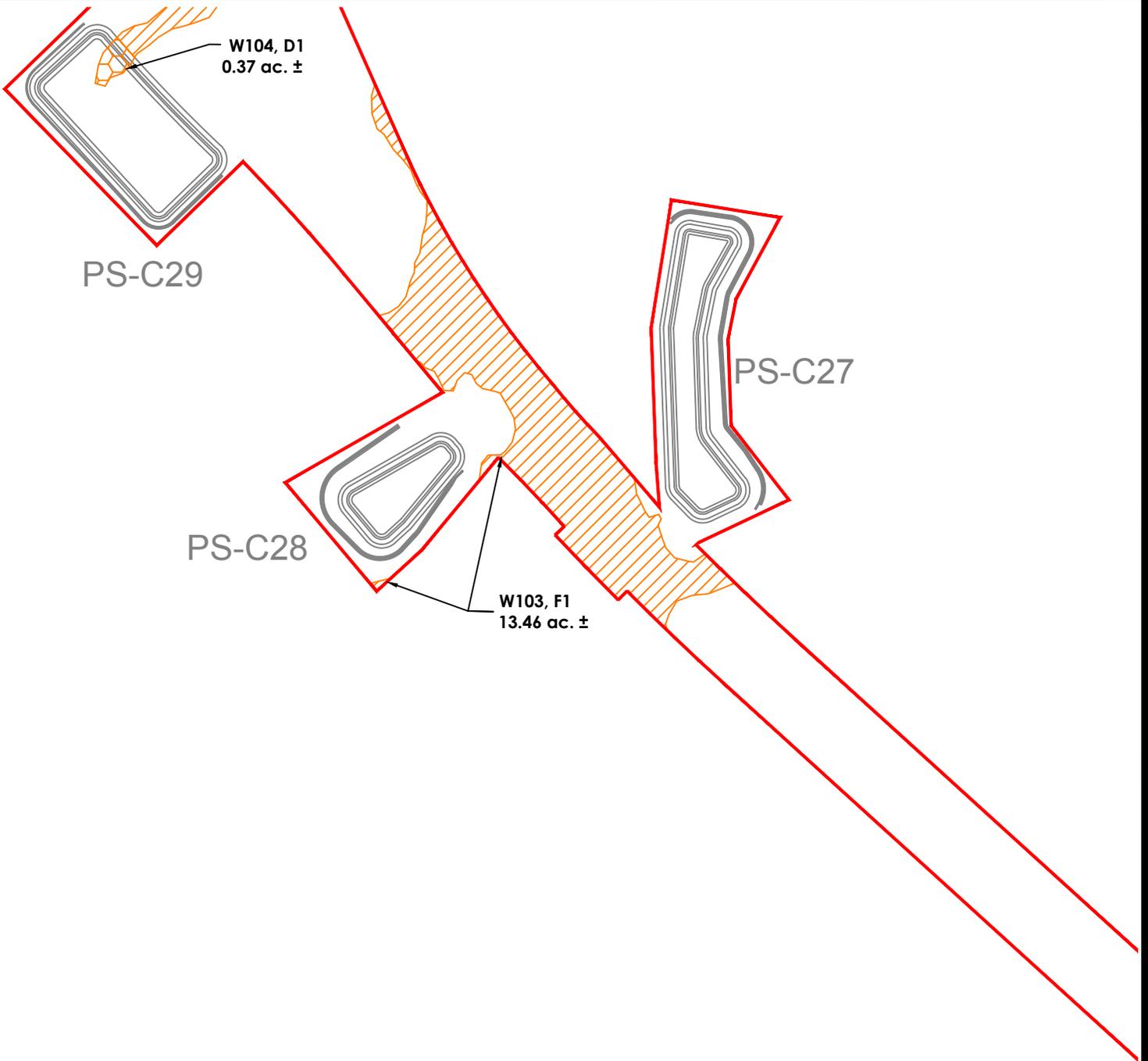
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map V

Project No.:	14063
Exhibit No.:	4V
Date:	1-11-16
Rev. Date:	10-10-17





W104, D1
0.37 ac. ±

PS-C29

PS-C27

PS-C28

W103, F1
13.46 ac. ±

See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map W

Project No.:	14063
Exhibit No.:	4W
Date:	1-11-16
Rev. Date:	10-10-17



PS-C32

W111, F1
4.85 ac. ±

W110, F1
0.19 ac. ±

W110, D1
0.19 ac. ±

PS-C31

W109, F2
8.85 ac. ±

W109, F1
0.17 ac. ±

PS-C30

W109, D1
0.46 ac. ±

W108, F1
0.12 ac. ±

W107, F1
5.89 ac. ±

SW Impact 47
0.64 ac. ±

W106, F1
0.01 ac. ±

SR 16

SR 16

SR 16

Previously Permitted
Wetland Impacts
SJRWMD Permit #129211-1

See Key Sheet
for Legend

Scale: 1"=600'

W104, F1
4.14 ac. ±

W105, F1
0.49 ac. ±

W104, D1
0.37 ac. ±

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map X

Project No.: 14063

Exhibit No.: 4X

Date: 1-11-16

Rev. Date: 10-10-17



W114, F1
0.10 ac. ±

W114, D1
0.19 ac. ±

W113, F1
4.28 ac. ±

PS-C35

PS-C34

W112, F1
2.74 ac. ±

PS-C33

See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map Y

Project No.:	14063
Exhibit No.:	4Y
Date:	1-11-16
Rev. Date:	10-10-17



POND 218A

W116, F1
0.79 ac. ±

POND 218B

PS-C36

W115, F1
0.22 ac. ±

W114, F1
0.10 ac. ±

W114, D1
0.19 ac. ±

W113, F1
4.28 ac. ±

PS-C35

See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map Z

Project No.:	14063
Exhibit No.:	4Z
Date:	1-11-16
Rev. Date:	10-10-17



W118a, F1
0.02 ac. ±

W118, F1
0.84 ac. ±

PS-C37

W117, F1
4.90 ac. ±

W117b, F1
0.50 ac. ±

W117, D1
0.77 ac. ±

W117b, D1
0.31 ac. ±

POND 218D

POND 218C

SW Impact 47a
0.18 ac. ±

See Key Sheet
for Legend

CR 218

W117a, F1
0.31 ac. ±

Scale: 1"=600'

POND 218A

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AA

Project No.:	14063
Exhibit No.:	4AA
Date:	1-11-16
Rev. Date:	10-10-17



SW Impact 48
0.34 ac. ±

PS-C38

W119, F1
0.08 ac. ±

See Key Sheet
for Legend



Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AB

Project No.:	14063
Exhibit No.:	4AB
Date:	1-11-16
Rev. Date:	10-10-17



SW Remain 52
0.13 ac. ±

SW Impact 51
0.79 ac. ±

EXIST. BORROW PIT

W120, F1
0.001 ac. ±

PS-C39

SW Remain 50
0.06 ac. ±

SW Remain 49
0.09 ac. ±

Sandridge Rd

SW Impact 48
0.34 ac. ±

See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AC

Project No.: 14063

Exhibit No.: 4AC

Date: 1-11-16

Rev. Date: 10-10-17



PS-C42

Bradley Creek

W128, Shade
0.45 ac. ±

PS-C41

W130, F1
0.79 ac. ±

W128, F2
2.55 ac. ±

W128,
Temporary
0.65 ac. ±

W128, F1
1.33 ac. ±

W127, F1
0.07 ac. ±

W126, F1
0.54 ac. ±

W125, F1
0.07 ac. ±

W124, F1
0.02 ac. ±

PS-C40

W123, F1
0.32 ac. ±

W122, F1
0.72 ac. ±

W121, F1
0.52 ac. ±

See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AD

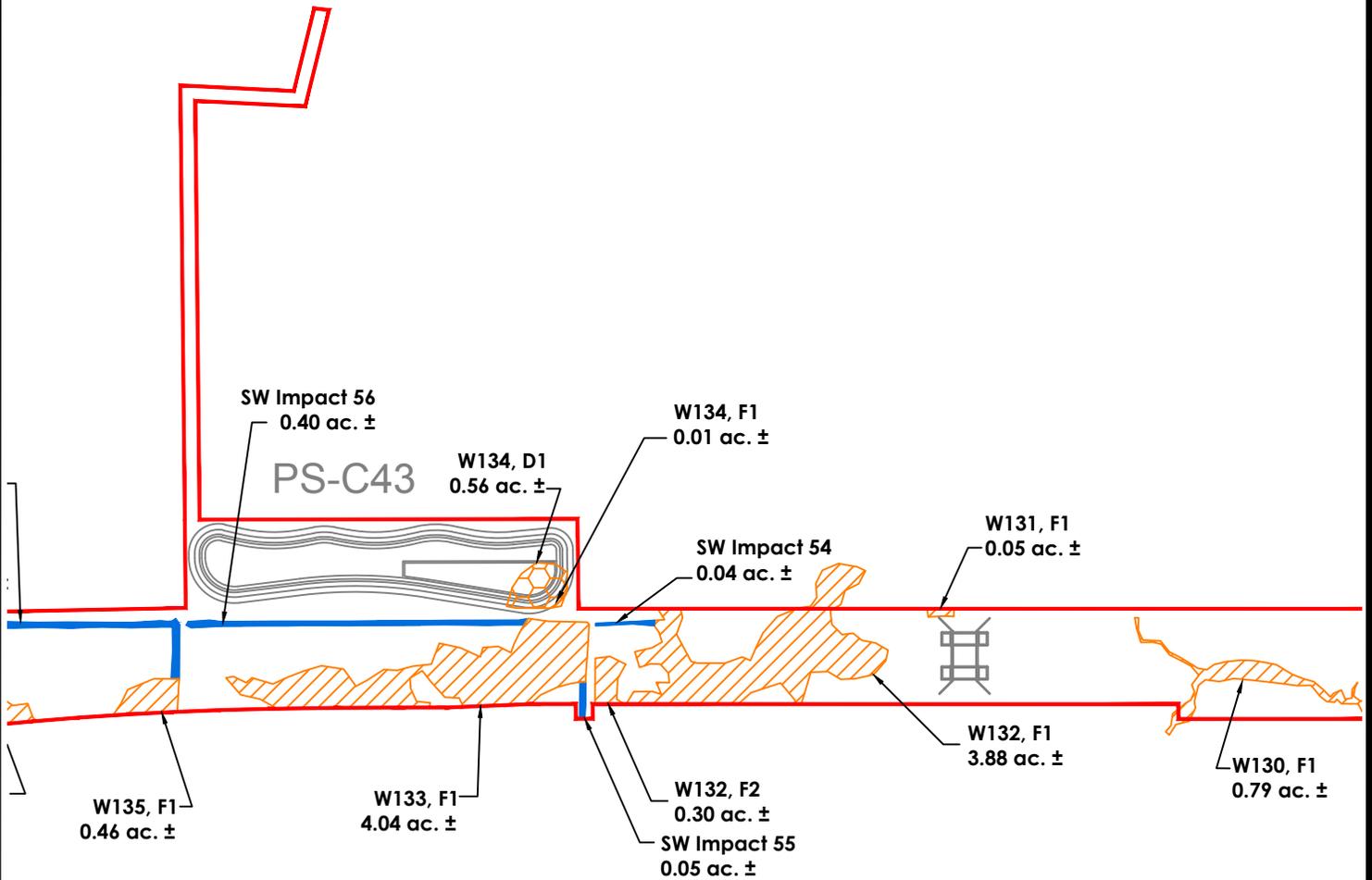
Project No.: 14063

Exhibit No.: 4AD

Date: 1-11-16

Rev. Date: 10-10-17





See Key Sheet
for Legend

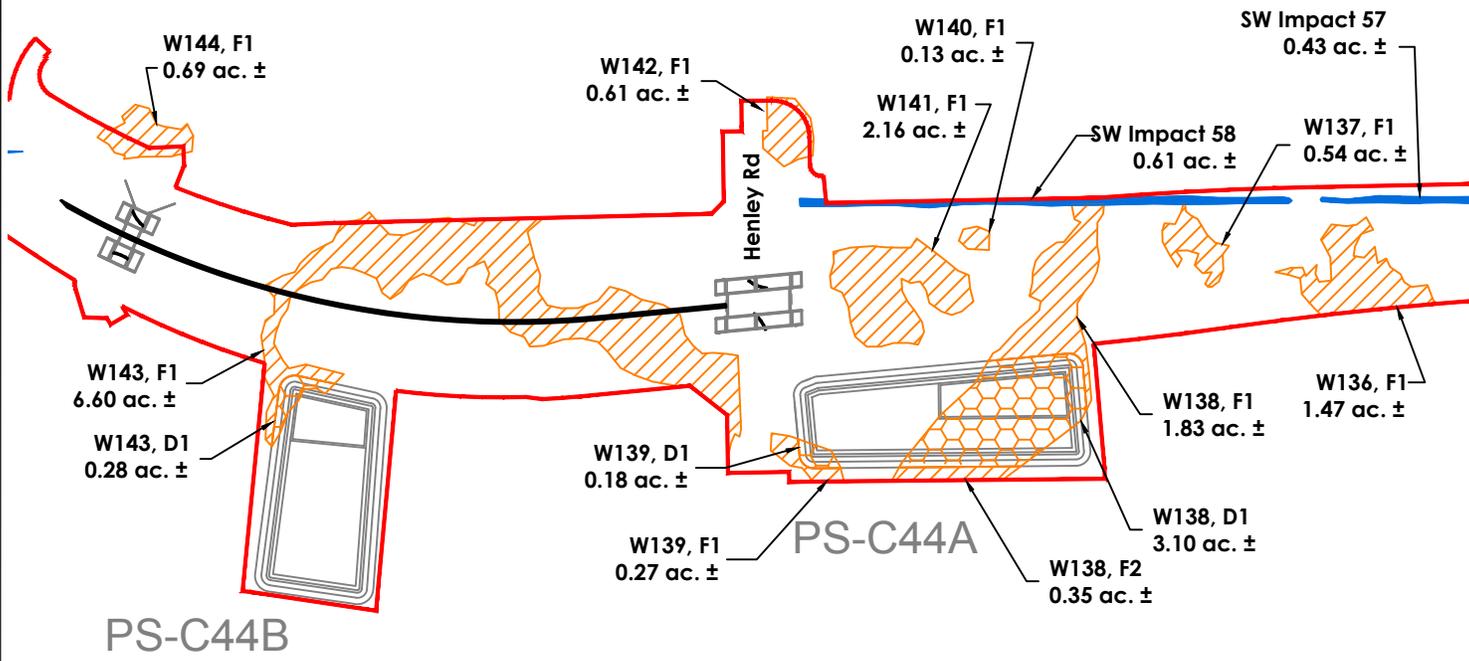


Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AE

Project No.:	14063
Exhibit No.:	4AE
Date:	1-11-16
Rev. Date:	10-10-17





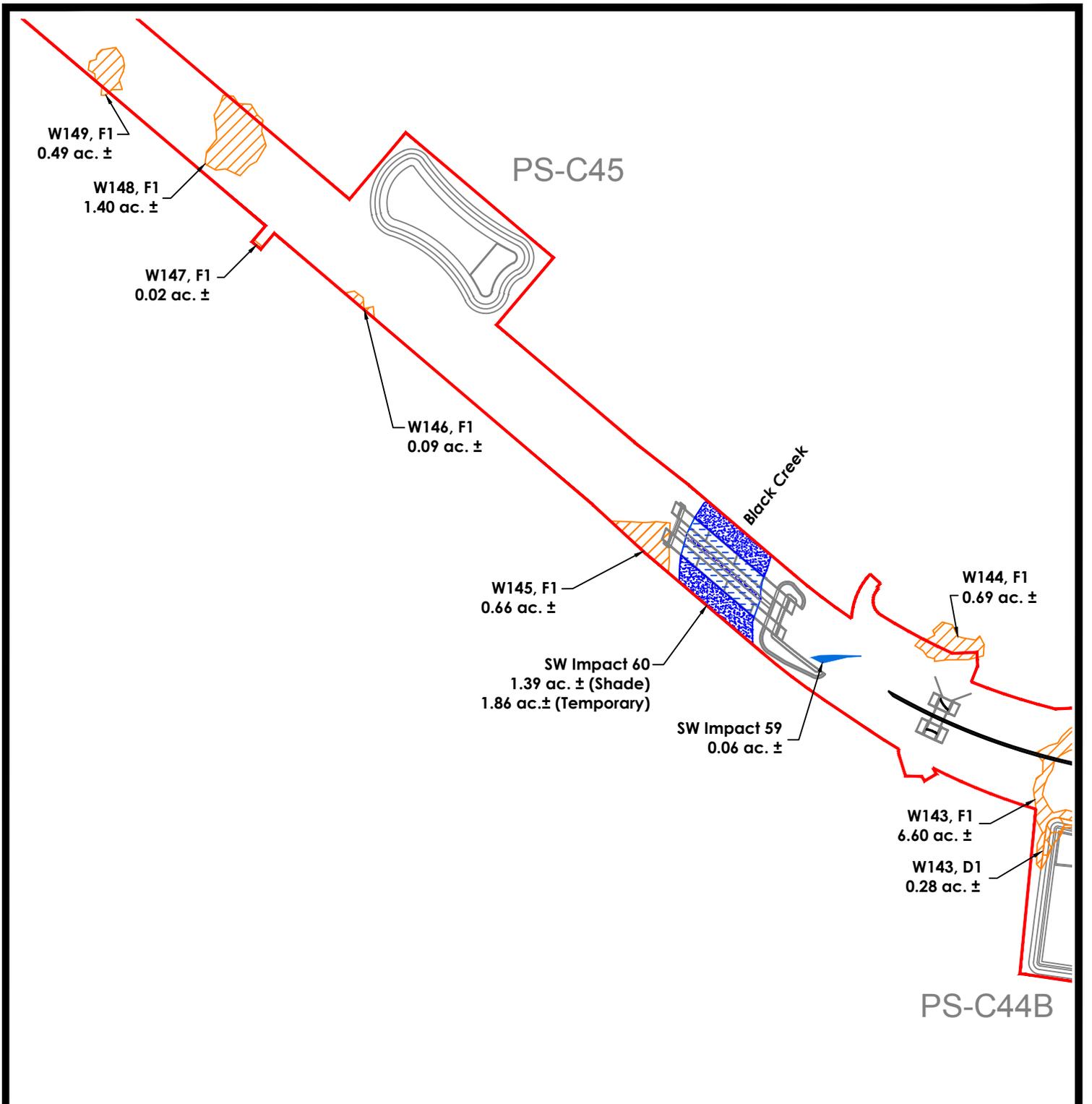
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AF

Project No.: 14063
Exhibit No.: 4AF
Date: 1-11-16
Rev. Date: 10-10-17





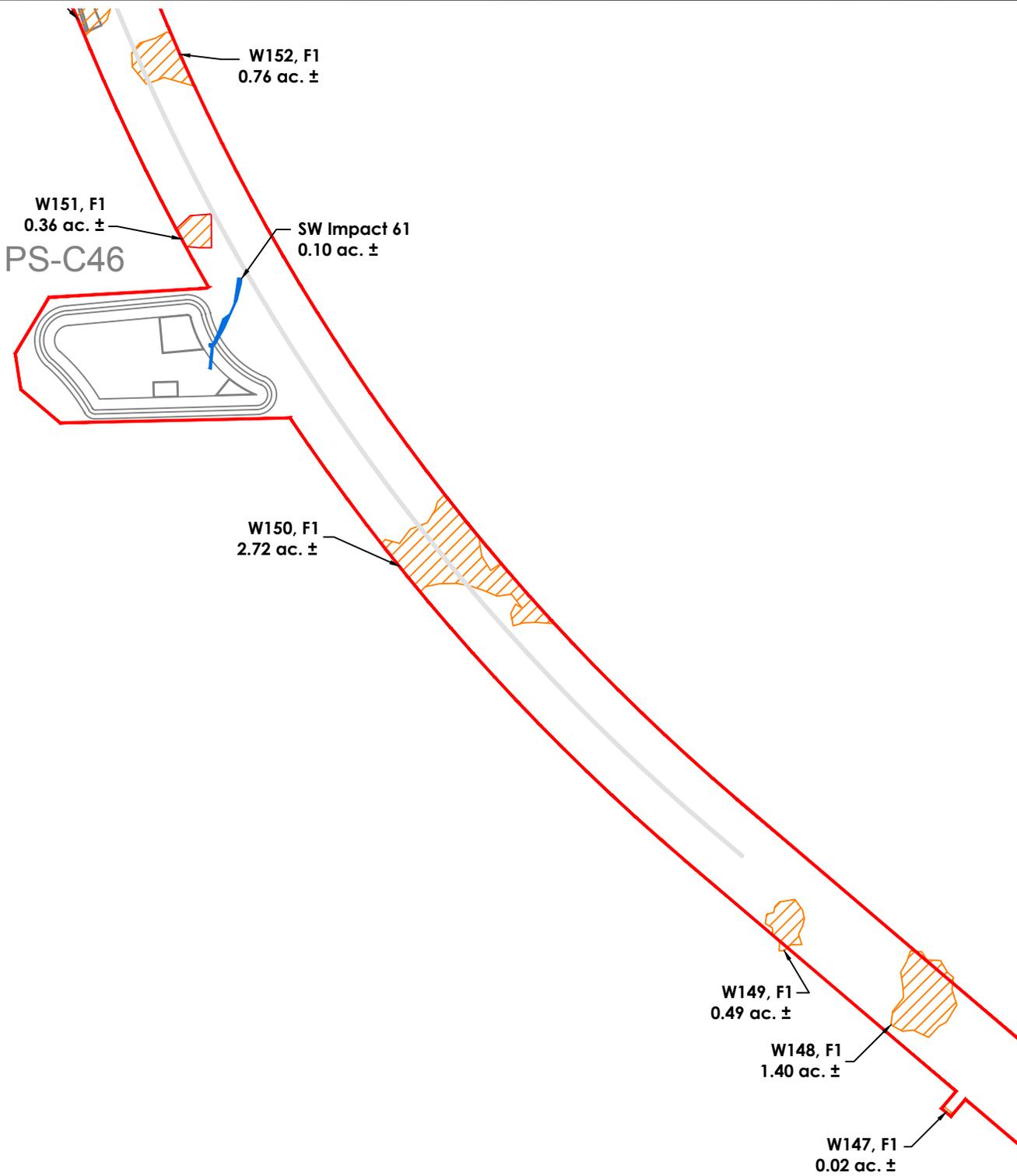
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
 FPN 422938-2-52-01 (St. Johns County)
 FPN 422938-3-52-01 (Clay County)
 Wetland/Surface Water Impact Map AG

Project No.:	14063
Exhibit No.:	4AG
Date:	1-11-16
Rev. Date:	10-10-17



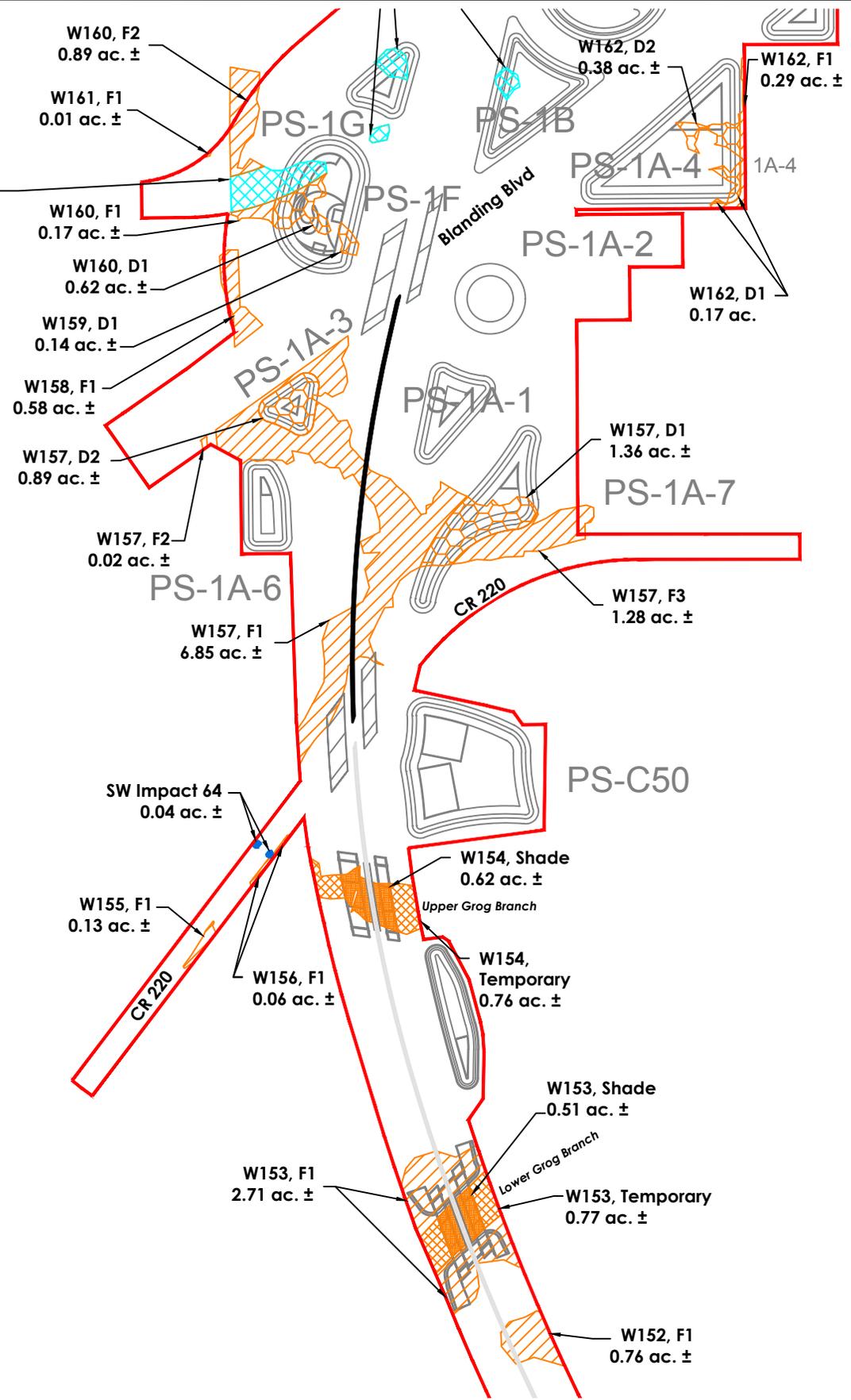


See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway FPN 422938-2-52-01 (St. Johns County) FPN 422938-3-52-01 (Clay County) Wetland/Surface Water Impact Map AH	Project No.: 14063	
	Exhibit No.: 4AH	
	Date: 1-11-16	
	Rev. Date: 10-10-17	

Previously Permitted
Wetland Impacts
SJRWMD Permit #113964-2



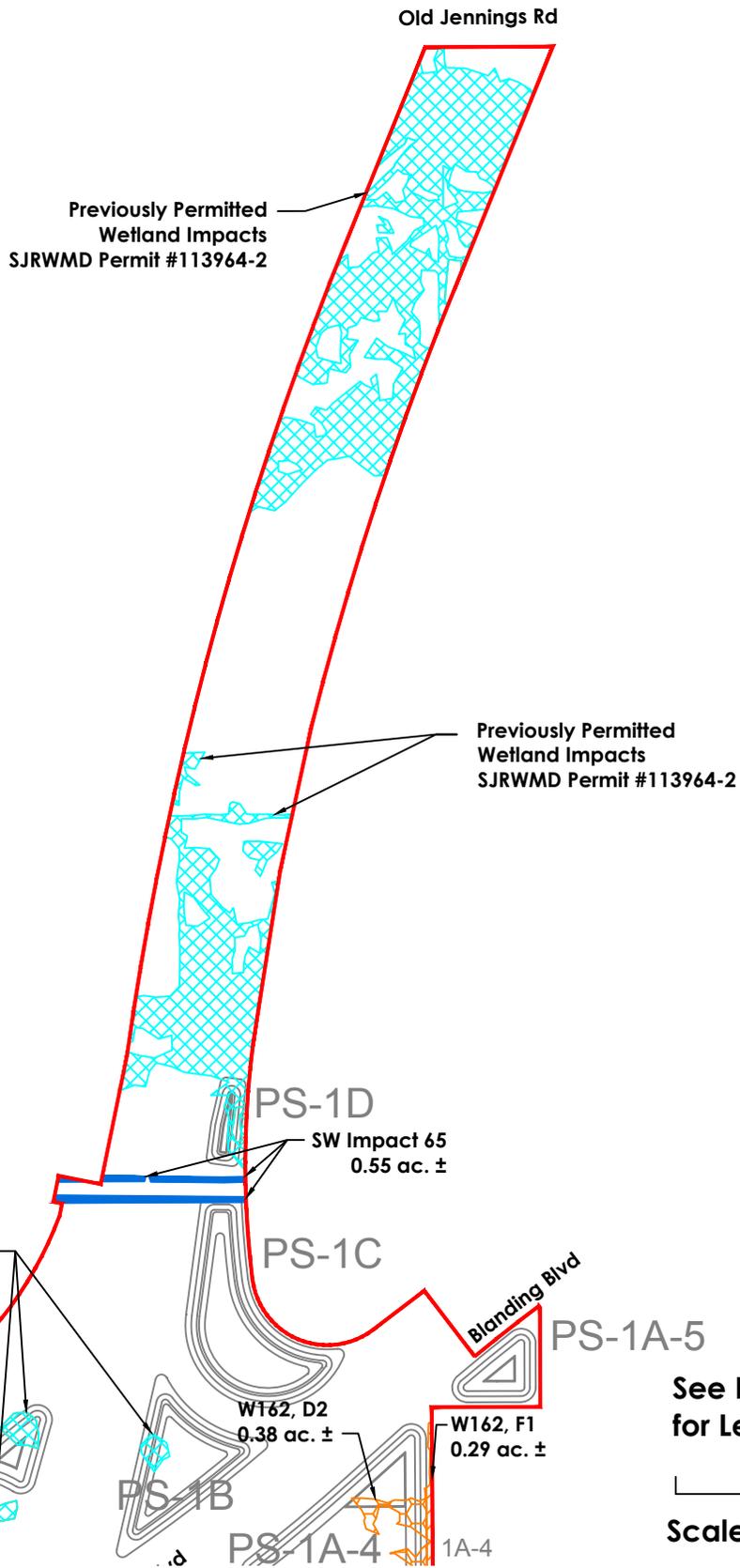
See Key Sheet
for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AI

Project No.:	14063
Exhibit No.:	4AI
Date:	1-11-16
Rev. Date:	10-10-17





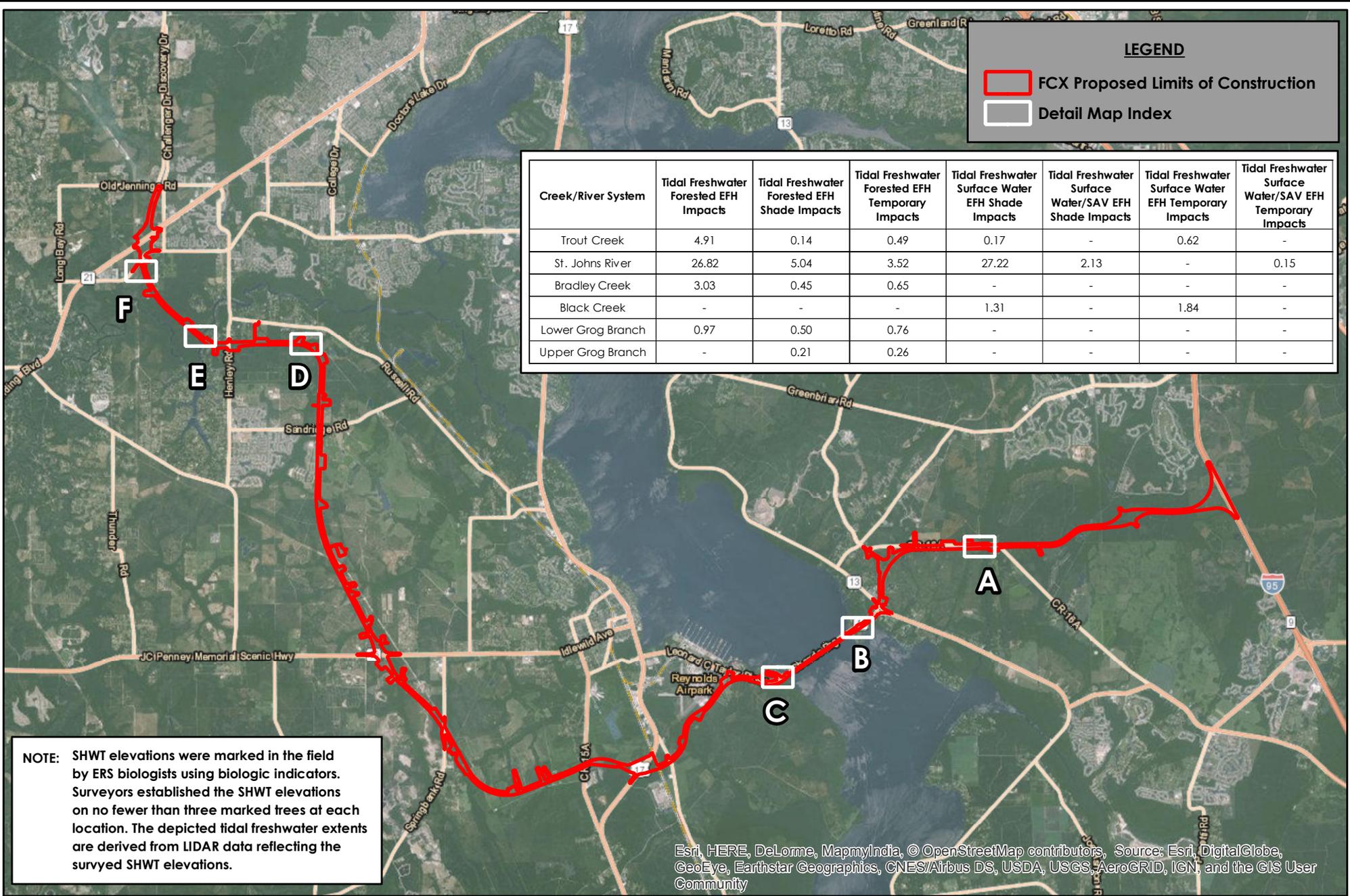
See Key Sheet for Legend

Scale: 1"=600'

First Coast Expressway
FPN 422938-2-52-01 (St. Johns County)
FPN 422938-3-52-01 (Clay County)
Wetland/Surface Water Impact Map AJ

Project No.: 14063
Exhibit No.: 4AJ
Date: 1-11-16
Rev. Date: 10-10-17





LEGEND

FCX Proposed Limits of Construction

Detail Map Index

Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
St. Johns River	26.82	5.04	3.52	27.22	2.13	-	0.15
Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-

NOTE: SHWT elevations were marked in the field by ERS biologists using biologic indicators. Surveyors established the SHWT elevations on no fewer than three marked trees at each location. The depicted tidal freshwater extents are derived from LIDAR data reflecting the surveyed SHWT elevations.

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0 2.5 Miles

By: DF

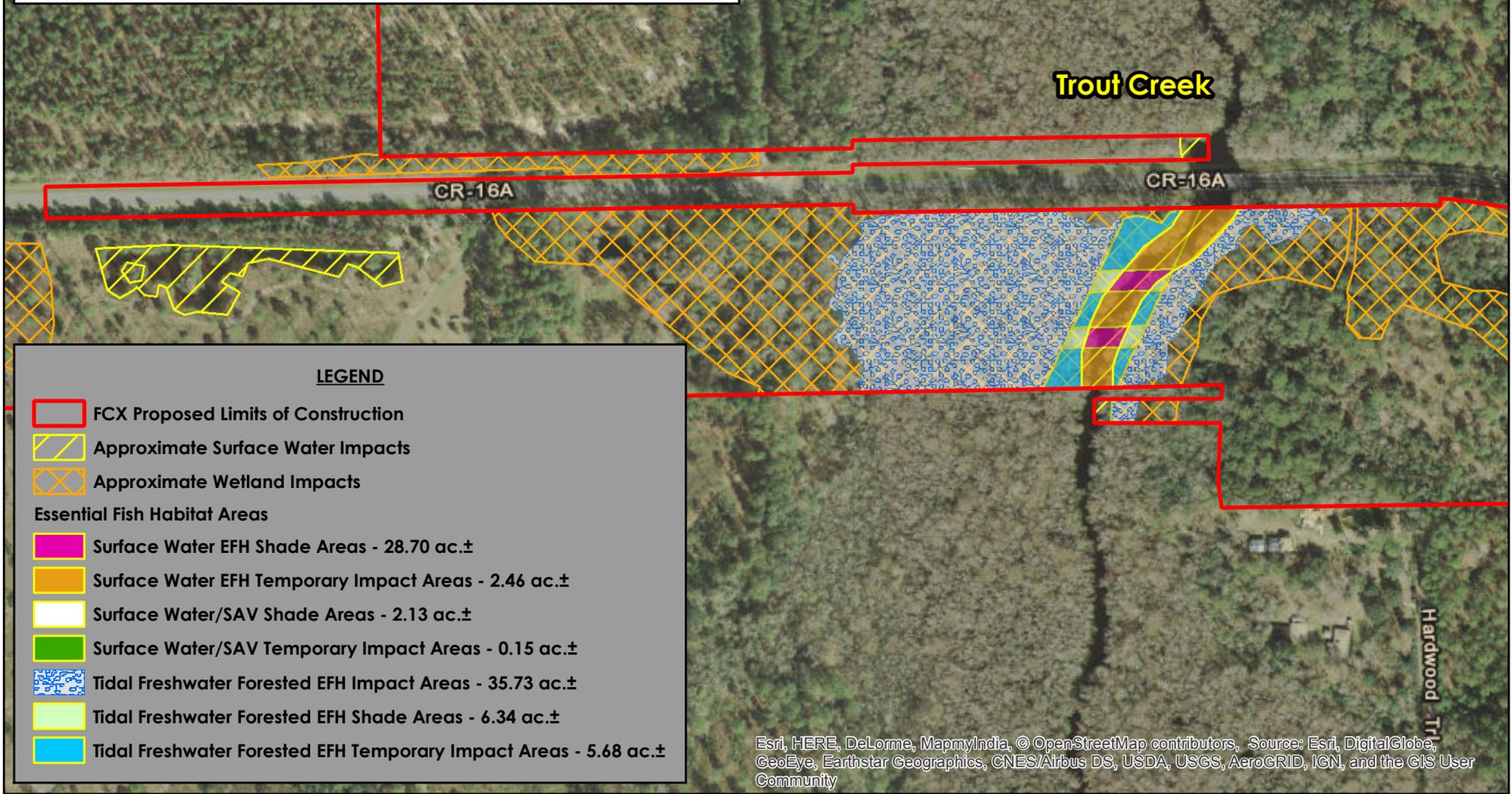
Source: ArcGIS Online Imagery

First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats Key

Project No.:	14063
Exhibit No.:	1-Key
Date:	9-26-17
Rev. Date:	



Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
St. Johns River	26.82	5.04	3.52	27.22	2.13	-	0.15
Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-



LEGEND

- FCX Proposed Limits of Construction
- Approximate Surface Water Impacts
- Approximate Wetland Impacts

Essential Fish Habitat Areas

- Surface Water EFH Shade Areas - 28.70 ac.±
- Surface Water EFH Temporary Impact Areas - 2.46 ac.±
- Surface Water/SAV Shade Areas - 2.13 ac.±
- Surface Water/SAV Temporary Impact Areas - 0.15 ac.±
- Tidal Freshwater Forested EFH Impact Areas - 35.73 ac.±
- Tidal Freshwater Forested EFH Shade Areas - 6.34 ac.±
- Tidal Freshwater Forested EFH Temporary Impact Areas - 5.68 ac.±

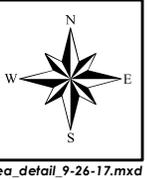
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0 300'

By: DF
Source: ArcGIS Online Imagery

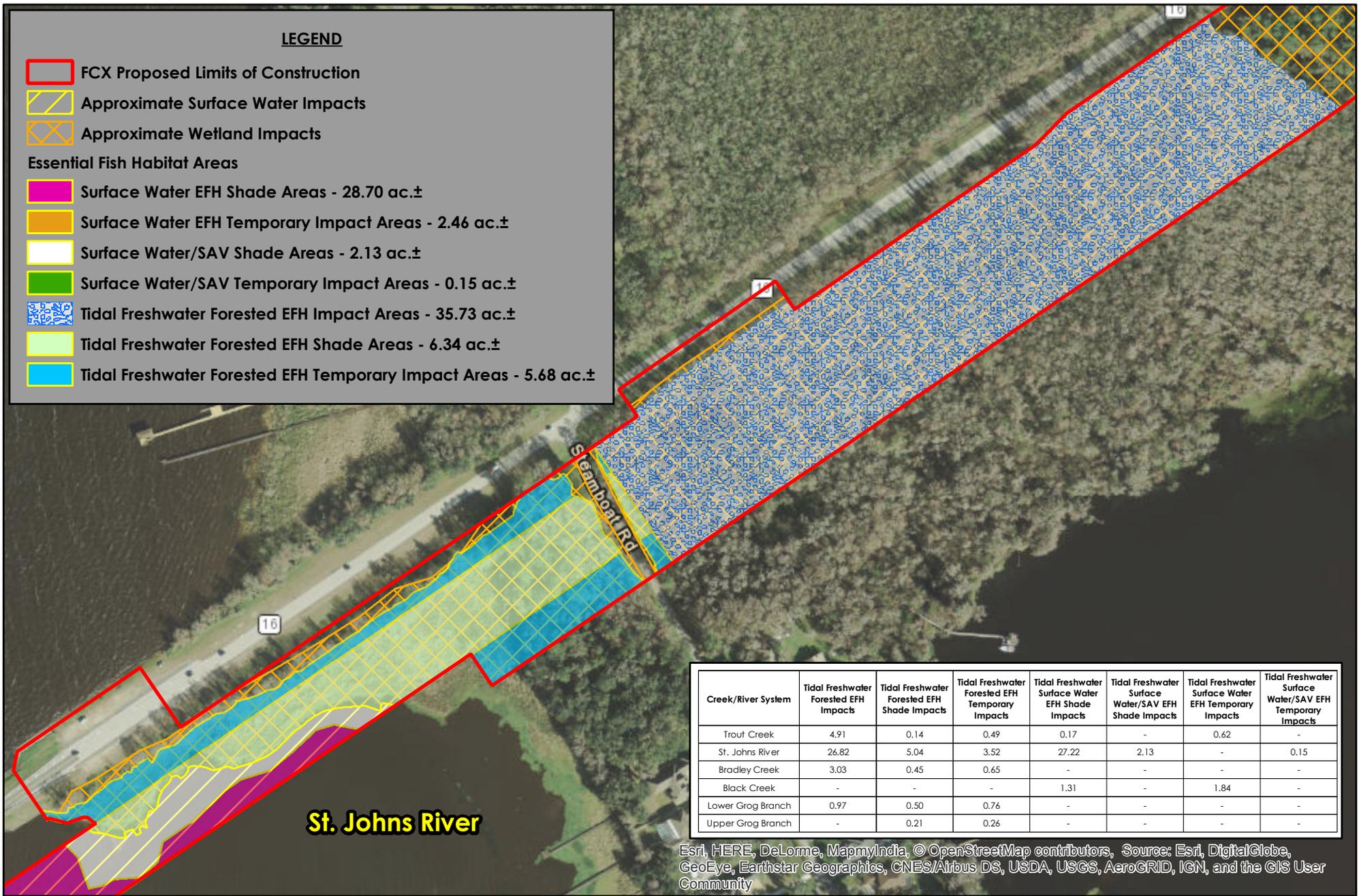
First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats A

Project No.:	14063
Exhibit No.:	1-A
Date:	9-26-17
Rev. Date:	



LEGEND

-  FCX Proposed Limits of Construction
-  Approximate Surface Water Impacts
-  Approximate Wetland Impacts
- Essential Fish Habitat Areas**
-  Surface Water EFH Shade Areas - 28.70 ac.±
-  Surface Water EFH Temporary Impact Areas - 2.46 ac.±
-  Surface Water/SAV Shade Areas - 2.13 ac.±
-  Surface Water/SAV Temporary Impact Areas - 0.15 ac.±
-  Tidal Freshwater Forested EFH Impact Areas - 35.73 ac.±
-  Tidal Freshwater Forested EFH Shade Areas - 6.34 ac.±
-  Tidal Freshwater Forested EFH Temporary Impact Areas - 5.68 ac.±



Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
St. Johns River	26.82	5.04	3.52	27.22	2.13	-	0.15
Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-

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By: DF
Source: ArcGIS Online Imagery

First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats B

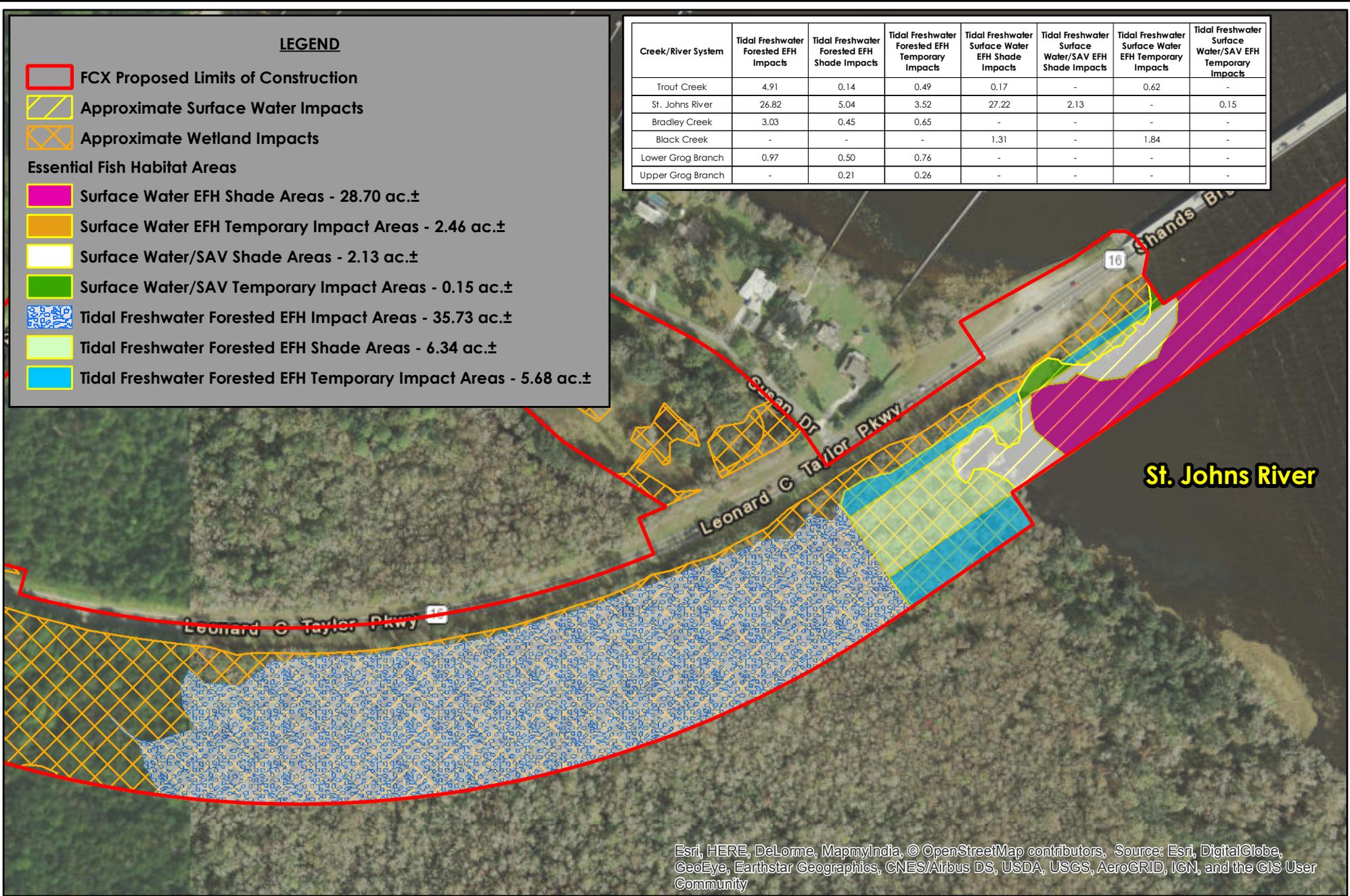
Project No.:	14063
Exhibit No.:	1-B
Date:	9-26-17
Rev. Date:	



LEGEND

-  FCX Proposed Limits of Construction
-  Approximate Surface Water Impacts
-  Approximate Wetland Impacts
- Essential Fish Habitat Areas**
-  Surface Water EFH Shade Areas - 28.70 ac.±
-  Surface Water EFH Temporary Impact Areas - 2.46 ac.±
-  Surface Water/SAV Shade Areas - 2.13 ac.±
-  Surface Water/SAV Temporary Impact Areas - 0.15 ac.±
-  Tidal Freshwater Forested EFH Impact Areas - 35.73 ac.±
-  Tidal Freshwater Forested EFH Shade Areas - 6.34 ac.±
-  Tidal Freshwater Forested EFH Temporary Impact Areas - 5.68 ac.±

Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
St. Johns River	26.82	5.04	3.52	27.22	2.13	-	0.15
Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-



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Source: ArcGIS Online Imagery

First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats C

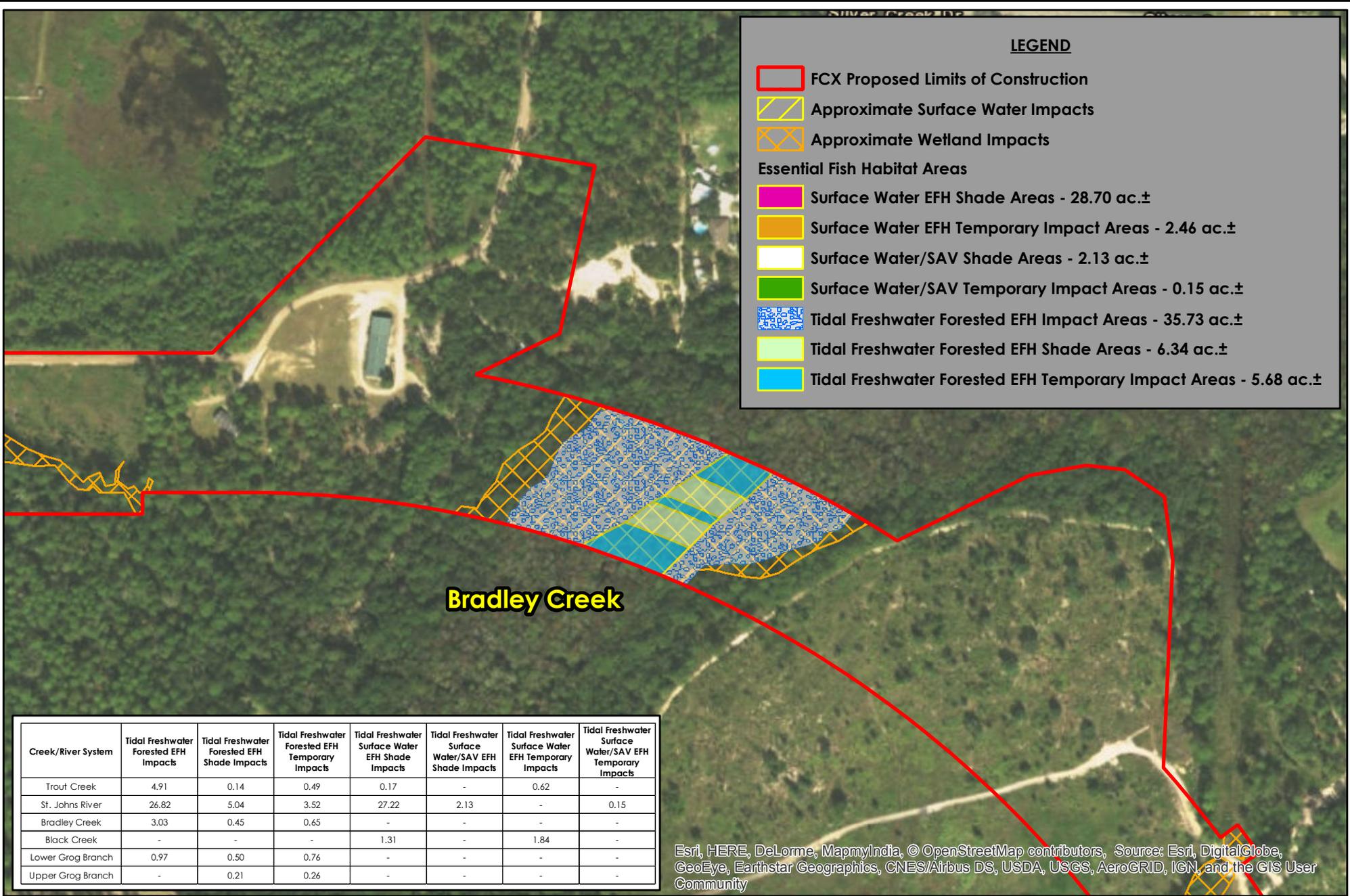
Project No.: 14063

Exhibit No.: 1-C

Date: 9-26-17

Rev. Date:





LEGEND

- FCX Proposed Limits of Construction
- Approximate Surface Water Impacts
- Approximate Wetland Impacts
- Essential Fish Habitat Areas**
- Surface Water EFH Shade Areas - 28.70 ac.±
- Surface Water EFH Temporary Impact Areas - 2.46 ac.±
- Surface Water/SAV Shade Areas - 2.13 ac.±
- Surface Water/SAV Temporary Impact Areas - 0.15 ac.±
- Tidal Freshwater Forested EFH Impact Areas - 35.73 ac.±
- Tidal Freshwater Forested EFH Shade Areas - 6.34 ac.±
- Tidal Freshwater Forested EFH Temporary Impact Areas - 5.68 ac.±

Bradley Creek

Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
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Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-

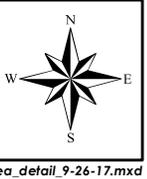
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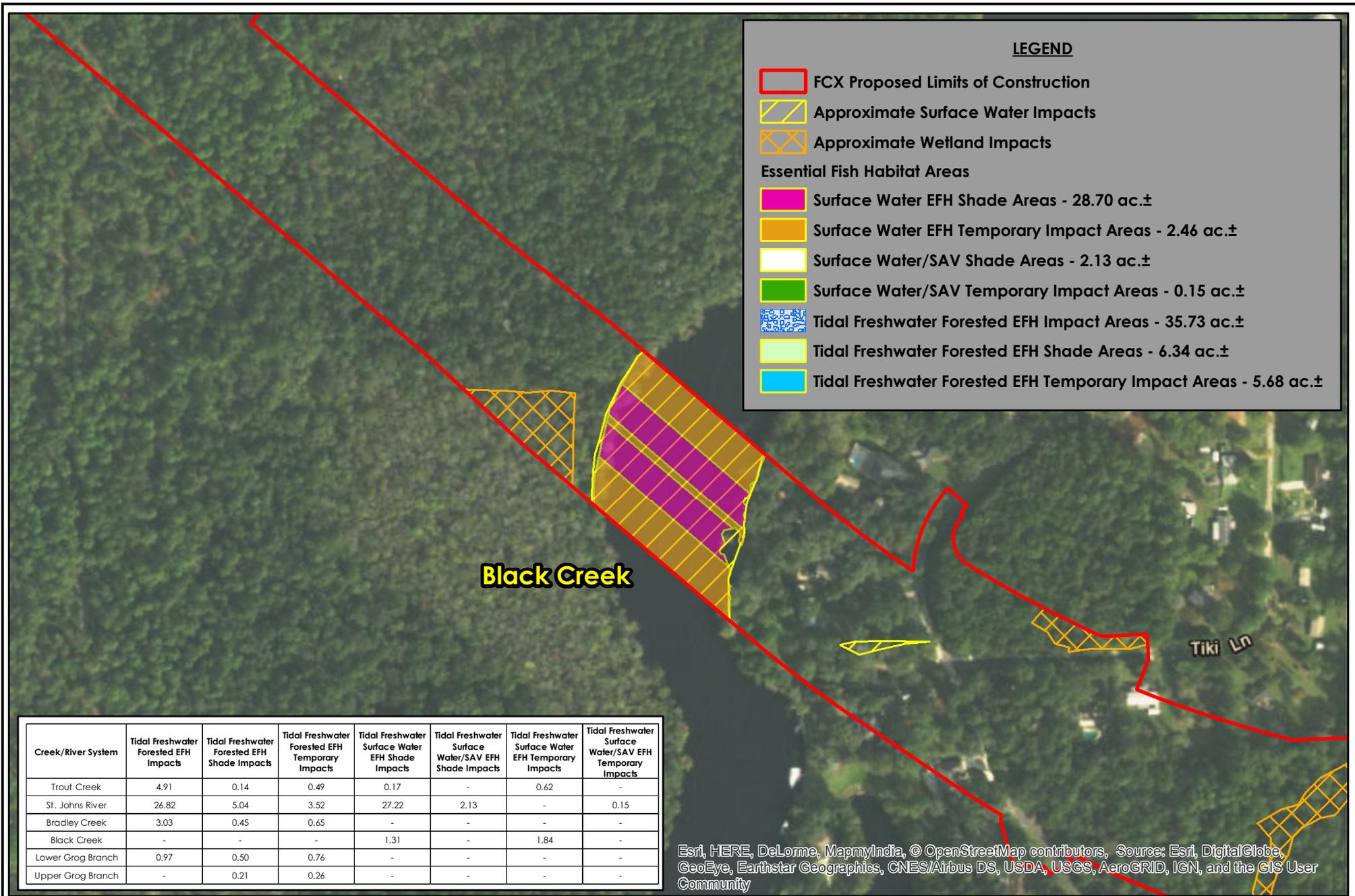
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By: DF
Source: ArcGIS Online Imagery

First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats D

Project No.:	14063
Exhibit No.:	1-D
Date:	9-26-17
Rev. Date:	





LEGEND

- FCX Proposed Limits of Construction
- Approximate Surface Water Impacts
- Approximate Wetland Impacts

Essential Fish Habitat Areas

- Surface Water EFH Shade Areas - 28.70 ac.±
- Surface Water EFH Temporary Impact Areas - 2.46 ac.±
- Surface Water/SAV Shade Areas - 2.13 ac.±
- Surface Water/SAV Temporary Impact Areas - 0.15 ac.±
- Tidal Freshwater Forested EFH Impact Areas - 35.73 ac.±
- Tidal Freshwater Forested EFH Shade Areas - 6.34 ac.±
- Tidal Freshwater Forested EFH Temporary Impact Areas - 5.68 ac.±

Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
St. Johns River	26.82	5.04	3.52	27.22	2.13	-	0.15
Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-

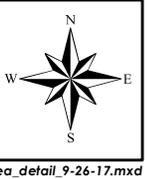
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By: DF
Source: ArcGIS Online Imagery

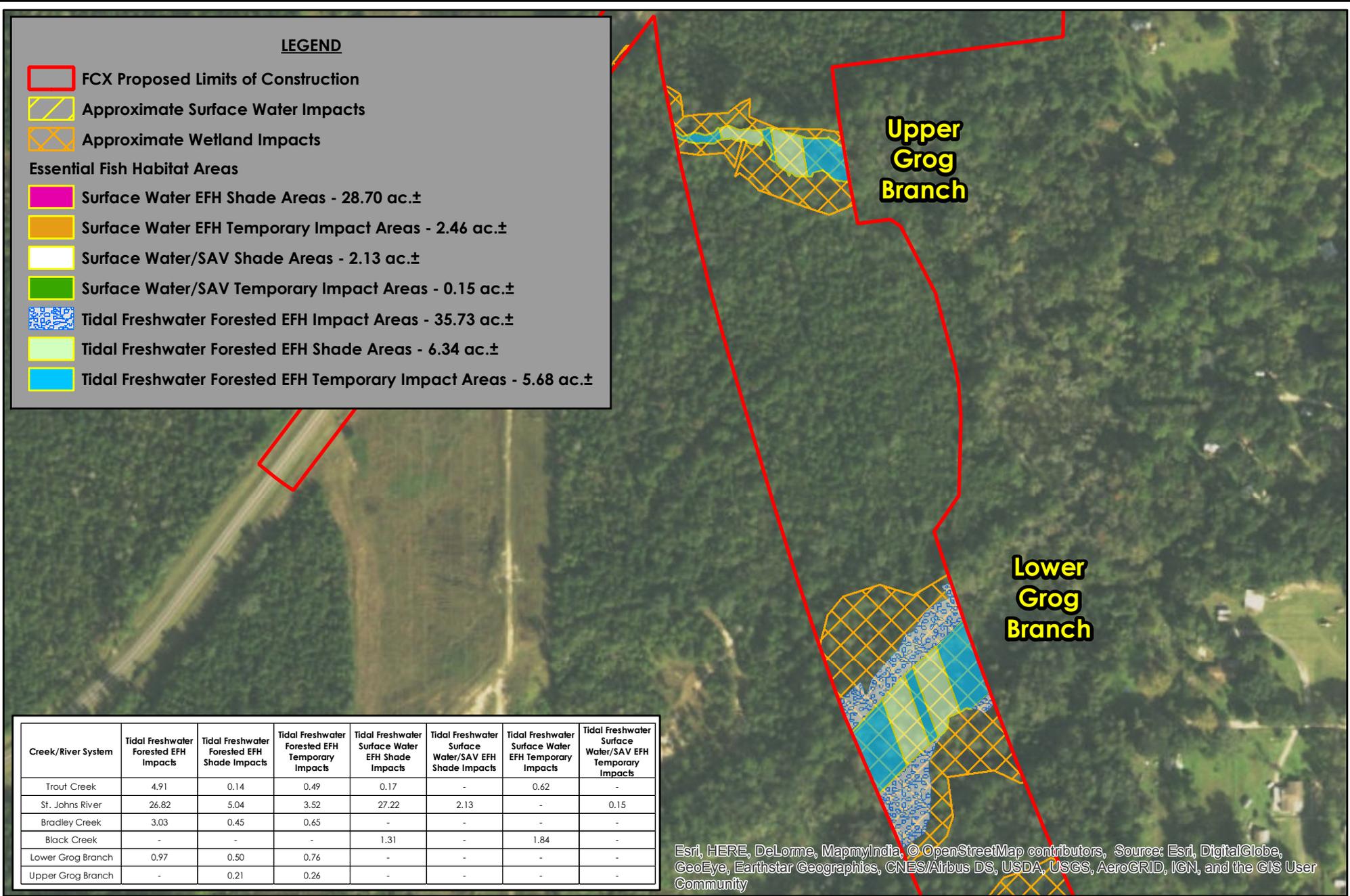
First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats E

Project No.:	14063
Exhibit No.:	1-E
Date:	9-26-17
Rev. Date:	



LEGEND

-  FCX Proposed Limits of Construction
-  Approximate Surface Water Impacts
-  Approximate Wetland Impacts
- Essential Fish Habitat Areas**
-  Surface Water EFH Shade Areas - 28.70 ac.±
-  Surface Water EFH Temporary Impact Areas - 2.46 ac.±
-  Surface Water/SAV Shade Areas - 2.13 ac.±
-  Surface Water/SAV Temporary Impact Areas - 0.15 ac.±
-  Tidal Freshwater Forested EFH Impact Areas - 35.73 ac.±
-  Tidal Freshwater Forested EFH Shade Areas - 6.34 ac.±
-  Tidal Freshwater Forested EFH Temporary Impact Areas - 5.68 ac.±



**Upper
Grog
Branch**

**Lower
Grog
Branch**

Creek/River System	Tidal Freshwater Forested EFH Impacts	Tidal Freshwater Forested EFH Shade Impacts	Tidal Freshwater Forested EFH Temporary Impacts	Tidal Freshwater Surface Water EFH Shade Impacts	Tidal Freshwater Surface Water/SAV EFH Shade Impacts	Tidal Freshwater Surface Water EFH Temporary Impacts	Tidal Freshwater Surface Water/SAV EFH Temporary Impacts
Trout Creek	4.91	0.14	0.49	0.17	-	0.62	-
St. Johns River	26.82	5.04	3.52	27.22	2.13	-	0.15
Bradley Creek	3.03	0.45	0.65	-	-	-	-
Black Creek	-	-	-	1.31	-	1.84	-
Lower Grog Branch	0.97	0.50	0.76	-	-	-	-
Upper Grog Branch	-	0.21	0.26	-	-	-	-

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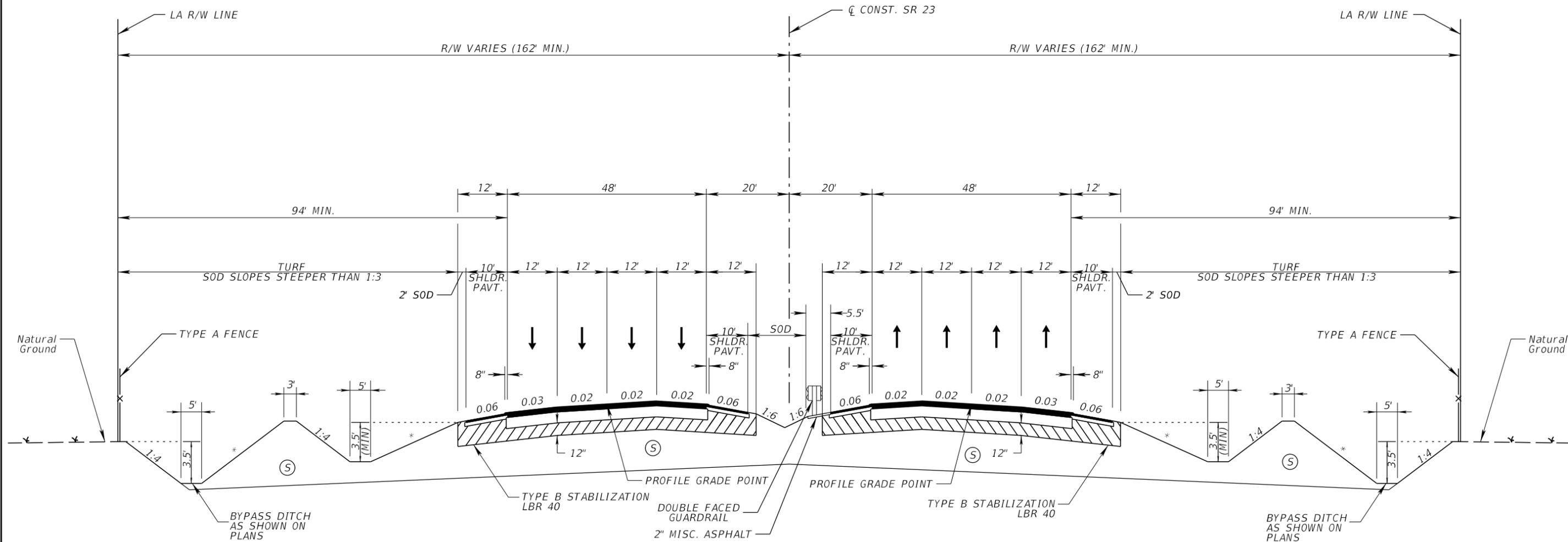


By: DF
Source: ArcGIS Online Imagery

First Coast Expressway
FPN #422938-2-52-01 (St. Johns County)
FPN #422938-3-52-01 (Clay County)
Tidal Freshwater Essential Fish Habitats F

Project No.:	14063
Exhibit No.:	1-F
Date:	9-26-17
Rev. Date:	





**TYPICAL SECTION NO. 1
FIRST COAST EXPRESSWAY**

SR 23

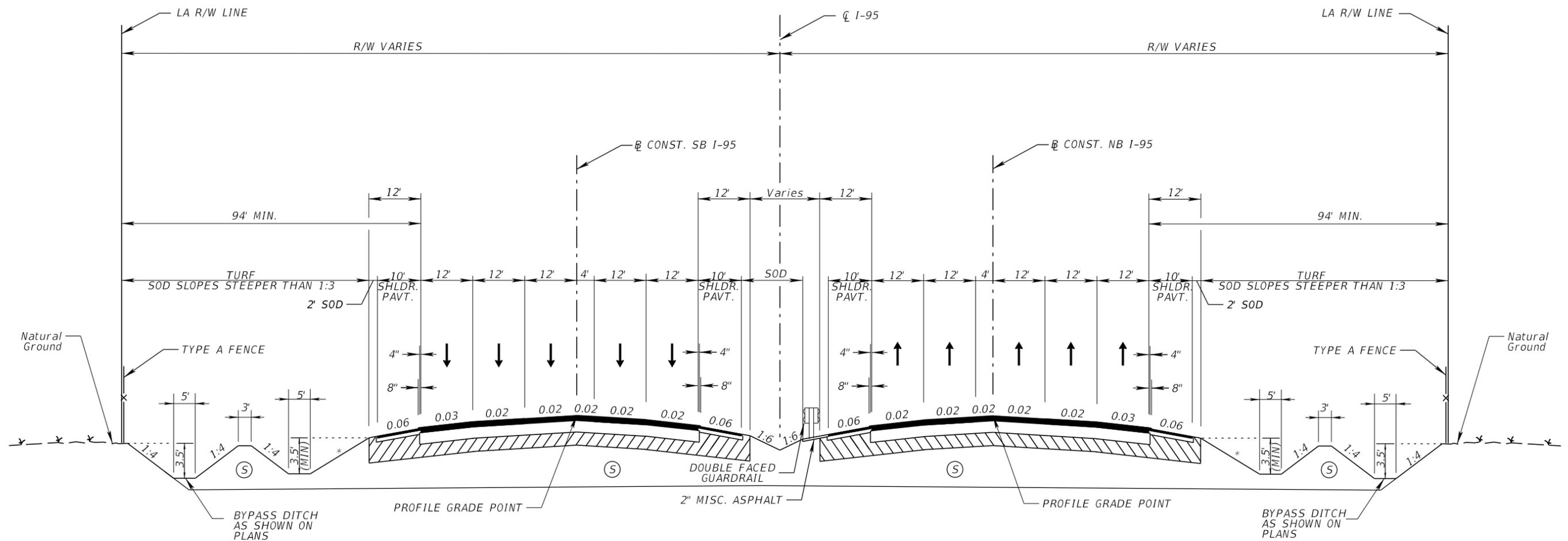
STA. 104+24.95 TO STA. 569+97.31 (BK)
 STA. 569+63.49 (AH) TO STA. 683+76.76 (BK)
 STA. 662+09.30 (AH) TO STA. 1354+23.99 (BK)
 STA. 1354+47.52 (AH) TO STA. 1652+13.27 (BK)
 STA. 1652+96.07 (AH) TO STA. 1720+00.00

* 1:6 FOR FILLS TO 5'
 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' (WITH SHLDR. GUTTER)
 1:2 FILLS OVER 20' (WITH GUARDRAIL)

(S) SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 70 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (1)	SHEET NO. 41
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		



* 1:6 FOR FILLS TO 5'
 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' (WITH SHLDR. GUTTER)
 1:2 FILLS OVER 20' (WITH GUARDRAIL)

(S) SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

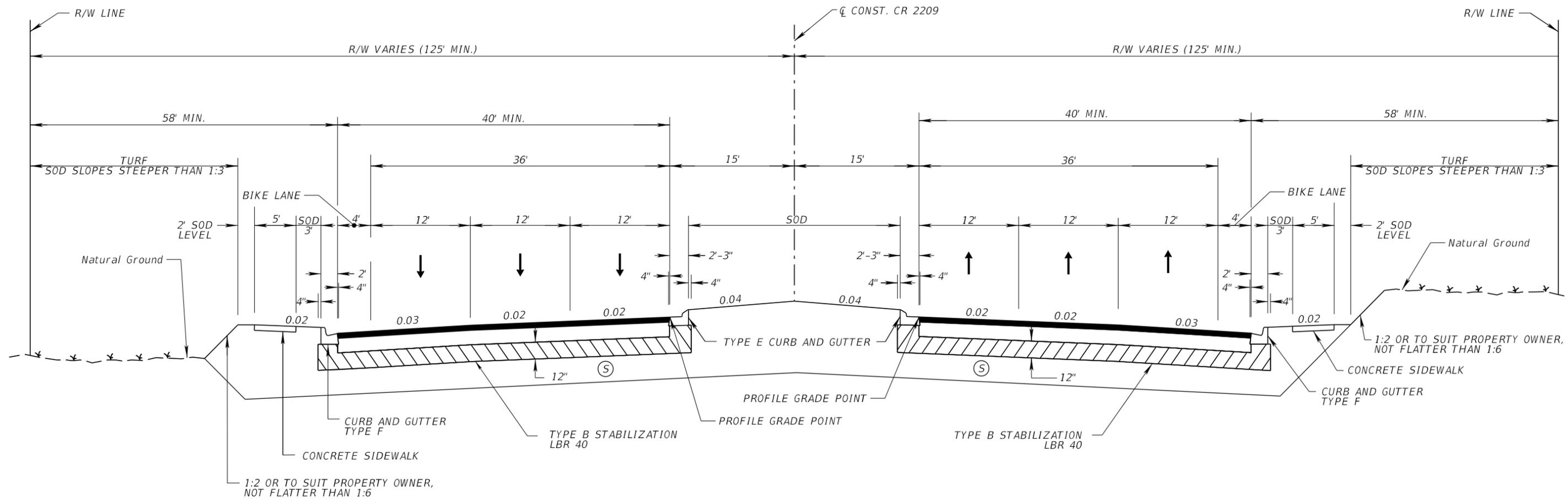
TYPICAL SECTION NO. 2
INTERSTATE 95

STA. 353+83.07 TO STA. 417+76.21 (SB I-95)
 STA. 254+57.78 TO STA. 310+22.01 (NB I-95)

DESIGN SPEED = 70 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (2)	SHEET NO. 42
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

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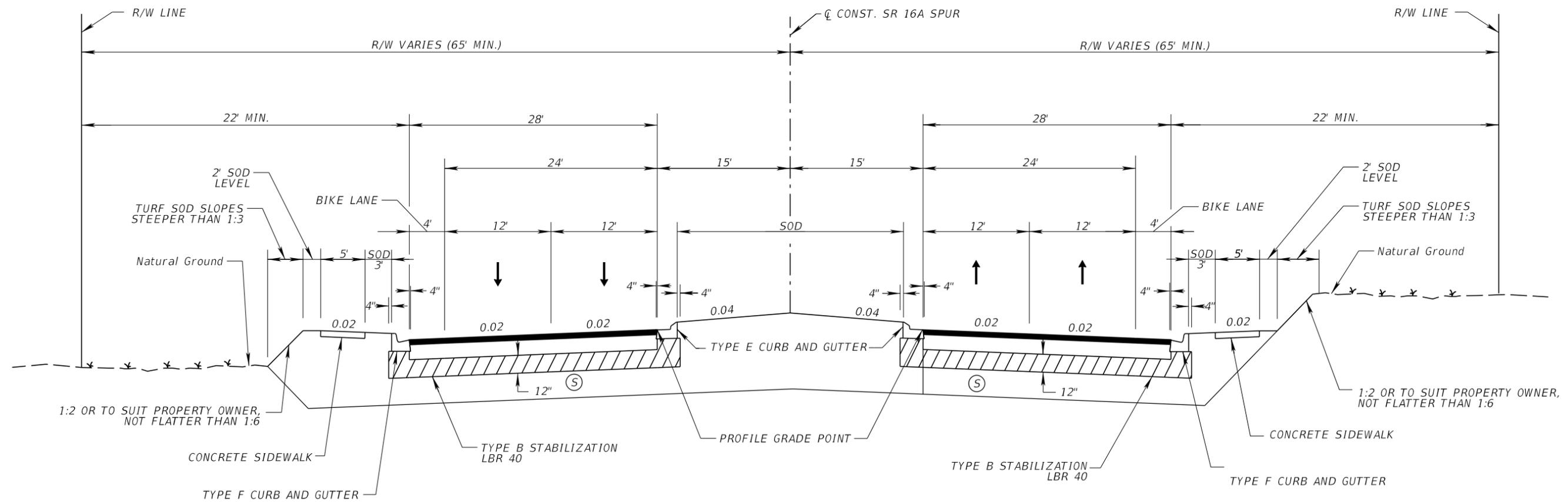
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CR 2209
STA. 105+00.00 TO STA. 131+70.09

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 45 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (3)	SHEET NO. 43
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



TYPICAL SECTION NO. 4
SR 16A SPUR
STA. 207+82.65 TO STA. 229+80.36

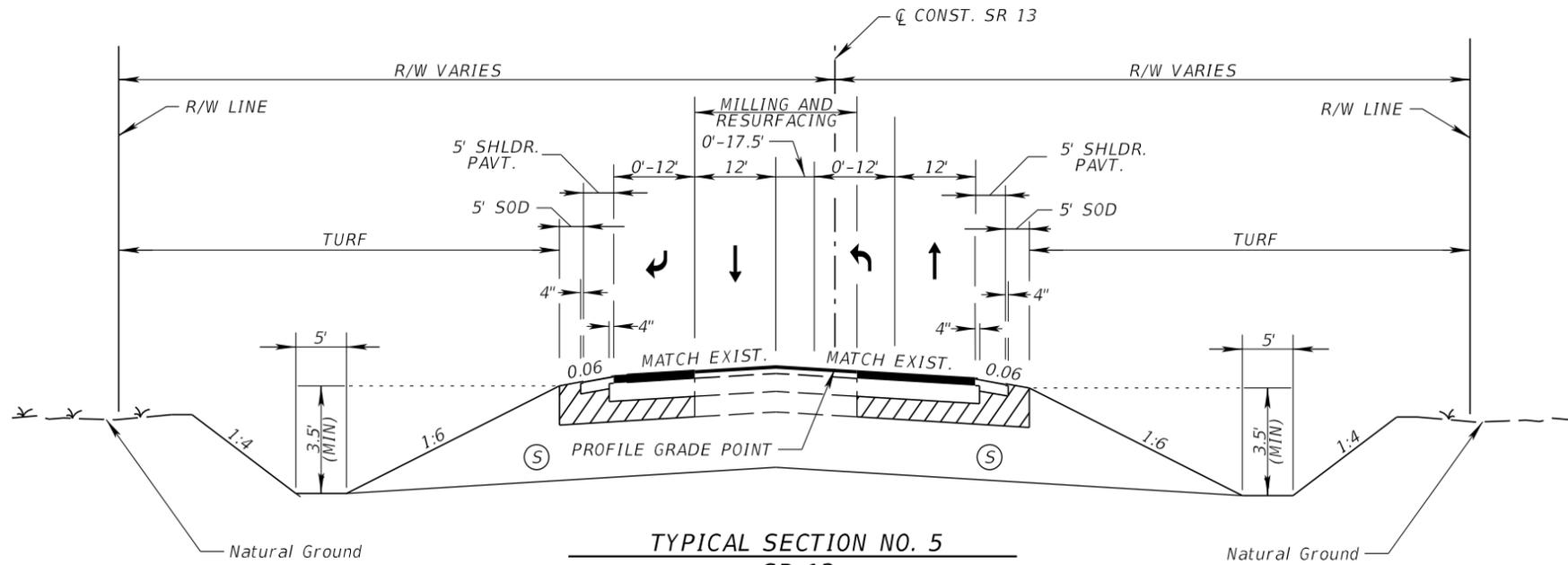
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DESIGN SPEED = 45 MPH

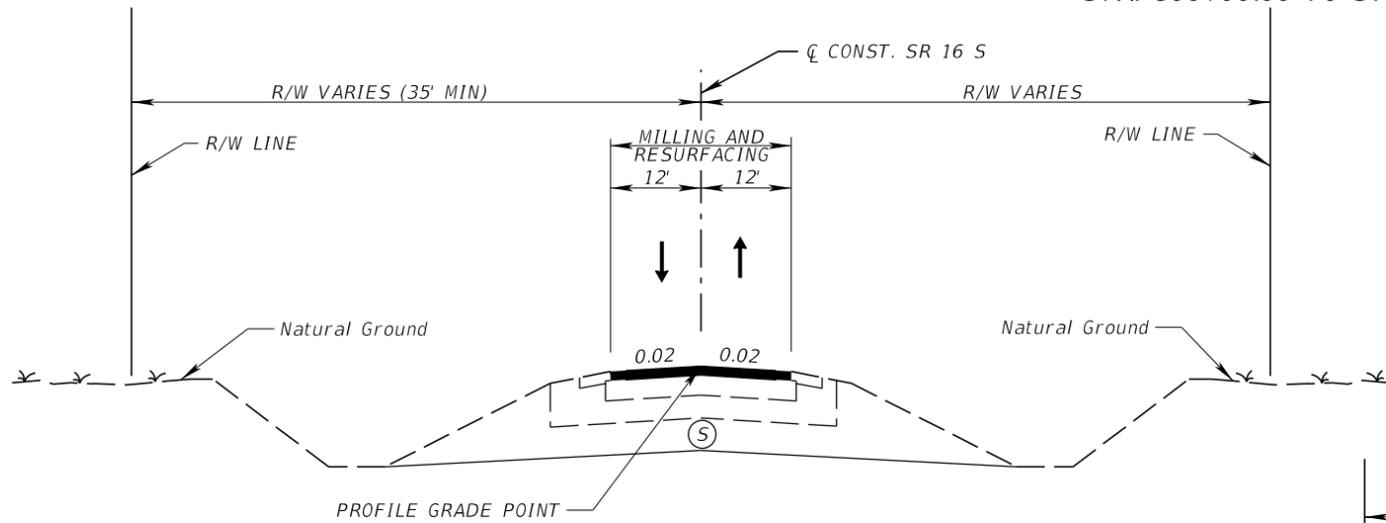
REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (4)	SHEET NO. 44
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

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DESIGN SPEED = 55 MPH

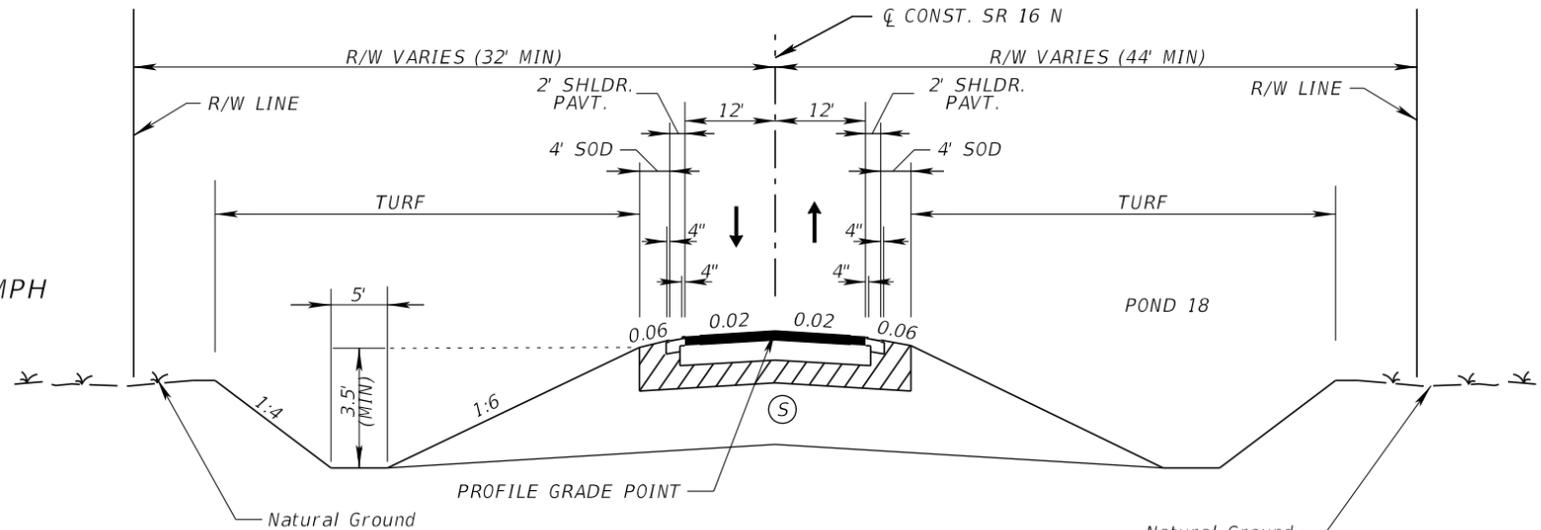


TYPICAL SECTION NO. 5
SR 13
STA. 800+00.00 TO STA. 823+69.20



TYPICAL SECTION NO. 6
SR 16 S
STA. 1002+06.81 TO STA. 1009+10.95

DESIGN SPEED = 15 MPH



TYPICAL SECTION NO. 7
SR 16 N
STA. 901+51.68 TO STA. 915+81.00

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

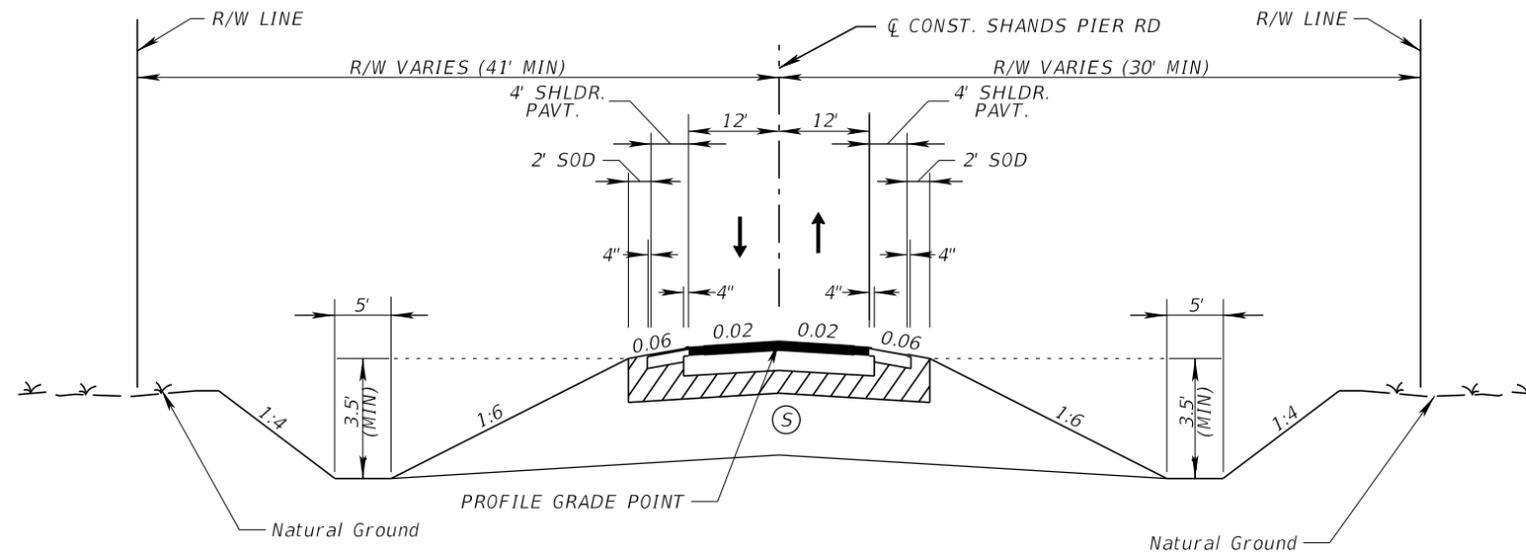
RS&H, INC.
10748 Deerwood Park Blvd. South
Jacksonville, Florida 32256
904-256-2500
Certificate of Authorization No. 5620
Engineer of Record: William C. Youmans, P.E. No.: 74723

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01

TYPICAL SECTION (5)

SHEET
NO.
45

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



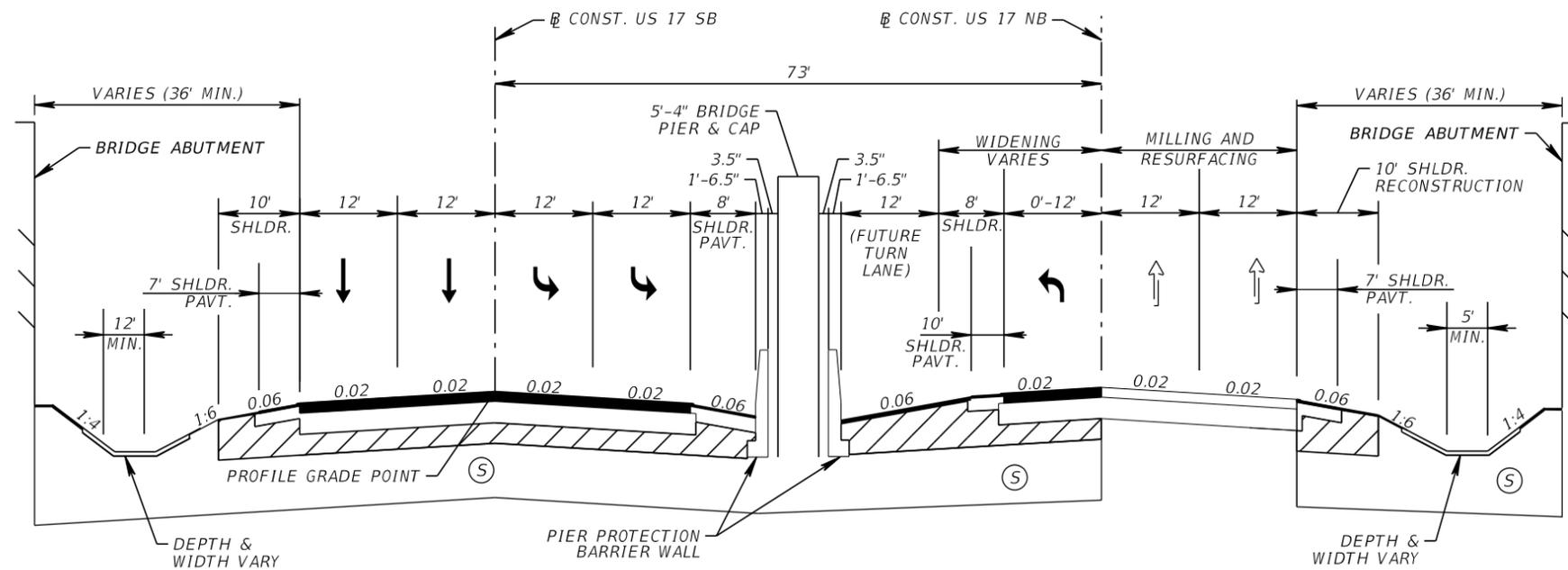
TYPICAL SECTION NO. 8
SHANDS PIER RD
STA. 600+00 TO STA. 612+53.81

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 25 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (6)	SHEET NO. 46
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

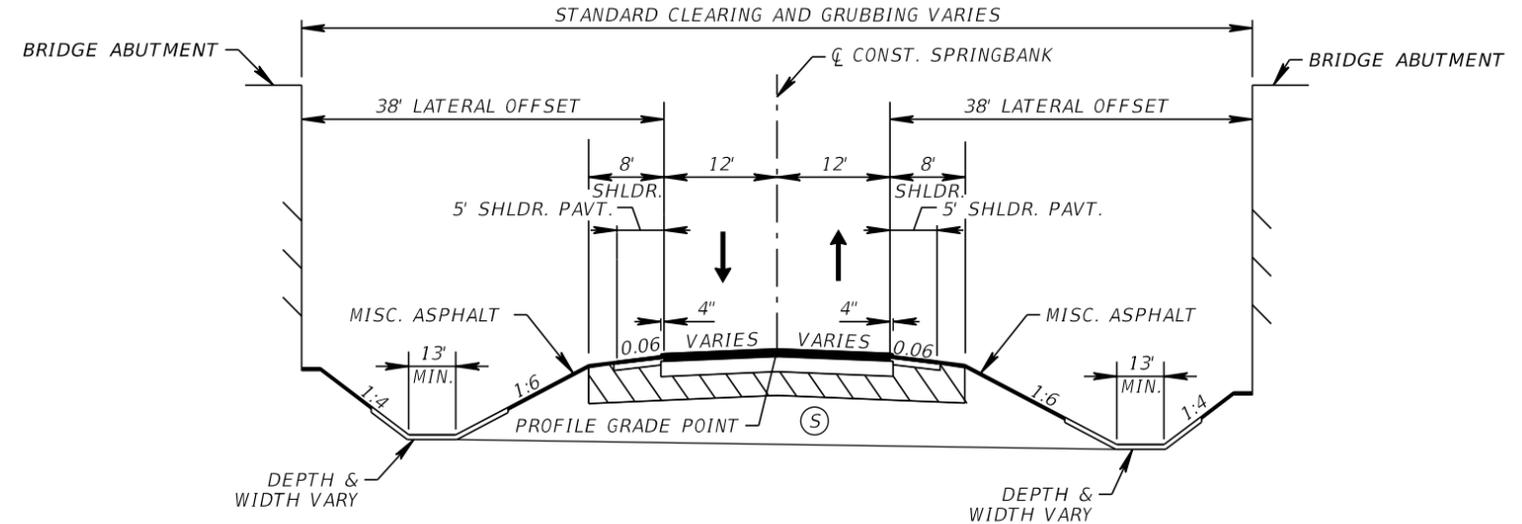
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



TYPICAL SECTION NO. 9
 US 17
 STA. 303+00.00 TO STA. 337+24.52

(S) SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 55 MPH



TYPICAL SECTION NO. 10
 SPRINGBANK RD
 STA. 2000+00.00 TO STA. 2031+78.83

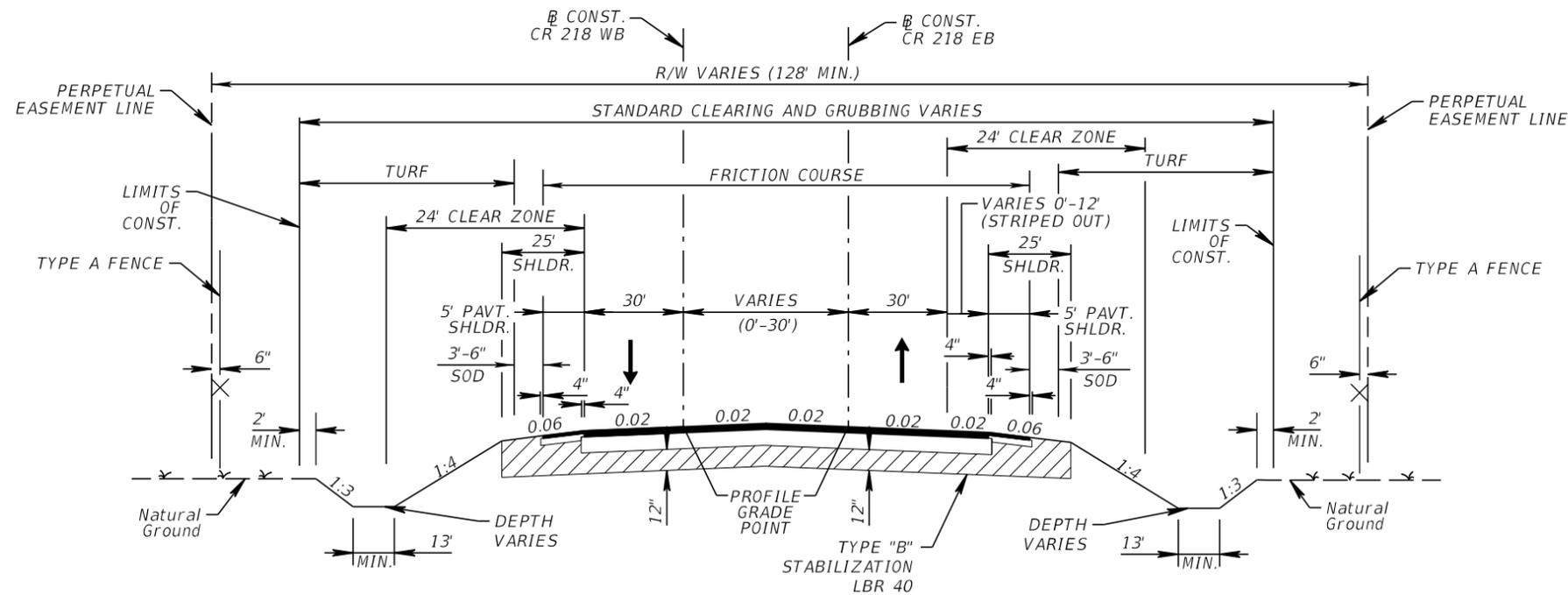
(S) SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 60 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO. 47
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01	

TYPICAL SECTION (7)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

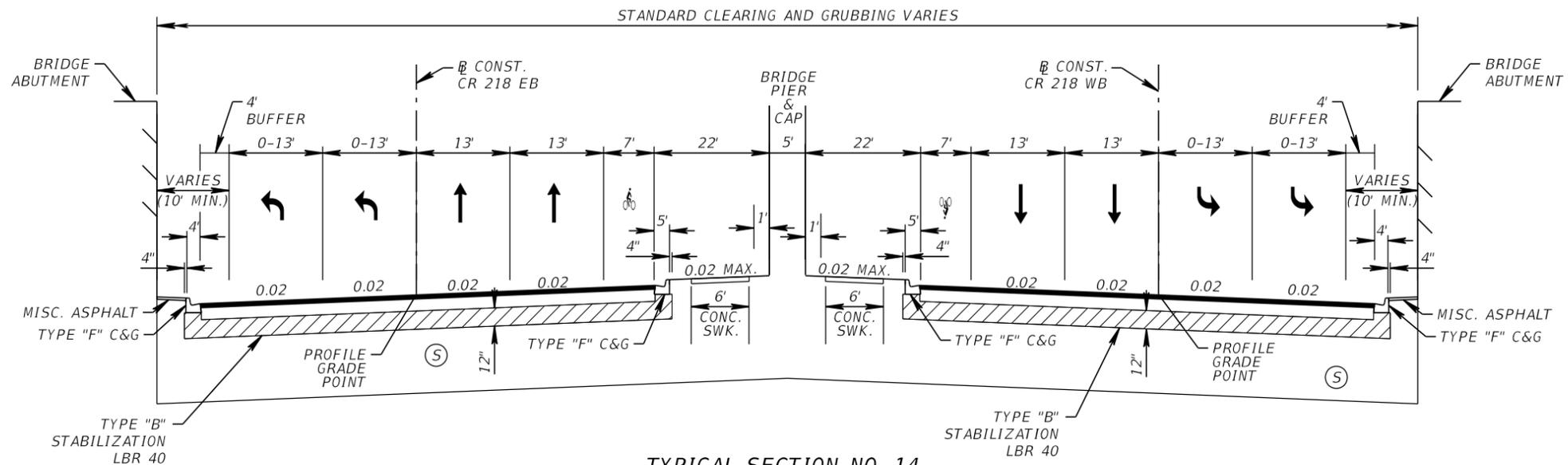


TYPICAL SECTION NO. 13
CR 218

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 45 MPH

STA. 3100+00.00 (EB) TO STA. 3108+59.11 (EB)
STA. 3200+00.00 (WB) TO STA. 3208+59.11 (WB)



TYPICAL SECTION NO. 14
CR 218

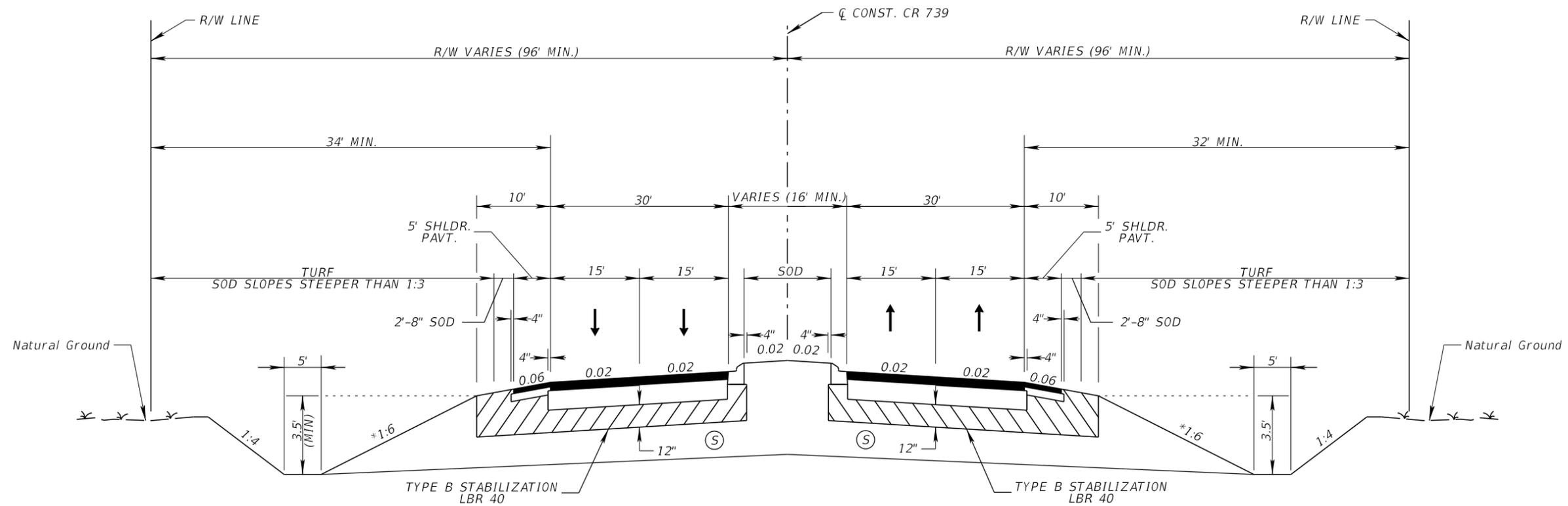
Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 25 MPH

STA. 3118+61.42 (EB) TO STA. 3128+64.70 (EB)
STA. 3218+62.36 (WB) TO STA. 3228+65.60 (WB)

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO. 49
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01	TYPICAL SECTION (9)

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TYPICAL SECTION NO. 15
CR 739 (HENLEY RD)
STA. 148+26.57 TO STA. 159+08.28

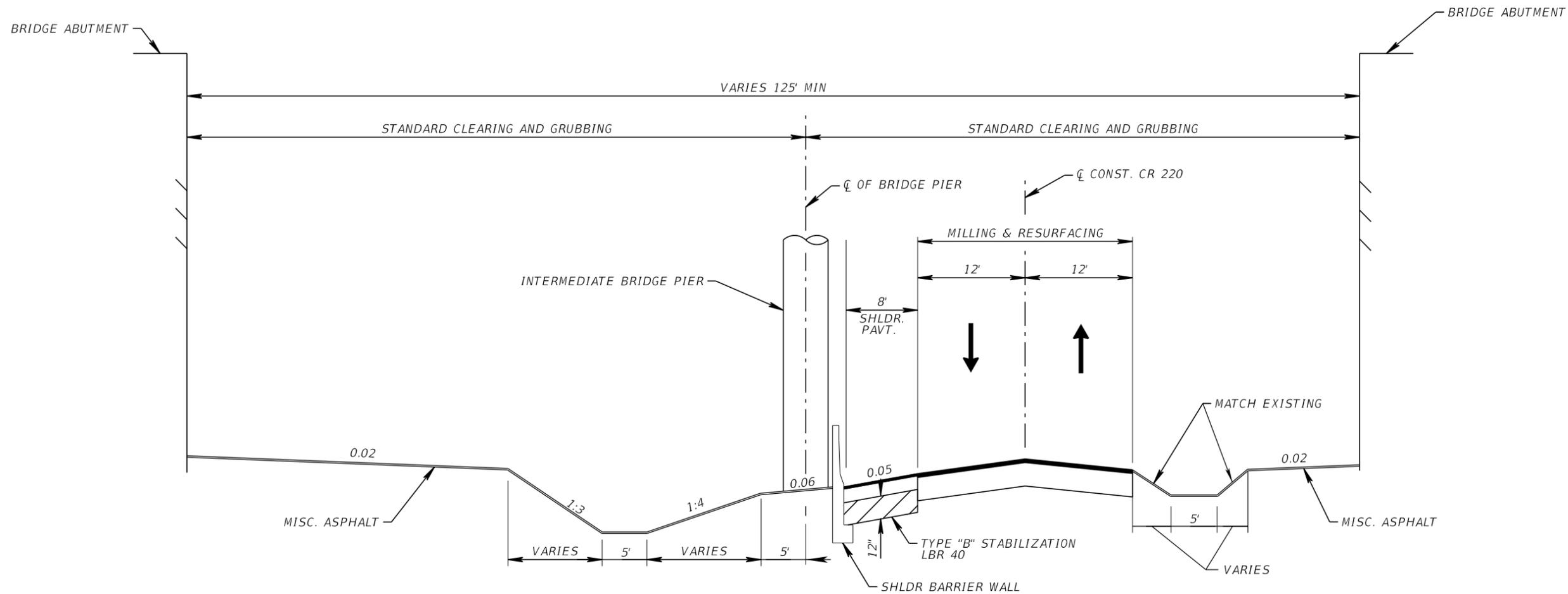
*1:6 FOR FILLS TO 5'
 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' (WITH SHLDR. GUTTER)
 1:2 FILLS OVER 20' (WITH GUARDRAIL)

(S) SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 45 MPH / 25 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (10)	SHEET NO. 50
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

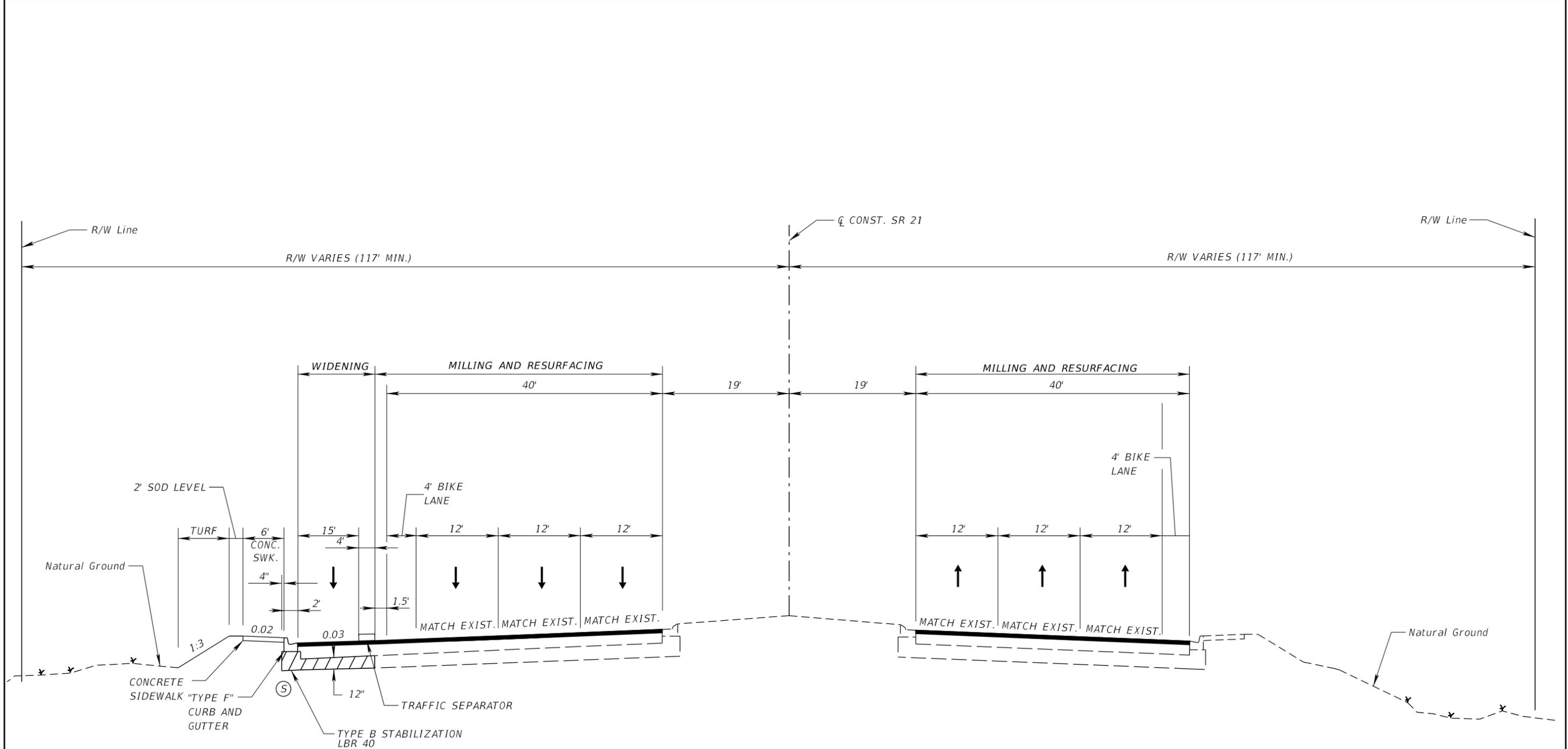


TYPICAL SECTION NO. 16
 CR 220
 STA. 216+50.00 TO STA. 222+50.00

DESIGN SPEED = 50 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (11)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		51
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

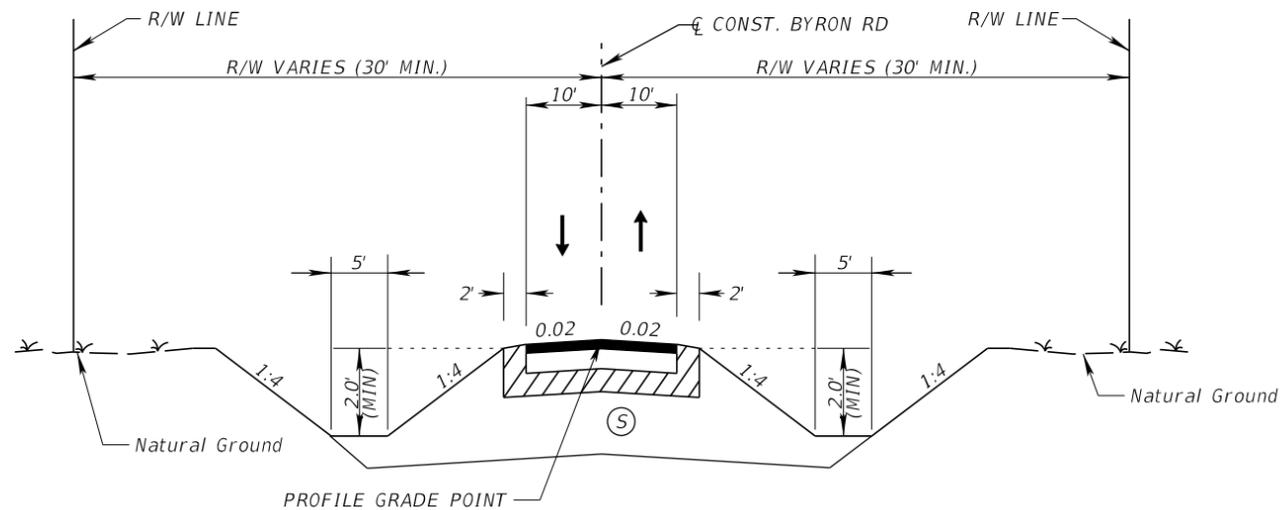


TYPICAL SECTION NO. 17
BLANDING BLVD. (SR 21)
STA. 1382+46.79 TO STA. 1411+06.74

DESIGN SPEED = 45 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (12)	SHEET NO. 52
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

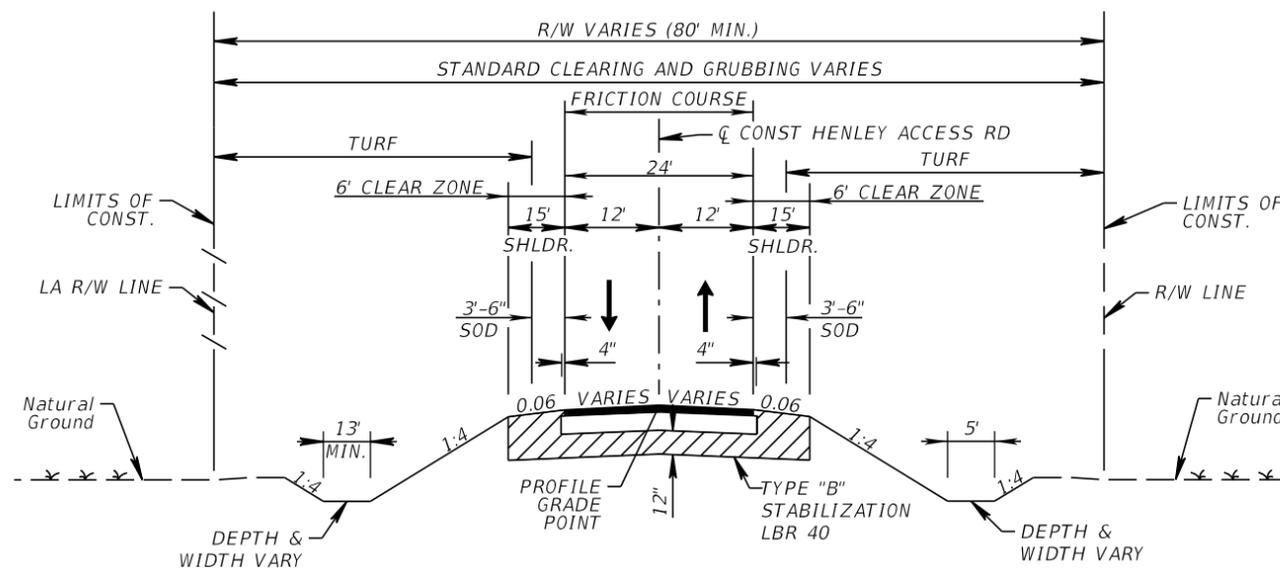
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



TYPICAL SECTION NO. 18
BYRON RD
STA. 3700+81.29 TO STA. 3706+54.35

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

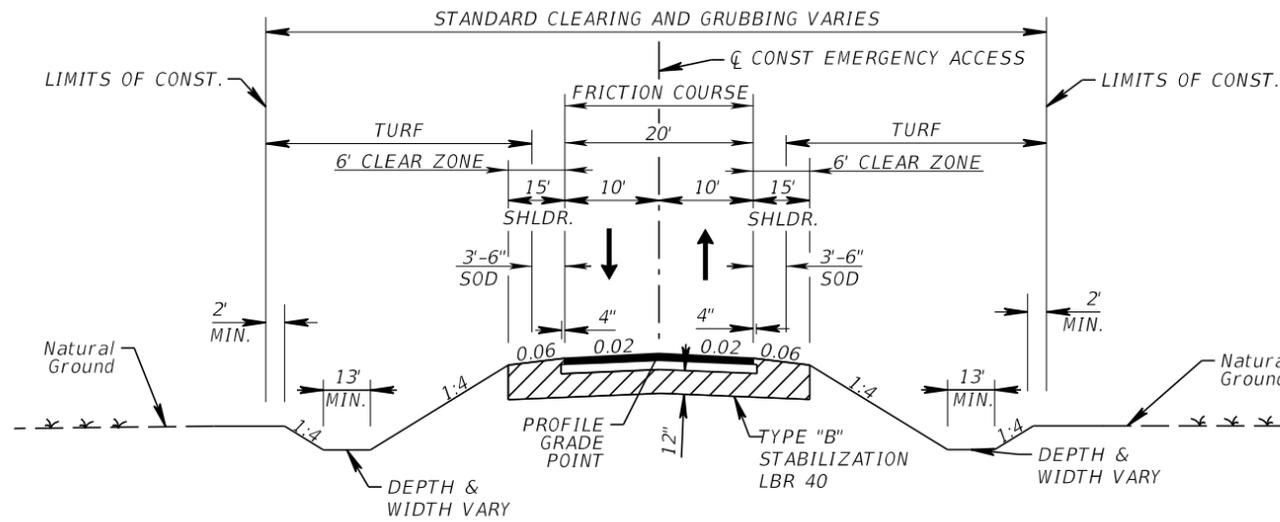
DESIGN SPEED = 15 MPH



TYPICAL SECTION NO. 19
HENLEY ACCESS RD
STA. 3501+80.00 TO STA. 3503+44.65

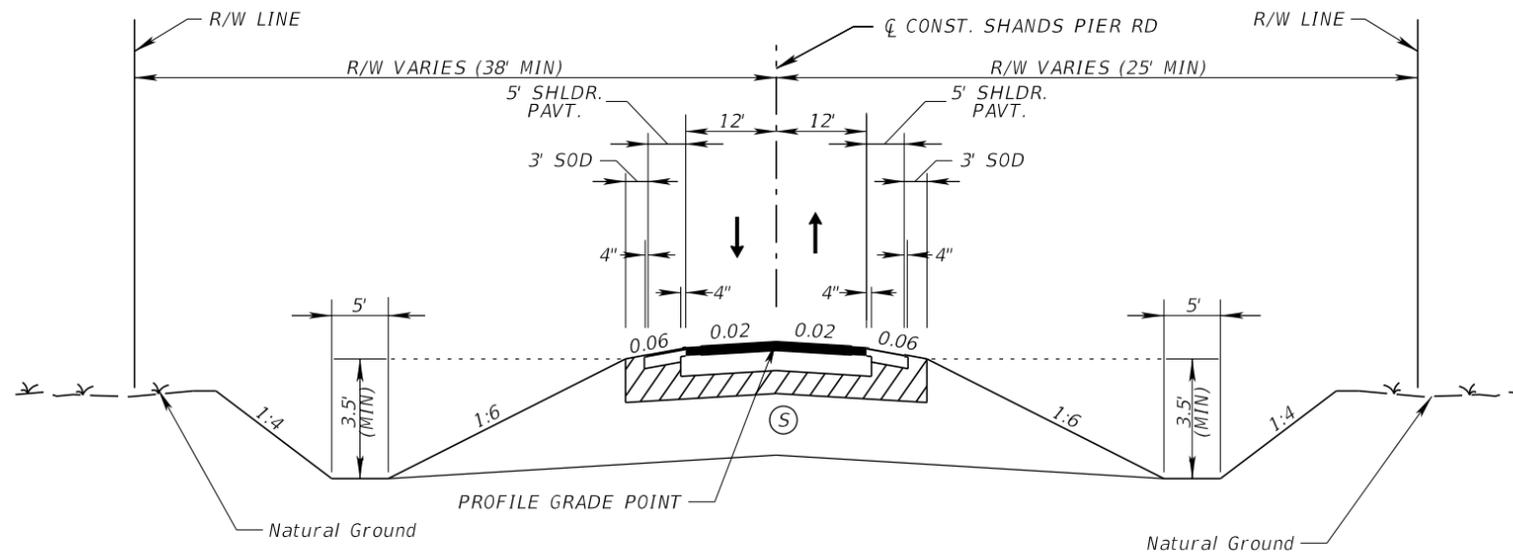
REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (13)	SHEET NO. 53
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

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TYPICAL SECTION NO. 20
EMERGENCY ACCESS
STA. 3600+85.17 TO STA. 3604+70.68

DESIGN SPEED = 25 MPH



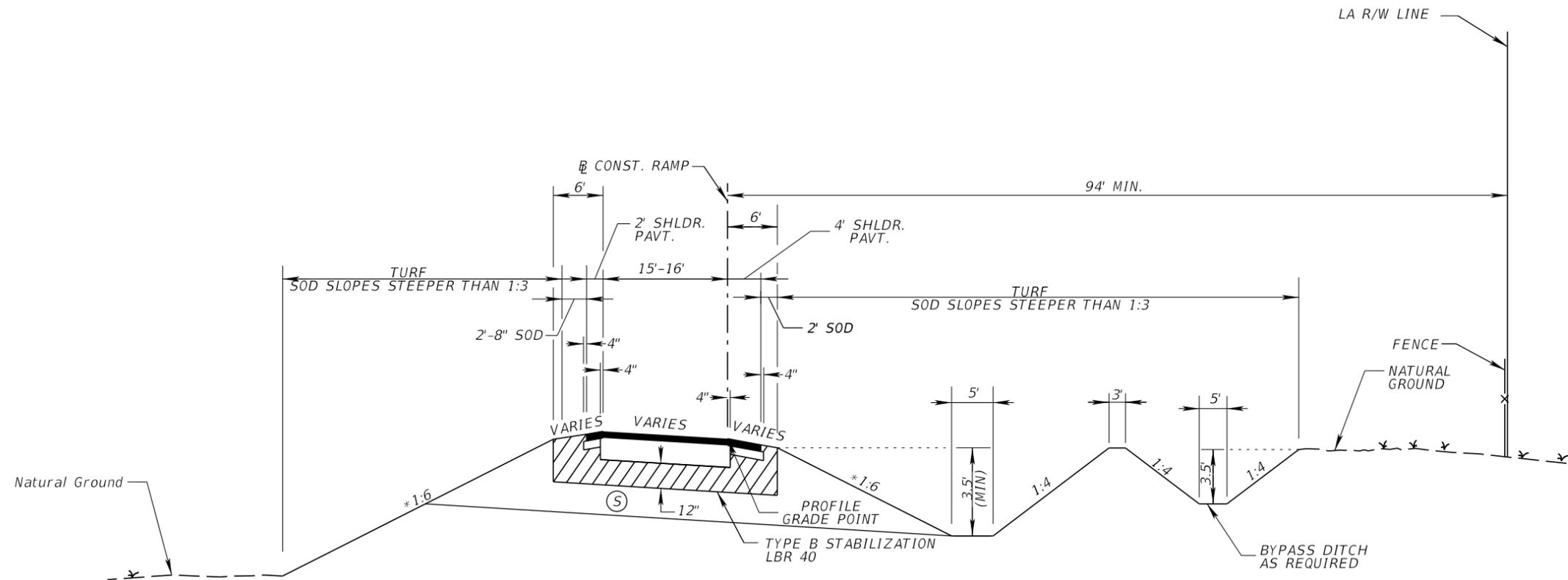
TYPICAL SECTION NO. 21
CE ACCESS RD
STA. 32+25.97 TO STA. 51+13.33

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 20 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (14)	SHEET NO. 54
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

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TYPICAL SECTION NO. 22
(SINGLE LANE RAMP)
 RAMP A, B, K, N-1, N-2, O-1,
 BB-1, BB-2, EE, HH, AND II

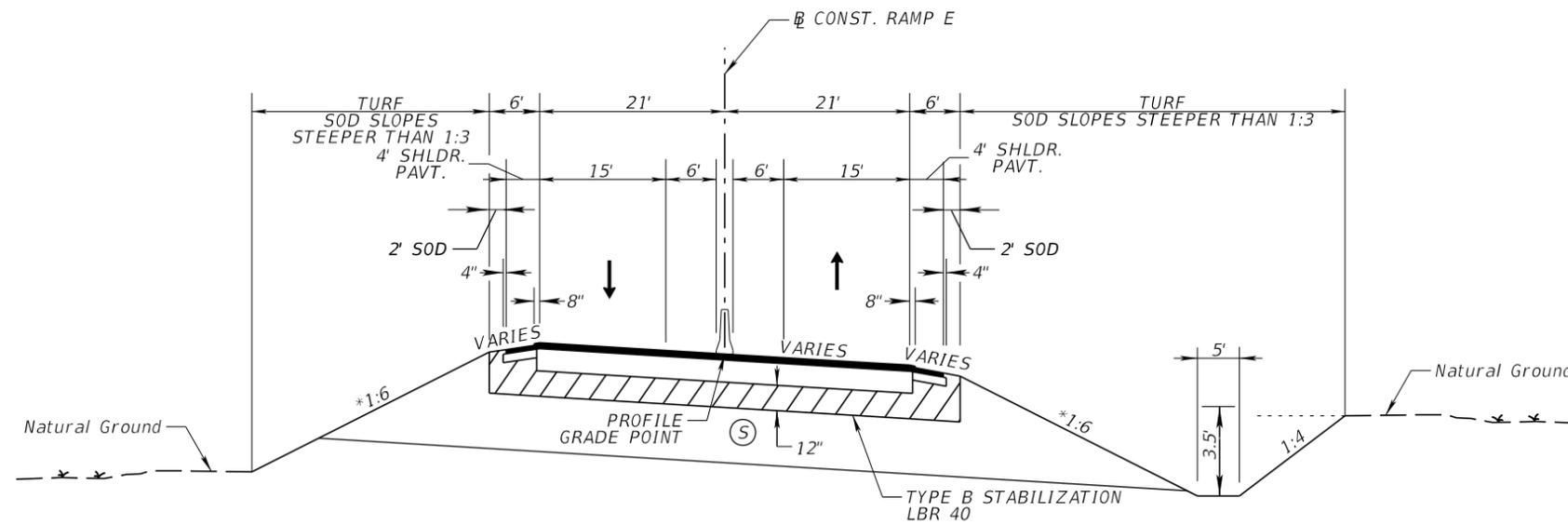
* 1:6 FOR FILLS TO 5'
 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' (WITH SHLDR. GUTTER)
 1:2 FILLS OVER 20' (WITH GUARDRAIL)

Ⓢ SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

DESIGN SPEED = 50 MPH

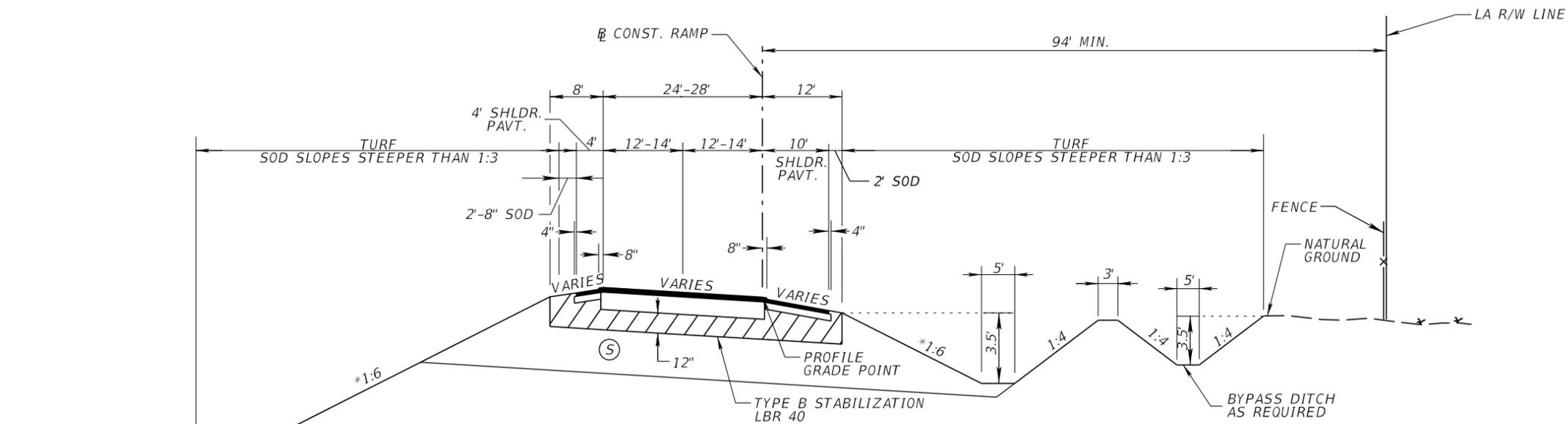
REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (15)	SHEET NO. 55
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

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TYPICAL SECTION NO. 23
RAMP E

DESIGN SPEED = 50 MPH



TYPICAL SECTION NO. 24
(TWO LANE RAMP)
RAMP C, D, E, F, G, H, I, J, L, M, O-2, P, Q, R, S,
T, U, V, W, X, Y, Z, AA, CC AND DD

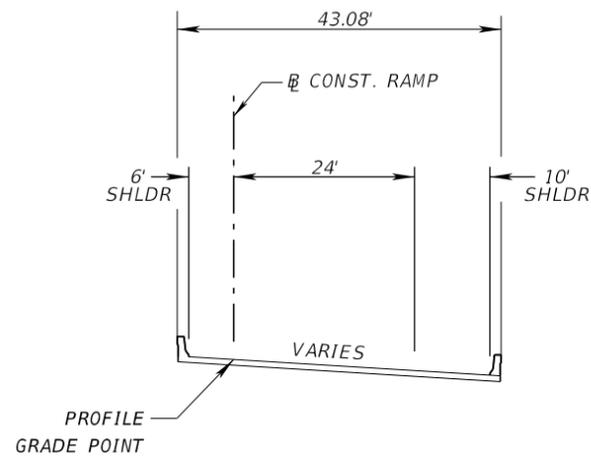
*1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' (WITH SHLDR. GUTTER)
1:2 FILLS OVER 20' (WITH GUARDRAIL)

(S) SELECT A-1, A-3, A-2-4 SOILS (AASHTO CLASSIFICATION)

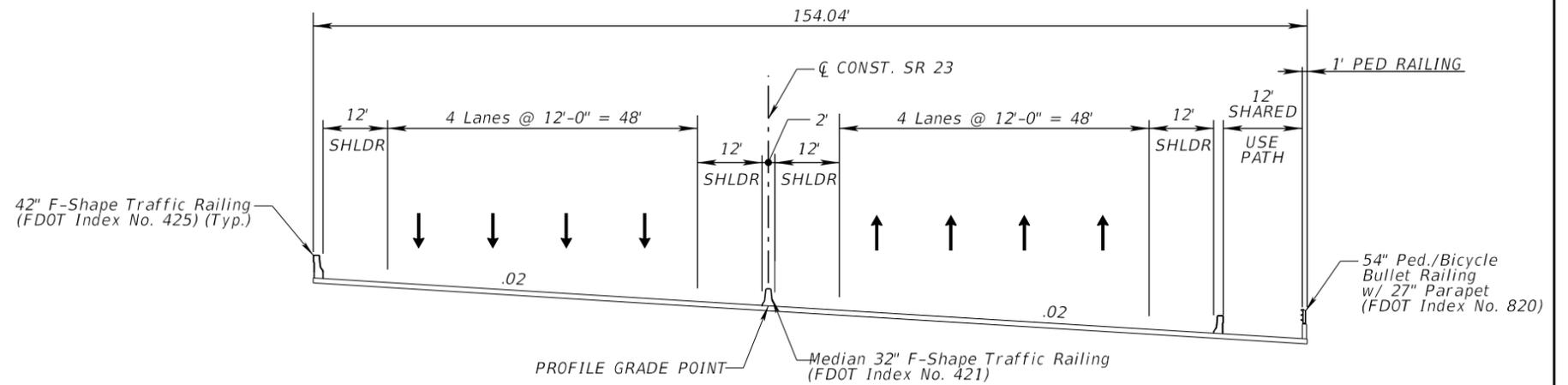
DESIGN SPEED = 50 MPH

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (16)	SHEET NO. 56
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

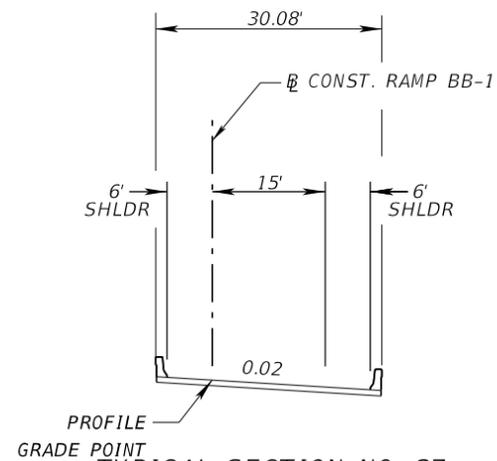
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



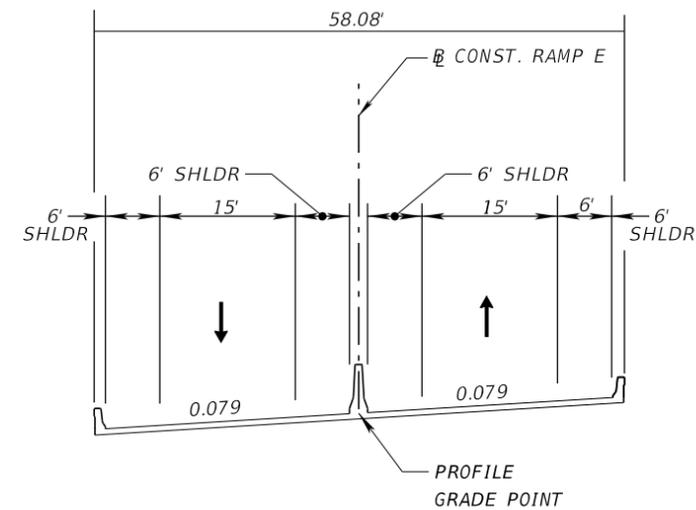
TYPICAL SECTION NO. 26
 RAMP C
 STA. 310+72 TO STA. 321+51
 RAMP BB-1
 STA. 1664+78 TO STA. 1665+75
 RAMP CC
 STA. 1667.56 TO STA. 1669+31



TYPICAL SECTION NO. 25
 SR 23 MAINLINE



TYPICAL SECTION NO. 27
 RAMP B
 STA. 219+36 TO STA. 233+63
 RAMP BB-1
 STA. 1682+49 TO STA. 1685+53



TYPICAL SECTION NO. 28
 RAMP E
 STA. 521+29 TO STA. 523+78

REVISIONS				RS&H, INC. 10748 Deerwood Park Blvd. South Jacksonville, Florida 32256 904-256-2500 Certificate of Authorization No. 5620 Engineer of Record: William C. Youmans, P.E. No.: 74723	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION (17)	SHEET NO. 57
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 23	ST. JOHNS CLAY	422938-2-52-01 422938-3-52-01		

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St. Johns River

Water Management District

Ann B. Shortelle, Ph.D., Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • 386-329-4500
On the internet at www.sjrwmd.com.

March 08, 2018

Van Humphreys
FDOT - District 2
1109 S Marion Ave
Lake City, FL 32025-5874

SUBJECT: 113964-8
First Coast Expressway (I-95, St. John's County through Clay County to
Blanding Blvd. (SR 21))

Dear Sir/Madam:

Enclosed is your consolidated Environmental Resource Permit (ERP) and written authorization to Use State Owned Sovereign Submerged Lands (SSL) issued by the St. Johns River Water Management District on March 08, 2018. This permit is a legal document and should be kept with your other important documents. Permit issuance does not relieve you from the responsibility of obtaining any necessary permits from any federal, state, or local agencies for your project.

Technical Staff Report:

If you wish to review a copy of the Technical Staff Report (TSR) that provides the District's staff analysis of your permit application, you may view the TSR by going to the Permitting section of the District's website at www.sjrwmd.com/permitting. Using the "search applications and permits" feature, you can use your permit number or project name to find information about the permit. When you see the results of your search, click on the permit number.

Noticing Your Permit:

For noticing instructions, please refer to the noticing materials in this package regarding closing the point of entry for someone to challenge the issuance of your permit. Please note that if a timely petition for administrative hearing is filed, your permit will become nonfinal and any activities that you choose to undertake pursuant to your permit will be at your own risk.

Compliance with Permit Conditions:

To submit your required permit compliance information, go to the District's website at www.sjrwmd.com/permitting. Under the "Apply for a permit or submit compliance data" section, click to sign-in to your existing account or to create a new account. Select the "Compliance Submittal" tab, enter your permit number, and select "No Specific Date" for the Compliance Due Date Range. You will then be able to view all the compliance submittal requirements for your project. Select the compliance item that you are ready to submit and then attach the appropriate information or form.

GOVERNING BOARD

John A. Miklos, CHAIRMAN
ORLANDO

Fred N. Roberts Jr., VICE CHAIRMAN
OCALA

Chuck Drake, SECRETARY
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Ron Howse, TREASURER
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Douglas Burnett
ST. AUGUSTINE

Susan Dolan
SANFORD

Janet Price
FERNANDINA BEACH

Allan Roberts
ST. AUGUSTINE

The forms to comply with your permit conditions are available at www.sjrwmd.com/permitting under the section "Handbooks, forms, fees, final orders". Click on forms to view all permit compliance forms, then scroll to the ERP application forms section and select the applicable compliance forms. Alternatively, if you have difficulty finding forms or need copies of the appropriate forms, please contact the Bureau of Regulatory Support at (386) 329-4570.

Transferring Your Permit:

As required by a condition of your permit, you must notify the District within 30 days of any sale, conveyance or other transfer of a permitted system or facility, or within 30 days of any transfer of ownership or control of the real property where the permitted system or facility is located. You will need to provide the District with the information specified in District rule 40C-1.612, Florida Administrative Code (name and address of the transferee and a copy of the instrument effectuating the transfer). Please note that a permittee remains liable for any corrective actions that may be required as a result of any permit violations that occur before the sale, conveyance, or other transfer of the system or facility, so it is recommended that you request a permit transfer in advance.

Thank you and please let us know if you have additional questions. For general questions contact e-permit@sjrwmd.com or (386) 329-4570.

Sincerely,



Margaret Daniels, Office Director
Office of Business and Administrative Services
St. Johns River Water Management District
4049 Reid Street
Palatka, FL 32177

Enclosures: Permit with EN Form(s), if applicable

cc: District Permit File

Van Humphreys
FDOT - District 2
1109 S Marion Ave
Lake City, FL 32025-5874

William Youmans
RS&H
10748 Deerwood Park Blvd
Jacksonville, FL 32256-4842

Kim Allerton
Environmental Resource Solutions
8711 Perimeter Park Blvd, Suite 1
Jacksonville, FL 32216

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO: 113964-8

DATE ISSUED: March 08, 2018

PROJECT NAME: First Coast Expressway (I-95, St. John's County through Clay County to Blanding Blvd. (SR 21))

AN ENVIRONMENTAL RESOURCE PERMIT (ERP) AUTHORIZING:

Authorization of a Stormwater Management System for First Coast Expressway (I-95, St. John's County through Clay County to Blanding Blvd. (SR 21)), a 2413.0 - acre project to be constructed and operated as per plans received by the District on January 31, 2018.

AUTHORIZATION TO USE SOVEREIGN SUBMERGED LANDS (SSL):

Authorization to use Sovereign Submerged Lands in the form of public easements known as First Coast Expressway in accordance with the plans received by the District on January 31, 2018.

LOCATION:

Section(s):	33, 31, 32,	Township(s):	5S	Range(s):	28E
	28		5S		27E
	36, 33, 4, 34		6S		25E
	13, 2, 11, 12		6S		26E
	18, 38, 29,		6S		27E
	30, 19		5S		25E
	9, 38, 3, 47,				
	2, 1, 4, 8				
	38, 23, 26,				
	35, 6, 37, 17,				
	8, 15, 16				

Clay; St. Johns County

ISSUED TO:

FDOT - District 2
1109 S Marion Ave
Lake City, FL 32025-5874

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

**ENVIRONMENTAL RESOURCE PERMIT AND SOVEREIGN SUBMERGED LANDS
AUTHORIZATION IS CONDITIONED UPON:**

See conditions on attached "Exhibit A", dated March 08, 2018

AUTHORIZED BY: St. Johns River Water Management District

By:



David Miracle
Regulatory Coordinator

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 113964-8
First Coast Expressway (I-95, St. John's County through Clay County to
Blanding Blvd. (SR 21))
DATED March 08, 2018

REGULATORY CONDITIONS – ENVIRONMENTAL RESOURCE PERMIT (ERP):

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the District a fully executed Form 62-330.350(1), "Construction Commencement Notice," [10-1-13], incorporated by reference herein (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505>), indicating the expected start and completion dates. A copy of this form may be obtained from the District, as described in subsection 62-330.010(5), F.A.C. If available, a District website that fulfills this notification requirement may be used in lieu of the form.
5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or
 - b. For all other activities — "As-Built Certification and Request for Conversion to

Operational Phase” [Form 62-330.310(1)].

c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:

a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

b. Within 30 days of submittal of the as- built certification, the permittee shall submit “Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity” [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:

a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;

b. Convey to the permittee or create in the permittee any interest in real property;

c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the District in writing:

a. Immediately if any previously submitted information is discovered to be inaccurate; and

b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.
17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.
19. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and stabilization.
20. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.
21. [DOT ONLY] Thirty days prior to initiation of construction, the permittee shall submit a detailed erosion and sediment control plan to the District for written approval. The plan

shall detail all erosion and sediment control measures to be implemented both during and after construction. At a minimum the plan shall include:

- a. Identification of any areas where any dewatering will be performed during construction;
- b. Details of specific erosion and sediment control measures to be implemented to control the discharge of turbid water due to any dewatering activities; and
- c. Construction sequencing and location of all areas of material stockpiling and equipment staging; and
- d. Details of all erosion and sediment control measures to be implemented during each sequence of construction.

Construction shall not commence until the permittee receives written approval of the plan from the District.

22. SSL

For activities on sovereign submerged lands that require letter of consent, lease, easement, management agreement, or use agreement, construction shall not commence until the sovereign submerged lands instrument has been fully executed. Within 30 days of recording a requisite lease or easement, the permittee must provide the District with two copies of the recorded document.

23. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection, including the date of the inspection, the name and contact information of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours. If at any time the system is not functioning as designed and permitted, then within 30 days the entity shall submit a report electronically or in writing to the District using Form 62-330.311(1), "Operation and Maintenance Inspection Certification," describing the remedial actions taken to resolve the failure or deviation.

24. TURBIDITY MONITORING CONDITIONS

Use conditions 1, 2, 4 and 5 only when an unaffected background sample could not be obtained during the construction activities. Remember that the frequency of twice or once daily depends on the extent of work and sensitivity of the receiving waterbody:

1. Five days prior to commencement of the cross drain installation activities, the permittee must monitor turbidity at the cross drain installation location within the receiving waterbody. This data will represent the background turbidity level of the receiving waterbody. Samples must be collected one time daily.
2. During the cross drain installation activities, the permittee must monitor turbidity at the following locations when water is flowing in the low areas of concern:
 - upstream of the cross drain installation locations sufficient to ensure that the background turbidity reading is not influenced by any other on-site construction activities.
 - at the cross drain installations

- downstream of the cross drain installations at the project construction limits or right-of-way line.

Samples must be collected two times daily with a morning and afternoon sample at least four hours apart during the cross drain installation activities.

Before removal of the turbidity control measures, the turbidity levels within the area surrounded by the turbidity control measures must be sampled to ensure no release of turbid water once the turbidity control measures are removed. The turbidity control measures may not be removed until the sample data indicates levels which do not exceed the State Water Quality Standards. This sample data must be included within the weekly turbidity data report.

Use conditions 3, 4, and 5 when an unaffected background sample can be taken during the construction activities. Remember that the frequency of twice or once daily depends on the extent of work and sensitivity of the receiving waterbody.

3. During the cross drain installation activities, the permittee must monitor turbidity at the following locations when water is flowing in the areas of concern:

- upstream of the cross drain installation locations sufficient to ensure that the background turbidity reading is not influenced by any other on-site construction activities.
- at the cross drain installations
- downstream of the cross drain installations at the project construction limits or right-of-way line.

The background sample must not be taken within any visible plume. Samples must be collected two times daily with a morning and afternoon sample at least four hours apart during the cross drain installation activities.

Before removal of the turbidity control measures, the turbidity levels within the area surrounded by the turbidity control measures must be sampled to ensure no release of turbid water once the turbidity control measures are removed. The turbidity control measures may not be removed until the sample data indicates levels which do not exceed the State Water Quality Standards. This sample data must be included within the weekly turbidity data report.

4. If at any time the downstream turbidity level exceeds the State Water Quality Standards, then all measures required to reduce the turbidity including stopping all cross drain installation activities, must be taken. The cross drain installation must not resume until the turbidity has returned to acceptable levels. Any such violation must be reported immediately to the District's Jacksonville Office.

5. All turbidity data must be submitted to the District's Jacksonville Office weekly. The data must contain the following information:

- permit number;
- date and time of sampling and analysis;
- statement describing collection, handling, storage, and analysis methods;
- a map indicating the location of the samples taken;

- depth of sample;
 - antecedent weather conditions; and,
 - tidal stage and/or flow direction.
25. The surface water management system must be constructed and operated in accordance with plans received by the District on January 31, 2018.
 26. This permit for construction will expire twenty years from the date of issuance.
 27. The permittee is an entity having the right to exercise the power of eminent domain and condemnation authority and may not commence construction within the Sylvan West and Bayard proprietary easements under this permit until it has provided to the District written proof of ownership of the lands on which the authorized activities will be conducted. (4.2.3 (d), Volume I, ERP Applicant's Handbook (October 1, 2013)).
 28. Work cannot begin in areas where a geotechnical investigation has not been preformed until the appropriate geotechnical reports have been provide to the District.
 29. The proposed mitigation plan must be implemented per plans received January 22, 2018.
 30. Prior to beginning any demolition of the SR-16 (Shands Bridge), a deconstruction plan must be submitted and approved by the District prior to beginning any demolition work over wetlands or other surface waters.

PROPRIETARY CONDITIONS - SOVEREIGN SUBMERGED LANDS (SSL):

31. Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.
32. Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.
33. Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.
34. Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.
35. Construction, use, or operation of the structure or activity shall not adversely affect any species which is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C.
36. Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.
37. Structures or activities shall not create a navigational hazard.

38. Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident, or fire.

Notice Of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-six (26) days of the District depositing the notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 4 below.
2. Please be advised that if you wish to dispute this District decision, mediation may be available and that choosing mediation does not affect your right to an administrative hearing. If you wish to request mediation, you must do so in a timely-filed petition. If all parties, including the District, agree to the details of the mediation procedure, in writing, within 10 days after the time period stated in the announcement for election of an administrative remedy under Sections 120.569 and 120.57, Florida Statutes, the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, shall be tolled to allow mediation of the disputed District decision. The mediation must be concluded within 60 days of the date of the parties' written agreement, or such other timeframe agreed to by the parties in writing. Any mediation agreement must include provisions for selecting a mediator, a statement that each party shall be responsible for paying its pro-rata share of the costs and fees associated with mediation, and the mediating parties' understanding regarding the confidentiality of discussions and documents introduced during mediation. If mediation results in settlement of the administrative dispute, the District will enter a final order consistent with the settlement agreement. If mediation terminates without settlement of the dispute, the District will notify all the parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Florida Statutes, is resumed. Even if a party chooses not to engage in formal mediation, or if formal mediation does not result in a settlement agreement, the District will remain willing to engage in informal settlement discussions.
3. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.
4. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8:00 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at sjrwmd.com. These conditions include, but are

not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

5. Failure to file a petition for an administrative hearing within the requisite timeframe shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).
6. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.
7. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.
8. A District action is considered rendered, as referred to in paragraph no. 7 above, after it is signed on behalf of the District and filed by the District Clerk.
9. Failure to observe the relevant timeframes for filing a petition for judicial review as described in paragraph no. 7 above will result in waiver of that right to review.

NOR.Decision.DOC.001
Revised 12.7.11

Notice Of Rights

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Notice of Rights has been sent to the permittee:

Van Humphreys
FDOT - District 2
1109 S Marion Ave
Lake City, FL 32025-5874

This March 08, 2018.

M. Daniels

Margaret Daniels, Office Director
Office of Business and Administrative Services
St. Johns River Water Management District
4049 Reid Street
Palatka, FL 32177
(386) 329-4570

NOTICING INFORMATION

Dear Permittee:

Please be advised that the St. Johns River Water Management District has not published a notice in the newspaper advising the public that it has issued a permit for this project.

Newspaper publication, using the District's form, notifies members of the public of their right to challenge the issuance of the permit. If proper notice is given by newspaper publication, then there is a 21-day time limit to file a petition challenging the issuance of the permit.

To close the point of entry for filing a petition, you may publish (at your own expense) a one-time notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice, the time to challenge the issuance of your permit will not expire.

A copy of the notice and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit as proof of publication. Please submit a scanned copy of the affidavit by emailing compliancesupport@sjrwmd.com (preferred method) or send the original affidavit of publication to:

Margaret Daniels, Office Director
Office of Business and Administrative Services
4049 Reid Street
Palatka, FL 32177

If you have any questions, please contact the Office of Business and Administrative Services at (386) 329-4570.

Sincerely,



Margaret Daniels, Office Director
Office of Business and Administrative Services

NOTICE OF AGENCY ACTION TAKEN BY THE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following permit was issued on _____:

(Name and address of applicant) _____
permit# _____. The project is located in _____ County, Section
_____, Township _____ South, Range _____ East. The permit authorizes a surface
water management system on _____ acres for
_____ known as
_____. The receiving water body is _____.

A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P.O. Box 1429, Palatka FL 32178-1429 (4049 Reid St, Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwm.com, within twenty six (26) days of the District depositing the notice of intended District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing notice of intended District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of intended District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28-106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., is not available.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the next regular District business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwm.com. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile (fax) is prohibited and shall not constitute filing.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, please visit <http://www.sjrwm.com/noticeofrights/> to read the complete Notice of Rights to determine any legal rights you may have concerning the District's intended decision(s) on the permit application(s) described above. You can also request the Notice of Rights by contacting the Bureau Chief, Bureau of Regulatory Support (RS), 4049 Reid St., Palatka, FL 32177-2529, tele. no. (386)329-4570.

NEWSPAPER ADVERTISING

ALACHUA

The Alachua County Record, Legal Advertising
P. O. Box 806
Gainesville, FL 32602
352-377-2444/ fax 352-338-1986

BRAFORD

Bradford County Telegraph, Legal Advertising
P. O. Drawer A
Starke, FL 32901
904-964-6305/ fax 904-964-8628

CLAY

Clay Today, Legal Advertising
1560 Kinsley Ave., Suite 1
Orange Park, FL 32073
904-264-3200/ fax 904-264-3285

FLAGLER

Flagler Tribune, c/o News Journal
P. O. Box 2831
Daytona Beach, FL 32120-2831
386- 681-2322

LAKE

Daily Commercial, Legal Advertising
P. O. Drawer 490007
Leesburg, FL 34749
352-365-8235/fax 352-365-1951

NASSAU

News-Leader, Legal Advertising
P. O. Box 766
Fernandina Beach, FL 32035
904-261-3696/fax 904-261-3698

ORANGE

Sentinel Communications, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

PUTNAM

Palatka Daily News, Legal Advertising
P. O. Box 777
Palatka, FL 32178
386-312-5200/ fax 386-312-5209

SEMINOLE

Seminole Herald, Legal Advertising
300 North French Avenue
Sanford, FL 32771
407-323-9408

BAKER

Baker County Press, Legal Advertising
P. O. Box 598
MacLenny, FL 32063
904-259-2400/ fax 904-259-6502

BREVARD

Florida Today, Legal Advertising
P. O. Box 419000
Melbourne, FL 32941-9000
321-242-3832/ fax 321-242-6618

DUVAL

Daily Record, Legal Advertising
P. O. Box 1769
Jacksonville, FL 32201
904-356-2466 / fax 904-353-2628

INDIAN RIVER

Vero Beach Press Journal, Legal Advertising
P. O. Box 1268
Vero Beach, FL 32961-1268
772-221-4282/ fax 772-978-2340

MARION

Ocala Star Banner, Legal Advertising
2121 SW 19th Avenue Road
Ocala, FL 34474
352-867-4010/fax 352-867-4126

OKEECHOBEE

Okeechobee News, Legal Advertising
P. O. Box 639
Okeechobee, FL 34973-0639
863-763-3134/fax 863-763-5901

OSCEOLA

Little Sentinel, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

ST. JOHNS

St. Augustine Record, Legal Advertising
P. O. Box 1630
St. Augustine, FL 32085
904-819-3436

VOLUSIA

News Journal Corporation, Legal Advertising
P. O. Box 2831
Daytona Beach, FL 32120-2831
(386) 681-2322

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineering drawings to the U.S. Army Corps of Engineers, Enforcement Section, Post Office Box 4970, Jacksonville, Florida 32232-0019. If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-3131.

1. Department of the Army Permit Number: SAJ-2017-00571 (SP-RLT)

2. Permittee Information:

Name: _____

Address: _____

3. Project Site Identification (physical location/address):

4. As-Built Certification: I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled, and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer

Name (*Please type*)

(FL, PR, or VI) Reg. Number

Company Name

City

State

ZIP

(Affix Seal)

Date

Telephone Number

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

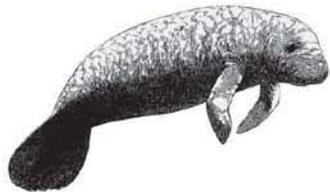
All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.



ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

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Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

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August 12, 2013

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SNAKES MAY BE PRESENT ON
THIS SITE!!!



Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.

PERMITTEE RESPONSIBLE MITIGATION PLAN

Essential Fish Habitat (EFH) and Submerged Aquatic Vegetation (SAV) Mitigation



Mitigation Proposed for US Army Corps of Engineers permit for:
FM 422938-2-52-01, 422938-3-52-01 First Coast Expressway (FCX)
(In Support of Application No. SAJ-2017-00571)

Prepared for the U.S. Army Corps of Engineers

March 15, 2018



St. Johns River Water Management District
FDOT Mitigation Program
4049 Reid Street
Palatka, FL 32177

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Executive Summary

The Shands Bridge submerged aquatic vegetation (SAV) restoration and the Tidal Forested Freshwater Essential Fish Habitat (TFF-EFH) mitigation, are proposed to provide a portion of the mitigation required to offset unavoidable adverse impacts associated with the First Coast Expressway (FCX) project. This road project will result in direct unavoidable adverse impacts to ± 502.56 -acres and secondary impacts to ± 426.38 -acres and 7.26-acres of temporary impacts to forested wetlands with a total Functional Loss of 147.52 UMAM. There are 2.24-acres of shading impacts to the SAV community with a total functional loss of 0.747-UMAM units. The total functional loss for tidal freshwater-forested essential fish habitat is 31.19-UMAM units. The mitigation proposed will provide a functional gain of 0.842-UMAM units to the SAV community and functional gain of 32.189-UMAM units to the tidal freshwater-forested (TFF) community.

The existing bridge was dedicated in October of 1963. The bridge is 6,662-feet long and anchors to man-made causeways extending into the river on both the east and west side. The west side causeway extends approximately 580-feet into the river and the east side extends approximately 1,300-feet into the river. The SAV restoration area consists of excavating the existing road causeway to restore 2.21-acres of river bottom. The elevation of the scrape down area will be matched to the elevation in the adjacent submerged community. The excavation will reestablish the natural hydrology present before the bridge causeway was constructed. The submerged aquatic vegetation will be harvested from the adjacent impact site to replant the restored wetlands with appropriate species (Figure 14 and 15). This restoration will provide 0.84-units of UMAM functional gain for the submerged aquatic vegetation community adjacent to the proposed project. The Water Environment and Location and Landscape Support will both see benefits due to proposed activities. In addition, the restoration areas will be monitored to meet the goals of the mitigation plan. The mitigation area will be below the mean high water line (MHW) upon completion of the project. This mitigation will be within sovereign submerged lands (SSL) as governed by 18-21 of the Florida Administrative Code (FAC) and will not require long term management.

The Deep Creek Conservation Area is a $\pm 4,510$ acre conservation area approximately three miles long (north to south) and two miles wide, with over two miles of frontage on the St Johns River. Deep Creek is a tidally influenced blackwater stream which flows westerly to the St Johns River. Wetland natural communities within the conservation area are largely undisturbed and are extremely important in helping improve water quality in the creek, which is impacted by agricultural run-off from nearby farms. Floodplain swamp is the predominant natural community within the conservation area. The property lies within an area known as the St. Johns River Blueway Florida Forever Project. Acquisition within the project area is a priority; the project area is located in one of the fastest growing portions of the State, and has been designed to protect the last remaining shorelines of the St Johns River and several of its tributaries. The TFF-EFH mitigation falls along the western boundary of the Deep Creek Conservation Area. The proposed mitigation will add 168.51-acres to the conservation area. There will be 8.32-acres of restoration and 148.10-acres of enhancement within this addition. The restoration and enhancement will provide 31.23-units of UMAM functional gain by restoring agriculture fields (bahiagrass, *Paspalum notatum*) to forested wetlands and reconnecting forested systems to the tidal activity associated with this St Johns River.

The proposed impacts and mitigation occur within the Lower St Johns 8-digit (#03080103) watershed boundary for the USACE. The road project is located within the Northern St Johns River and Northern Coastal (Basin 4), Sixmile and Julington Creek (Basin 5), and St Johns River Welaka to Bayard (Basin 8) for the State, although the SAV and TFF-EFH impacts and mitigation will occur in Basin 8. Mitigation banks that service Basin 8 do not have submerged aquatic vegetation or tidal freshwater forested (EFH) mitigation credits available. The mitigation will occur in the same basin as the impacts for both the USACE and the State (#03080103 and Basin 8).

Due to the proximity of the SAV and TFF-EFH mitigation to the proposed impact sites, existing site conditions, and a strict land management plan, the risk and uncertainty of successfully implementing restoration and enhancement of SAV and forested wetlands within the mitigation areas are minimal.

The SAV and TFF-EFH mitigation has direct discharge and ecological benefit to the St Johns River and Deep Creek and thus the fish and wildlife associated with these systems. The TFF and TFF-EFH mitigation will directly benefit the watershed being impacted by supporting wetland and water resource functions within the same ecoregion and supporting the health of the St Johns River.

Restoration and enhancement activities associated with the mitigation plan are anticipated to be implemented prior to commencement of construction. The anticipated temporal loss of wetland function is addressed by applying appropriate time lag to the functional assessment.

Evaluation of the Lower St Johns watershed resulted in identification of very few mitigation options due to the highly developed nature of this watershed. The mitigation project was selected following coordination with St. Johns River Water Management District's (SJRWMD) land management, regulatory, and environmental sciences staff to ensure that the most viable and ecologically beneficial project is being implemented to offset the unavoidable adverse wetland impacts associated with this road project. SJRWMD staff has developed a viable mitigation plan consistent with the watershed approach and implementation schedule.

Upon implementation of the mitigation plan, the SAV and TFF-EFH mitigation will be viable in perpetuity. The SAV mitigation will be graded below the mean high water (MHW) line and will revert to State ownership. The SAV mitigation will not require long-term management of the property once the grading is complete. The TFF-EFH mitigation is adjacent to the Deep Creek Conservation Area and will be incorporated into the management plan for this property. Long-term management of the TFF-EFH mitigation will be primarily control of invasive and exotic species.

The SAV and TFF-EFH mitigation has the potential to provide significant habitat for migratory birds and wading birds for resting, foraging, and nesting within one of the fastest growing regions of North Florida.

The SAV and TFF-EFH mitigation will offset impacts associated with one road project: FPID 422938-2-52-01, 422938-3-52-01, the First Coast Expressway (FCX). This project was included in the 2016 Annual Mitigation Plan. Inclusion of this project in an approved mitigation plan requires reimbursement by the Florida Department of Transportation (FDOT) to the SJRWMD for mitigation services provided, pursuant to 373.4137 Florida Statutes (F.S.). In addition, this statute requires that the SJRWMD assume responsibility of the mitigation project in perpetuity upon receiving final payment from the FDOT. Although the state will hold the SJRWMD accountable to provide mitigation, it is understood that FDOT

is ultimately responsible for the mitigation with the federal permit and that the SJRWMD is essentially acting as an agent for the FDOT to implement the mitigation project. SJRWMD will invoice FDOT for costs associated with implementation of the project and for long-term management funds to ensure perpetual management of the mitigation area.

This permittee responsible mitigation is being implemented with a focus on the watershed needs and is consistent with previous guidance from the USACE. Impacts to wetlands that support the St Johns River should be offset with mitigation that supports the St Johns River. The St Johns River is the receiving water body for the proposed impacts and the proposed mitigation area. The proposed impacts occur in the Lower St Johns 8-digit, #03080103 watershed boundaries and not within the core foraging area any documented wood stork colonies. The proposed permittee responsible SAV and TFF-EFH mitigation is located in the Lower St Johns 8-digit, #03080103 watershed and will provide minimal habitat to support Wood Stork foraging. The proposed permittee responsible mitigation benefits the fish and wildlife associated with St Johns River and is consistent with the watershed approach.

Introduction

The St. Johns River Water Management District's (SJRWMD) Florida Department of Transportation (FDOT) Mitigation Program is required by Chapter 373.4137(4) *Florida Statute* (F.S.) to develop a mitigation plan prior to March 1 of each year to offset the impacts associated with transportation projects for which, FDOT has determined that the use of credits from a permitted mitigation bank is not an available options for the impacts proposed. General mitigation proposed for these projects is documented in an Annual Mitigation Plan which is reviewed by the SJRWMD, the FDOT, the Florida Fish and Wildlife Conservation Commission (FWC), the US Army Corps of Engineers (USACE), the Florida Department of Environmental Protection (FDEP), and other interested parties. The FDOT determined that permittee responsible mitigation is the best mitigation option for one project in St Johns County (SJ68): First Coast Expressway (FM 422938-2 and 422938-3). This project is identified in the 2016 Annual FDOT Mitigation Plan.

The SJRWMD consists of scientists, engineers, and land managers that are recognized experts in their fields and have extensive basin specific knowledge that is leveraged to develop and implement watershed based mitigation plans. The structure of the FDOT Mitigation Program within the framework of the SJRWMD enables access to and utilization of these experts, consolidation of resources, and the ability to improve functional value to fish and wildlife proximal to the unavoidable impacts associated with FDOT road projects. This structure and commitment to long-term management reduces the temporal loss of functions and the uncertainty regarding mitigation success. In addition to the expertise and resources available to implement mitigation plans, appropriate site protection of mitigation areas is provided, a non-wasting endowment is in place to ensure long-term management, and impacts associated with multiple road projects are typically grouped resulting in mitigation projects that preserve, enhance, and/or restore larger or more ecologically valuable parcels.

Permittee responsible mitigation for FDOT, provided through the SJRWMD's FDOT Mitigation Program, is intended to identify mitigation options for FDOT that best offset impacts to wetland and water resources and support the public interest. State rules require that mitigation occur within the same regulatory basin as the impacts or the demonstration that mitigation out of basin will not result in cumulative impacts, which can support the decision to propose permittee responsible mitigation.

Proposed Impacts

The FDOT is proposing one road improvement project in St Johns and Clay counties, which is anticipated to result in unavoidable adverse impacts to wetlands and water resources (Figure 1):

1. FM 422938-2 and 422938-3 (First Coast Expressway).

There are other wetland impacts within the proposed right-of-way that will be mitigated through the purchase of bank credits. This proposed permittee responsible mitigation plan is intended to offset only those impacts associated with the submerged aquatic vegetation (SAV) and the tidal freshwater-forested essential fish habitat (TFF-EFH). **All statements regarding the project impacts and mitigation for project impacts herein are in reference to the impacts associated with the SAV and TFF-EFH impacts unless specifically noted otherwise.** SAV and TFF-EFH impacts resulting from project FM

422938-2 and 422938-3 are intended to be fully offset by the proposed permittee responsible mitigation.

The proposed bridge over the St Johns River will shade the existing SAV's within the shallow portions of the river. This shading will cause a loss of vegetation and habitat under the proposed bridge. There are additional impacts from filling and shading from several other creek crossings along the proposed right-of-way. Crossings over Trout Creek, St Johns River, Bradley Creek, Black Creek, and Grog Creek were all identified as EFH Impact crossings. These impacts were delineated, assessed, and scored by others.

Project FM 422938-2 and 422938-3 (First Coast Expressway) is anticipated to have ±502.56-acres of direct and ±426.38-acres of secondary impacts to forested freshwater wetlands with a total functional loss of (FL) ±147.52-units, based on the Unified Mitigation Assessment Methodology (UMAM).

Proposed Mitigation

The proposed mitigation includes 0.842-functional gain units at the SAV Mitigation Area and 32.189-functional gain units at the TFF-EFH mitigation area. The implementation of a new Permittee Responsible Mitigation Plan at these areas are to offset unavoidable adverse impacts associated with First Coast Expressway (FM 422938-2 and 422938-3).

Mitigation proposed at the SAV and TFF-EFH mitigation areas supports a watershed approach by restoring, and enhancing wetlands that directly contribute to the St Johns River. The proposed mitigation supports acquisition of uplands and wetlands under imminent threat of development adjacent to existing conservation lands and improves fish and wildlife habitat adjacent to the St Johns River. The proposed mitigation is consistent with mitigation group SJ68 as described in the 2016 Annual FDOT Mitigation Plan. Because of the extensive coastal development prior to environmental regulations and continued development pressure along the St Johns River, mitigation including restoration and/or enhancement to wetlands, that contribute flow to the St Johns River, is essential to be consistent with a watershed approach.

The SAV Mitigation is located in St Johns County, FL, in Section 38, Township 06 South, Range 27 East; Section 47, Township 06 South, Range 27 East. The TFF-EFH Mitigation is also located in St Johns County in Section 36, Township 08 South Range 27 East; Section 31, Township 08 South, Range 28 East; Section 06, Township 09 South, Range 28 East; and Section 07, Township 09 South, Range 28 East (Figure 3). Access to the SAV Mitigation is directly off SR 16 along the Shands Bridge. Access to the TFF-EFH mitigation area will be along an access easement and unmarked dirt road from the west (Figure 12 and 13). Public access and passive recreation within both the SAV and TFF-EFH mitigation areas will be available. SAV mitigation area will also provide additional fishing habitat within an actively fished area along the Shands Bridge.

The objective of the proposed mitigation is to restore or enhance the current vegetative communities to the historic communities that would have been present onsite and thus enhance the values provided to native fish and wildlife. In addition, the submerged aquatic vegetation and the forested wetland communities will be expanded by creating wetlands adjacent to the existing wetland communities. In order to achieve these objectives, the SAV Mitigation will consist of restoration of 2.21-acres of tidally

influenced submerged aquatic vegetation. The TFF-EFH mitigation will consist of 8.32-acres of restoration and 148.10-acres of enhancement.

Mitigation Plan

The SAV and TFF-EFH mitigation areas are within the Lower St Johns 8-digit watershed (#03080103) and within the St Johns River Welaka to Bayard Mitigation Basin (Basin 8) for SJRWMD (Figure 2).

The proposed impacts occur within the primary service area for several mitigation banks, however, previous guidance from the USACE has been that if wetlands that support the Essential Fish Habitat (EFH) are impacted, mitigation needs to be provided that also supports the EFH in order to be consistent with the watershed approach. In addition, Mitigation Banks that service this area do not have appropriate type of credits available.

The Lower St Johns River Basin is contained within the 2008 Lower St Johns River Basin Surface Water Improvement and Management (SWIM) Plan. The Lower St Johns River was identified in the SWIM Plan as having higher pollutant loads and high variability of drainage discharges from the highly developed basin. Numerous projects have been implemented to improve water quality within the St Johns River; however, additional improvements are still needed.

The mitigation plan consists of three main components: restoration of 2.21-acres of SAV habitat, restoration of 8.32-acres of TFF-EFH habitat and enhancement of 148.10-acres of tidally influenced mixed wetland hardwoods (Figure 4-6).

SAV Restoration – 2.21-acres

The area where SAV will be restored was significantly altered by past land use. River bottom was filled when the bridge was constructed. The bridge has been in use since 1963. The causeway has been mowed and maintained since construction and opening of the bridge. The causeway was filled into the river prior to bridge construction. The area has over 100% cover by bahiagrass, *Paspalum notatum* and other weedy turfgrasses. There is less than 10% cover by appropriate native species. Submerged aquatic vegetation will be restored by mechanically removing fill material and matching existing grades within the adjacent submerged community. The new shoreline will be stabilized with rip rap and planted along the shoreline with *Taxodium sp.*, *Sartina bakerii*, and *Juniperus virginiana*. Once the excavation substrates have settled, SAV from the impact areas will be harvested and transplanted to the mitigation area. Species for harvest will include, but not be limited to *Vallisneria americana*, *Ceratophyllum demersum*, *Ruppia maritime*, *Najas guadalupensis*, etc. The existing SAV community adjacent to the proposed mitigation is functioning at a high level. The long-term goal will be to maintain 50 percent survival of the transplanted material and 80 percent coverage within the mitigation area.

TFF-EFH Restoration – 8.32-acres

The TFF-EFH forested restoration is substantially altered by constant farming; however, its position in the landscape indicates that the community was historically a tidally influenced mixed wetland hardwood community. The current property use has not changed for several decades as evident in a historic aerial photography review (Figure 7). TFF-EFH forested restoration has remnant hydrology for this wetland community, however, the entire restoration area is dominated by farmed fields which is

currently used as bahiagrass, *Paspalum notatum* production. The past uses of the property include various farming efforts. The tidal freshwater-forested community will be restored by re-routing the rim ditch surrounding the agricultural fields thereby reconnecting the restoration area to the tidal floodplain. The site will be mechanically graded to elevations consistent with the adjacent wetlands. The site will then be planted with *Magnolia gradiflora*, *Nyssa sylvatica*, *Nyssa aquatica*, *Taxodium sp.*, *Quercus michauxii*, *Illex myrtifolia*, or other appropriate species on 15-foot centers. Subcanopy and ground cover will consist of *Sabal minor*, *Illex cassine*, *Vaccinium sp.* or other appropriate species at 15-foot centers. The long-term goal is to have canopy species at 20-foot centers (75% survival of planted trees) and 30% or more cover by shrubs and herbaceous species consistent with a natural mixed forested wetland community.

TFF-EFH Enhancement A – 88.51-acres

Enhancement area A has very little alteration from the past activities. The past uses within this community have been farming and hydrologic manipulation. The agricultural fields have a rim ditch that separates the hydrology from the adjacent tidally influenced mixed wetland hardwood communities. This ditch and associated pumps removed excess water from the site during high-water periods and provided irrigation during low-water periods. Enhancement activities will focus on re-routing the rim ditch and reduction of cover of Florida Exotic Pest Plant Council (FLEPPC) Category I and II invasive exotic species. Sufficient cover of native species is present in these systems to support the long-term goal of a healthy mixed forested wetland with canopy species at approximately 20-foot centers and 30% or more cover by shrubs and herbaceous species.

TFF-EFH Enhancement B – 59.59-acres

Enhancement area B has been altered from past agricultural activities. The northern portion (29.67-acres) has been diked to pump out water from the fields. The berm surrounding this area has been in place since at least 1984 (Figure 7). Enhancement activities for this area will focus on removing the berm and reduction of cover of FLEPPC Category I and II invasive exotic species. Sufficient cover of native species is present in these systems to support the long-term goal of a healthy mixed forested wetland with canopy species at approximately 20-foot centers and 30% or more cover by shrubs and herbaceous species.

The southern portion of this enhancement area has been in various forms of aquaculture since at least 1984 (Figure 7). Enhancement activities for this area will focus on reconnecting the ponds to the floodplain and reduction of cover of FLEPPC Category I and II invasive exotic species. Utilization of the ponds as treatment and attenuation will provide a water quality and quantity benefit. The site will then be planted with *Nyssa aquatica*, *Taxodium sp.*, *Quercus michauxii*, *Illex myrtifolia*, or other appropriate species on 15-foot centers. Subcanopy and ground cover will consist of *Sabal minor*, *Illex cassine*, *Vaccinium sp.* or other appropriate species at 15-foot centers. The long-term goal is to have canopy species at 20-foot centers (75% survival of planted trees) and 30% or more cover by shrubs and herbaceous species adjacent to a functioning deep-water community consistent with a natural mixed forested wetland community adjacent to a ponded system.

Objectives

The purpose of SAV and TFF-EFH mitigation is restoration and enhancement of aquatic resources to offset unavoidable adverse impacts, which remain, after all appropriate and practicable avoidance and minimization measures have been implemented. The primary goals of the SAV and TFF-EFH are to provide ecologically valuable mitigation in Hydrologic Unit Code (HUC) 03080103 and the SJRWMD Regulatory Basin 8 through implementation of a watershed-based mitigation project. The SAV and TFF-EFH mitigation areas will increase water resource functions, provide habitat for wetland dependent species and fisheries resources, and restore/enhance the wetland functions of an anthropogenically altered system. Control of FLEPPC Category I and II invasive exotic species will occur in all restoration and enhancement areas. Long-term management of the TFF-EFH mitigation area will be included in the Deep Creek Conservation Area management plan. The target cover for invasive exotic species is 10% or 5 years after implementation of the mitigation project.

The proposed creation, restoration, and enhancement will directly benefit fish and wildlife in the system being impacted and support the water quality and quantity goals for the St Johns River. SAV mitigation provided will result in 0.842-units of functional gain and the TFF-EFH mitigation provided will result in 32.189-units of functional gain (Appendix D). The remaining wetland impacts for the FCX project will be offset through a mitigation plan submitted by others. The goals and objectives of the SAV and TFF-EFH mitigation follow:

Goal 1: Restoration of 2.21-acres of submerged aquatic vegetation habitat (SAV Mitigation)

Description: The SAV mitigation site is a substantially altered community; however, its position in the landscape indicates that portions of SAV were historically tidally influenced, shallow water, river bottom with active submerged aquatic communities. The site is currently functioning as an upland causeway with direct discharge to the St Johns River and little to no benefit to the adjacent river. The entire unpaved portion of the assessment area is dominated by bahiagrass, *Paspalum notatum*. A functional benefit will be achieved through restoration of a portion of the upland causeway back to a riverine community and control of FLEPPC Category I and II invasive exotic species, substantial grading, supplemental planting, and improvements to adjacent communities that support ecological functions.

- Objectives:
- 1a – Mechanically remove historic fill material and match existing grades within the adjacent submerged community.
 - 1b – Stabilize shoreline with rip rap and plant 2-gallon or larger along shoreline with *Taxodium sp.*, *Spartina bakerii*, and *Juniperus virginiana*.
 - 1c – Harvest submerged aquatic species from the adjacent impact areas and replant within the restoration area. Species for harvest to include but not be limited to *Vallisneria americana*, *Ceratophyllum demersum*, *Ruppia maritima*, *Najas guadalupensis*, etc.
 - 1d – Maintain FLEPPC Category I and II invasive/exotic species at less than 10% cover.

Functions: Anticipate improved cover, substrate and refuge; nutrient cycling, improved breeding, nesting, and denning sites; improved nursery area; improved food chain support; and improved water quantity and quality.

Goal 2: Restoration of 8.32-acres of mixed forested wetlands (TFF-EFH Forested Restoration)

Description: The TFF-EFH forested restoration is substantially altered by constant farming; however, its position in the landscape indicates that TFF-EFH forested restoration was historically a tidally influenced mixed wetland hardwood community. The current property use has not changed for decades as evident in a historic aerial photography review (Figure 7). TFF-EFH forested restoration has remnant hydrology for this wetland community; however, the entire restoration area is dominated by farmed fields, currently used as bahiagrass, *Paspalum notatum* production. The past uses of the property have been various farming efforts. A functional benefit will be achieved through elimination of the continued farming and imminent threat of development, removal and control of FLEPPC Category I and II invasive exotic species, minor grading, supplemental planting, and improvements to adjacent communities that support ecological functions.

- Objectives:
- 2a – Re-route rim ditch from around the agricultural fields to reconnect the restoration area to the tidal floodplain.
 - 2b - Mechanically grade the site to elevations consistent with the adjacent wetlands and fill existing rim ditch.
 - 2c – Plant 2-gallon or larger *Magnolia grandiflora*, *Nyssa sylvatica*, *Nyssa aquatica*, *Taxodium sp.*, *Quercus michauxii*, *Illex myrtifolia*, or other appropriate species at 15-foot centers (196 trees/acre).
 - 2d – Plant *Sabal minor*, *Illex cassine*, *Vaccinium sp.*, or other appropriate species at 15-foot centers.
 - 2e – Maintain FLEPPC Category I and II invasive/exotic species at less than 10% cover.

Functions: Anticipate improved cover, substrate and refuge; improved breeding, nesting, and denning sites; improved nursery area; improved food chain support; and improved water quantity and quality.

Goal 3: Enhancement of 88.51 acres of hardwood forested wetlands (TFF-EFH Wetland Enhancement A)

Description: TFF-EFH Wetland Enhancement A consists of tidally influenced hardwood forested wetlands that cover the full hydrologic range of this community type. The communities within this area are characterized by a canopy of *Taxodium sp.*, *Pinus teada*, *Carya aquatica* and ground cover of *Sabal palmetto*, *Serenoa repens* and *Vaccinium sp.* The past uses of the property are farming and hydrologic manipulation. The adjacent farming activities have altered the landscape and the hydrologic regime of the system. A functional benefit will be achieved through elimination of the hydrologic manipulation, removal and control of FLEPPC Category I and II invasive exotic species, and improvements to adjacent communities that support ecological functions.

Objectives: 3a – Re-route rim ditch from around the agricultural fields to reconnect the enhancement area into the tidal floodplain.
3b – Maintain FLEPPC Category I and II invasive/exotic species at less than 10% cover.

Functions: Anticipate improved cover, substrate and refuge; improved breeding, nesting, and denning sites; improved nursery area; improved food chain support; and improved water quantity and quality.

Goal 4: Enhancement of 59.59-acres of mixed wetlands (TFF-EFH Wetland Enhancement B)

Description: TFF-EFH Wetland Enhancement B consists of tidally influenced hardwood forested wetlands as well as wetlands managed as an active fish farm. The communities within this area are characterized by a canopy of *Acer rubrum*, *Taxodium sp.*, and ground cover of *Ludwigia peruviana*. The past uses of the property are farming and hydrologic manipulation for use as a fish farm. The farming activities have altered the landscape and the hydrologic regime of the system. A functional benefit will be achieved through elimination of the hydrologic manipulation, removal and control of FLEPPC Category I and II invasive exotic species, and improvements to adjacent communities that support ecological functions.

Objectives: 3a – Remove berms and dikes used to manipulate the hydrology of the system.
3b – Re-grade the fish farm ponds to provide more storage and attenuation for the floodplain.
3c – Plant 2-gallon or larger, *Nyssa aquatica*, *Taxodium sp.*, *Quercus michauxii*, *Illex myrtifolia*, or other appropriate species at 15-foot centers (196 trees/acre) where needed.
3c – Reduce and maintain FLEPPC Category I and II invasive/exotic species at less than 10% cover.

Functions: Anticipate improved cover, substrate and refuge; improved breeding, nesting, and denning sites; improved nursery area; improved food chain support; and improved water quantity and quality.

Site Selection

The primary factors considered when selecting this site were the site location, value to fish and wildlife, ability to provide appropriate and sufficient mitigation, enhancement and restoration potential, and cost. Multiple parcels were evaluated and the SAV and TFF-EFH areas achieve the mitigation objectives. Some of the specific factors considered for the SAV and TFF-EFH areas include:

1. Provides benefits to fish and wildlife adjacent to and using the St Johns River,
2. Project is consistent with the watershed approach,
3. Project provides the specific type of mitigation needed (SAV and TFF-EFH)
4. Mitigation area eliminates the threat of development adjacent to existing public land,
5. Mitigation area supports improvement to existing public lands,
6. Proposed mitigation supports goals of the St Johns River, and
7. Mitigation offsets a relatively small impact; therefore, a large acquisition was not feasible.

Site Protection Instrument

The SAV Mitigation area is adjacent to the St Johns River. The mitigation area will be below the mean high water line (MHW) upon completion of the project. The mitigation will be within sovereign submerged lands (SSL) as governed by 18-21 of the Florida Administrative Code (FAC). Sovereign submerged lands are held in the public trust by the Board of Trustees of the Internal Improvement Trust Fund (IITF). These areas are managed to serve the public interest by protecting and conserving land, air, water, and the state's natural resources.

The TFF-EFH mitigation is adjacent to the Deep Creek Conservation Area (Figure 6). Deep Creek Conservation Area is composed of almost entirely floodplain swamp. The SJRWMD is the lead manager on this parcel. The TFF-EFH mitigation will be included in the Management Plan for Deep Creek Conservation Area upon its next revision and will be managed consistent with the current Management Plan.

Baseline Information

The SAV mitigation area is currently a road causeway (FLUCCS 8140) at both ends of the Shands bridge (Figure 8). This ±6,662-foot long bridge was dedicated in 1963. The inside ends of the existing causeways have been hardened through construction of a bulkhead and placement of rip rap. This hardening was an effort to limit erosion to the ends of the causeway. The proposed SAV Mitigation areas will grade landward from the extent of the bulkheads. The grading will not affect the existing adjacent SAV community as the grading will start in the uplands and end in the wetlands. This will eliminate the potential for turbidity within the adjacent river. The National Wetland Inventory (NWI) mapped this area as the boundary between Estuarine and Riverine communities within the St Johns River (Figure 11). The extent of wetlands, community types, potential restoration, and enhancement areas were developed from site-specific review. The objective of the proposed mitigation is to restore or enhance the current vegetative communities to the historic communities that would have been present onsite and thus enhance the values provided to native fish and wildlife and create new wetlands adjacent to the existing wetland systems. The historic community is estimated to consist of submerged aquatic vegetation.

The TFF-EFH mitigation area is currently classified as agricultural potato fields (FLUCCS 2143), mixed wetlands hardwoods (FLUCCS 6170) and agricultural fish ponds (FLUCCS 5300) (Figure 9). The agriculture potato fields are currently under bahiagrass production and have a rim ditch that separates the hydrology from the adjacent tidally influenced mixed wetland hardwood communities. This ditch and associated pumps removed excess water from the site during high-water periods and provided irrigation during low-water periods. The restoration areas were selected due to their proximity to the floodplain. The current owners describe these areas as "early-turn" rows. The tractor operator would turn around during wet periods to avoid the excess water that would collect on lower elevations of the site. These areas have been historically difficult areas to farm.

The TFF-EFH Wetland Enhancement A is currently tidally influenced mixed wetland hardwoods (FLUCCS 6170) (Figure 9) connected to the flood plain of Deep Creek. This mitigation area parallels Deep Creek approximately 1,700-feet from the mouth where Deep Creek discharges to the St Johns River.

The TFF-EFH Wetland Enhancement B is previously farmed potato fields (FLUCCS 2143) and agricultural fish ponds (FLUCCS 5300). These areas have been farmed and managed in this condition as shown in the historic aerial photograph from 1984 (Figure 7). The berms and dikes that allowed the use of this area have disconnected these wetlands from the tidal influence and the floodplain.

Determination of Credits

The functional gain attributed to the proposed restoration and enhancement activities are associated with the elimination of agricultural use and removal of the development threat. The expected improvement in community structure and hydrology and subsequent improvement to the ecological relationship between these areas and the adjacent communities will ultimately improve the floodplain for Deep Creek and the St Johns River. The SAV Mitigation is a unique community that directly benefits the community structure and hydrology of the St Johns River. The TFF-EFH mitigation supports the acquisition of additional land adjacent to the Deep Creek Conservation Area and will result in restoration and enhancement on the newly acquire parcels and the existing preservation land. The functional assessment accounts for the rarity of habitat and the critical need for restoration activities that support the St Johns River.

The SAV and TFF-EFH will provide 33.031-functional units of mitigation based on the UMAM assessment (Appendix D). Restoration, enhancement, and long-term maintenance of the proposed mitigation provides direct support for the system being impacted. Benefits will be realized by fish and wildlife through improved community structure, vegetative diversity, and improved hydrology.

Mitigation Work Plan

Year 1

SAV Mitigation

- Grade the causeway down to match grades in the adjacent SAV communities
- Stabilize graded areas and monitor turbidity
- Stabilize shoreline with rip rap and additional plantings
- Harvest SAV's from the adjacent impact area and replant within the mitigation areas (Figure 14 and 15)
- Monitor for invasive species monthly and herbicide any invasive species quarterly

TFF-EFH Restoration

- Mechanically grade site to elevations consistent with the adjacent wetlands

TFF-EFH Enhancement A

- Obtain engineering survey and design associated with the re-routing of the rim ditch
 - Coordinate with the Hastings Water Control District
- Monitor for invasive species monthly and herbicide any invasive species quarterly

TFF-EFH Enhancement B

- Obtain engineering survey and design associated with the removal of berms and dikes

Year 2

SAV Mitigation

- Monitor for invasive species monthly and herbicide any invasive species quarterly

TFF-EFH Restoration

- Plant the restoration area
- Monitor for invasive species monthly and herbicide any invasive species quarterly

TFF-EFH Enhancement A

- Dig the new rim ditch to reconnect the floodplain to the mitigation areas
- Monitor for invasive species monthly and herbicide any invasive species quarterly

TFF-EFH Enhancement B

- Remove berms and dikes to reconnect the system to the floodplain
- Monitor for invasive species monthly and herbicide any invasive species quarterly

Years 3 – 5

All Assessment Areas

- Conduct quarterly or more frequent monitoring for invasive species
- Spot treat nuisance and exotic vegetation as needed
- Conduct annual monitoring for success of mitigation
- Implement adaptive management, including additional planting if natural recruitment and proposed plantings are insufficient to meet coverage requirements

Maintenance Plan

The intent of this mitigation plan is to restore and enhance natural communities in the appropriate landscape and hydrologic settings so that they are self sustaining. The FDOT has provided sufficient funds for long-term management and maintenance of the SAV and TFF-EFH through a non-wasting endowment. The TFF-EFH will be included in the Management Plan for Deep Creek Conservation Area upon its next revision and will be managed consistent with the Management Plan. The SAV and TFF-EFH will be monitored annually or more for the presence of invasive species, survival of plantings, coverage by native species or any other items that may require attention.

Performance Standards

The overarching goal of the mitigation is restoration and enhancement of SAV and TFF-EFH communities. Restoration of the communities will be achieved through removal and control of invasive species, grading to create appropriate hydrology, planting appropriate upland and wetland vegetation, and implementation of regular monitoring and management. In the current condition, the restoration communities are not functioning compared to historic conditions. Successful restoration (SAV and TFF-EFH restoration) will result in appropriate hydrologic indicators and natural regeneration within 5 years of implementation of the mitigation. Trees will be planted at 15-foot on center (196 trees/acre) with the desired outcome of 20-foot on center (144 trees/acre). A survival rate of 75% will ensure that the desired density of canopy species is achieved. The mitigation areas will be monitored and herbicide or other treatments used to maintain cover of nuisance and Category I or II (FLEPPC) invasive species to 10% cover or less.

SAV Restoration

1. Grading and stabilization to match existing adjacent grades
2. Cover by desirable wetland species $\geq 80\%$ within 5 years
3. Cover by nuisances or Category I or II (FLEPPC) invasive species $<10\%$
4. Document utilization by wildlife

TFF-EFH Restoration

1. Minimum survival rate of 75% of planted trees and observation of 144 tree/acre
2. Cover by desirable wetland species $\geq 80\%$ within 5 years
3. Cover by nuisance species or Category I or II (FLEPPC) invasive species $\leq 10\%$
4. Document utilization by wildlife

TFF-EFH Enhancement A and B

1. Minimum survival rate of 75% of planted trees and observation of 144 tree/acre
2. Cover by nuisances or Category I or II (FLEPPC) invasive species $<10\%$
3. Document utilization by wildlife

Monitoring Requirements

Monitoring will occur annually (for reporting mitigation condition) during the growing season for five years or until it is demonstrated that the site is trending toward success. Access to the site will be provided through an easement (Figure 12). Monitoring will consist of four (4) photo stations and a summary of management activities completed during the previous year. Percent cover of invasive or exotic species will be quantified based on the annual survey of the mitigation areas. A qualitative assessment of the mitigation objectives and use by wildlife will be included as part of the monitoring report.

An annual monitoring report will be submitted by December 31 of each year following permit issuance and will contain all elements required in “**Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Restoration, Establishment, and/or Enhancement of Aquatic Resources**”. The first monitoring report will include the baseline condition (condition prior to enhancement or restoration).

Long-term Management Plan

The SAV Mitigation area is adjacent to the St Johns River. The mitigation area will be below the mean high water line (MHW) upon completion of the project. This mitigation will be within sovereign submerged lands (SSL) as governed by 18-21 of the Florida Administrative Code (FAC). Sovereign submerged lands are held in the public trust by the Board of Trustees of the Internal Improvement Trust Fund (IITF). These areas are managed to serve the public interest by protecting and conserving land, air, water, and the state’s natural resources. The mitigation goal for this project is consistent with the SSL rule which will provide long term protection of this area.

The TFF-EFH will be included in the Management Plan for Deep Creek Conservation Area upon its next revision and will be managed consistent with the current Management Plan.

Adaptive Management Plan

This plan is not intended to limit the management techniques utilized to meet the criteria for mitigation success. The management strategies described herein has previously been successful; however, new management techniques and strategies may be employed in the future. As required by 373.4137, F.S., the SJRWMD as FDOT's agent assumes responsibility for corrective actions that may be required if the mitigation areas do not meet success criteria sufficient to satisfy the mitigation conditions of the Section 404 permit authorizations. If it is determined during the monitoring period that the mitigation areas are unlikely to meet the minimum wetland mitigation conditions described in the Section 404 permit authorizations, FDOT and the SJRWMD will coordinate with the USACE to accomplish the appropriate corrective actions. The SJRWMD will ensure that remediation measures or alternate mitigation actions are completed as needed.

Financial Assurances

FDOT will provide funds for the planning, design, maintenance, implementation, and long-term management of the SAV and TFF-EFH mitigation areas. Long-term maintenance is anticipated to involve maintenance level control of nuisance, invasive, and exotic species. The SAV and TFF-EFH wetlands that will be restored or enhanced are designed to be self-sustaining. A non-wasting land management endowment will be provided to the SJRWMD. The SJRWMD will use only the earned interest for management activities, providing a mechanism for perpetual management.

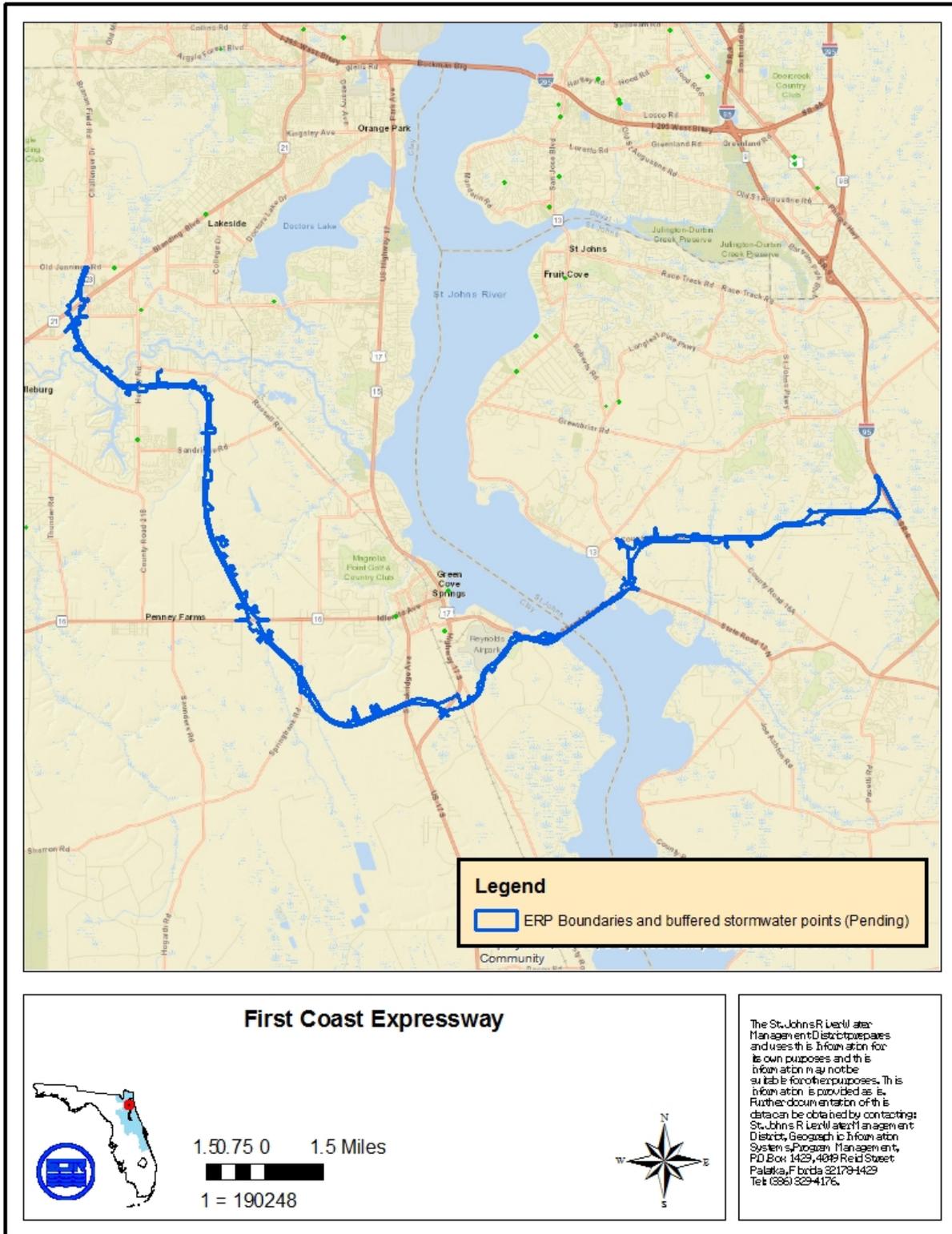


Figure 1. General location of The First Coast Expressway.

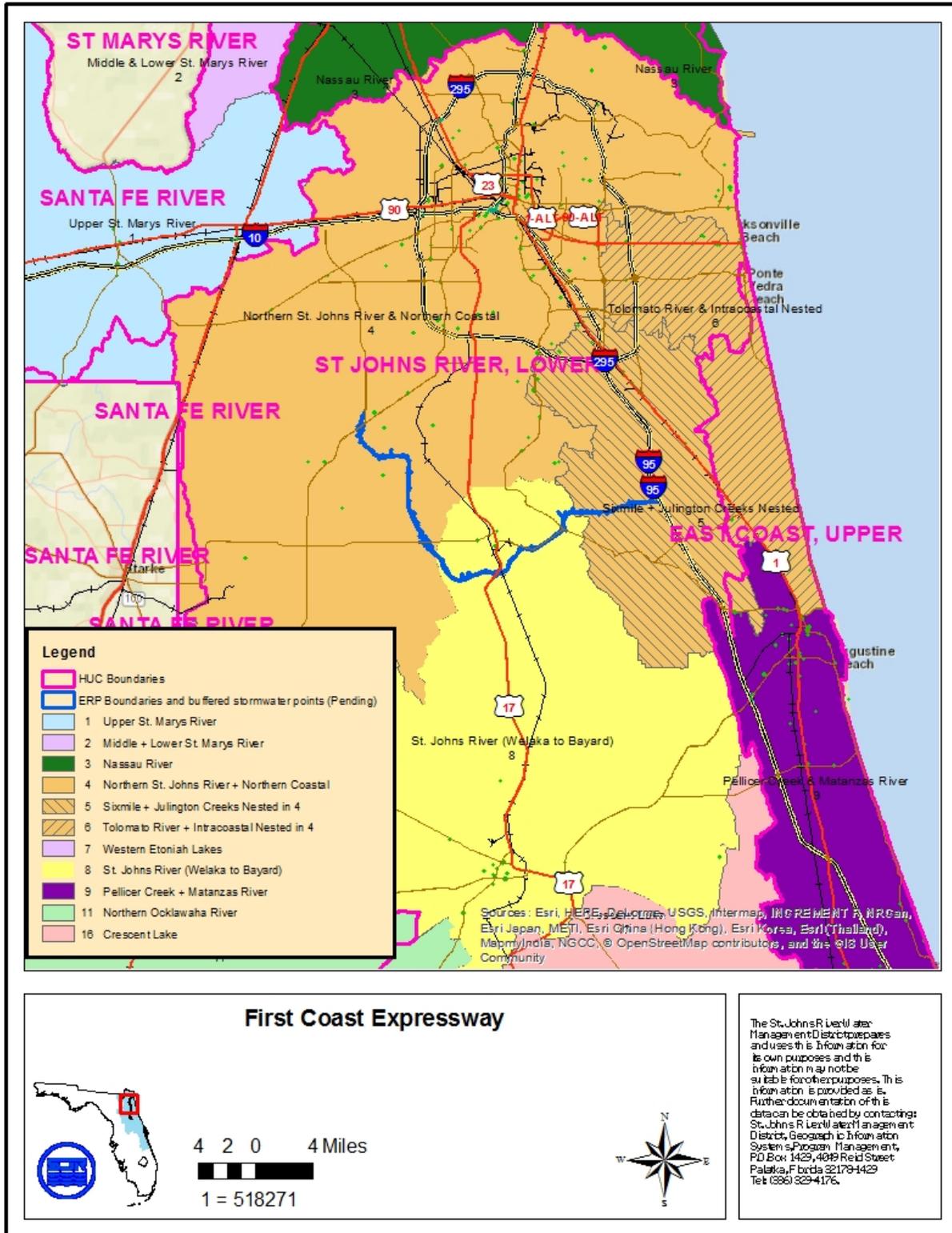


Figure 2. General location of impact and mitigation areas and federal and state watershed boundaries.

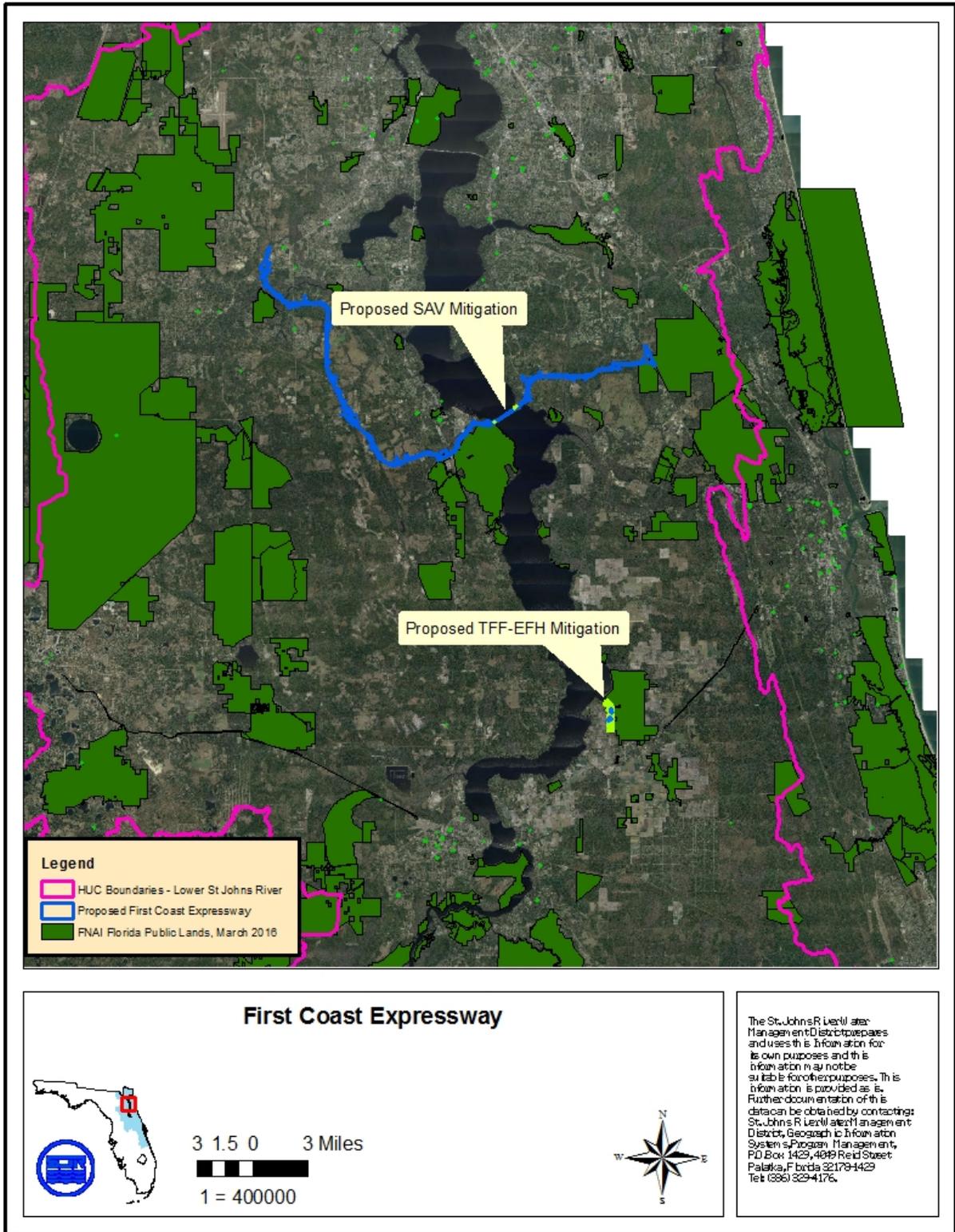


Figure 3. General location of impact and mitigation areas with respect to public lands.

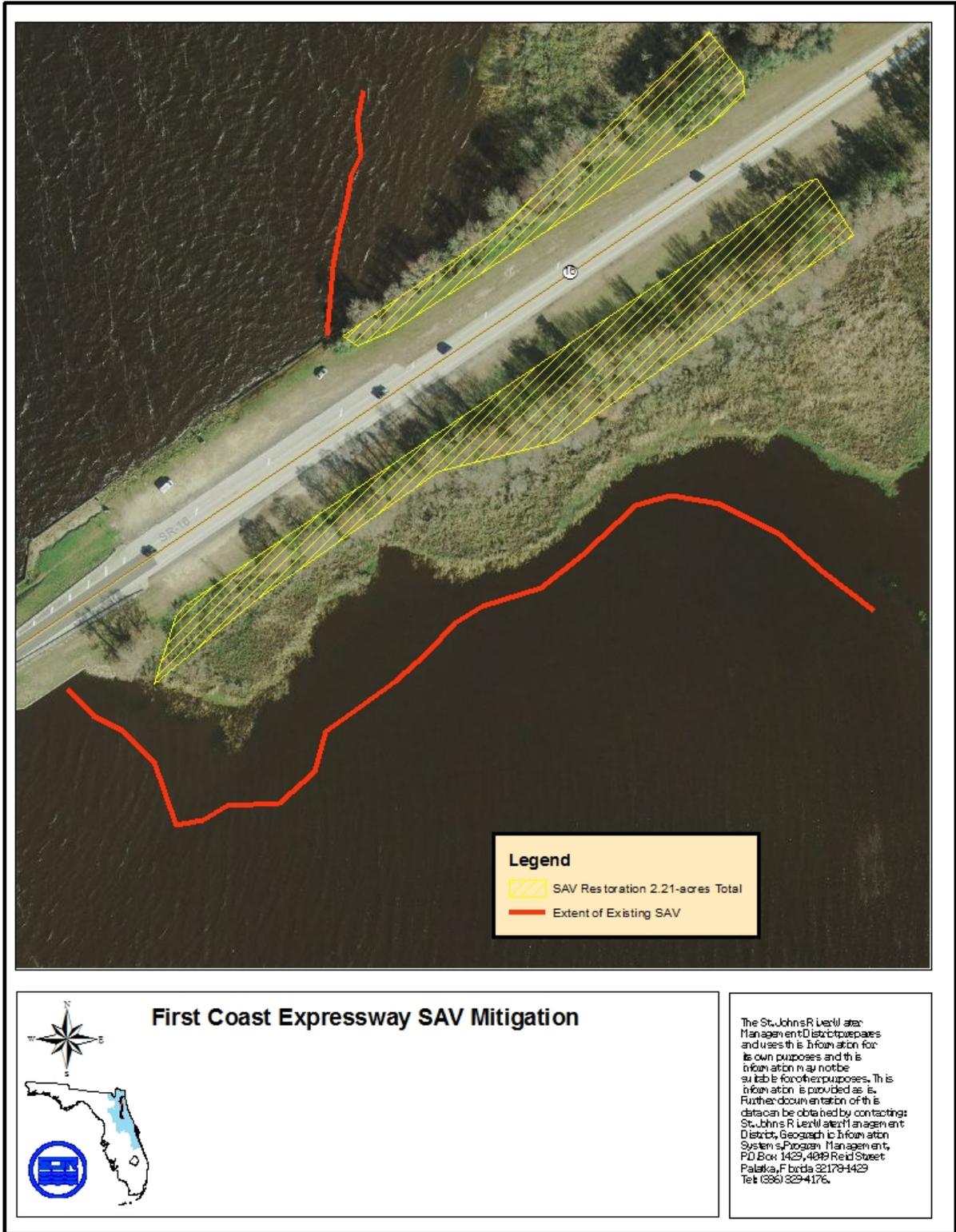


Figure 4. SAV mitigation detail east along St Johns River

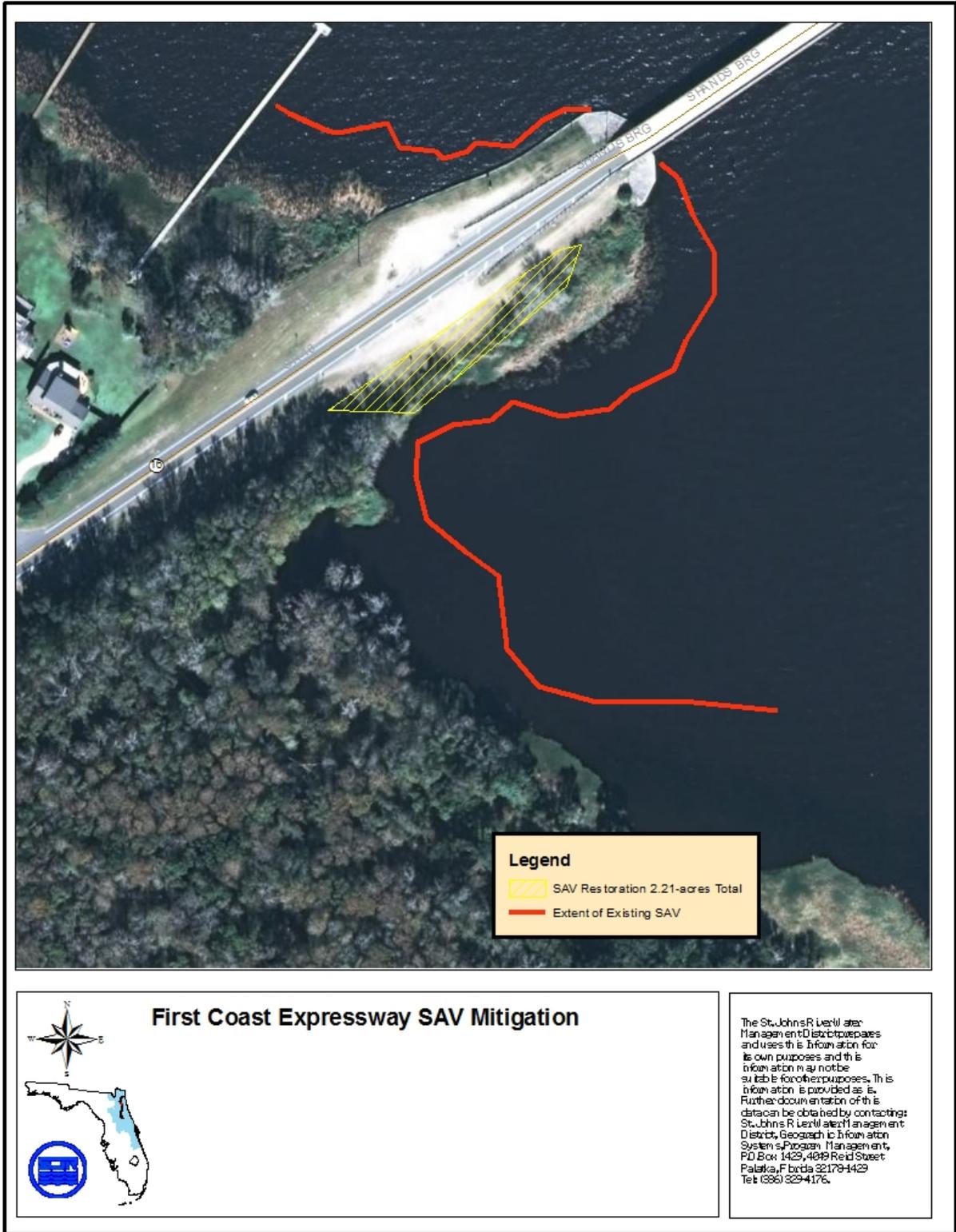


Figure 5. SAV mitigation detail west along St Johns River

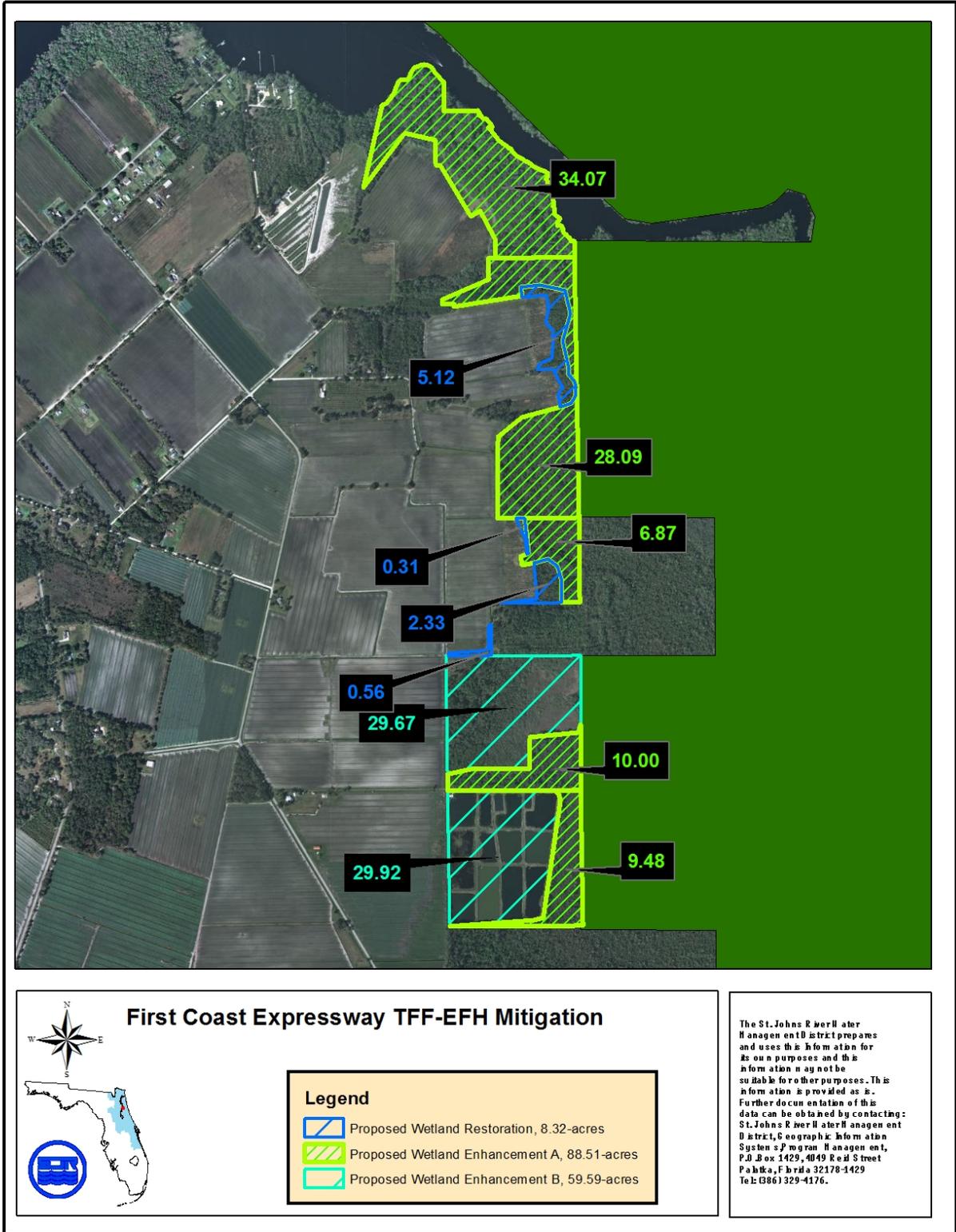


Figure 6. TFF-EFH mitigation detail with acreages.

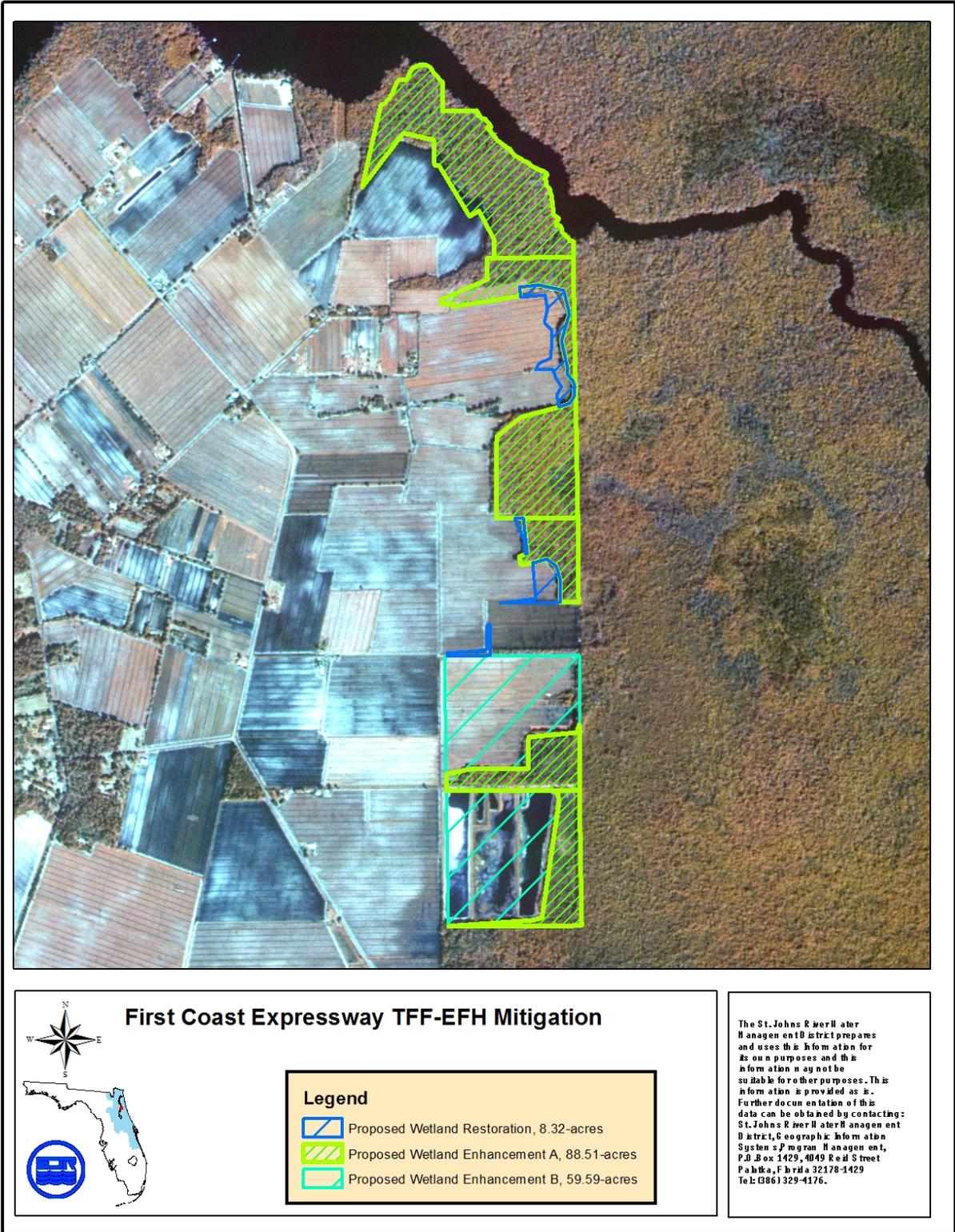


Figure 7. 1984 aerial imagery of TFF-EFH Mitigation Site.

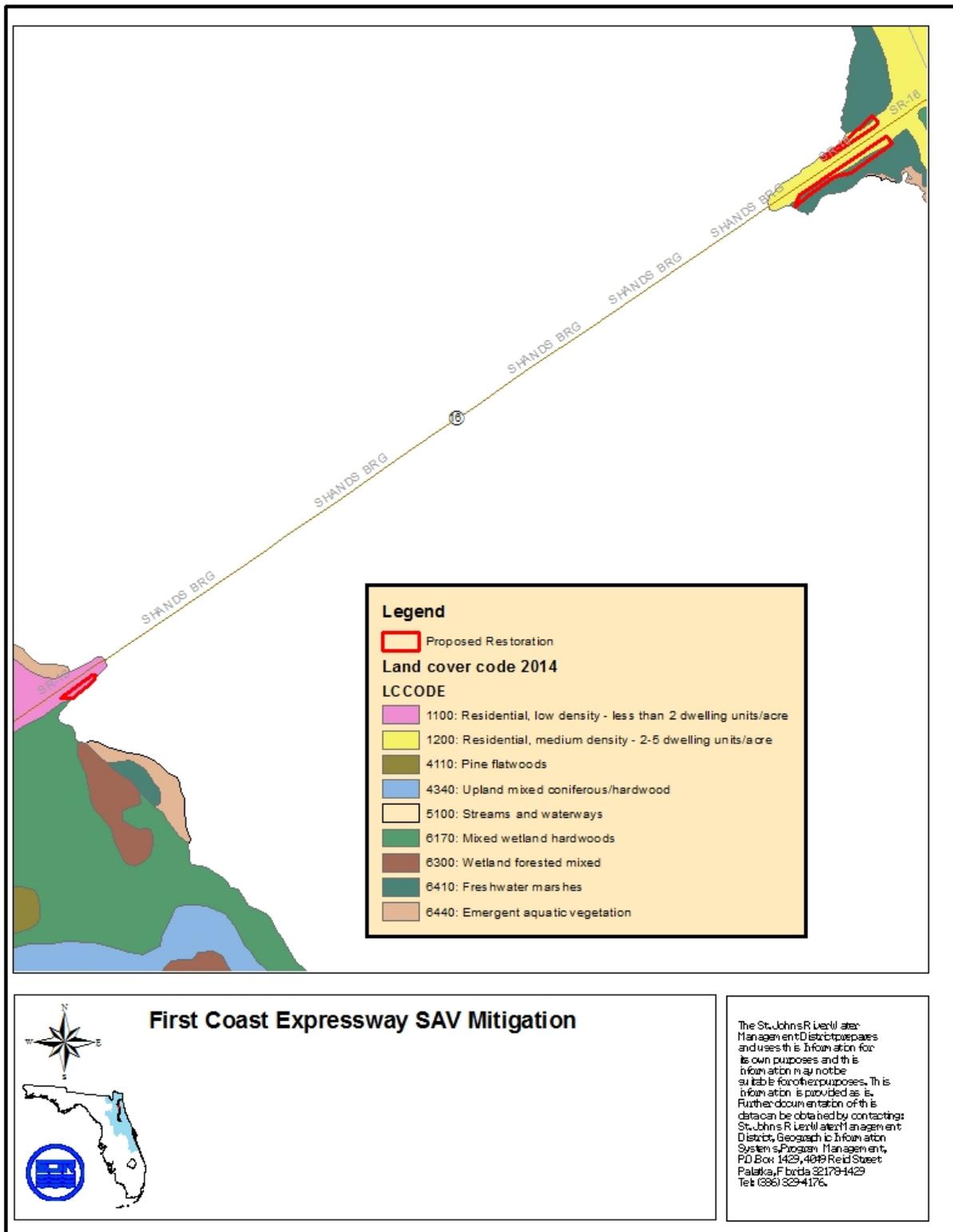


Figure 8. SAV Mitigation –FLUCCS Codes.

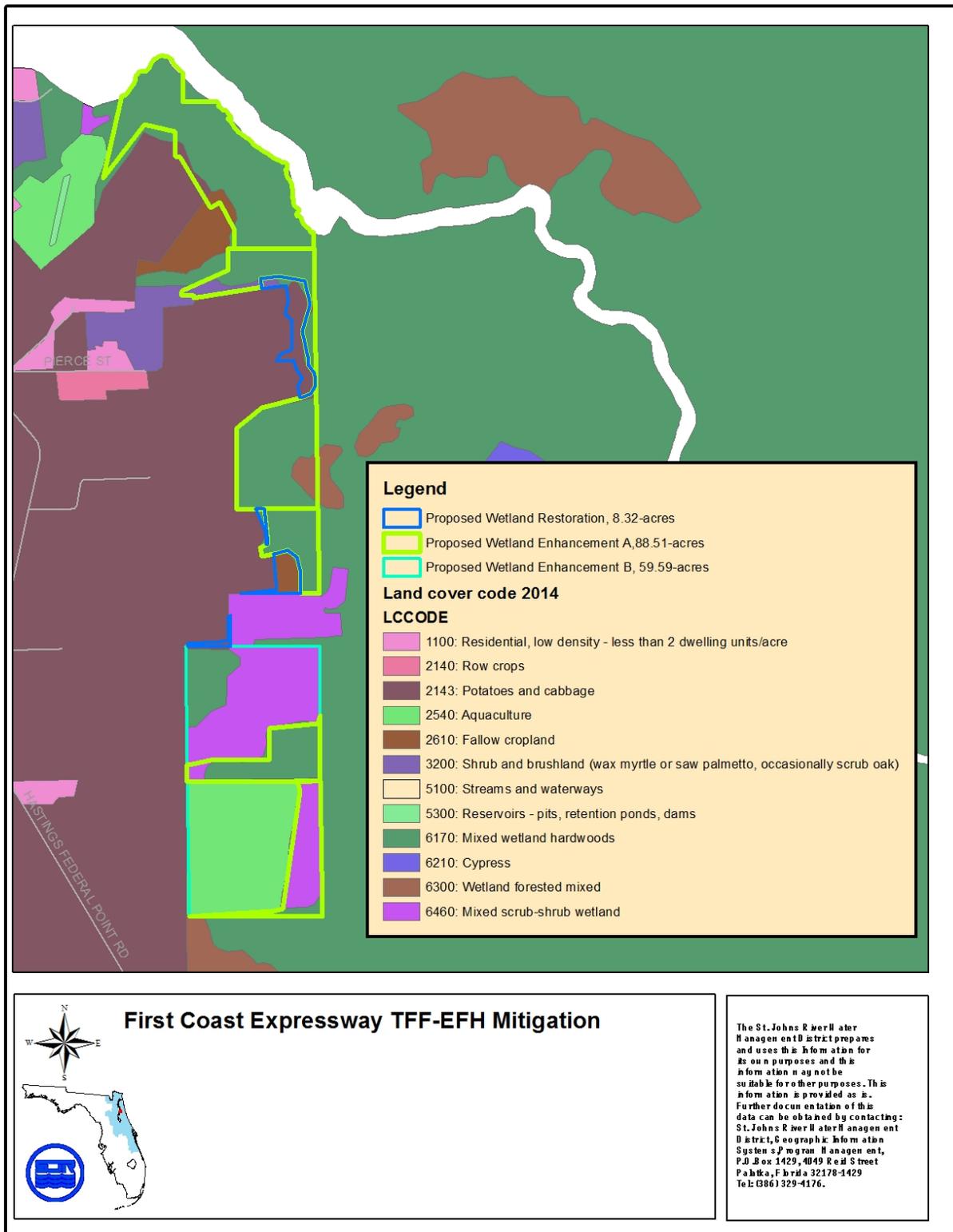


Figure 9. TFF-EFH Mitigation – FLUCCS Codes.

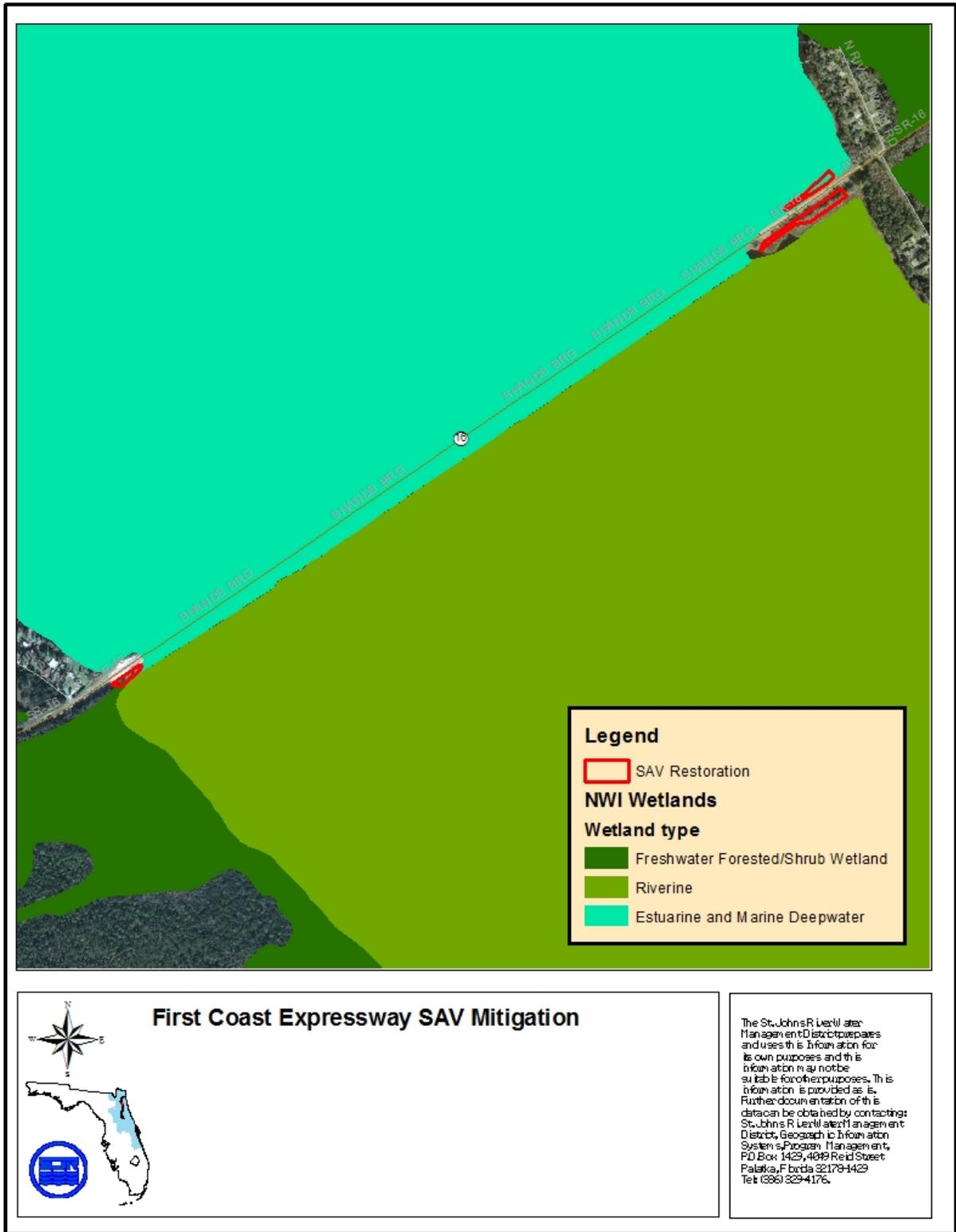


Figure 10. SAV Mitigation – National Wetlands Inventory (NWI)

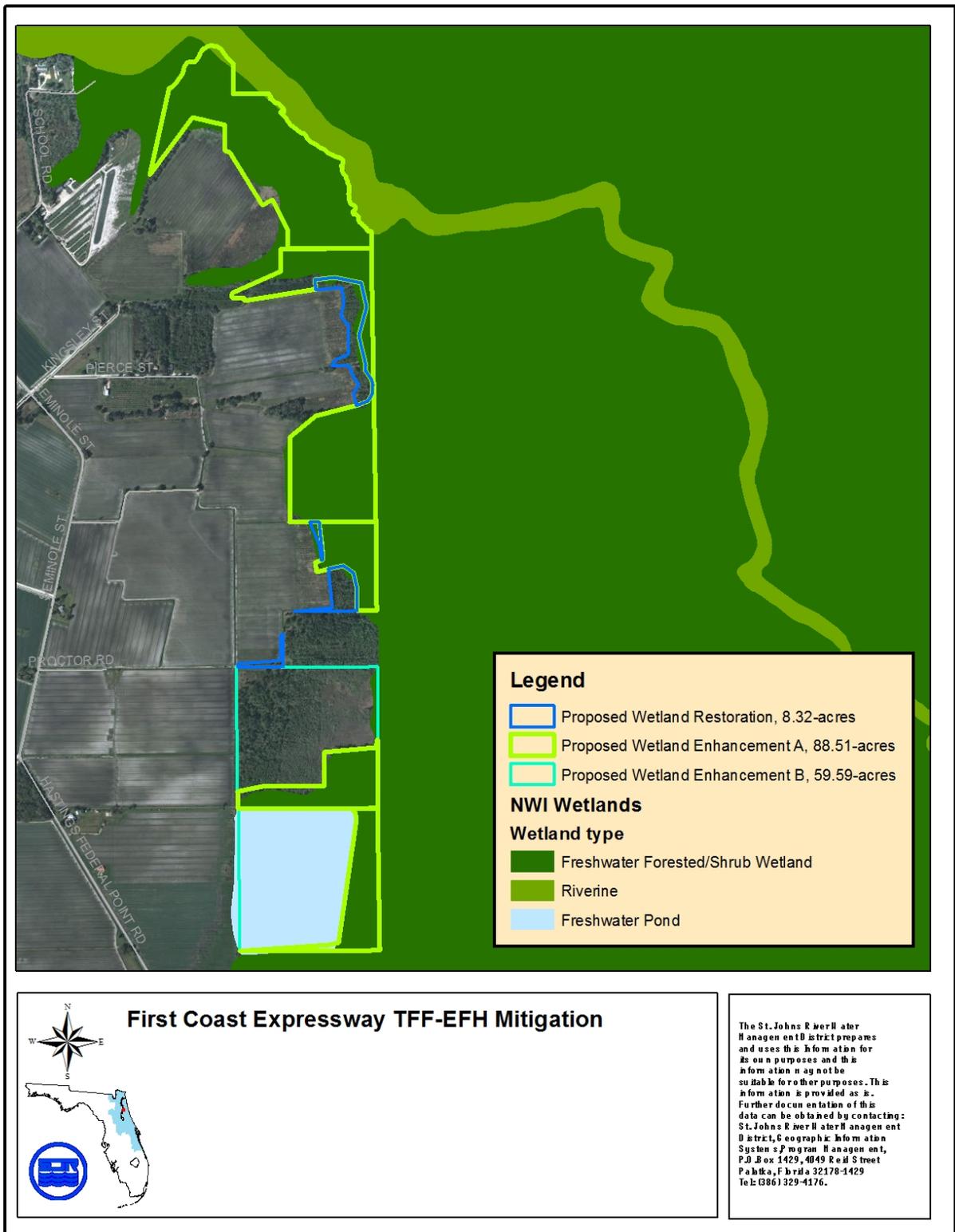


Figure 11. TFF-EFH Mitigation – National Wetlands Inventory (NWI).

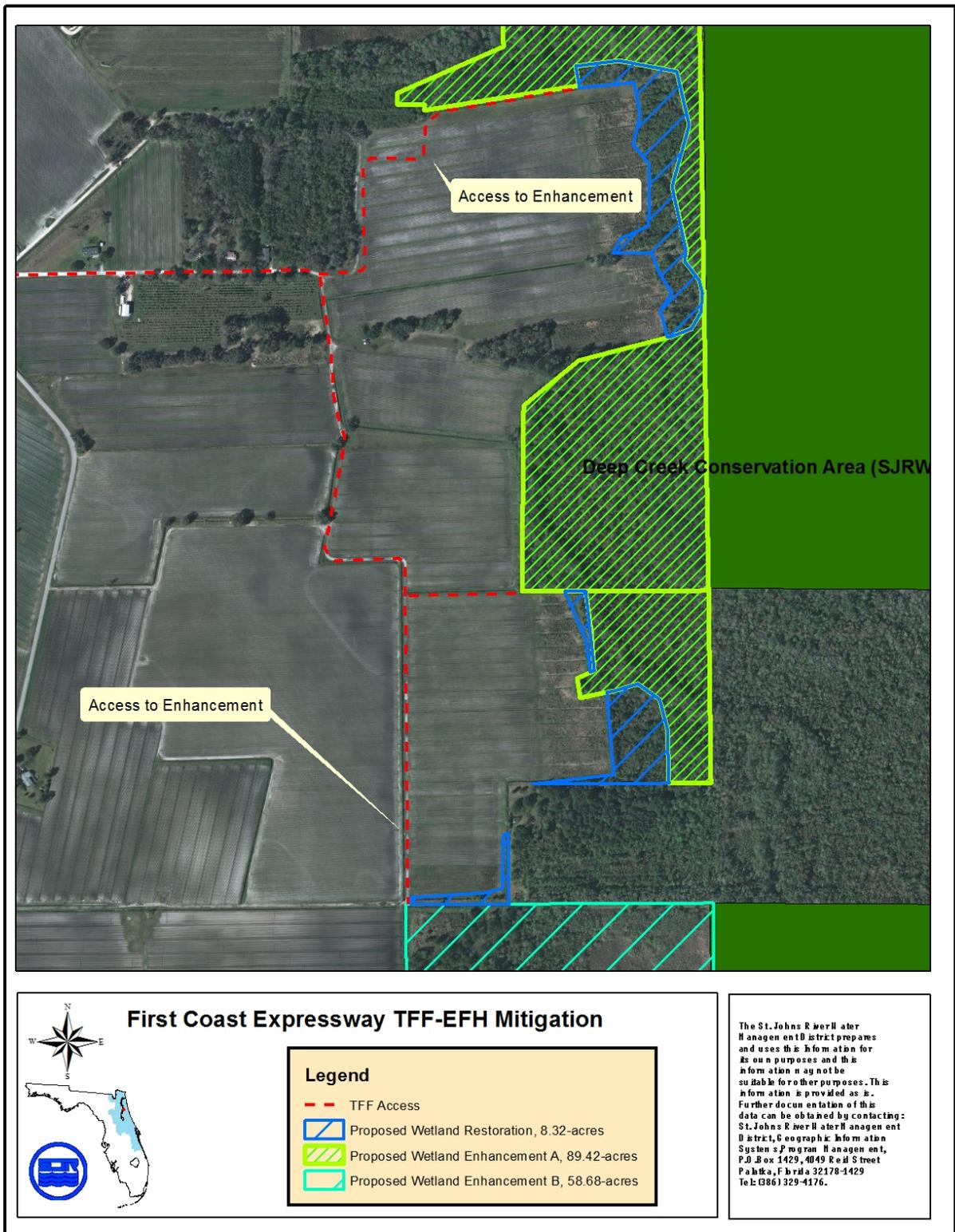


Figure 12. TFF-EFH restoration detail.

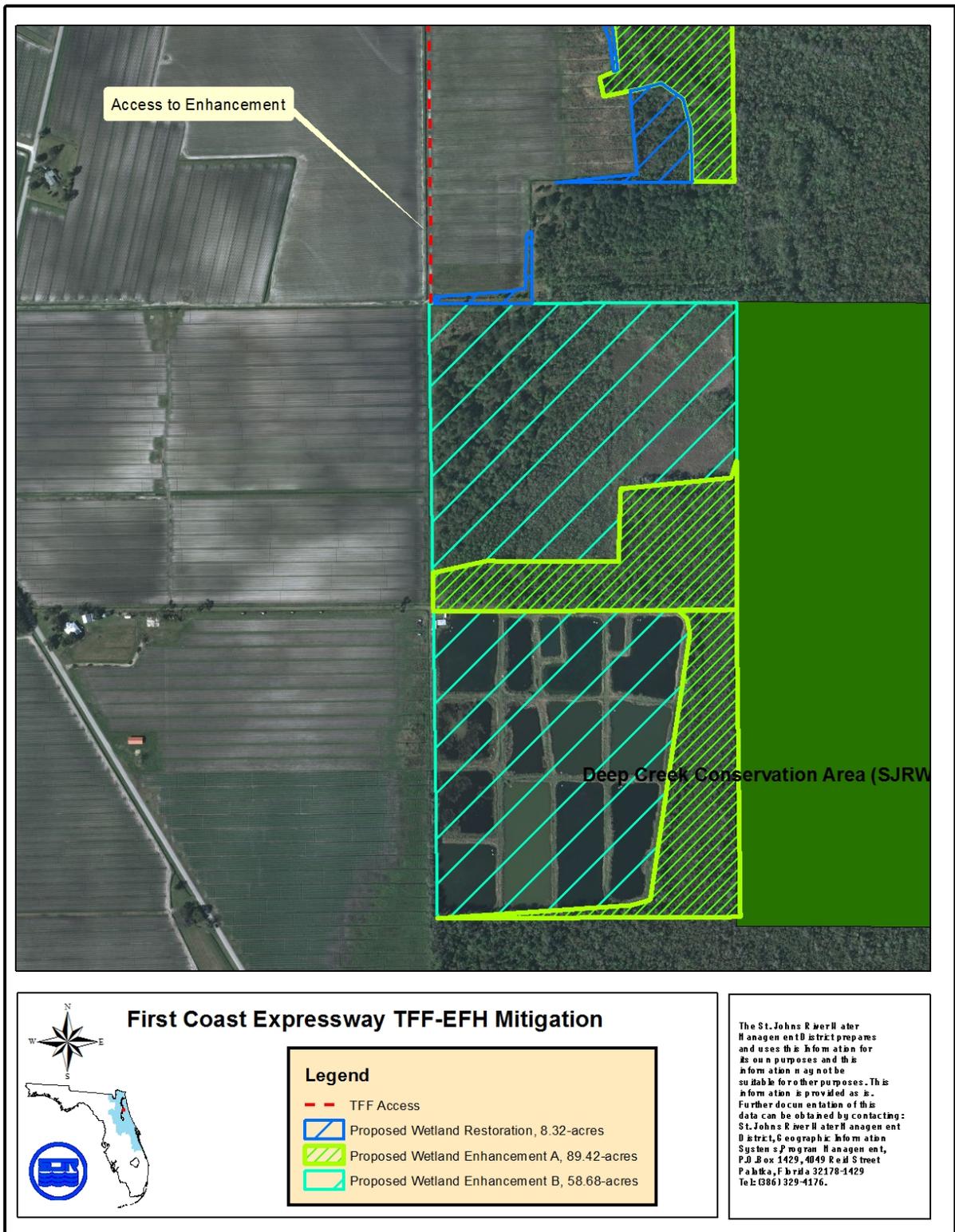


Figure 13. TFF-EFH enhancement detail.

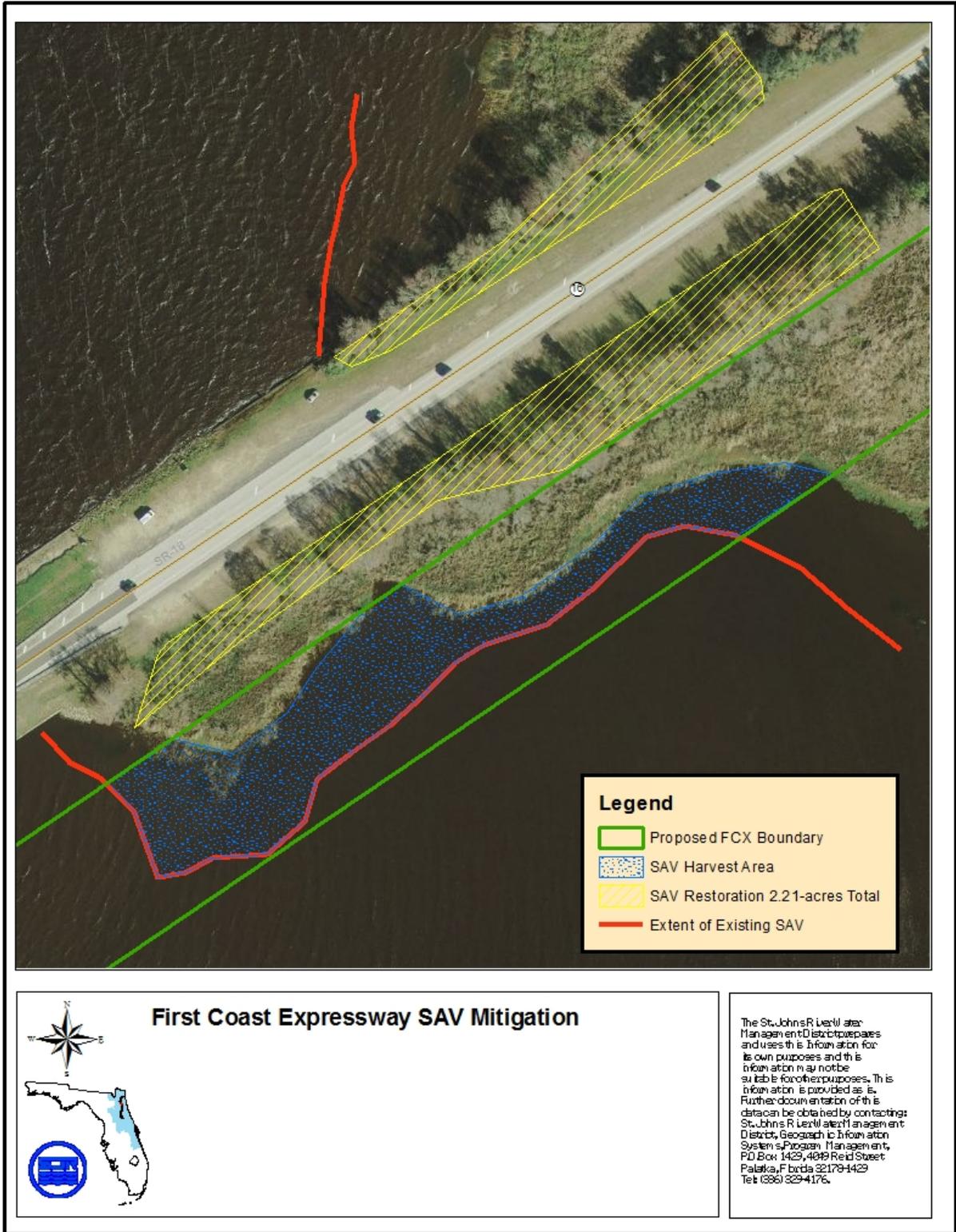


Figure 14. SAV Mitigation harvest area detail - east.

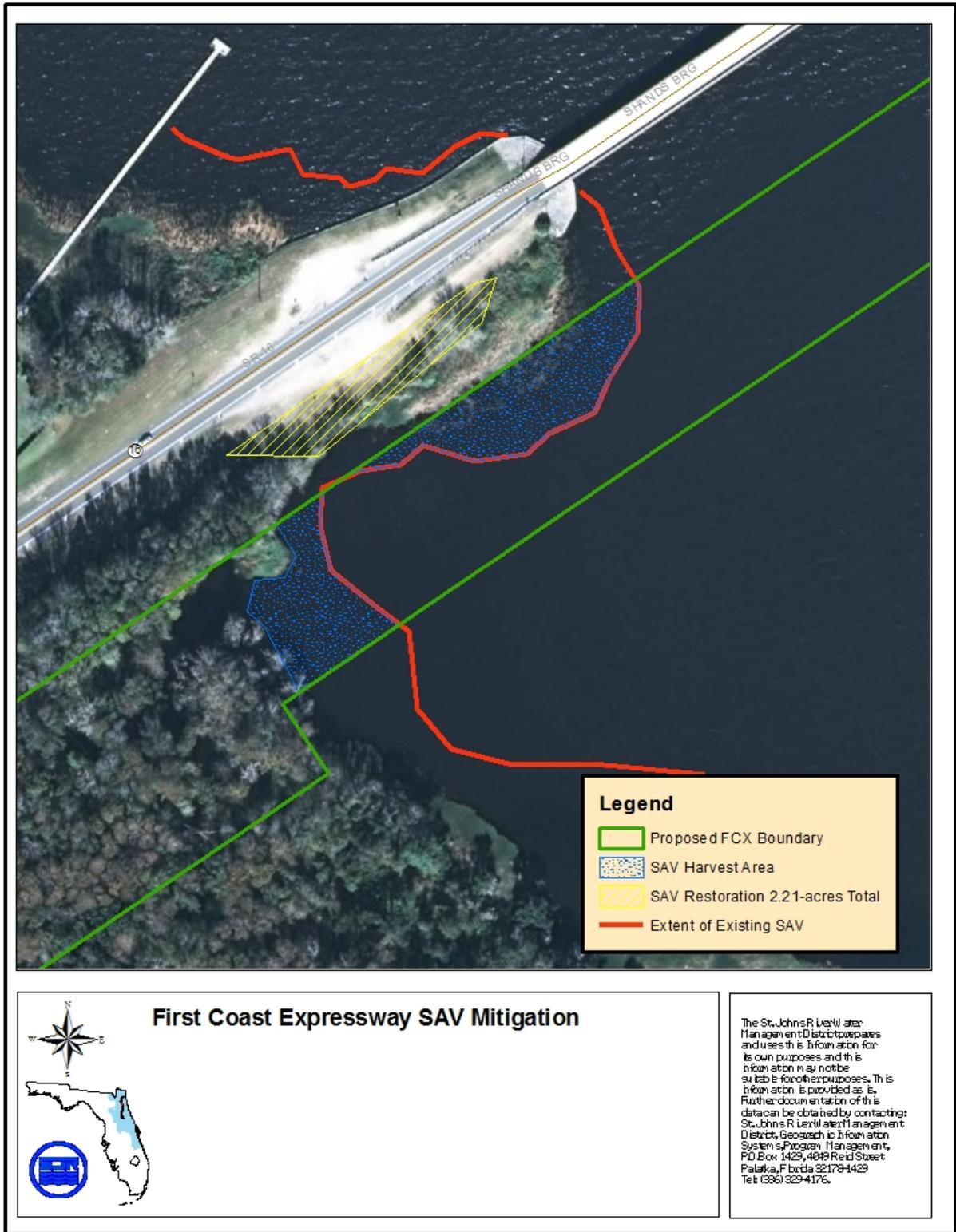


Figure 15. SAV Mitigation harvest area detail - west.

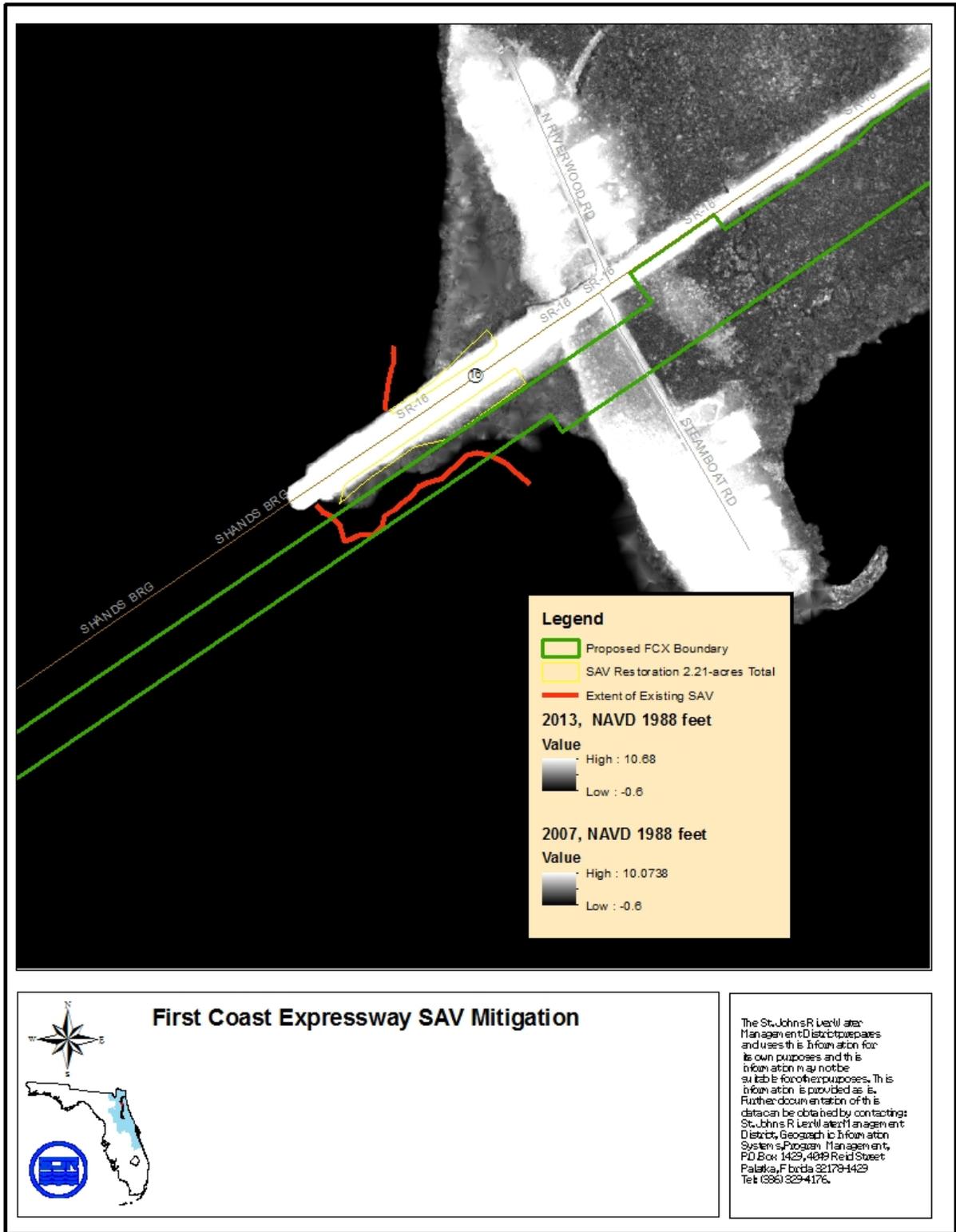


Figure 16. SAV Mitigation digital elevation map - east.

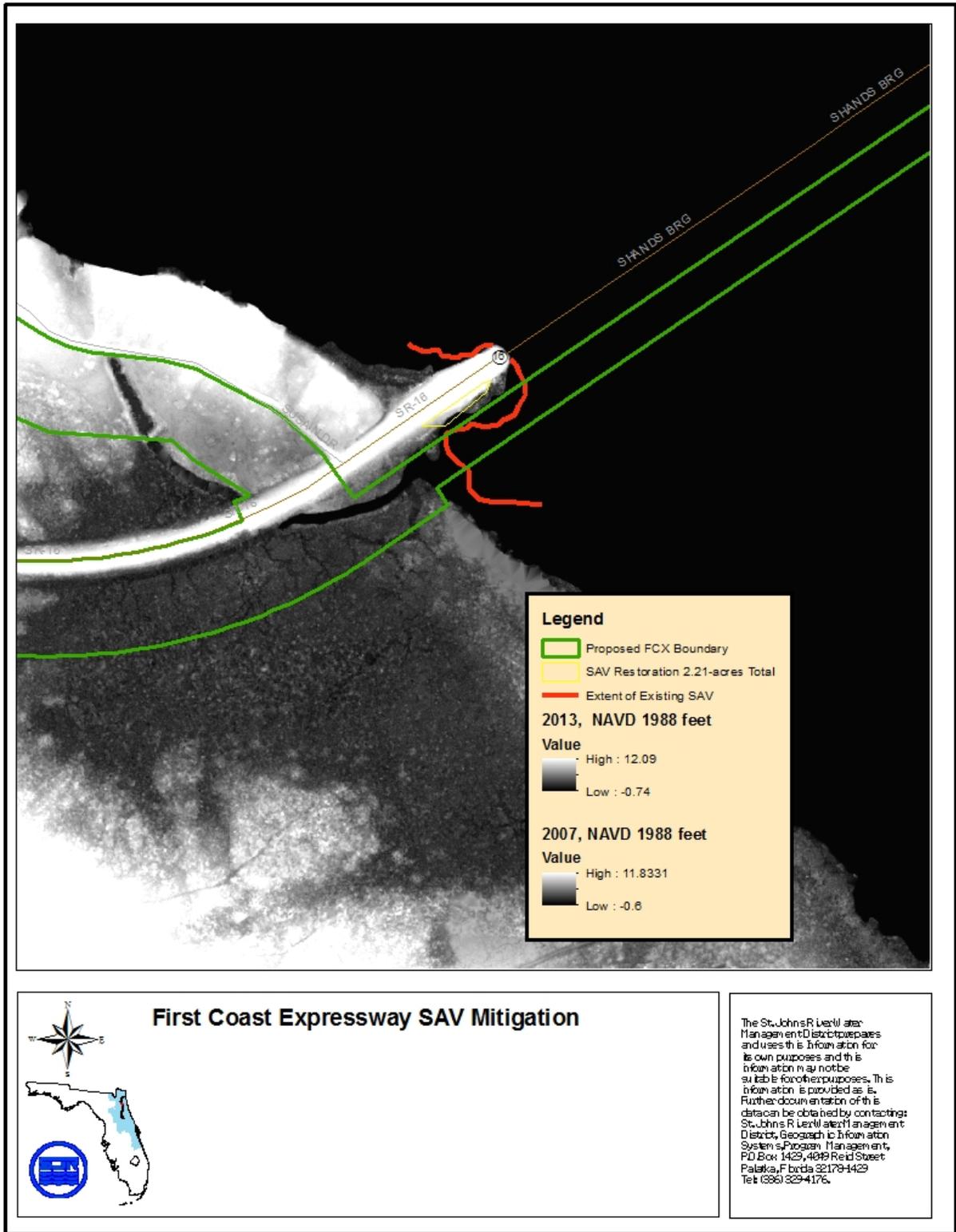


Figure 17. SAV Mitigation digital elevation map - west.

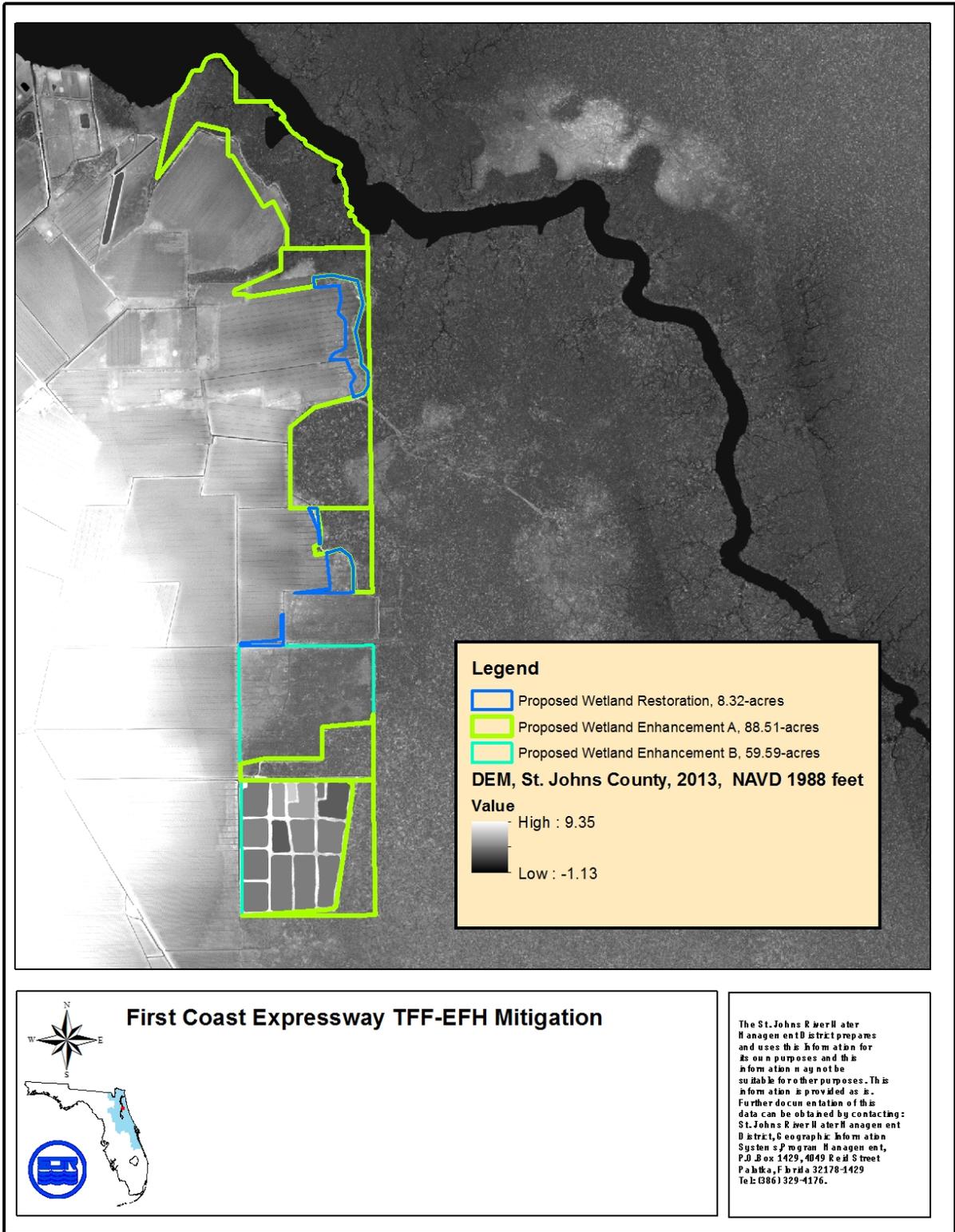


Figure 18. TFF-EFH Mitigation digital elevation map.

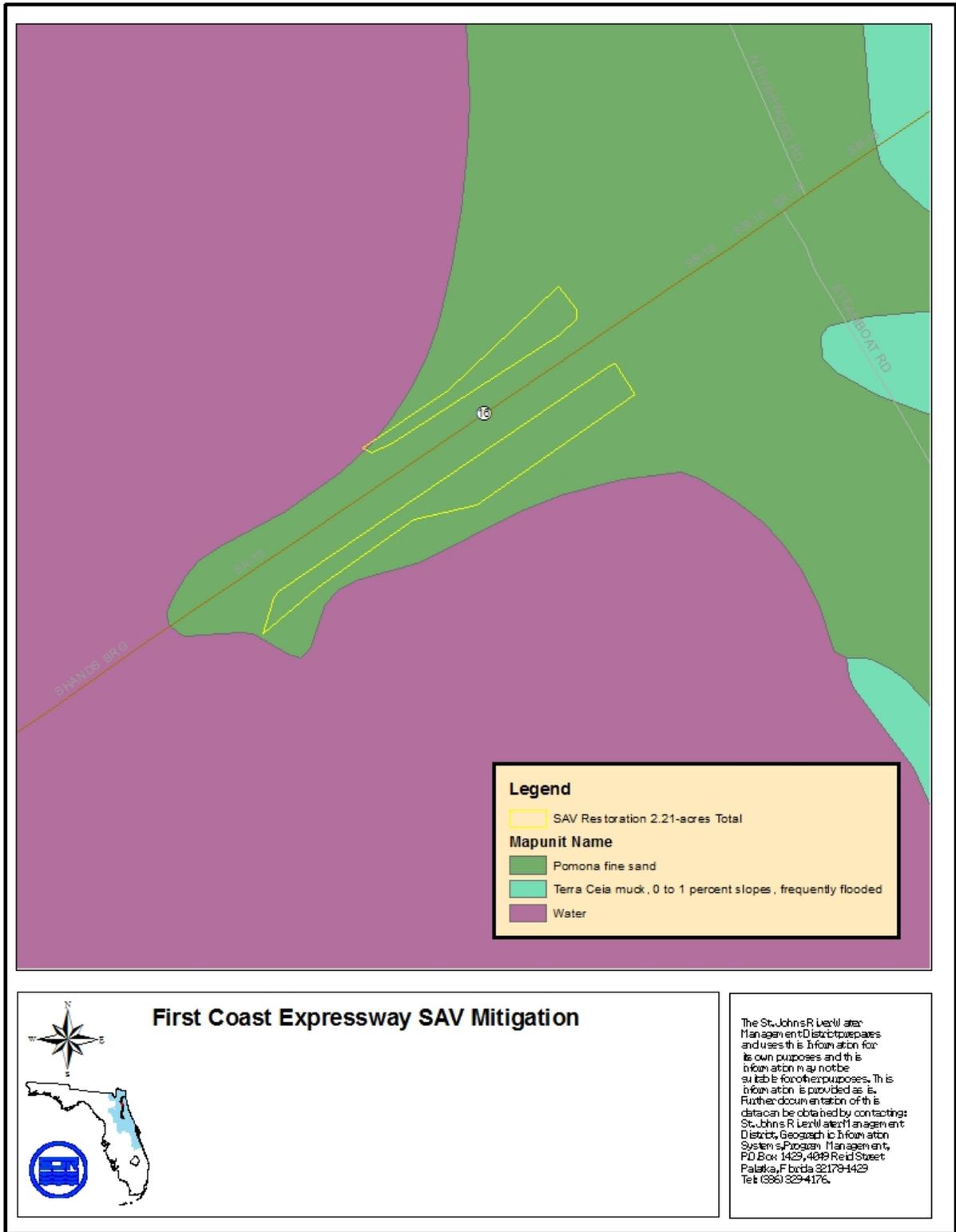


Figure 19. SAV Mitigation mapped soils - east.

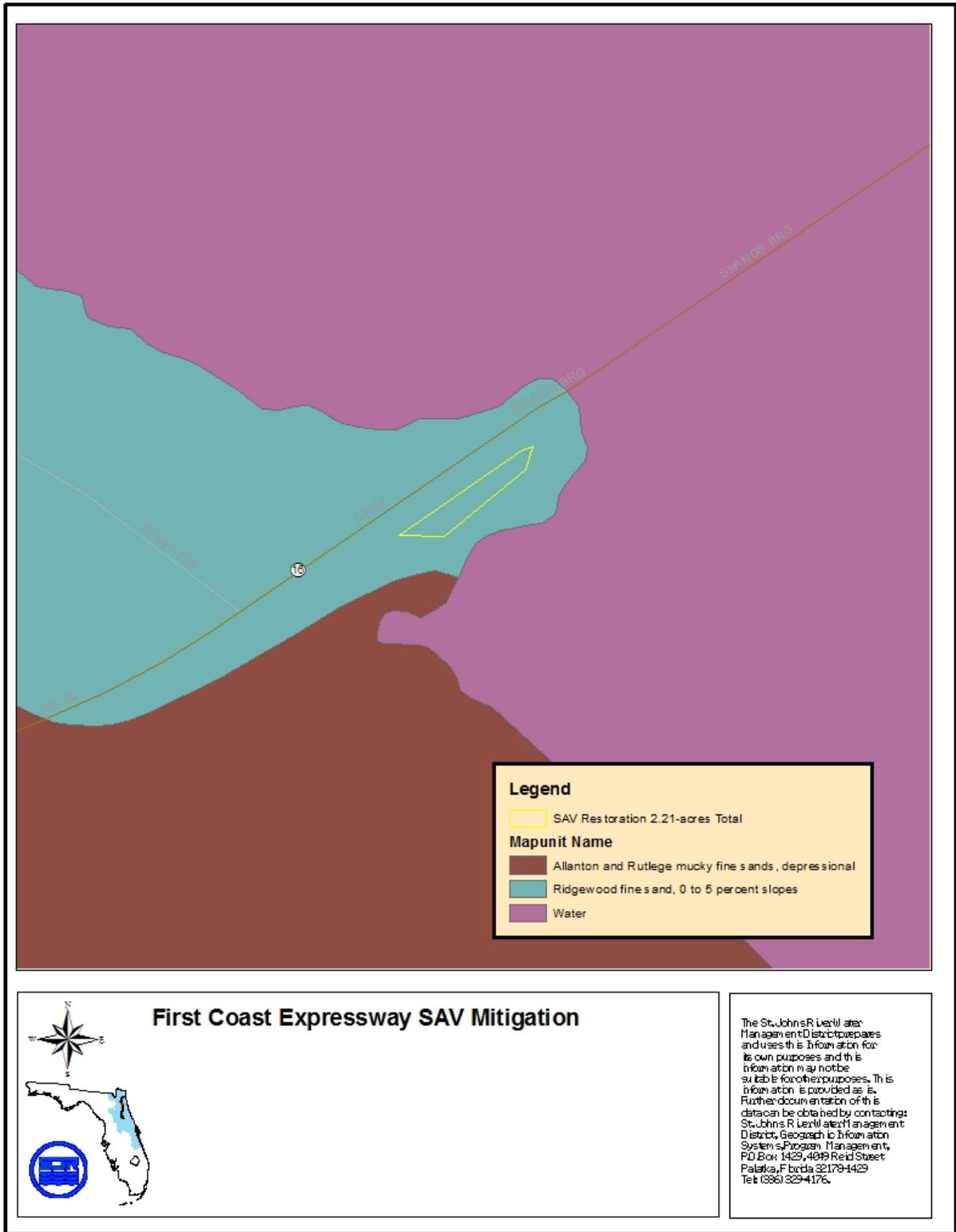


Figure 20. TFF-EFH Mitigation mapped soils - west.

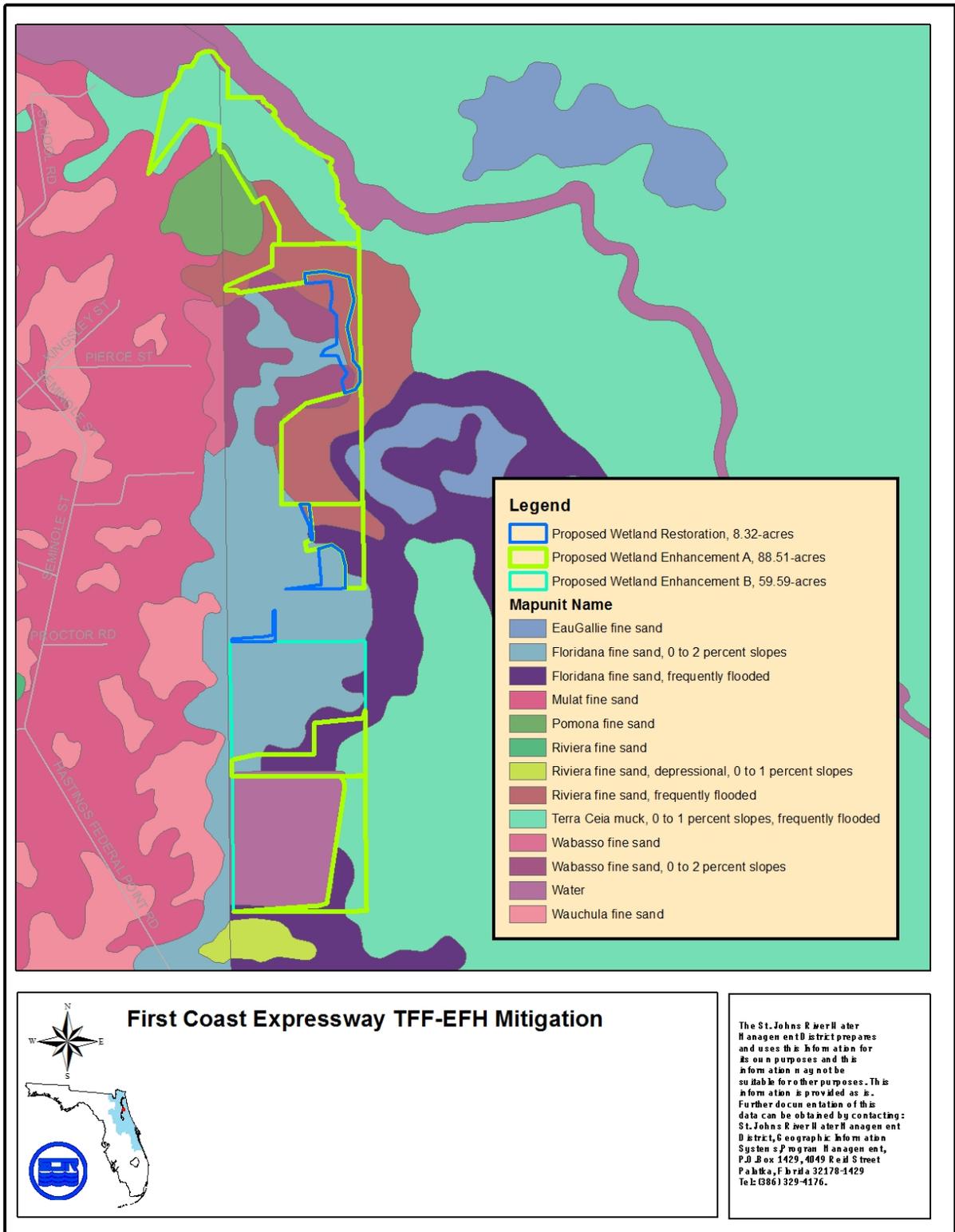
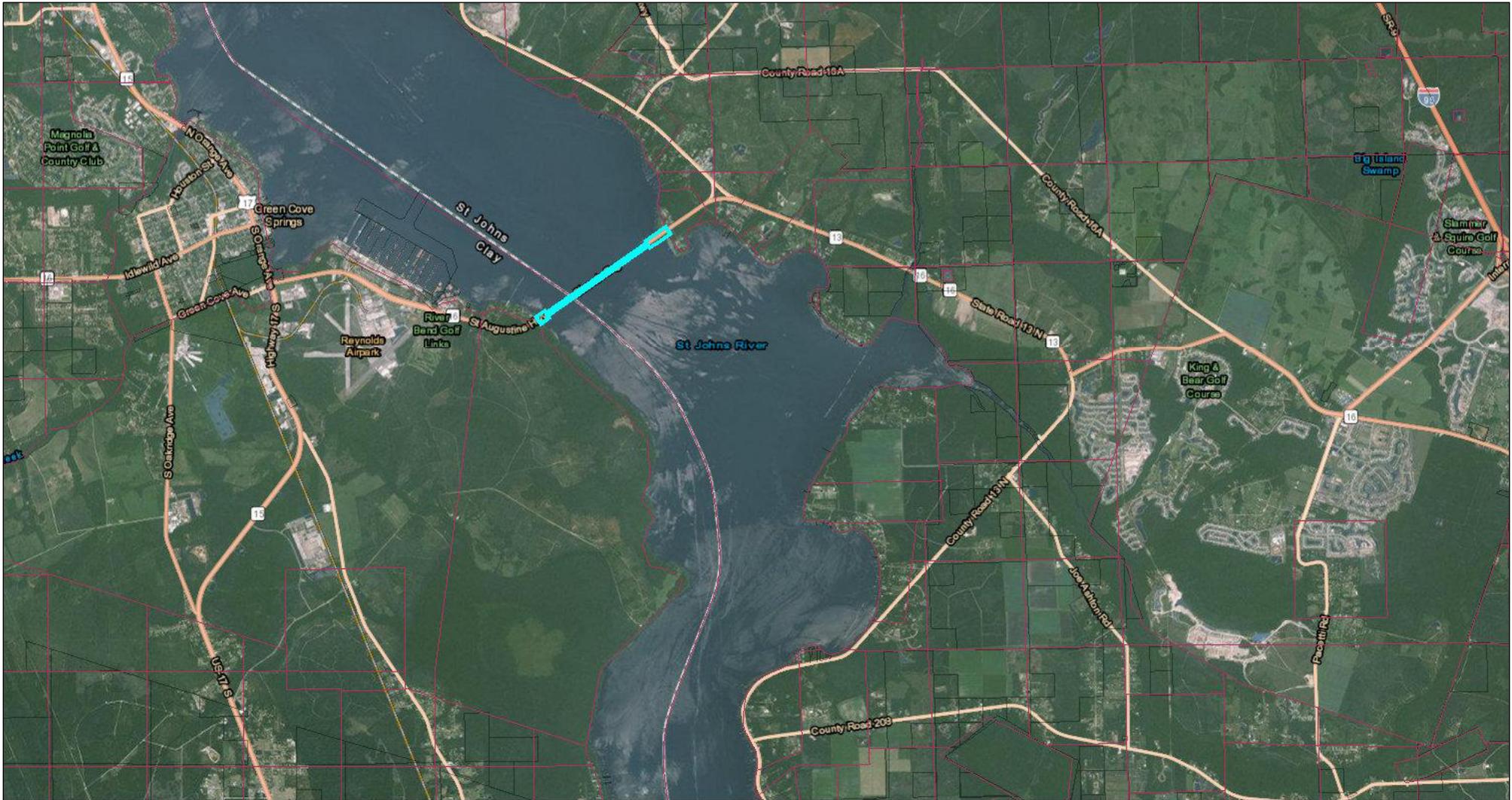


Figure 21. TFF-EFH Mitigation mapped soils.

**Appendix A – Existing Trustees of the Internal Improvement Fund (TIIF)
Easement**

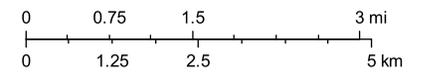
FDEP TIITF No. 22907 10-25-1961



December 12, 2017

-  Public Land Survey System 2006
-  State Land Records (BTLDSR)

1:72,224



FDEP
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors,
and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,

No. 22907

SD No. 2
Section 71100-2501
State Road 16
Clay County

**DEDICATION
TRUSTEES OF THE INTERNAL IMPROVEMENT FUND
OF THE STATE OF FLORIDA**

KNOW ALL MEN BY THESE PRESENTS, that whereas, the State Road Department of Florida having, on August 3, 1959, made application to the Trustees of the Internal Improvement Fund of the State of Florida to construct and/or improve and maintain a portion of State Road No. 16 upon lands held by said Trustees, as hereinafter described, and said Trustees having considered and approved said application in meeting held on September 1 1959, NOW, THEREFORE,

BE IT RESOLVED by the Trustees of the Internal Improvement Fund that the following described lands, in Clay County, Florida, to-wit:

That part of the submerged land fills, sand bars, islands and other lands in St. Johns River lying Northeast of Section 47, Township 6 South, Range 27 East which lies within the distances tabulated below when measured at right angles to the survey line of State Road 16, said survey line being described as follows:

Commence on the East line of Section 47, Township 6 South, Range 27 East at a point 18, 603.5 feet North of the SW corner of said Section 47, and 1350.0 feet South of St. Johns River at the NE corner of said Section 47; run thence South 74°46' 44" East 257.87 feet along a line being a Southeasterly extension of the centerline of existing State Road 16 to the beginning of a curve conceived to the Northwest having a central angle of 49°29'49" and a radius of 2291.83 feet; thence North-easterly along said curve 1979.03 feet to end of curve; thence North 55°43'27" East 234.05 feet to the West Shore of St. Johns River at Station 44 + 23; thence continue North 55°43'27" East 8369.22 feet to the East Shore of St. Johns River at Station 129 + 92.22.

Table of Right of Way Widths

Station	to	Station	Distance from Survey Line
44+23 (West Shore)		49+09	225 ft. Right and Left
49+09		116+51	100 ft. Right and Left
116+51		129+92.22 (East Shore)	225 ft. Right and Left

Containing 502.83 acres, more or less.

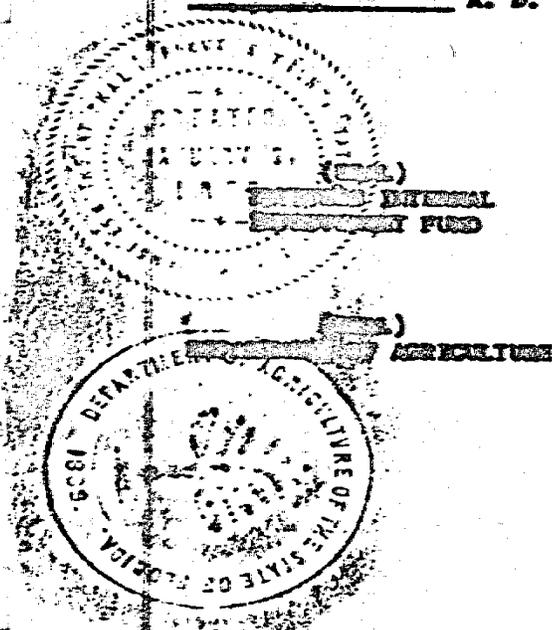
be and said land is hereby dedicated for public highway purposes as and for right of way for a public State Road under supervision of the State Road Department of Florida to control, manage, use, develop, police, protect and

STATE ROAD DEPARTMENT OF FLORIDA
DIVISION OF RIGHTS OF WAY
DESCRIPTION APPROVED
AUG 3 1959
BY *[Signature]*

maintain the same for State Highway purposes only. This dedication shall be effective insofar as the interest of the Trustees of the Internal Improvement Fund shall extend and is made subject to any and all prior rights of the United States and to any and all prior grants made by the Trustees of the Internal Improvement Fund in and to any submerged lands within the limits of the right of way hereinabove described. The rights herein conferred on the State Road Department shall extend to and include its officers, engineers, representatives and contractors, and to the federal government as its interest in said road may appear.

In the event the land herein described shall cease to be used for public road purposes and be abandoned by the State Road Department then the dedication of said land herein made shall become subject to revocation at the option of the Trustees of the Internal Improvement Fund.

IN TESTIMONY WHEREOF, the said Trustees have herewith subscribed their names and affixed their seal and have caused the seal of the DEPARTMENT OF AGRICULTURE OF THE STATE OF FLORIDA to be herewith affixed, at the Capitol, in the City of Tallahassee, on this the 25th day of October 1961 A. D.



[Signature] (SEAL)
COMMISSIONER

[Signature] (SEAL)
COMMISSIONER

[Signature] (SEAL)
TREASURER

[Signature] (SEAL)
ATTORNEY GENERAL

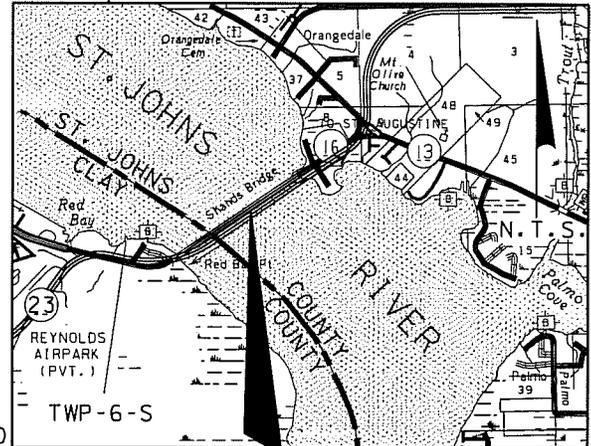
[Signature] (SEAL)
COMMISSIONER OF AGRICULTURE

As and composing the TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA.

SKETCH OF DESCRIPTION FOR T.I.I.T.F. EASEMENT

NOTES:

1. THIS SKETCH IS NOT A FIELD SURVEY.
2. THE SOLE PURPOSE OF THIS SKETCH IS TO GRAPHICALLY ILLUSTRATE THE PROPOSED T.I.I.T.F. EASEMENTS.
3. BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, N.A.D. 1983 (ADJUSTMENT OF 1990), PER F.D.E.P. MHW LINE SURVEY #4194, DERIVING A BEARING OF SOUTH 29°22'43" WEST ALONG THE SOUTHERLY LINE OF THE THOMAS TRAVERS GRANT, SECTION 38, TOWNSHIP 6 SOUTH, RANGE 27 EAST, ST. JOHNS COUNTY, FLORIDA.
4. REFERENCE IS MADE TO F.D.O.T. RIGHT OF WAY MAP STATE ROAD NO. 23, F.P. No. 4229382, SECTION 78293 ST. JOHNS COUNTY ON FILE IN THE F.D.O.T. SURVEYING AND MAPPING DEPARTMENT, DISTRICT TWO, LAKE CITY, FLORIDA.
5. THE MEAN HIGH WATER LINE WAS LOCATED AT AN ELEVATION OF 0.44 FEET (NAVD 1988) ON NOVEMBER 27, 2007 PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEAN HIGH WATER SURVEY NUMBER 4194, AND ON DECEMBER 17 AND 24, 2008 PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEAN HIGH WATER SURVEY NUMBER 4407.



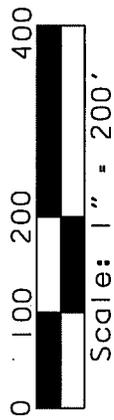
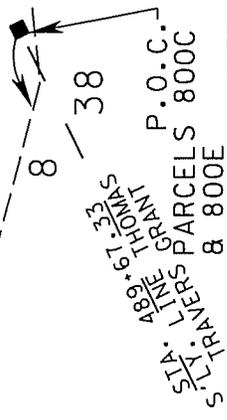
LEGEND

(B) CI (C) C.B. C.C.R. CH CONC. C.M. C.R. COR. DRMP E: E.O.P. (F) F.P. F.D.E.P. F.D.O.T. FND. INC. ID. L.A. LB LI LT	<ul style="list-style-type: none"> ▪ BASELINE ▪ CURVE DATA LABEL ▪ CALCULATED ▪ CHORD BEARING ▪ CERTIFIED CORNER RECORD ▪ CHORD DISTANCE ▪ CONCRETE ▪ CONCRETE MONUMENT ▪ COUNTY ROAD ▪ CORNER ▪ DRMP, INC. ▪ EASTING ▪ EDGE OF PAVEMENT ▪ FIELD DATA ▪ FINANCIAL PROJECT (NUMBER) ▪ FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ▪ FLORIDA DEPARTMENT OF TRANSPORTATION ▪ FOUND ▪ INCORPORATED ▪ IDENTIFICATION ▪ LIMITED ACCESS ▪ LICENSED (SURVEY) BUSINESS ▪ LINE DATA LABEL ▪ LEFT OF BASELINE OF SURVEY 	MHW N: NAVD N.A.D. N.T.S. No. P.C. PI P.O.B. P.O.C. P.S.M. P.T. RGE RT R/W RD. SEC. S'LY STA. ST. T.B. TWP T.I.I.T.F. W/	<ul style="list-style-type: none"> ▪ MEAN HIGH WATER ▪ NORTHING ▪ NORTH AMERICAN VERTICAL DATUM ▪ NORTH AMERICAN DATUM ▪ NOT TO SCALE ▪ NUMBER ▪ POINT OF CURVATURE ▪ POINT OF INTERSECTION ▪ POINT OF BEGINNING ▪ POINT OF COMMENCEMENT ▪ PROFESSIONAL SURVEYOR AND MAPPER ▪ POINT OF TANGENCY ▪ RANGE ▪ RIGHT OF WAY ▪ RIGHT OF BASELINE OF SURVEY ▪ ROAD ▪ SECTION ▪ SOUTHERLY ▪ STATION ▪ STREET ▪ TANGENT BEARING ▪ TOWNSHIP ▪ TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND ▪ WITH
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FLORIDA DEPARTMENT OF TRANSPORTATION					
SKETCH OF DESCRIPTION - PARCELS 800C AND 800E					
STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER			ST. JOHNS AND CLAY COUNTIES		
FDEP CHECKLIST	K.A.S.	02-16-18		BY	DATE
CHANGE EASEMENT TYPE	B.ROBBINS	08-23-17			
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09
			PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256		FIELD BOOKS: 822506A-H
			F.P. NO. 4229382		SECTION 78293
			SHEET 1 OF 24		

ST. JOHNS RIVER

EDGE OF WATER
(GRAPHICAL ONLY)



GOVERNMENT LOT 3

P.T. STA. 491+39.47

P.O.C.
PARCELS 800C
& 800E
SOUTHERLY CORNER
THOMAS TRAVERS GRANT
FND. 4 "x4" C.M.
NO ID.
C.C.R. •092318
N: 2057187.497
E: 465134.221

L.A. R/W LINE

SOUTHEASTERLY CORNER
THOMAS TRAVERS GRANT
FND. 4 "x4" C.M.
NO ID.
C.C.R. •092317

CL1
SURVEY S.R. NO. 23
S.R. NO. 23
T.B. S51°28'03"W

500

495

490

S55°46'15"W 2106.17'(C)

EXISTING SLY.
R/W LINE S.R. NO. 16

250

255

260

L.A. R/W LINE

EXISTING R/W LINE

CL1 (OVERALL)
SURVEY S.R. NO. 23
P.T. STA. 480+98.76
Δ = 57°21'19" (RT)
D = 02° 29' 59"
T = 1253.67'
L = 2294.37'
R = 2292.00'
P.C. STA. 468+45.10
P.T. STA. 491+39.47

CL1
SURVEY S.R. NO. 23
Δ = 04°18'11" (RT)
L = 172.14'
R = 2292.00'
CH = 172.10'
CB = 553°37'09"W

CL1
SURVEY S.R. NO. 16
PER S.R.D. R/W MAP
78060-2505
VARIABLE WIDTH R/W

P.C. STA. 261+12.70

S30°35'54"E
1098.80'

EASTERLY LINE
THOMAS TRAVERS
GRANT

FND. 1/2" I.P.
NO ID.

ST. JOHNS
COUNTY

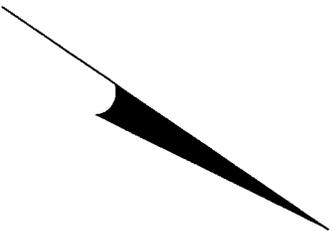
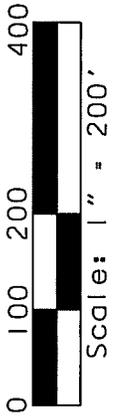
THOMAS TRAVERS GRANT, SECTION 38,
TOWNSHIP 6 SOUTH, RANGE 27 EAST

FLORIDA DEPARTMENT OF TRANSPORTATION
SKETCH OF DESCRIPTION - PARCEL 800C

STATE ROAD NO. 23 ACROSS
THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

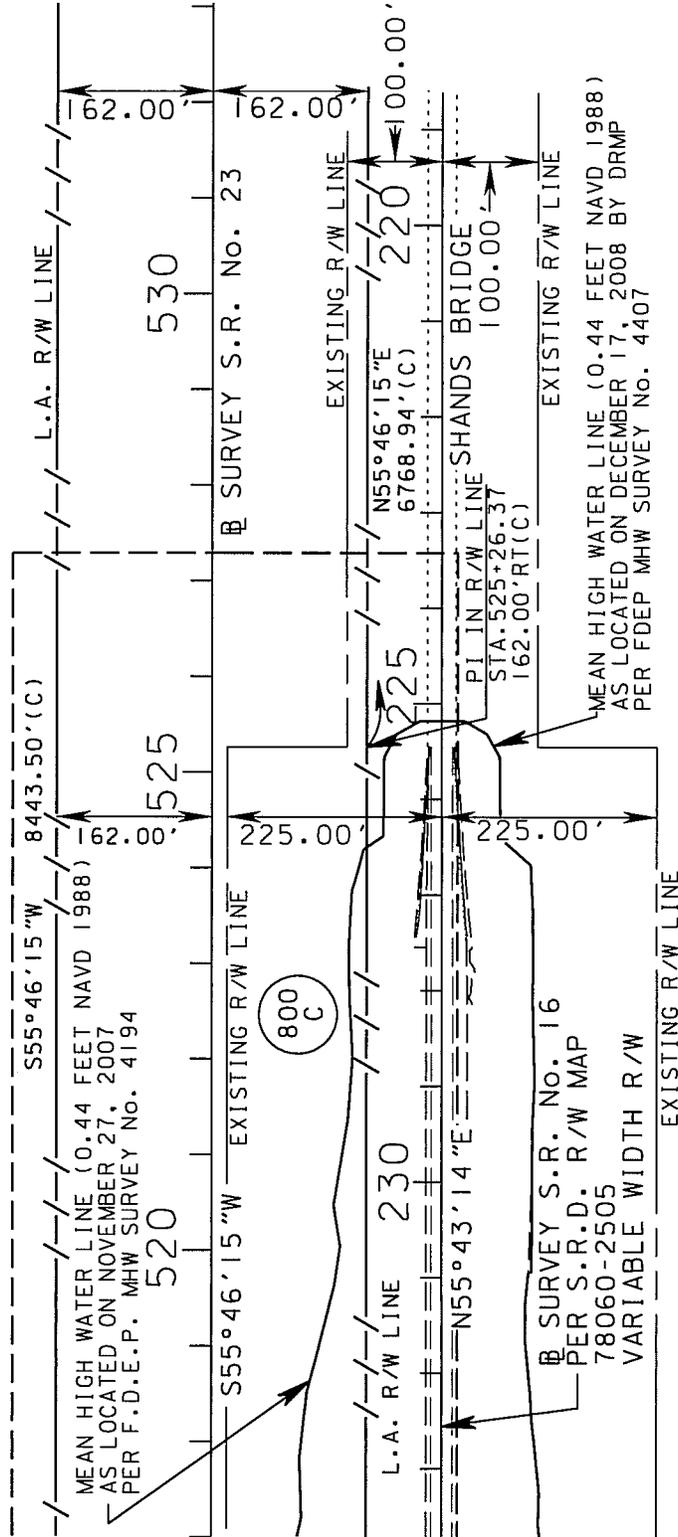
FDEP CHECKLIST	K.A.S.	02-16-18	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	FIELD BOOKS: 822506A-H
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.		
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382 SECTION 78293 SHEET 2 OF 24

TOWNSHIP 6 SOUTH, RANGE 27 EAST



ST. JOHNS RIVER

SEE SHEETS 10-12 OF 24 FOR
DETAIL OF MEAN HIGH WATER LINE



ST. JOHNS COUNTY

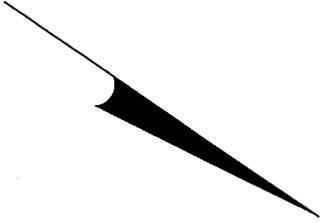
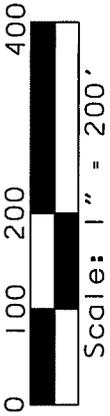
FLORIDA DEPARTMENT OF TRANSPORTATION
SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS
THE ST. JOHNS RIVER

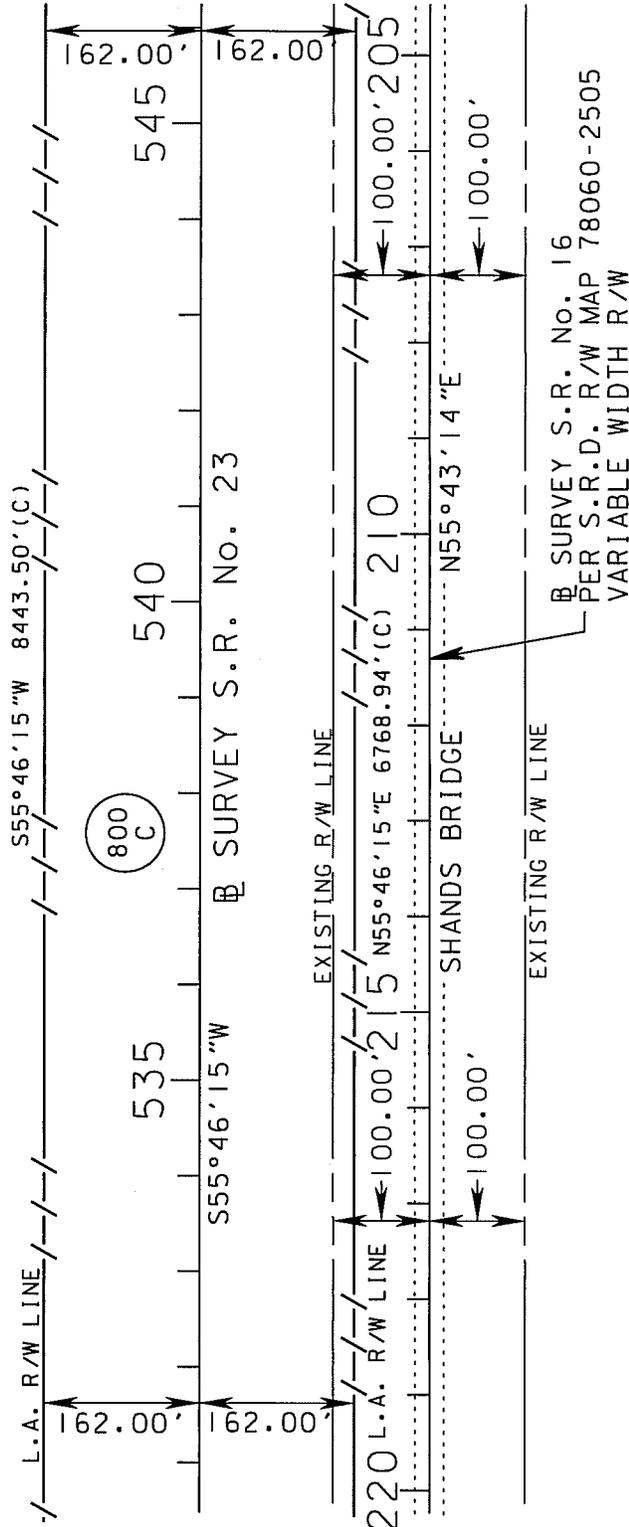
ST. JOHNS AND CLAY COUNTIES

			BY		DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	DATA SOURCE: FIELD BOOKS: 822506A-H	
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08			
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382	SECTION 78293	
							SHEET 4 OF 24	

TOWNSHIP 6 SOUTH, RANGE 27 EAST



ST. JOHNS RIVER



B SURVEY S.R. No. 16
PER S.R.D. R/W MAP 78060-2505
VARIABLE WIDTH R/W

ST. JOHNS COUNTY

FLORIDA DEPARTMENT OF TRANSPORTATION
SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

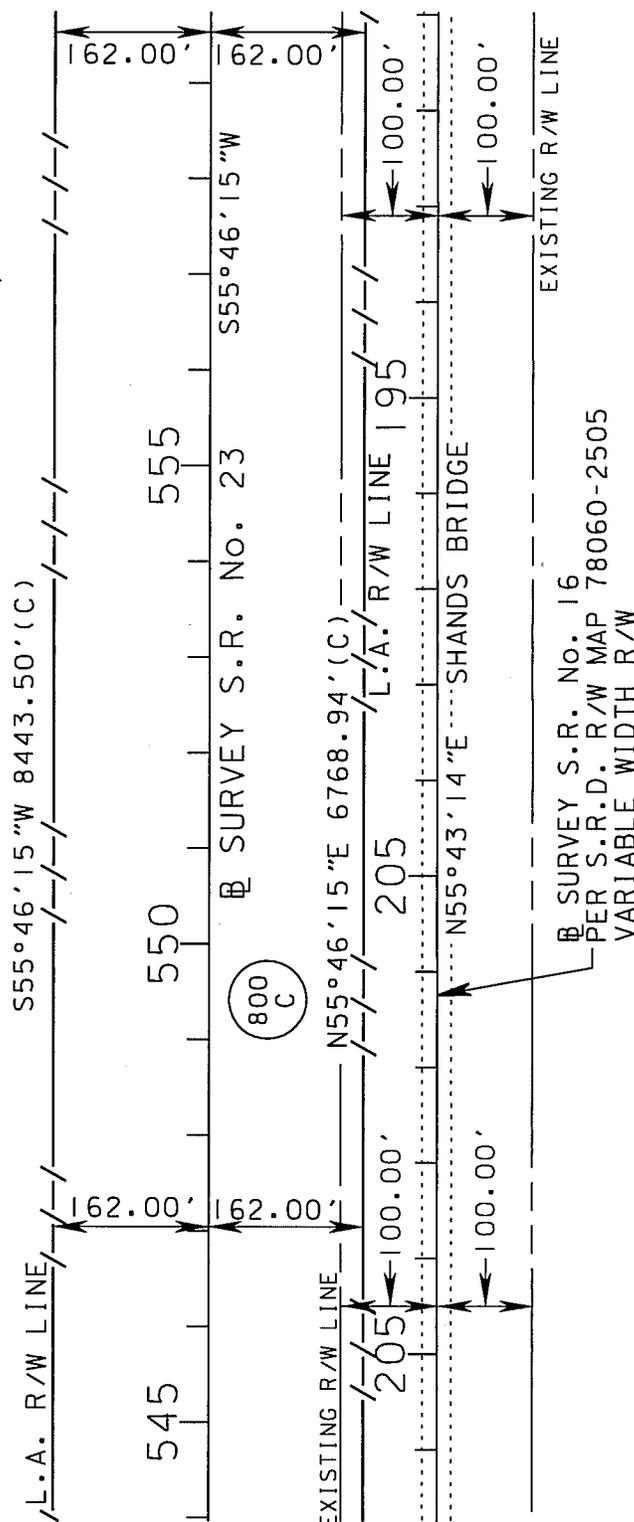
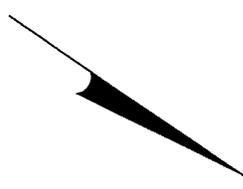
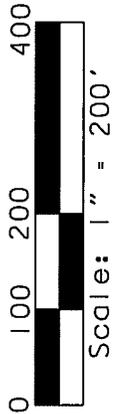
STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

			BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	DATA SOURCE: FIELD BOOKS: 822506A-H
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.		
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382 SECTION 78293 SHEET 5 OF 24

TOWNSHIP 6 SOUTH, RANGE 27 EAST

ST. JOHNS RIVER

ST. JOHNS COUNTY

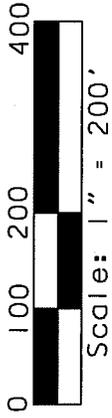


FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS ST. JOHNS AND CLAY COUNTIES
 THE ST. JOHNS RIVER

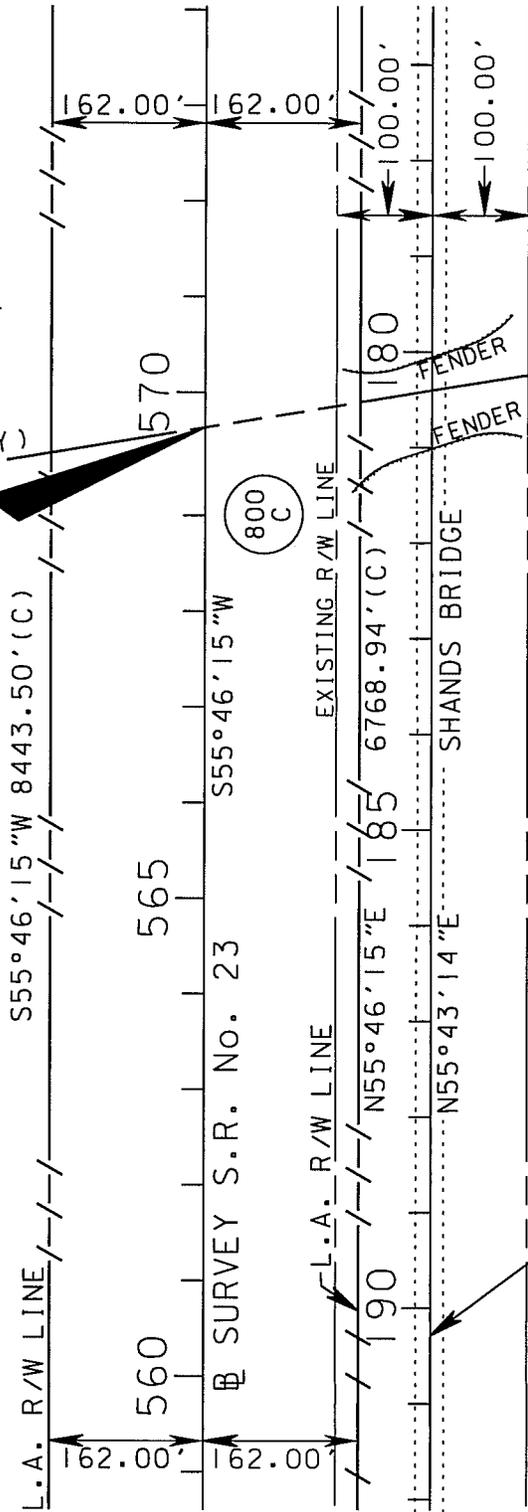
L.A. R/W	K.A.S.	04-25-13	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	DATA SOURCE: FIELD BOOKS: 822506A-H		
			DRAWN	K.A.S.			10-11-08	
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382	SECTION 78293	SHEET 6 OF 24

TOWNSHIP 6 SOUTH, RANGE 27 EAST



(GRAPHICAL ONLY)

S.R. No. 23
 B SURVEY STATION
 EQUATION:
 STA. 569+92.12 BACK=
 STA. 569+63.49 AHEAD



CLAY COUNTY
 ST. JOHNS COUNTY

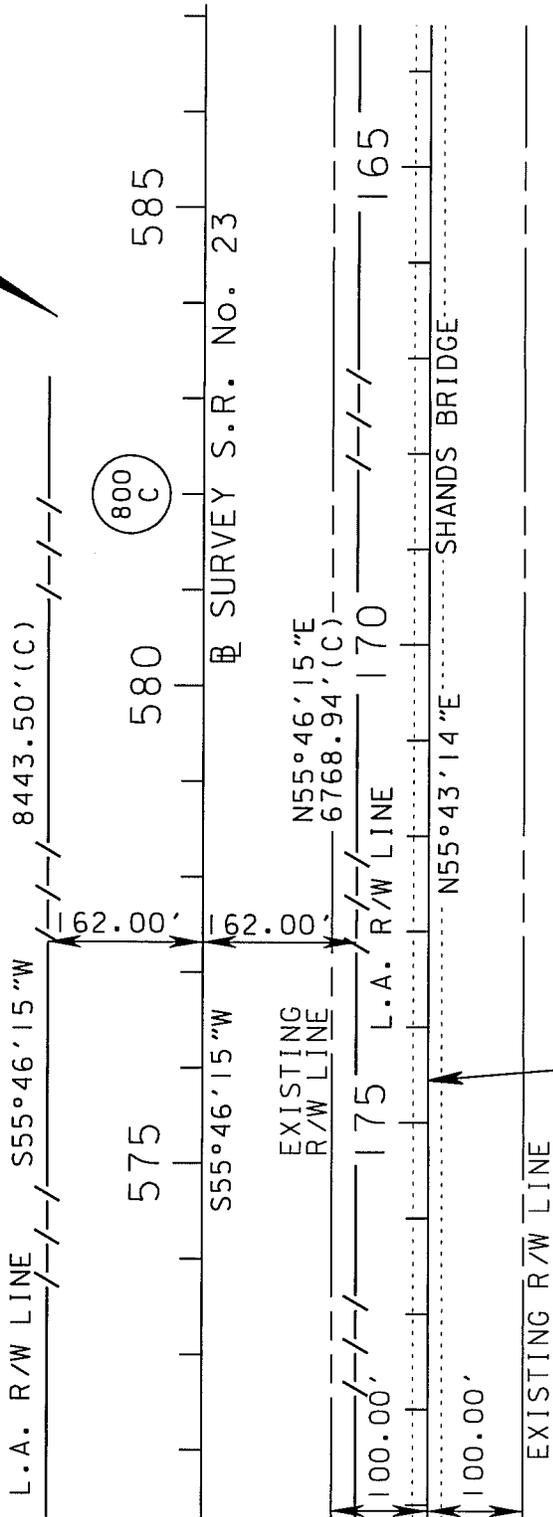
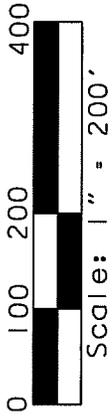
B SURVEY S.R. No. 16
 PER S.R.D. R/W MAP
 78060-2505
 VARIABLE WIDTH R/W

ST. JOHNS RIVER

FLORIDA DEPARTMENT OF TRANSPORTATION					
SKETCH OF DESCRIPTION - PARCELS 800C AND 800E					
STATE ROAD NO. 23 ACROSS			ST. JOHNS AND CLAY COUNTIES		
THE ST. JOHNS RIVER					
	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	DATA SOURCE: FIELD BOOKS: 822506A-H	
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09
			F.P. No. 4229382		SECTION 78293
SHEET 7 OF 24					

TOWNSHIP 6 SOUTH, RANGE 27 EAST

ST. JOHNS RIVER



⊕ SURVEY S.R. No. 16
 PER S.R.D. R/W MAP
 78060-2505
 VARIABLE WIDTH R/W

ST. JOHNS RIVER

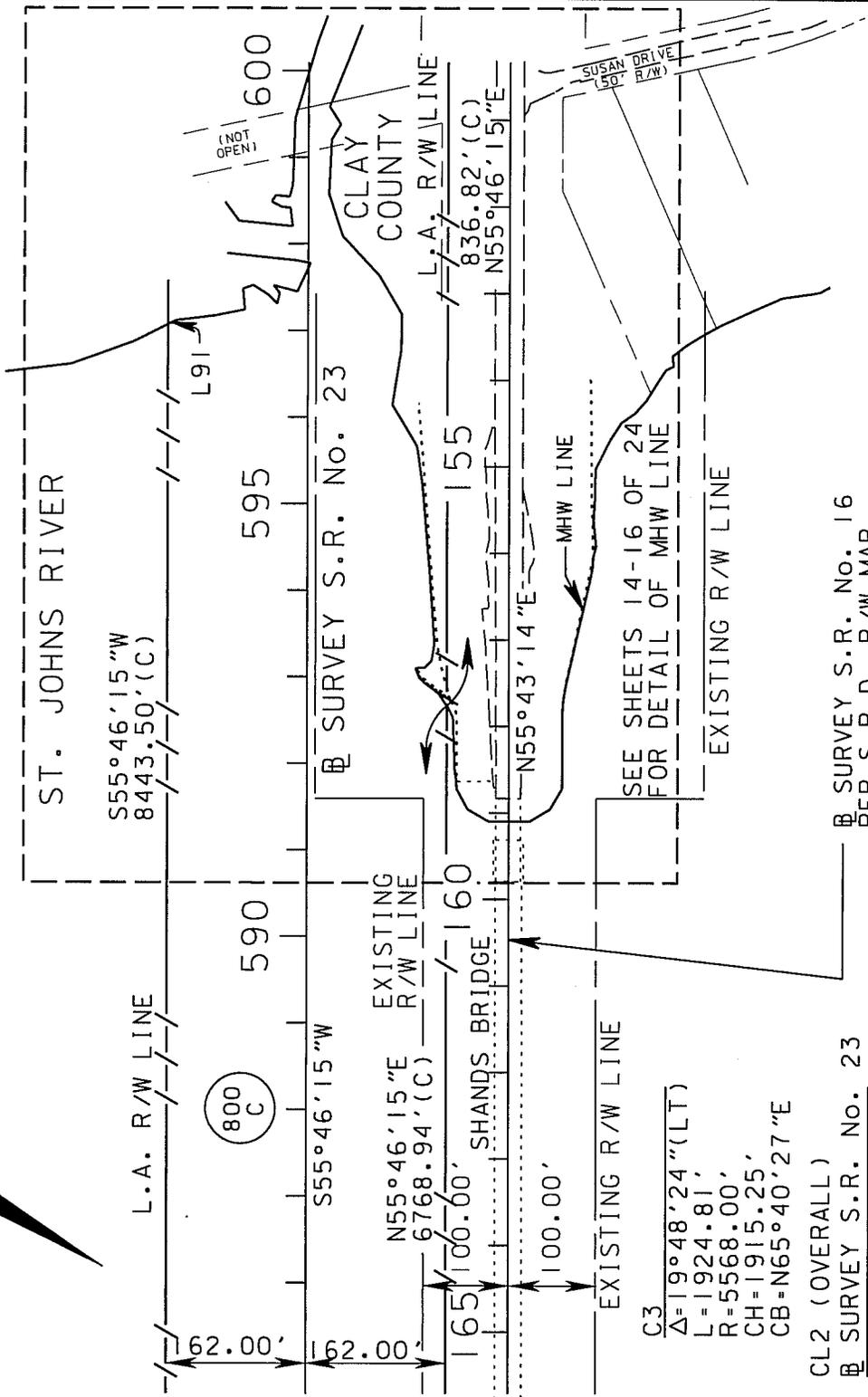
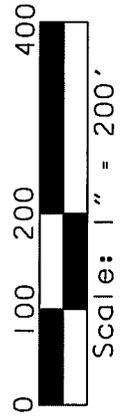
CLAY COUNTY

FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

		BY		DATE		PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256		DATA SOURCE: FIELD BOOKS: 822506A-H	
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08				
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382		SECTION 78293	

TOWNSHIP 6 SOUTH, RANGE 27 EAST
CLAY COUNTY



800
C

C3
 $\Delta = 19^\circ 48' 24''$ (LT)
 $L = 1924.81'$
 $R = 5568.00'$
 $CH = 1915.25'$
 $CB = N65^\circ 40' 27'' E$

CL2 (OVERALL)
 B SURVEY S.R. No. 23
 P.I. STA. 602+80.73
 $\Delta = 45^\circ 42' 04''$ (RT)
 $D = 01^\circ 00' 00''$
 $T = 2414.62'$
 $L = 4570.44'$
 $R = 5730.00'$
 P.C. STA. 578+66.11
 P.T. STA. 624+36.55

B SURVEY S.R. No. 16
 PER S.R.D. R/W MAP
 78060-2505
 VARIABLE WIDTH R/W

ST. JOHNS RIVER

FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	DATA SOURCE: FIELD BOOKS: 822506A-H
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09		

G.I.F. CLARKE GRANT PROPERTY OF THE CLINCH ESTATE

P.B. 1, PG. 31-34

C4

$\Delta = 42^{\circ}09'10''$
 $L = 2130.00'$ (C)
 $R = 1567.05'$ (C)
 $C.D. = 1531.95'$ (C)
 $C.B. = 576^{\circ}50'50''$ W

CURVE CL16

P.I. STA. 141+09.60
 $\Delta = 49^{\circ}30'02''$ RT.
 $D = 02^{\circ}30'00''$
 $T = 1,056.56'$
 $L = 1,980.02'$
 $R = 2,291.83'$
P.C. STA. 130+53.04
P.T. STA. 150+33.06

P.O.B. PARCEL 800E
 $599+54.15$
 $162^{\circ}00'$ LT.
 $N: 2051968.792$
 $E: 456750.315$
 $+03.50$

SEE SHEET 14-16 OF 24 FOR DETAIL OF MHW LINE

L.A. R/W LINE

L.A. R/W LINE

LOT 7

605

P.C. STA. 1601+03.50

610

P.T. STA. 150+33.06

600

P.T. STA. 1601+03.50

605

P.T. STA. 162+00' RT.

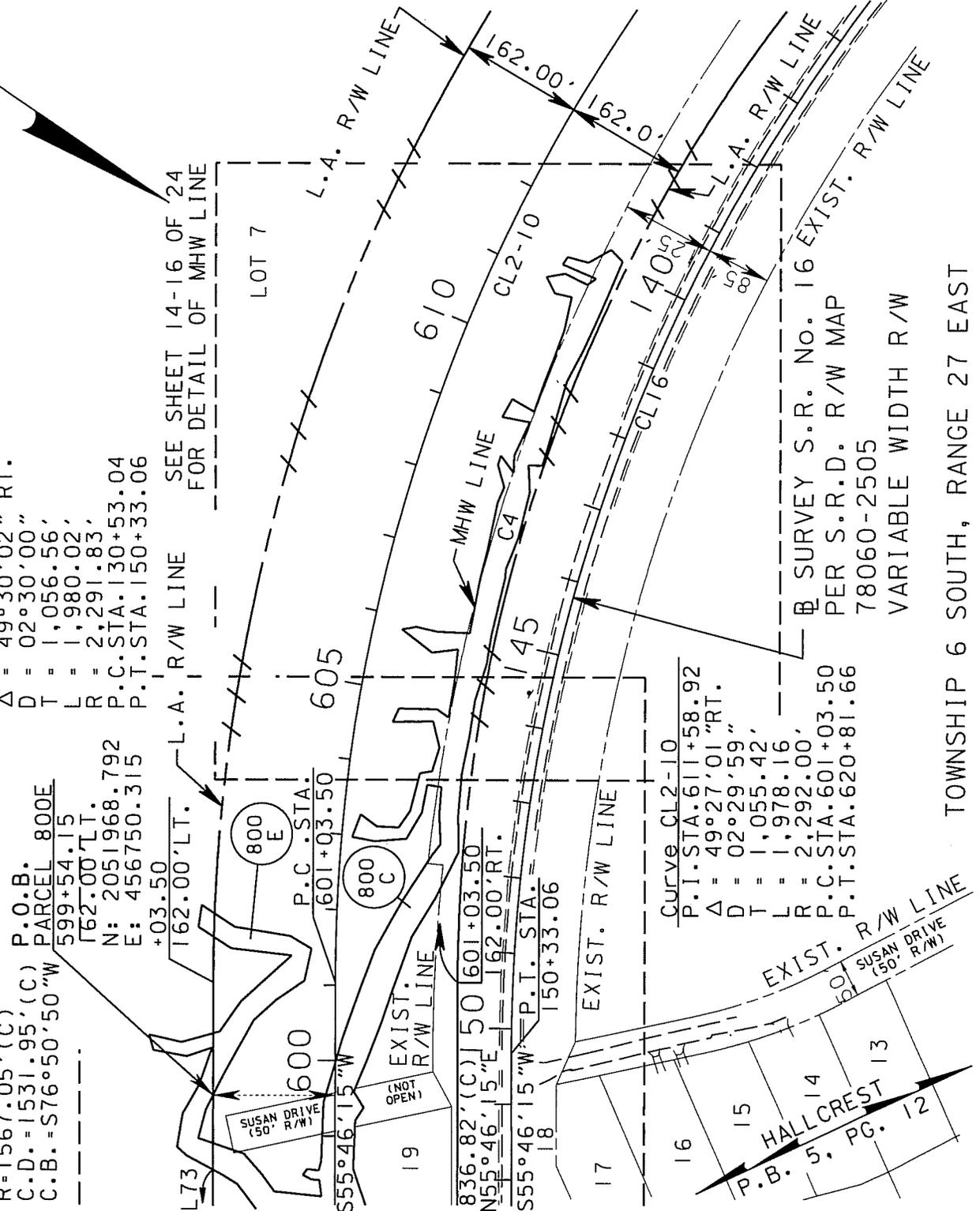
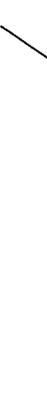
600

P.T. STA. 150+33.06

605

P.T. STA. 150+33.06

Scale: 1" = 200'



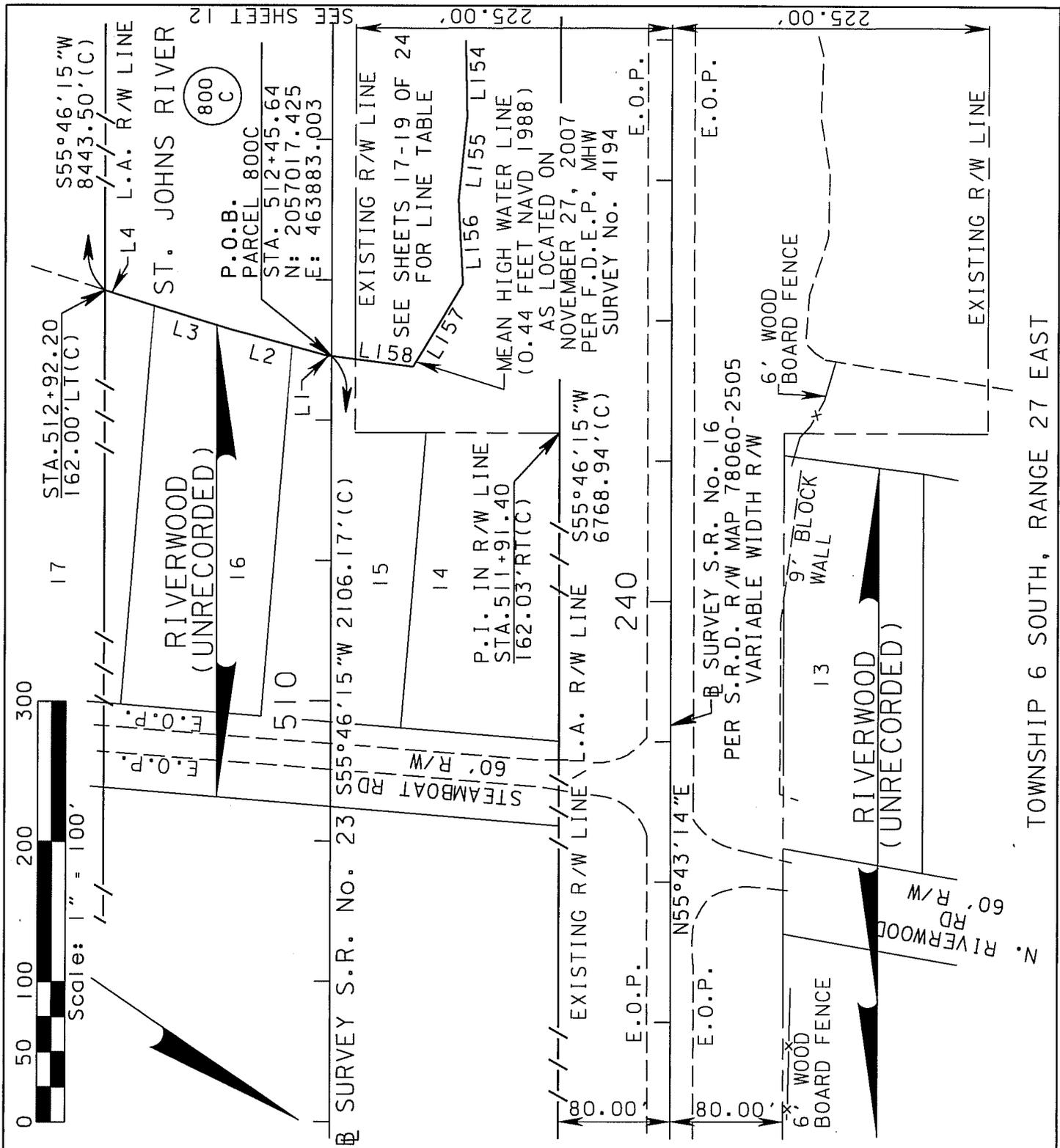
SEE SURVEY S.R. No. 16 EXIST. R/W LINE PER S.R.D. R/W MAP 78060-2505 VARIABLE WIDTH R/W

TOWNSHIP 6 SOUTH, RANGE 27 EAST

FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

FDEP CHECKLIST	K.A.S.	02-16-18	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 800 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	DATA SOURCE: FIELD BOOKS: 822506A-H
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.		
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382 SECTION 78293 SHEET 10 OF 24

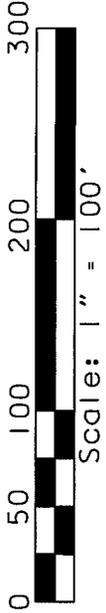


FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

FDEP CHECKLIST	K.A.S.	02-16-18	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 6001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	FIELD BOOKS: 822506A-H
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08	
REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09	F.P. No. 4229382 SECTION 78293 SHEET 11 OF 24

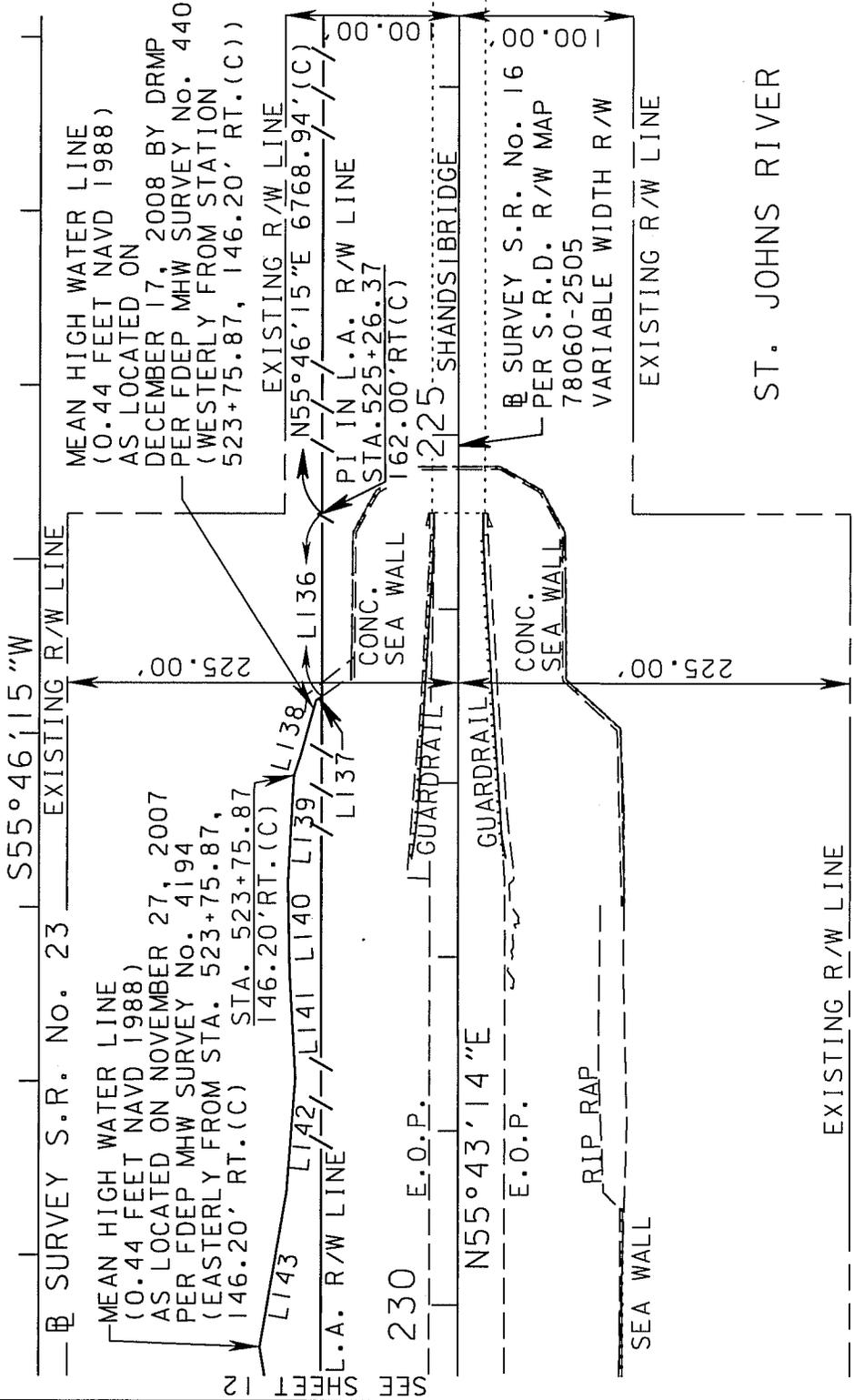
TOWNSHIP 6 SOUTH, RANGE 27 EAST
 S55°46'15"W 8443.50'(C)
 ST. JOHNS RIVER



800
C

SEE SHEETS 17-19 OF 24
 FOR LINE TABLE

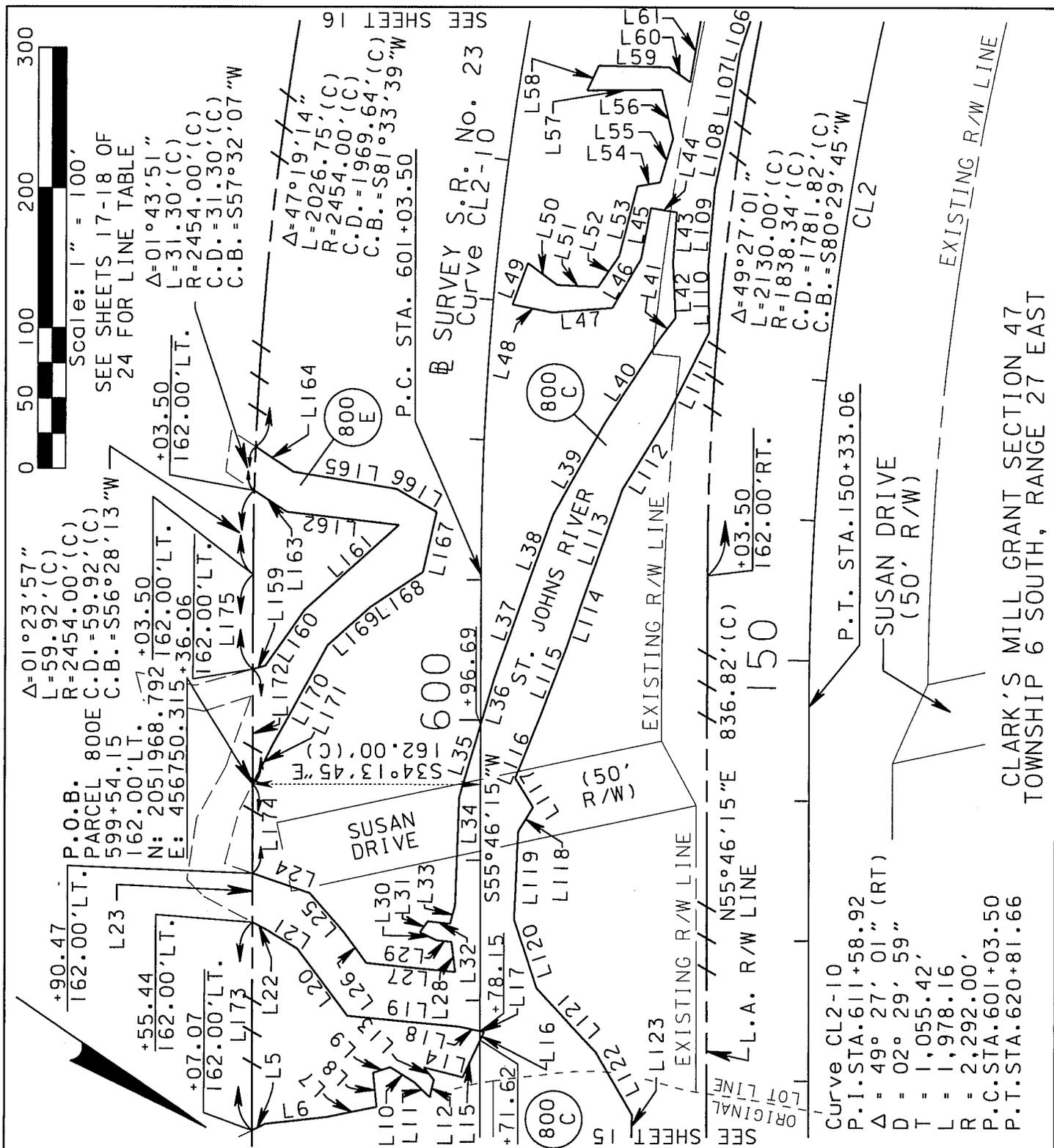
525



FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

L.A. R/W	K.A.S.	04-25-13	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	FIELD BOOKS: 822506A-H	
REVISION	BY	DATE	CHECKED	J.A.A.			04-28-09
					F.P. No. 4229382	SECTION 78293	SHEET 13 OF 24

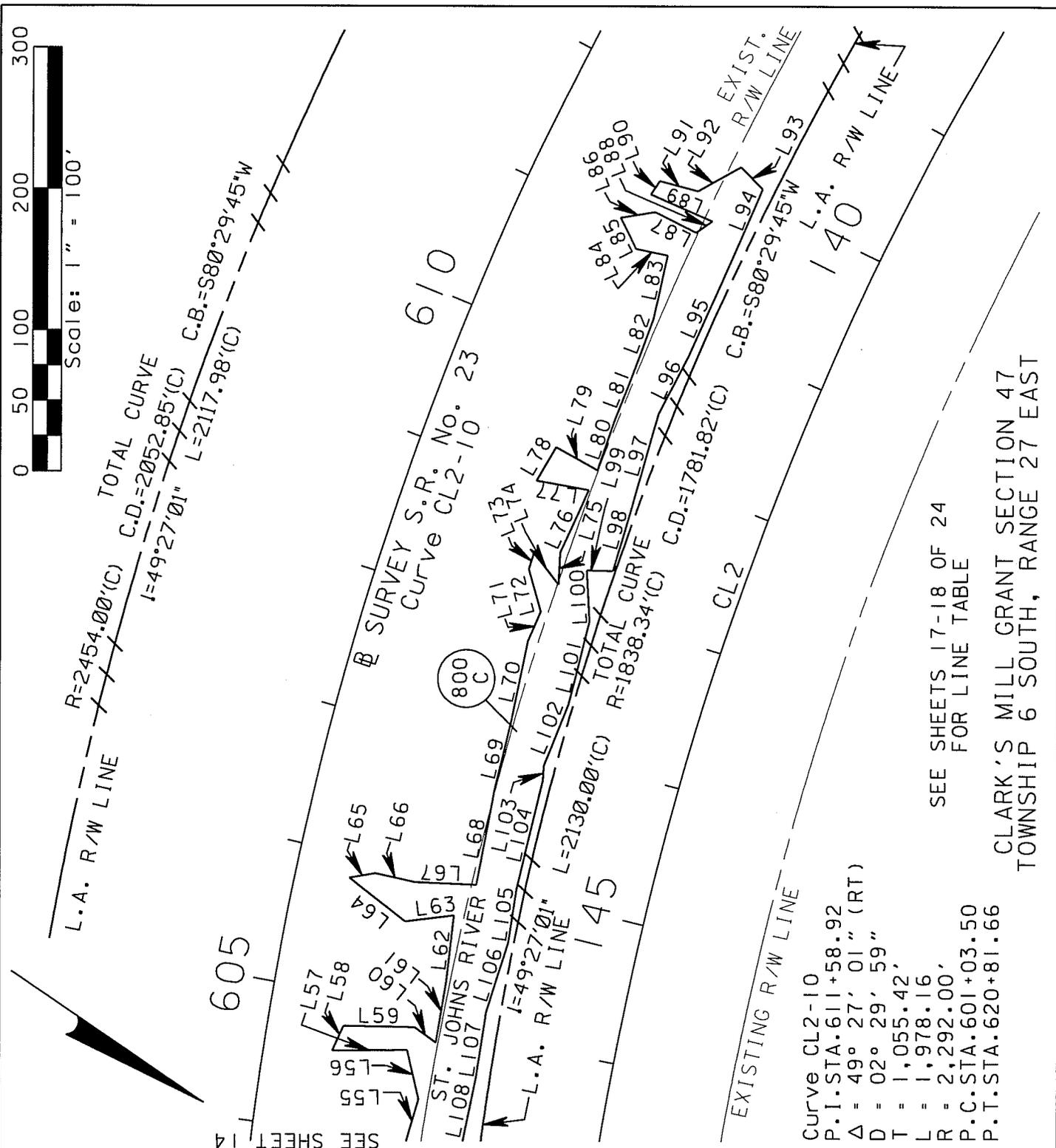


CLARK'S MILL GRANT SECTION 47
 TOWNSHIP 6 SOUTH, RANGE 27 EAST

FLORIDA DEPARTMENT OF TRANSPORTATION
 SKETCH OF DESCRIPTION - PARCELS 800C AND 800E

STATE ROAD NO. 23 ACROSS
 THE ST. JOHNS RIVER ST. JOHNS AND CLAY COUNTIES

FDEP CHECKLIST	K.A.S.	02-16-18	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 800 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	FIELD BOOKS: 822506A-H
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08	
REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09	F.P. No. 4229382 SECTION 78293 SHEET 14 OF 24



SEE SHEETS 17-18 OF 24
FOR LINE TABLE

CLARK'S MILL GRANT SECTION 47
TOWNSHIP 6 SOUTH, RANGE 27 EAST

FLORIDA DEPARTMENT OF TRANSPORTATION									
SKETCH OF DESCRIPTION - PARCELS 800C AND 800E									
STATE ROAD NO. 23 ACROSS					ST. JOHNS AND CLAY COUNTIES				
THE ST. JOHNS RIVER									
L.A. R/W		K.A.S.		04-25-13		BY		DATE	
DRAWN		K.A.S.		10-11-08		PREPARED BY: DRMP, INC. - LB NO. 2648		FIELD BOOKS: 822506A-H	
REVISION		BY		DATE		CHECKED		J.A.A. 04-28-09	
F.P. No. 4229382					SECTION 78293			SHEET 16 OF 24	

LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S27°00'14"E	4.20'(C)	L51	N31°37'39"W	28.95'(C)
L2	S19°10'22"E	69.61'(C)	L52	S89°55'37"W	26.82'(C)
L3	S17°12'01"E	84.59'(C)	L53	S70°04'26"W	51.23'(C)
L4	S16°07'15"E	10.24'(C)	L54	N43°53'50"W	16.37'(C)
L5	N60°49'17"W	10.28'(C)	L55	S72°21'36"W	32.80'(C)
L6	N40°49'40"W	44.49'(C)	L56	S42°21'47"W	35.49'(C)
L7	N45°31'52"W	35.98'(C)	L57	S34°50'44"E	52.90'(C)
L8	S50°02'25"W	24.48'(C)	L58	S80°03'59"W	19.44'(C)
L9	N52°29'21"W	13.01'(C)	L59	N33°01'42"W	50.11'(C)
L10	N02°00'42"W	20.09'(C)	L60	N00°35'44"E	18.50'(C)
L11	N09°33'01"E	15.34'(C)	L61	S65°26'51"W	44.95'(C)
L12	S68°19'54"W	12.65'(C)	L62	S62°11'08"W	45.89'(C)
L13	S17°44'04"W	11.16'(C)	L63	S41°25'22"E	35.04'(C)
L14	N19°57'20"W	28.08'(C)	L64	S03°54'14"W	49.84'(C)
L15	S80°37'08"W	29.17'(C)	L65	N44°28'22"W	18.67'(C)
L16	S80°37'08"W	6.55'(C)	L66	N21°44'44"W	28.24'(C)
L17	S22°24'04"E	2.81'(C)	L67	N31°41'55"W	43.84'(C)
L18	S22°24'04"E	14.50'(C)	L68	S66°36'34"W	69.54'(C)
L19	S28°45'15"E	80.45'(C)	L69	S69°36'58"W	47.41'(C)
L20	S18°44'07"W	59.80'(C)	L70	S67°43'38"W	59.46'(C)
L21	S02°07'06"E	25.21'(C)	L71	S78°40'03"W	22.62'(C)
L22	S06°13'59"E	11.73'(C)	L72	S40°09'54"W	31.40'(C)
L23	S55°46'15"W	35.04'(C)	L73	S74°14'21"W	12.22'(C)
L24	N15°03'47"W	42.73'(C)	L74	N19°01'32"E	28.27'(C)
L25	N14°25'21"E	37.59'(C)	L75	S58°25'48"W	22.87'(C)
L26	N19°30'49"E	27.03'(C)	L76	S80°35'14"W	48.57'(C)
L27	N28°39'10"W	63.34'(C)	L77	S23°51'22"E	37.38'(C)
L28	S48°26'42"W	21.63'(C)	L78	S85°30'18"W	27.25'(C)
L29	S28°16'27"E	10.16'(C)	L79	N05°03'33"W	33.50'(C)
L30	S07°50'50"E	13.23'(C)	L80	S74°25'50"W	37.02'(C)
L31	N88°44'41"W	9.45'(C)	L81	S77°28'45"W	41.52'(C)
L32	N27°50'35"W	15.64'(C)	L82	S76°02'12"W	35.79'(C)
L33	S70°26'27"W	13.39'(C)	L83	S68°09'40"W	45.86'(C)
L34	S57°54'44"W	77.31'(C)	L84	S22°26'04"E	23.00'(C)
L35	S72°05'15"W	54.04'(C)	L85	S29°15'40"W	24.58'(C)
L36	S72°05'15"W	33.83'(C)	L86	N43°21'42"W	25.00'(C)
L37	S75°29'53"W	72.65'(C)	L87	N07°34'58"W	32.43'(C)
L38	S75°56'44"W	52.68'(C)	L88	N69°49'28"W	13.88'(C)
L39	S84°57'16"W	75.08'(C)	L89	S10°39'56"E	47.39'(C)
L40	S88°31'47"W	70.50'(C)	L90	S89°10'45"W	11.42'(C)
L41	N87°02'38"W	19.18'(C)	L91	N19°34'59"W	28.05'(C)
L42	S53°08'10"W	40.36'(C)	L92	N63°41'47"W	34.56'(C)
L43	S60°07'01"W	35.13'(C)	L93	N11°30'38"E	21.98'(C)
L44	S25°11'53"E	18.91'(C)	L94	N79°02'21"E	69.63'(C)
L45	N66°27'56"E	37.17'(C)	L95	N79°56'14"E	59.66'(C)
L46	N85°56'15"E	40.19'(C)	L96	N83°09'41"E	45.85'(C)
L47	S38°44'49"E	42.48'(C)	L97	N71°46'23"E	64.16'(C)
L48	S23°11'01"E	29.61'(C)	L98	N72°15'03"E	51.47'(C)
L49	S76°29'06"W	31.46'(C)	L99	S33°28'46"E	18.53'(C)
L50	N02°05'10"E	26.18'(C)	L100	N52°34'11"E	36.20'(C)

				FLORIDA DEPARTMENT OF TRANSPORTATION			
				SKETCH OF DESCRIPTION - PARCELS 800C AND 800E			
				STATE ROAD NO. 23 ACROSS		ST. JOHNS AND CLAY COUNTIES	
				THE ST. JOHNS RIVER			
				BY		DATE	
				PREPARED BY: DRMP, INC. - LB NO. 2648			
				8001 BELFORT PARKWAY, SUITE 200			
				JACKSONVILLE, FLORIDA 32256			
				DATA SOURCE:			
				FIELD BOOKS: 822506A-H			
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08		
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382	SECTION 78293
						SHEET 17 OF 24	

LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L101	N69°48'23"E	60.87'(C)	L151	N48°09'36"E	75.86'(C)
L102	N77°31'18"E	46.24'(C)	L152	N62°01'52"E	56.94'(C)
L103	N59°25'16"E	10.72'(C)	L153	N45°02'00"E	55.09'(C)
L104	N69°14'36"E	79.13'(C)	L154	N54°23'51"E	54.50'(C)
L105	N64°31'20"E	37.86'(C)	L155	N61°37'57"E	59.35'(C)
L106	N73°34'34"E	52.06'(C)	L156	N52°29'05"E	59.96'(C)
L107	N64°24'30"E	46.68'(C)	L157	N86°57'01"E	68.91'(C)
L108	N67°34'45"E	51.97'(C)	L158	S27°00'14"E	57.98'(C)
L109	N60°34'38"E	53.64'(C)	L159	N49°51'40"W	9.14'(C)
L110	N55°00'58"E	49.15'(C)	L160	N89°27'50"W	48.84'(C)
L111	N82°19'51"E	68.01'(C)	L161	N76°11'25"W	90.31'(C)
L112	N87°12'32"E	60.28'(C)	L162	S27°35'01"E	80.76'(C)
L113	N75°19'34"E	77.26'(C)	L163	S00°53'13"E	27.36'(C)
L114	N74°20'10"E	41.16'(C)	L164	N00°21'46"W	31.95'(C)
L115	N76°39'42"E	53.22'(C)	L165	N24°58'50"W	74.95'(C)
L116	N77°58'57"E	47.97'(C)	L166	N04°05'39"W	32.71'(C)
L117	N23°18'55"E	24.48'(C)	L167	N68°12'15"E	43.83'(C)
L118	N88°02'11"E	20.56'(C)	L168	S67°54'27"E	45.21'(C)
L119	N58°19'36"E	63.10'(C)	L169	S76°00'04"E	40.93'(C)
L120	N37°09'58"E	51.34'(C)	L170	N84°26'25"E	79.15'(C)
L121	N13°03'47"E	62.37'(C)	L171	N82°27'52"E	33.24'(C)
L122	N25°42'21"E	51.38'(C)	L172	S55°46'15"W	81.91'(C)
L123	N56°58'06"E	41.16'(C)	L173	S55°46'15"W	148.37'(C)
L124	N64°30'47"E	63.65'(C)	L174	S55°46'15"W	63.68'(C)
L125	N25°20'19"E	55.86'(C)	L175	S55°46'15"W	67.43'(C)
L126	N47°34'07"E	44.98'(C)			
L127	N50°56'00"E	102.74'(C)			
L128	N51°44'07"E	81.26'(C)			
L129	N64°55'42"E	19.79'(C)			
L130	S78°58'42"E	11.32'(C)			
L131	S40°08'14"E	10.61'(C)			
L132	N34°46'42"E	11.58'(C)			
L133	N08°59'51"E	9.82'(C)			
L134	N01°24'59"E	18.93'(C)			
L135	N21°38'10"E	17.58'(C)			
L136	N55°46'09"E	105.25'(C)			
L137	S69°21'07"E	4.11'(C)			
L138	N71°56'42"E	44.65'(C)			
L139	N58°50'04"E	61.64'(C)			
L140	N54°39'16"E	52.28'(C)			
L141	N52°29'01"E	60.25'(C)			
L142	N60°10'18"E	65.89'(C)			
L143	N65°22'33"E	90.33'(C)			
L144	N46°41'10"E	43.72'(C)			
L145	N64°27'57"E	41.95'(C)			
L146	N69°49'14"E	68.58'(C)			
L147	N70°40'19"E	45.57'(C)			
L148	N62°03'17"E	69.20'(C)			
L149	N53°57'51"E	62.31'(C)			
L150	N67°34'16"E	65.65'(C)			

				FLORIDA DEPARTMENT OF TRANSPORTATION			
				SKETCH OF DESCRIPTION - PARCEL 800C			
				STATE ROAD NO. 23 ACROSS		ST. JOHNS AND CLAY COUNTIES	
				THE ST. JOHNS RIVER			
				BY		DATE	
				PREPARED BY: DRMP, INC. - LB NO. 2648			
				8001 BELFORT PARKWAY, SUITE 200			
				JACKSONVILLE, FLORIDA 32256			
				DATA SOURCE:			
				FIELD BOOKS: 822506A-H			
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08		
REVISION	BY	DATE	CHECKED	J.A.A.	04-22-09	F.P. No. 4229382	SECTION 78293
						SHEET 18 OF 24	

SECTION 78293

STATE ROAD NUMBER 23

ST. JOHNS COUNTY

F.P. No. 4229382

AND CLAY COUNTY

DESCRIPTION

PARCEL No. 800C

ST. JOHNS RIVER

EASEMENT

THAT PART OF THE SOVEREIGN LANDS OF THE STATE OF FLORIDA LYING IN TOWNSHIP 6 SOUTH, RANGE 27 EAST, AND ADJACENT TO THOMAS TRAVERS GRANT, SECTION 38, TOWNSHIP 6 SOUTH, RANGE 27 EAST, ST. JOHNS COUNTY, FLORIDA, AND THAT PART OF THE SOVEREIGN LANDS OF THE STATE OF FLORIDA LYING IN TOWNSHIP 6 SOUTH, RANGE 27 EAST, AND ADJACENT TO CLARK'S MILL GRANT, SECTION 47, TOWNSHIP 6 SOUTH, RANGE 27 EAST, CLAY COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4"X 4"CONCRETE MONUMENT, NO IDENTIFICATION, MARKING THE SOUTHERLY CORNER OF THE THOMAS TRAVERS GRANT, SECTION 38, TOWNSHIP 6 SOUTH, RANGE 27 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 29°22'43" EAST, ALONG THE SOUTHERLY LINE OF SAID THOMAS TRAVERS GRANT, A DISTANCE OF 1,281.55 FEET TO A POINT ON THE BASELINE OF SURVEY OF STATE ROAD NUMBER 23, (PER FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, SECTION 78293, FINANCIAL PROJECT NO. 4229382); SAID POINT BEING ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 2,292.00 FEET; THENCE FROM A TANGENT BEARING OF SOUTH 51°28'03"WEST, RUN SOUTHWESTERLY, DEPARTING SAID SOUTHERLY GRANT LINE, ALONG SAID BASELINE OF SURVEY OF STATE ROAD NUMBER 23, AND ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 04°18'11", AN ARC LENGTH OF 172.14 FEET TO THE POINT OF TANGENCY; THENCE SOUTH 55°46'15" WEST, ALONG SAID BASELINE OF SURVEY, A DISTANCE OF 2,106.17 FEET TO A POINT ON THE MEAN HIGH WATER LINE OF THE ST. JOHNS RIVER AS ESTABLISHED PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEAN HIGH WATER SURVEY NUMBER 4194 AND THE **POINT OF BEGINNING**; THENCE, DEPARTING SAID BASELINE OF SURVEY, ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING FOUR (4) COURSES AND DISTANCES: (1) SOUTH 27°00'14" EAST, 4.20 FEET; (2) SOUTH 19°10'22" EAST, 69.61 FEET; (3) SOUTH 17°12'01" EAST, 84.59 FEET; (4) SOUTH 16°07'15" EAST, 10.24 FEET; THENCE, DEPARTING SAID MEAN HIGH WATER LINE, SOUTH 55°46'15" WEST, ACROSS THE ST. JOHNS RIVER, CROSSING INTO CLAY COUNTY, FLORIDA, A DISTANCE OF 8,443.50 FEET TO A POINT ON THE MEAN HIGH WATER LINE OF THE ST. JOHNS RIVER PER SAID MEAN HIGH WATER SURVEY; THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING SIXTEEN (16) BEARINGS AND DISTANCES: (1) NORTH 60°49'17" WEST, 10.28 FEET; (2) NORTH 40°49'40" WEST, 44.49 FEET; (3) NORTH 45°31'52" WEST, 35.98 FEET; (4) SOUTH 50°02'25" WEST, 24.48 FEET; (5) NORTH 52°29'21"

DESCRIPTION CONTINUED ON SHEET 20

			FLORIDA DEPARTMENT OF TRANSPORTATION					
			SKETCH OF DESCRIPTION - PARCELS 800C AND 800E					
			STATE ROAD NO. 23 ACROSS			ST. JOHNS AND CLAY COUNTIES		
			THE ST. JOHNS RIVER					
FDEP CHECKLIST	K.A.S.	02-16-18				PREPARED BY: DRMP, INC. - LB NO. 2648		FIELD BOOKS: 822506A-H
CHANGE EASEMENT TYPE	B.ROBBINS	08-23-17	BY	DATE	8001 BELFORT PARKWAY, SUITE 200		JACKSONVILLE, FLORIDA 32256	
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08			
REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09	F.P. No. 4229382	SECTION 78293	SHEET 19 OF 24

WEST, 13.01 FEET; (6) NORTH 02°00'42" WEST, 20.09 FEET; (7) NORTH 09°33'01" EAST, 15.34 FEET; (8) SOUTH 68°19'54" WEST, 12.65 FEET; (9) SOUTH 17°44'04" WEST, 11.16 FEET; (10) NORTH 19°57'20" WEST, 28.08 FEET; (11) SOUTH 80°37'08" WEST, 35.72 FEET; (12) SOUTH 22°24'04" EAST, 17.31 FEET; (13) SOUTH 28°45'15" EAST, 80.45 FEET; (14) SOUTH 18°44'07" WEST, 59.80 FEET; (15) SOUTH 02°07'06" EAST, 25.21 FEET; (16) SOUTH 06°13'59" EAST, 11.73 FEET; THENCE, DEPARTING SAID MEAN HIGH WATER LINE, SOUTH 55°46'15" WEST, A DISTANCE OF 35.04 FEET TO A POINT ON THE MEAN HIGH WATER LINE OF THE ST. JOHNS RIVER PER SAID MEAN HIGH WATER SURVEY; THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING ONE HUNDRED ELEVEN (111) BEARINGS AND DISTANCES: (1) NORTH 15°03'47" WEST, 42.73 FEET; (2) NORTH 14°25'21" EAST, 37.59 FEET; (3) NORTH 19°30'49" EAST, 27.03 FEET; (4) NORTH 28°39'10" WEST, 63.34 FEET; (5) SOUTH 48°26'42" WEST, 21.63 FEET; (6) SOUTH 28°16'27" EAST, 10.16 FEET; (7) SOUTH 07°50'50" EAST, 13.23 FEET; (8) NORTH 88°44'41" WEST, 9.45 FEET; (9) NORTH 27°50'35" WEST, 15.64 FEET; (10) SOUTH 70°26'27" WEST, 13.39 FEET; (11) SOUTH 57°54'44" WEST, 77.31 FEET; (12) SOUTH 72°05'15" WEST, 87.87 FEET; (13) SOUTH 75°29'53" WEST, 72.65 FEET; (14) SOUTH 75°56'44" WEST, 52.68 FEET; (15) SOUTH 84°57'16" WEST, 75.08 FEET; (16) SOUTH 88°31'47" WEST, 70.50 FEET; (17) NORTH 87°02'38" WEST, 19.18 FEET; (18) SOUTH 53°08'10" WEST, 40.36 FEET; (19) SOUTH 60°07'01" WEST, 35.13 FEET; (20) SOUTH 25°11'53" EAST, 18.91 FEET; (21) NORTH 66°27'56" EAST, 37.17 FEET; (22) NORTH 85°56'15" EAST, 40.19 FEET; (23) SOUTH 38°44'49" EAST, 42.48 FEET; (24) SOUTH 23°11'01" EAST, 29.61 FEET; (25) SOUTH 76°29'06" WEST, 31.46 FEET; (26) NORTH 02°05'10" EAST, 26.18 FEET; (27) NORTH 31°37'39" WEST, 28.95 FEET; (28) SOUTH 89°55'37" WEST, 26.82 FEET; (29) SOUTH 70°04'26" WEST, 51.23 FEET; (30) NORTH 43°53'50" WEST, 16.37 FEET; (31) SOUTH 72°21'36" WEST, 32.80 FEET; (32) SOUTH 42°21'47" WEST, 35.49 FEET; (33) SOUTH 34°50'44" EAST, 52.90 FEET; (34) SOUTH 80°03'59" WEST, 19.44 FEET; (35) NORTH 33°01'42" WEST, 50.11 FEET; (36) NORTH 00°35'44" EAST, 18.50 FEET; (37) SOUTH 65°26'51" WEST, 44.95 FEET; (38) SOUTH 62°11'08" WEST, 45.89 FEET; (39) SOUTH 41°25'22" EAST, 35.04 FEET; (40) SOUTH 03°54'14" WEST, 49.84 FEET; (41) NORTH 44°28'22" WEST, 18.67 FEET; (42) NORTH 21°44'44" WEST, 28.24 FEET; (43) NORTH 31°41'55" WEST, 43.84 FEET; (44) SOUTH 66°36'34" WEST, 69.54 FEET; (45) SOUTH 69°36'58" WEST, 47.41 FEET; (46) SOUTH 67°43'38" WEST, 59.46 FEET; (47) SOUTH 78°40'03" WEST, 22.62 FEET; (48) SOUTH 40°09'54" WEST, 31.40 FEET; (49) SOUTH 74°14'21" WEST, 12.22 FEET; (50) NORTH 19°01'32" EAST, 28.27 FEET; (51) SOUTH 58°25'48" WEST, 22.87 FEET; (52) SOUTH 80°35'14" WEST, 48.57 FEET; (53) SOUTH 23°51'22" EAST, 37.38 FEET; (54) SOUTH 85°30'18" WEST, 27.25 FEET; (55) NORTH 05°03'33" WEST, 33.50 FEET; (56) SOUTH 74°25'50" WEST, 37.02 FEET; (57) SOUTH 77°28'45" WEST, 41.52 FEET; (58) SOUTH 76°02'12" WEST, 35.79 FEET; (59) SOUTH 68°09'40" WEST,

DESCRIPTION CONTINUED ON SHEET 21

			FLORIDA DEPARTMENT OF TRANSPORTATION			
			SKETCH OF DESCRIPTION - PARCEL 800C			
			STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER			
			ST. JOHNS AND CLAY COUNTIES			
FDEP CHECKLIST	K.A.S.	02-16-18	PREPARED BY: DRMP, INC. - LB NO. 2648		FIELD BOOKS: 822506A-H	
CHANGE EASEMENT TYPE	B.ROBBINS	08-23-17	BY	DATE	8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08	
REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09	F.P. No. 4229382 SECTION 78293 SHEET 20 OF 24

45.86 FEET; (60) SOUTH 22°26'04" EAST, 23.00 FEET; (61) SOUTH 29°15'40" WEST, 24.58 FEET; (62) NORTH 43°21'42" WEST, 25.00 FEET; (63) NORTH 07°34'58" WEST, 32.43 FEET; (64) NORTH 69°49'28" WEST, 13.88 FEET; (65) SOUTH 10°39'56" EAST, 47.39 FEET; (66) SOUTH 89°10'45" WEST, 11.42 FEET; (67) NORTH 19°34'59" WEST, 28.05 FEET; (68) NORTH 63°41'47" WEST, 34.56 FEET; (69) NORTH 11°30'38" EAST, 21.98 FEET; (70) NORTH 79°02'21" EAST, 69.63 FEET; (71) NORTH 79°56'14" EAST, 59.66 FEET; (72) NORTH 83°09'41" EAST, 45.85 FEET; (73) NORTH 71°46'23" EAST, 64.16 FEET; (74) NORTH 72°15'03" EAST, 51.47 FEET; (75) SOUTH 33°28'46" EAST, 18.53 FEET; (76) NORTH 52°34'11" EAST, 36.20 FEET; (77) NORTH 69°48'23" EAST, 60.87 FEET; (78) NORTH 77°31'18" EAST, 46.24 FEET; (79) NORTH 59°25'16" EAST, 10.72 FEET; (80) NORTH 69°14'36" EAST, 79.13 FEET; (81) NORTH 64°31'20" EAST, 37.86 FEET; (82) NORTH 73°34'34" EAST, 52.06 FEET; (83) NORTH 64°24'30" EAST, 46.68 FEET; (84) NORTH 67°34'45" EAST, 51.97 FEET; (85) NORTH 60°34'38" EAST, 53.64 FEET; (86) NORTH 55°00'58" EAST, 49.15 FEET; (87) NORTH 82°19'51" EAST, 68.01 FEET; (88) NORTH 87°12'32" EAST, 60.28 FEET; (89) NORTH 75°19'34" EAST, 77.26 FEET; (90) NORTH 74°20'10" EAST, 41.16 FEET; (91) NORTH 76°39'42" EAST, 53.22 FEET; (92) NORTH 77°58'57" EAST, 47.97 FEET; (93) NORTH 23°18'55" EAST, 24.48 FEET; (94) NORTH 88°02'11" EAST, 20.56 FEET; (95) NORTH 58°19'36" EAST, 63.10 FEET; (96) NORTH 37°09'58" EAST, 51.34 FEET; (97) NORTH 13°03'47" EAST, 62.37 FEET; (98) NORTH 25°42'21" EAST, 51.38 FEET; (99) NORTH 56°58'06" EAST, 41.16 FEET; (100) NORTH 64°30'47" EAST, 63.65 FEET; (101) NORTH 25°20'19" EAST, 55.86 FEET; (102) NORTH 47°34'07" EAST, 44.98 FEET; (103) NORTH 50°56'00" EAST, 102.74 FEET; (104) NORTH 51°44'07" EAST, 81.26 FEET; (105) NORTH 64°55'42" EAST, 19.79 FEET; (106) SOUTH 78°58'42" EAST, 11.32 FEET; (107) SOUTH 40°08'14" EAST, 10.61 FEET; (108) NORTH 34°46'42" EAST, 11.58 FEET; (109) NORTH 08°59'51" EAST, 9.82 FEET; (110) NORTH 01°24'59" EAST, 18.93 FEET; (111) NORTH 21°38'10" EAST, 17.58 FEET; THENCE DEPARTING SAID MEAN HIGH WATER LINE, EASTERLY ACROSS THE ST. JOHNS RIVER, CROSSING INTO ST. JOHNS COUNTY, FLORIDA, THE FOLLOWING TWO (2) BEARINGS AND DISTANCES: (1) NORTH 55°46'15" EAST, 6,768.94 FEET; (2) NORTH 55°46'09" EAST, 105.25 FEET TO A POINT ON THE MEAN HIGH WATER LINE OF THE ST. JOHNS RIVER AS ESTABLISHED PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEAN HIGH WATER SURVEY NUMBER 4407; THENCE, ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING TWO (2) BEARINGS AND DISTANCES: (1) SOUTH 69°21'07" EAST, 4.11 FEET; (2) NORTH 71°56'42" EAST, 44.65 FEET TO A TERMINUS OF THE MEAN HIGH WATER LINE PER SAID MEAN HIGH WATER SURVEY AND THE BEGINNING OF THE MEAN HIGH WATER LINE OF THE ST. JOHNS RIVER AS ESTABLISHED PER SAID FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEAN HIGH WATER SURVEY NUMBER 4194; THENCE, ALONG SAID MEAN HIGH WATER

DESCRIPTION CONTINUED ON SHEET 22

				FLORIDA DEPARTMENT OF TRANSPORTATION	
				SKETCH OF DESCRIPTION - PARCEL 800C	
				STATE ROAD NO. 23 ACROSS THE ST. JOHNS RIVER	
				ST. JOHNS AND CLAY COUNTIES	
CHANGE EASEMENT TYPE	B. ROBBINS	08-23-17	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08
REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09
			F.P. No. 4229382		SECTION 78293
					SHEET 21 OF 24

LINE THE FOLLOWING TWENTY (20) BEARINGS AND DISTANCES: (1) NORTH 58°50'04" EAST, 61.64 FEET; (2) NORTH 54°39'16" EAST, 52.28 FEET; (3) NORTH 52°29'01" EAST, 60.25 FEET; (4) NORTH 60°10'18" EAST, 65.89 FEET; (5) NORTH 65°22'33" EAST, 90.33 FEET; (6) NORTH 46°41'10" EAST, 43.72 FEET; (7) NORTH 64°27'57" EAST, 41.95 FEET; (8) NORTH 69°49'14" EAST, 68.58 FEET; (9) NORTH 70°40'19" EAST, 45.57 FEET; (10) NORTH 62°03'17" EAST, 69.20 FEET; (11) NORTH 53°57'51" EAST, 62.31 FEET; (12) NORTH 67°34'16" EAST, 65.65 FEET; (13) NORTH 48°09'36" EAST, 75.86 FEET; (14) NORTH 62°01'52" EAST, 56.94 FEET; (15) NORTH 45°02'00" EAST, 55.09 FEET; (16) NORTH 54°23'51" EAST, 54.50 FEET; (17) NORTH 61°37'57" EAST, 59.35 FEET; (18) NORTH 52°29'05" EAST, 59.96 FEET; (19) NORTH 86°57'01" EAST, 68.91 FEET; (20) SOUTH 27°00'14" EAST, 57.98 FEET TO THE **POINT OF BEGINNING.**

CONTAINING 2,748,635 SQUARE FEET (63.100 ACRES), MORE OR LESS.

			FLORIDA DEPARTMENT OF TRANSPORTATION					
			SKETCH OF DESCRIPTION - PARCEL 800C					
			STATE ROAD NO. 23 ACROSS			ST. JOHNS AND CLAY COUNTIES		
			THE ST. JOHNS RIVER					
CHANGE EASEMENT TYPE	B.ROBBINS	08-23-17		BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	FIELD BOOKS: 822506A-H	
L.A. R/W	K.A.S.	04-25-13	DRAWN	K.A.S.	10-11-08			
REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09	F.P. No. 4229382	SECTION 78293 SHEET 22 OF 24	

SECTION 78293

STATE ROAD NUMBER 23

F.P. No. 4229382

CLAY COUNTY

DESCRIPTION

PARCEL No. 800E

ST. JOHNS RIVER

EASEMENT

THAT PART OF THE SOVEREIGN LANDS OF THE STATE OF FLORIDA, LYING IN TOWNSHIP 6 SOUTH, RANGE 27 EAST, AND ADJACENT TO CLARK'S MILL GRANT, SECTION 47, TOWNSHIP 6 SOUTH, RANGE 27 EAST, CLAY COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4"X 4" CONCRETE MONUMENT, NO IDENTIFICATION, MARKING THE SOUTHERLY CORNER OF THE THOMAS TRAVERS GRANT, SECTION 38, TOWNSHIP 6 SOUTH, RANGE 27 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 29°22'43" EAST, ALONG THE SOUTHERLY LINE OF SAID THOMAS TRAVERS GRANT, A DISTANCE OF 1,281.55 FEET TO A POINT ON THE BASELINE OF SURVEY OF STATE ROAD NUMBER 23, (PER FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, SECTION 78293, FINANCIAL PROJECT NO. 4229382); SAID POINT BEING ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 2,292.00 FEET; THENCE FROM A TANGENT BEARING OF SOUTH 51°28'03" WEST, RUN SOUTHWESTERLY, DEPARTING SAID SOUTHERLY GRANT LINE, ALONG SAID BASELINE OF SURVEY OF STATE ROAD NUMBER 23, AND ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 04°18'11", AN ARC LENGTH OF 172.14 FEET TO THE POINT OF TANGENCY; THENCE SOUTH 55°46'15" WEST, ALONG SAID BASELINE OF SURVEY, CROSSING FROM ST. JOHNS COUNTY TO CLAY COUNTY, A DISTANCE OF 10,843.31 FEET; THENCE SOUTH 34°13'45" EAST, DEPARTING SAID BASELINE OF SURVEY, A DISTANCE OF 162.00 FEET TO A POINT ON THE MEAN HIGH WATER LINE OF THE ST. JOHNS RIVER AS ESTABLISHED PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEAN HIGH WATER SURVEY NUMBER 4194 AND THE **POINT OF BEGINNING**; THENCE, DEPARTING SAID MEAN HIGH WATER LINE, SOUTH 55°46'15" WEST, A DISTANCE OF 81.91 FEET TO A POINT ON THE MEAN HIGH WATER LINE PER SAID MEAN HIGH WATER SURVEY; THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING FIVE (5) BEARINGS AND DISTANCES: (1) NORTH 49°51'40" WEST, 9.14 FEET; (2) NORTH 89°27'50" WEST, 48.84 FEET; (3) NORTH 76°11'25" WEST, 90.31 FEET; (4) SOUTH 27°35'01" EAST, 80.76 FEET; (6) SOUTH 00°53'13" EAST, 27.36 FEET TO A POINT ON A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 2,454.00 FEET, A CHORD BEARING AND DISTANCE OF SOUTH 57°32'07" WEST, 31.30

DESCRIPTION CONTINUED ON SHEET 24

			FLORIDA DEPARTMENT OF TRANSPORTATION SKETCH OF DESCRIPTION - PARCEL 800C			
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FDEP CHECKLIST	K.A.S.	02-16-18	BY	DATE	PREPARED BY: DRMP, INC. - LB NO. 2648 8001 BELFORT PARKWAY, SUITE 200 JACKSONVILLE, FLORIDA 32256	FIELD BOOKS: 822506A-H
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L.A. R/W	K.A.S.	04-25-13	CHECKED	J.A.A.	04-28-09	
REVISION	BY	DATE	F.P. No. 4229382		SECTION 78293	SHEET 23 OF 24

FEET; THENCE WESTERLY, ALONG THE ARC OF SAID CURVE, THROUGH AN ANGLE OF 01°43'51", AN ARC LENGTH OF 31.30 FEET TO THE END OF SAID CURVE AND A POINT ON SAID MEAN HIGH WATER LINE; THENCE, ALONG SAID MEAN HIGH WATER LINE, THE FOLLOW EIGHT (8) BEARINGS AND DISTANCES: (1) NORTH 00°21'46" WEST, 31.95 FEET; (2) NORTH 24°58'50" WEST, 74.95 FEET; (3) NORTH 04°05'39" WEST, 32.71 FEET; (4) NORTH 68°12'15" EAST, 43.83 FEET; (5) SOUTH 67°54'27" EAST, 45.21 FEET; (6) SOUTH 76°00'04" EAST, 40.93 FEET; (7) NORTH 84°26'25" EAST, 79.15 FEET; (8) NORTH 82°27'52" EAST, 33.24 FEET TO THE **POINT OF BEGINNING**.

CONTAINING 9,366 SQUARE FEET, MORE OR LESS.

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS SKETCH OF DESCRIPTION, CONSISTING OF SHEETS 1 THROUGH 24, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IS TRUE, ACCURATE, AND WAS PREPARED UNDER MY DIRECTION. I FURTHER CERTIFY THAT SAID SKETCH OF DESCRIPTION IS IN COMPLIANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, PERSUANT TO SECTION 472.027, FLORIDA STATUTES.


 2/28/18
 DATE



GLENN J. LUSINK, P.S.M.
 FLORIDA PROFESSIONAL LAND SURVEYOR AND MAPPER No. 5977
 8001 BELFORT PARKWAY, SUITE 200
 JACKSONVILLE, FLORIDA 32256
 PHONE: (904) 641-0123 FAX: (904) 641-8858

THIS SKETCH OF DESCRIPTION AND COPIES THEREOF ARE NOT VALID WITHOUT THE SURVEYOR'S SIGNATURE AND ORIGINAL RAISED SEAL.

			FLORIDA DEPARTMENT OF TRANSPORTATION			
			SKETCH OF DESCRIPTION - PARCEL 800C			
			STATE ROAD NO. 23 ACROSS		ST. JOHNS AND CLAY COUNTIES	
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REVISION	BY	DATE	CHECKED	J.A.A.	04-28-09	F.P. No. 4229382 SECTION 78293 SHEET 24 OF 24

Appendix B – Site Photos



TFF-EFH Enhancement Area

TFF-EFH Enhancement Area





TFF-EFH Enhancement Area

TFF-EFH Enhancement Area and Restoration Area





TFF-EFH Restoration Area and adjacent agricultural field

TFF-EFH Restoration Area





TFF-EFH Restoration Area

TFF-EFH adjacent agricultural field





TFF-EFH Restoration Area existing pump used to alter hydrology of adjacent fields

Appendix C – Deep Creek Conservation Area Management Plan

**Deep Creek North
Conservation Area
Land Management Plan**

**Lower St. Johns River Basin
St. Johns County**

**Governing Board Approved
August 2006**

Deep Creek North Conservation Area

Management Plan Summary

Date of Plan: 08/2006

Management Area: Deep Creek North Conservation Area, 4529 acres. This land management plan will address the existing Deep Creek Conservation Area as well as the Lambert Parcel, a property that was recently acquired by the Board of Trustees of the Internal Improvement Trust Fund.

Location: St. Johns County.

Dates of Acquisition:

05/24/89 - (Wonderlic, LA# 88-13) - The District acquired this 564 acre tract with \$162,250.00 in ad valorem tax funds.

05/04/88 - (Mitchell, LA# 86-16)- This acquisition consisted of two separate parcels totaling 3219-acres. They were purchased with \$914,500 in ad valorem tax funds.

10/15/01 – (Norfleet, LA# 2001-30)- This 21-acre parcel was a mitigation donation. The value of the property was assessed at \$19,950 at closing.

8/18/2005-(Lambert, LA# 2005-016)- The Board of Trustees of the Internal Improvement Trust Fund (TIITF) acquired this 725 acre parcel for \$2,000,000.00 with Florida Forever funds. The Lambert Parcel will be managed by the District as part of Deep Creek North Conservation Area.

Funding Source: Ad valorem tax funds, mitigation donation, Florida Forever funds.

Management Partners:

- The District is lead manager of Deep Creek North Conservation Area.
- Additional conservation partners include Florida Fish and Wildlife Conservation Commission and the Board of Trustees of the Internal Improvement Trust Fund.

Key Resource Issues:

Of the 4529 acres at Deep Creek North Conservation Area, only 300 are accessible upland acres. Much of Deep Creek North Conservation Area is comprised of floodplain swamp and little active land management is needed. The floodplain swamp appears to be functioning normally, and most of the property's protection was achieved through acquisition. However, the recently-acquired Lambert Parcel has approximately 300 acres of upland natural communities. This acquisition will enable the District to provide recreational opportunities to the public. Additionally, the uplands within the Lambert Parcel will require moderate amounts of restoration and maintenance.

Resource Management Issues:

- WATER RESOURCES –

Water resources are relatively undisturbed; most protection was accomplished through acquisition. However, the main road leading into the Lambert Parcel was constructed poorly and will be recontoured in an effort to reduce the potential for erosion.

➤ FIRE MANAGEMENT –

The conservation area is dominated by floodplain swamp. There is a small flatwoods community located on a rise within the boundaries of the original Deep Creek Conservation Area; however, District staff have no legal upland access to the area. Approximately 300 acres of the Lambert parcel are dominated by fire- dependent natural communities. Additional firelines will be installed as necessary. Prescribed burns will be implemented through annual work plans. A comprehensive fire management plan has been written for the property as part of the land management planning process.

➤ FOREST MANAGEMENT

- A beetle outbreak occurred within a small island of pines at the Mitchell Parcel several years ago. However, District staff were unable to access the upland areas of the property across the wetlands, and therefore could not harvest the affected timber from this area.
 - Portions of the uplands within the Lambert Parcel appear to have been affected by wildfire in the past; though the groundcover is largely intact, the overstory was impacted and is very open as a result. Upland areas will be allowed to regenerate naturally. Supplemental planting or direct seeding may be necessary in some areas as well.
 - Prescribed fire will be the primary forest management tool used during the timeframe of this plan.
- EXOTICS – Continue monitoring and treatment of exotic and invasive species. If necessary, a special use authorization may be issued to a private individual to assist with the removal of feral hogs.
- CULTURAL & ARCHEOLOGICAL RESOURCES – Coordinate with Division of Historical Resources. Protect existing historical site.

Key Land Use/Recreation Issues:

- The original Deep Creek North Conservation Area is composed almost entirely of floodplain swamp, and it's waterways are popular among area residents. The site is an excellent example of intact floodplain swamp. Numerous water based recreation opportunities are available in the general area. Boating, canoeing, fishing, wildlife viewing, and photography are possible from both Deep Creek and the St. Johns River. Acquisition of the Lambert Parcel has expanded the opportunities for upland recreation immensely. District staff plan to install a short multi-user trail which will be open to the public for hiking, biking, wildlife viewing, and photography. Equestrian activities and camping will not be encouraged due to small size of suitable recreational areas at the property.

Land Use Management Issues:

- ACCESS –Maintain all interior roads. Maintain existing fencing, gates, and boundary markers. Install a parking area. Construct additional fencing as needed. Recontour roads

in order to improve the flow of water across the property and to reduce the potential for erosion and to provide better access for routine maintenance and land management activities. Pursue legal upland access to southeastern portions of the conservation area.

- RECREATION USE – Develop, mark and maintain multi-user trail. Design and install kiosk describing allowed activities within the conservation area.
- SECURITY – Maintain all upland fencing, gates, and boundary markers. Install additional fencing, gates, and boundary markers as needed. Continue coordination with Florida Fish and Wildlife Conservation Commission.

**Deep Creek North Conservation Area
Land Management Plan
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INTRODUCTION

This document provides guidelines for land management activities to be implemented within Deep Creek North Conservation Area for the next five years. This management plan will update and replace the original conceptual land management plan that was written for the conservation area. The District owns and manages numerous parcels within the Deep Creek Project Area; however, the Yarborough and Edgefield Parcels are disjunct and will not be addressed in this land management plan.

A property known as the Lambert Parcel was purchased by the Board of Trustees of the Internal Improvement Trust Fund and has been incorporated into the existing Deep Creek Conservation Area. Because these contiguous parcels are located within the northern reaches of Deep Creek Conservation Area, they will collectively be referred to as Deep Creek North Conservation Area. Though this land management plan does address Deep Creek North Conservation Area in its entirety, the floodplain swamp that dominates the conservation area requires little or no active resource management. Therefore, most of the land management activities addressed will take place in the upland areas within the Lambert Parcel in the northeastern portion of the property.

Deep Creek North Conservation Area is located in an area that has received tremendous amounts of disturbance from agricultural activity. Aerial imagery from the 1940's indicates that the agricultural fields that are currently so prominent in the region were well established at the time the photographs were taken. As a result, both Deep Creek and the St. Johns River are experiencing a degrading trend in water quality from years of sedimentation and chemical contamination.

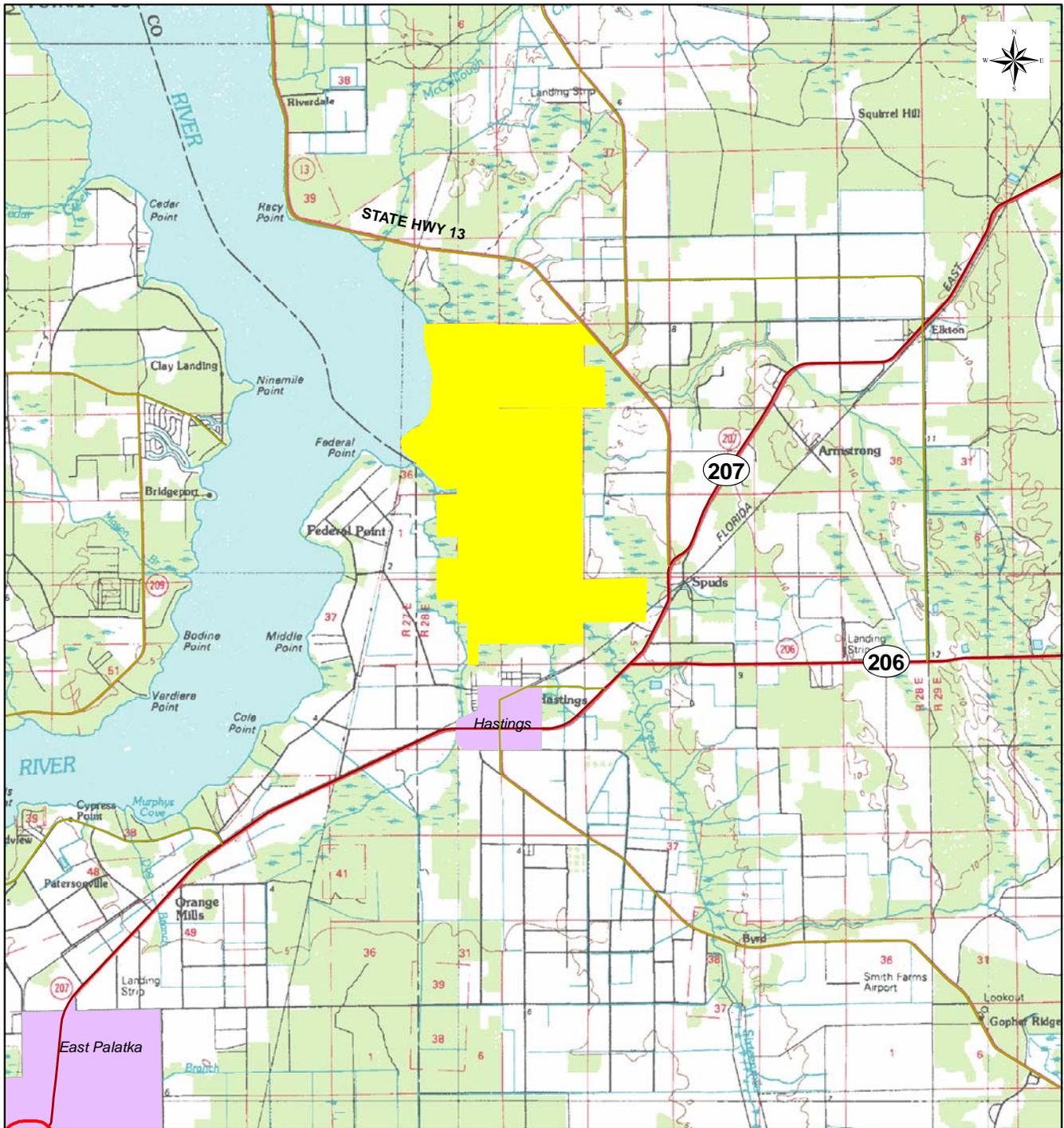
Deep Creek North Conservation Area consists of 4529 acres of land situated in St. Johns County within portions of Sections 28, 29, 30, 31, and 32, Township 8 South, Range 28 East, and in portions of Sections 5, 6, 7, 8, and 9, Township 9 South, Range 28 East. The property is located along the eastern side of the St. Johns River west of State Road 207, just north of Hastings. County Road 13 makes up a small portion of the conservation area's northeastern boundary.

LAND MANAGEMENT GOALS

The parcels within Deep Creek North Conservation Area were acquired to help meet the goals of the Lower St. Johns River Basin Projects set forth in the District's Land Acquisition and Management Five Year Plan and the District's Water Management Plan. Brief summaries of these goals as they apply to these conservation areas are as follows:

1. Improve water quality, maintain natural hydrological regime, and increase flood protection by preserving important floodplain areas.
2. Restore, maintain, and protect native natural communities and diversity.
3. Provide opportunities for recreation where compatible with above listed goals.

The above goals are general land management objectives for Deep Creek North Conservation Area. This management plan outlines specific goals and strategies to achieve these objectives.



**Figure 1. Location Map
Deep Creek North
Conservation Area**



0.8 0.4 0 0.8 Miles
1:100000

 **Deep Creek North
Conservation Area**

-  US Highways
-  State Roads
-  County Roads

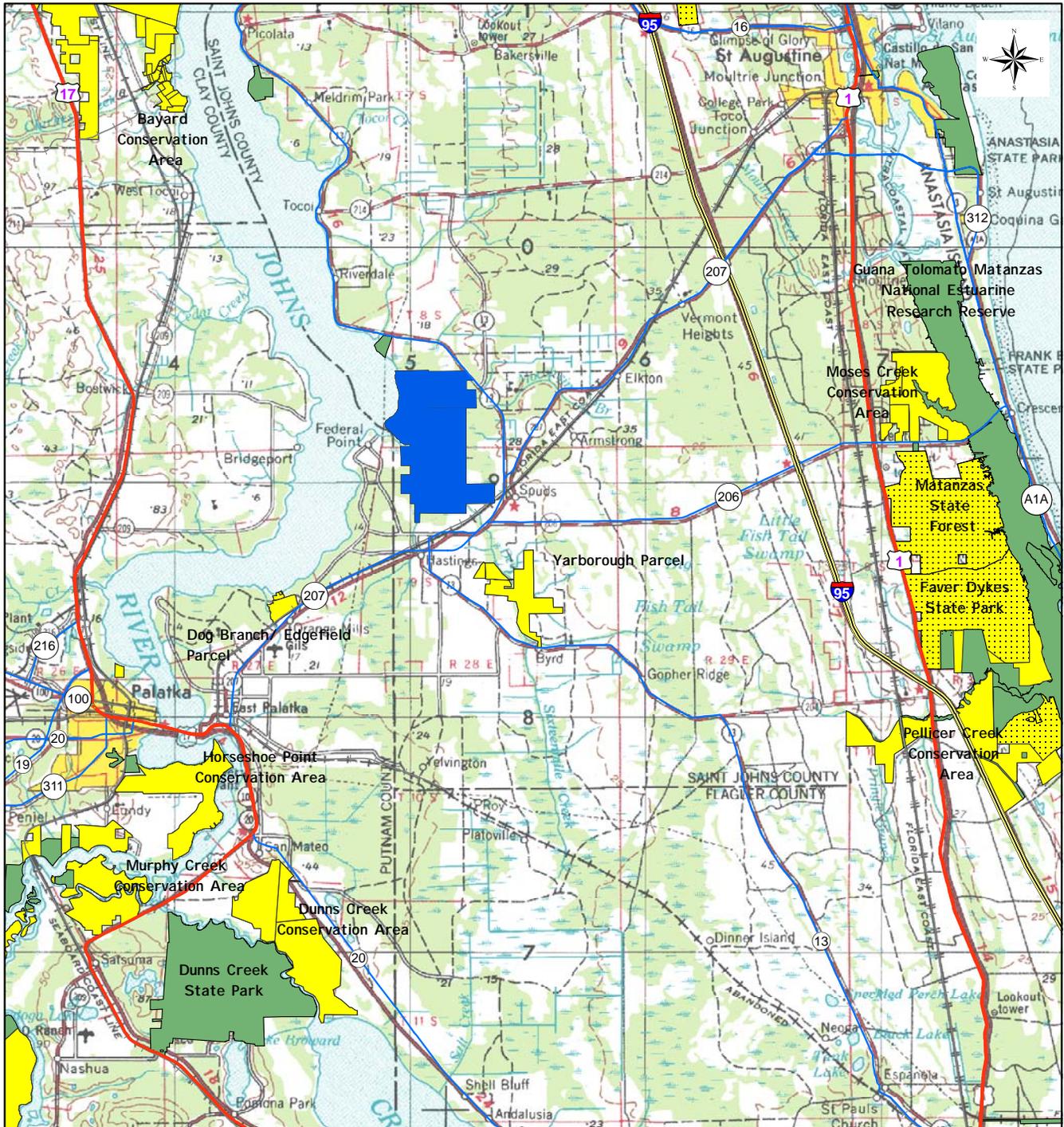
The St. Johns River Water Management District prepares and uses this information for its own purposes and this information may not be suitable for other purposes. This information is provided as is. Further documentation of this data can be obtained by contacting: St. Johns River Water Management District, Geographic Information Systems, Program Management, P.O. Box 1429, 4049 Reid Street Palatka, Florida 32178-1429 Tel: (386) 329-4176.

CONSERVATION AREA OVERVIEW

Regional Significance

The 4,510 acre conservation area is approximately three miles long (north to south) and two miles wide, with over two miles of frontage on the St. Johns River. Deep Creek is a blackwater stream which flows westerly to the St. Johns River, effectively bisecting the property from the southeast corner west to the middle of the western boundary. Wetland natural communities are largely undisturbed and are extremely important in helping improve water quality in the creek, which is impacted by agricultural run-off from nearby farms. Floodplain swamp is the predominant natural community within the conservation area.

Though the conservation area is not directly connected to other public conservation lands, it is an important property in an extensive “patchwork” of conservation lands. The property lies within an area known as the St. Johns River Blueway Florida Forever Project. Acquisition within the project area is a priority; the project area is located in one of the fastest growing portions of the state, and has been designed to protect the last remaining shorelines of the St. Johns River and several of its tributaries.



**Figure 2. Regional Significance
Deep Creek North
Conservation Area**



2 1 0 2 Miles
1:225000

- | | |
|-------------------------------|---|
| District
Ownership |  Deep Creek North
Conservation Area |
| |  Full fee |
| |  Less than fee |
| |  Joint ownership |
| |  Other Public Lands |

The St. Johns River Water Management District prepares and uses this Information for its own purposes and this information may not be suitable for other purposes. This information is provided as is. Further documentation of this data can be obtained by contacting: St. Johns River Water Management District, Geographic Information Systems, Program Management, P.O.Box 1429, 4049 Reid Street Palatka, Florida 32178-1429 Tel: (386) 329-4176.

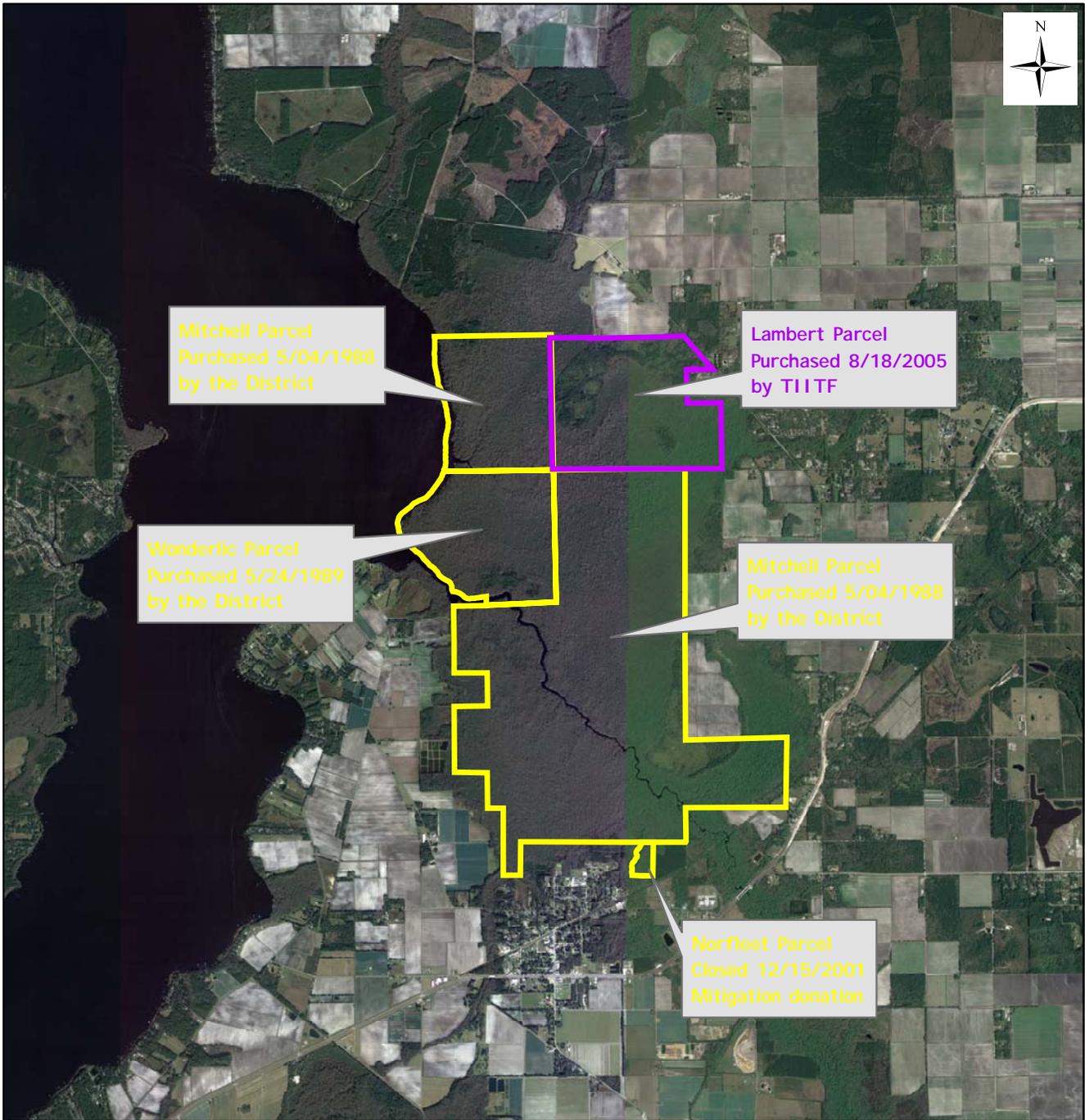
Acquisition History

05/24/89 - (Wonderlic, LA# 88-13) - The District acquired this 564-acre tract with \$162,250 in ad valorem tax funds.

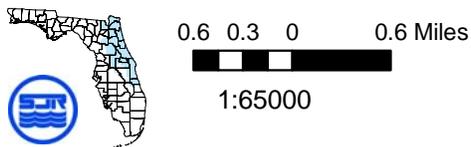
05/04/88 - (Mitchell, LA# 86-17) – This acquisition consisted of two separate parcels totaling 3194-acres. They were purchased with \$914,500 in ad valorem tax funds.

10/15/01 – (Norfleet, LA# 2001-30) – This 21-acre parcel was a mitigation donation. The value of the property was assessed at \$19,950 at closing.

8/18/2005 – (Lambert) – The 725-acre Lambert parcel was acquired by the Board of Trustees of the Internal Improvement Trust Fund. The parcel is contiguous with the original Deep Creek Conservation Area, and the decision was made prior to acquisition that the District would manage the Lambert parcel as well. The \$2,000,000 acquisition was purchased with Florida Forever funds.



**Figure 3. Acquisition Map
Deep Creek North
Conservation Area**



-  Original Deep Creek Conservation Area
Owned full fee by SJRWMD
-  Lambert Parcel
Owned full fee by TIITF

**All parcels will be managed by SJRWMD
as Deep Creek Conservation Area**

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Zoning

St. Johns County identifies one zoning classification for these areas in the St. Johns County Future Land Use Code (2015). The following is a summary:

Parks and Open Space: Parks and Open Space shall mean active and passive recreation areas, or lands permanently maintained as open space. Permitted uses shall include:

- Active and passive parks and recreational facilities, together with permitted accessory uses;
- Public safety government facilities such as police, fire, and emergency medical facilities.

Cooperative Agreements

The Lambert Parcel was acquired by TIITF; however, the District will incorporate the parcel into the adjacent Deep Creek Conservation Area and will assume all management responsibilities. An interim management agreement has been signed by both parties. TIITF and the District are developing a long-term lease in order to formally designate the District as lead manager.

NATURAL RESOURCES OVERVIEW

Topography and Hydrology

Deep Creek North Conservation Area falls within both the Deep Creek Unit and the South Mainstem Units of the Lower St. Johns River Basin. The Lower St. Johns River Basin is the drainage area for the portion of the St. Johns River extending from the confluence of the St. Johns and Ocklawaha Rivers near Welaka north to the mouth of the St. Johns River at Mayport (east of Jacksonville). This particular segment of the river is also referred to as the St. Johns Estuary, a name indicating its importance as a breeding and feeding area for numerous species of fish and other wildlife.

The majority of Deep Creek North Conservation Area is dominated by floodplain swamp. The highest elevations reach only 15 feet above mean sea level and are found in the northeasternmost corner of the property, along County Road 13. The site slopes downward towards its lowest elevations, which occur along nearly 2 miles of frontage on the St. Johns River.

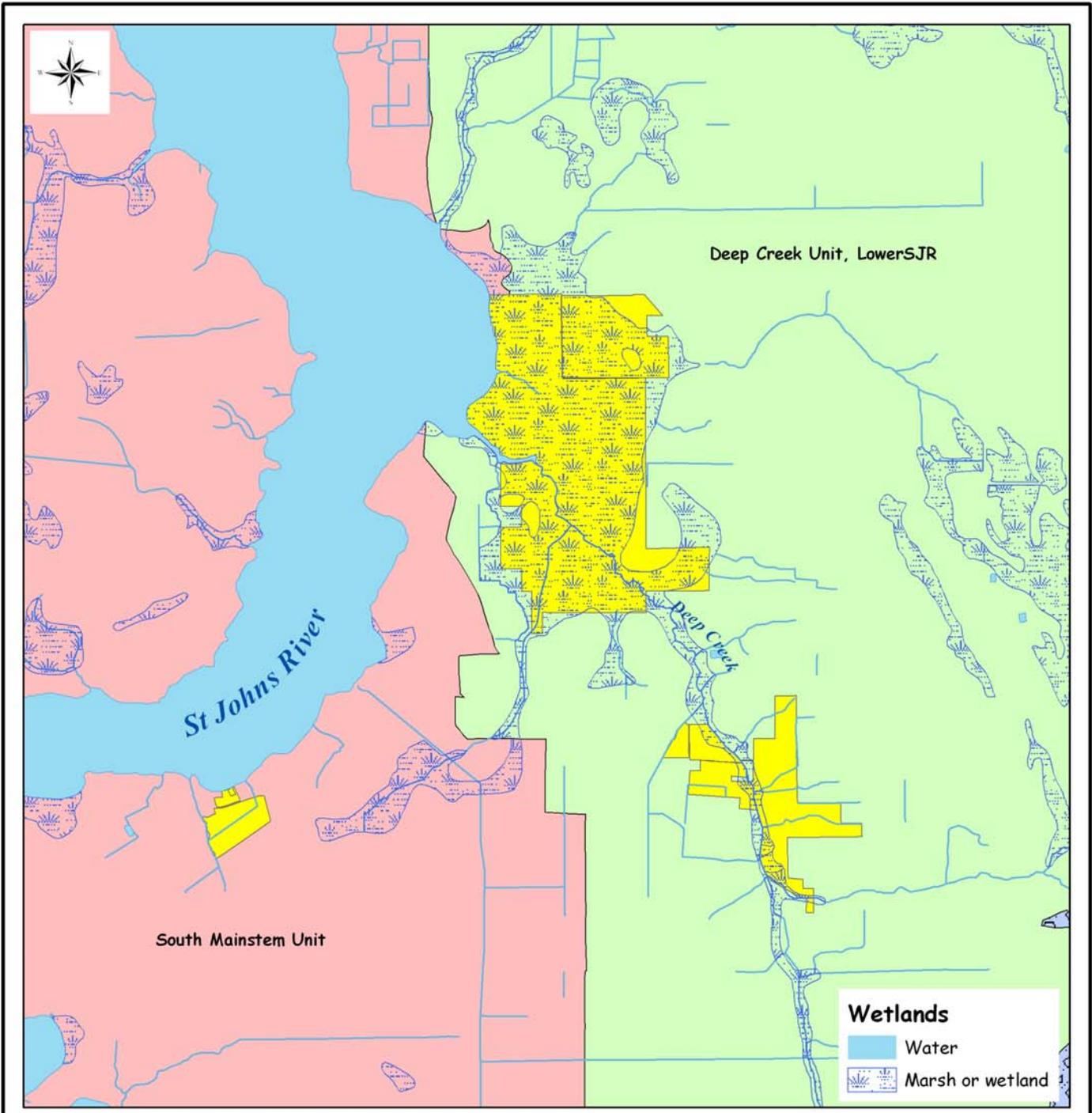
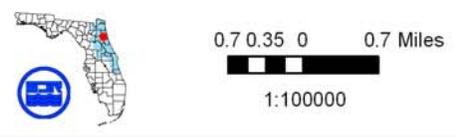


Figure 4.
Surface Water Basins
Deep Creek Management Area



Deep Creek Management Area

Surface Water Basin Planning Units

- Deep Creek Unit, LowerSJR
- South Mainstem Unit

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Soils

The soils within the conservation area are generally flat and poorly drained sandy soil in the few uplands and thick organic muck in the wetlands. The following is a brief list of the major soil types and several species with which each is associated.

Terra Ceia muck- Terra Ceia muck is the dominant soil type within the conservation area. This is a very deep, very poorly drained organic soil associated with river floodplains. Natural vegetation associated with this soil type includes sawgrass, lilies, sedges, reeds, maidencane, and other aquatic plants. Cypress, blackgum, cabbage palm, bay species, and pond pine typically dominate the wooded wetland areas having this soil type.

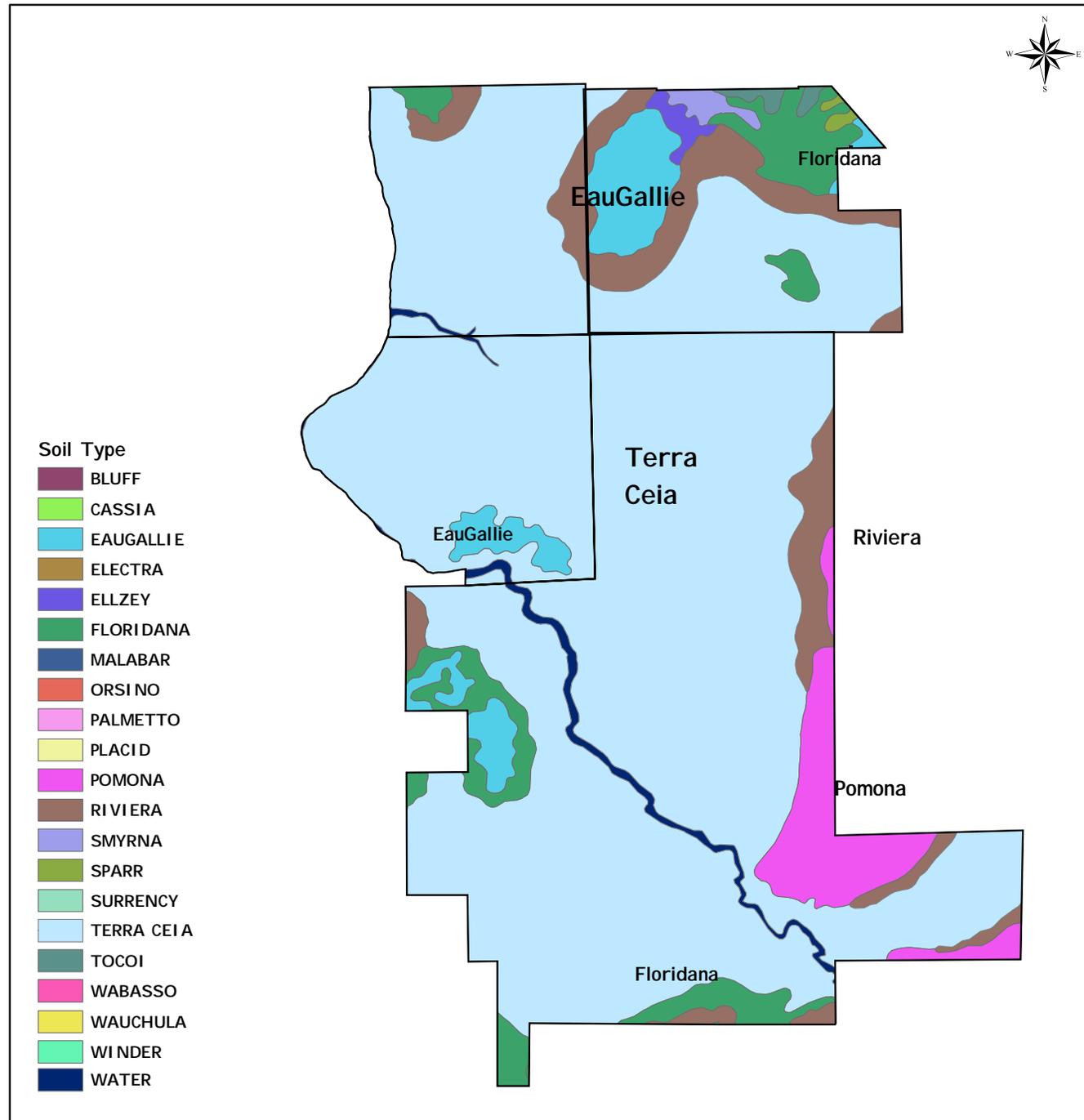
Pomona and Wabasso fine sands- Pomona and Wabasso soils are deep poorly drained fine sands originating in marine sediment. These soils are generally found in flatwoods and depressional habitats. Typical species include longleaf pine, slash pine, gallberry, saw palmetto, and wiregrass.

Floridana sands- Floridana sands are commonly found in depressional areas and floodplains. They are poorly drained soils. Species the soils are most commonly associated with include cabbage palmetto, wax myrtle, cypress, and cordgrass in depressions; while typical floodplain species include tupelo, sweetgum, and red maple.

EauGallie sands- EauGallie sands are poorly drained sandy soils typically associated with depressional areas and sloughs. Typical vegetation includes longleaf pine, saw palmetto, gallberry, and wiregrass.

Riviera sands- Riviera sands are very deep poorly drained soils formed in sandy and loamy marine sediment. These soils are typically found in depressions and flats. Characteristic vegetation includes species typical of wetter flatwoods communities. Slash pine, cabbage palm, saw palmetto, and wiregrass are common.

Placid fine sands- Placid fine sands are very deep and very poorly drained soils typical of flats, depressions, and floodplains. These soils typically occur in wet forested areas; pond pine, bays, cypress, gum, and a variety of grasses are characteristic species found in this soil type.



**Figure 5. Soils Map
Deep Creek North
Conservation Area**



0.2 0.1 0 0.2 Miles
1:35000


**Deep Creek North
Conservation Area**

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Natural Communities

The following descriptions of the natural communities found within the conservation areas have been compiled using the definitions of each natural community as found in the Florida Natural Areas Inventory's (FNAI) *Guide to the Natural Communities of Florida*. The descriptions below have been tailored to best describe the natural communities being addressed in this management plan.

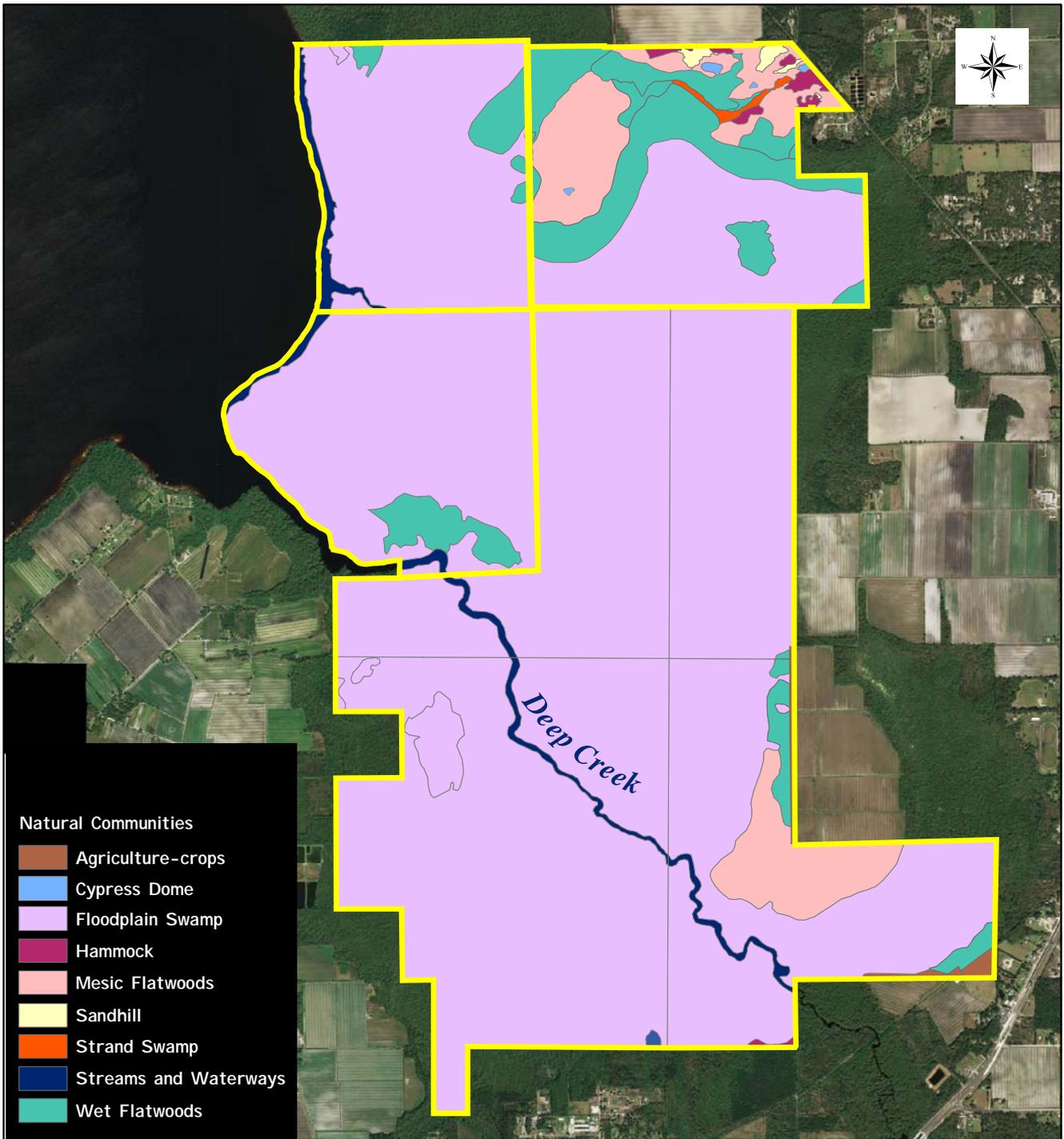
Floodplain Swamp - Floodplain Swamp is the dominant community type at Deep Creek North Conservation Area. Floodplain swamp occurs at the lowest elevations within the conservation area, lining both Deep Creek and the St. Johns River, and grading into floodplain forest at higher elevations. Buttressed trees such as cypress and tupelo, lizard's tail, and a variety of water-tolerant ferns are characteristic of floodplain swamps. Because the soils are often flooded for extended periods of time, little groundcover is present.

Hammock – Several areas within the management area could best be described as hammock. Most of these areas are a gradation between xeric and mesic hammocks and have characteristics of each type. Therefore, they have been lumped under the single heading of hammock. Additionally, the resource needs for both types of hammock are virtually identical. These areas often are an intermediate natural community between uplands and wetlands. Hammock is a community that is thought to be the result of fire suppression, and fuels within hammocks typically do not support fire spread. However, fire will be allowed to move from adjacent fire-adapted communities into hammock edges, where it will eventually burn out. Aside from maintaining hammock edges, little or no active resource management will be required in these areas.

Cypress Dome – Several very small cypress domes can be found within the conservation area. Dome swamps are generally small areas that are formed in areas where a depression has been created in the soil. Larger trees typically occupy the deeper waters at the centers of these swamps, while smaller trees populate the outer, shallower edges of these swamps, giving them a domed appearance. Though these small swamps can hold water for long periods of time, the outer edges of them are dependent on fire. Typically, fire is allowed to move through the edges of these swamps when prescribed fire is introduced in neighboring natural communities.

Flatwoods - There are several areas that can best be described as flatwoods scattered within the Deep Creek North Conservation Area. The northern and easternmost portion of the property is a mesic flatwoods community that has been affected by wildfire in the past. Numerous plow lines are evident, though none are recent. In many areas, the overstory is extremely open, with widely scattered slash and longleaf pine. The groundcover is diverse and intact, though the shrub layer is dominant and grasses and forbs are being suppressed, likely as the result of an inappropriate fire frequency. Remaining overstory trees have provided a sufficient seed source to promote regeneration of both longleaf and slash pine. Wetter flatwoods have a similar species composition, but tend to have more slash pine, bay trees, and gallberry than do more mesic flatwoods. Flatwoods will be managed with prescribed fire when possible; however management may be supplemented with chemical or mechanical means when necessary.

Sandhill- Several small areas at the highest elevations within the conservation area could best be described as sandhill. Sandhills are typically located on the remnants of dune systems. Soils are generally very well drained and sandy, with very little organic material present. Sandhills are dry natural communities that are characterized by widely scattered trees -typically a combination of longleaf pine and, to a lesser degree, turkey oak- with a diverse grassy understory. The sandhills at Deep Creek North Conservation Area have not been “managed” for a number of years. Frequent fire is a critical component in the maintenance of sandhills, and its absence at the conservation area is obvious. Though suppressed, wiregrass is a common component in the groundcover, and regeneration of longleaf pine is occurring despite shading. Turkey oak has become a dominant species in the sandhills; the regular application of prescribed fire should reduce the amounts of turkey oak in the sandhills over time.



**Figure 6. Natural Communities Map
Deep Creek North Conservation Area**



0.3 0.15 0 0.3 Miles

 1:32000



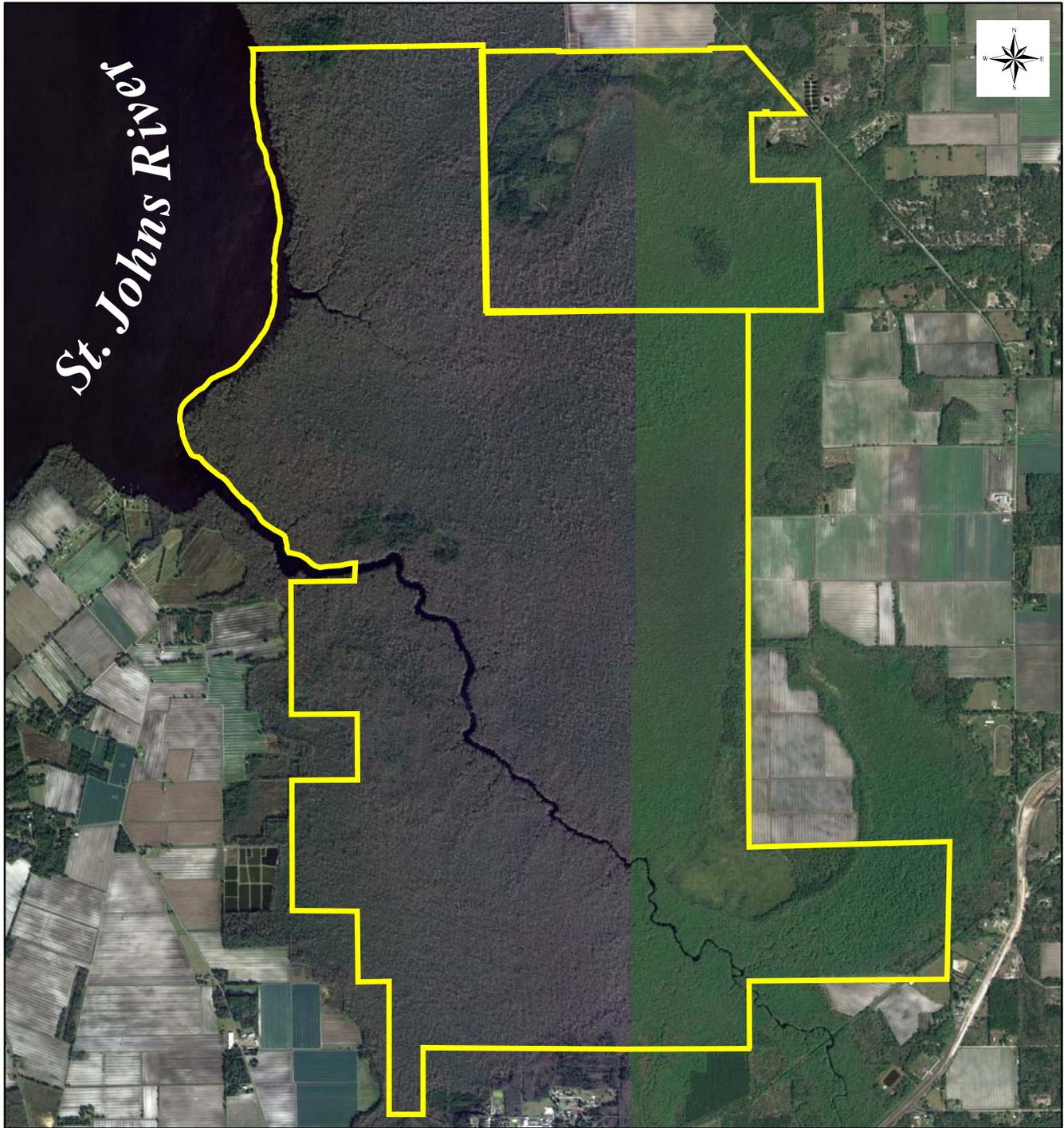
**Deep Creek North
Conservation Area**

Aerial imagery provided
by St. Johns County.

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Wildlife

No formal surveys have been conducted by District staff at this time. However, limited observations indicate that the conservation area is home to a wide variety of species. Most notable species are gopher tortoises and associated species, white-tailed deer, pygmy rattlesnakes, Virginia opossum, eastern cottontail, raccoon, wild turkey, woodpeckers, and owls. Numerous species of waterfowl and wading birds occur in the wetland portions of the conservation areas. Bald eagles are known to have nested within the conservation area as recently as 2004, and the area provides habitat for black bear as well.



**Figure 7. Aerial Image
Deep Creek North
Conservation Area**



0.3 0.15 0 0.3 Miles
1:32000



**Deep Creek North
Conservation Area**

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RESOURCE PROTECTION AND MANAGEMENT

Water Resource Protection

The wetlands and surface water within the region have received tremendous disturbance historically, though the wetland natural communities at Deep Creek North Conservation Area appear to be intact and functioning properly. Most of the wetlands protection was accomplished through acquisition. The majority of the conservation area is dominated by wetlands and is virtually inaccessible. However, the uplands in the northeast portion of the conservation area have been disturbed to some extent. A poorly constructed road may be causing minor erosion problems; District staff plan to repair the road, which will ultimately reduce the potential for erosion.

Water Resource Protection Strategies

- Repair roads within the Lambert property.
- Regularly inspect roads and culverts for erosion problems.

Forest and Fire Management

Large portions of the conservation area are dominated by floodplain swamp and will require little in the way of either forest or fire management. However, uplands within the conservation area will require moderate amounts of restoration and management. Chapter 253.036, Florida Statutes requires the lead agency of state lands to prepare a forest resource analysis, "...which shall contain a component or section prepared by a qualified professional forester which assesses the feasibility of managing timber resources on the parcel for resource conservation and revenue generation purposes through a stewardship ethic that embraces sustainable forest management practices if the lead management agency determines that the timber resource management is not in conflict with the primary management objectives of the parcel."

At this time, timber harvesting is not an issue. A significant wildfire history is evident; numerous plow lines radiate outward from the existing road, fire scars can be found on older trees, and the overstory has been impacted in places, though natural regeneration is occurring. District staff will utilize all information (including soil types, existing understory vegetation, position in the landscape) to determine what overstory species would be most appropriate in each of the affected areas. Planting or direct seeding will be used in conjunction with natural regeneration when necessary. Roadside ditches are being impacted by shrub encroachment. Selective mowing will be used in order to maintain the roads and provide improved access to forest and fire management units. Prescribed fire will then be introduced, and natural regeneration will be allowed to take place.

The nature of the property, a mix of pine flatwoods, remnant sandhill, and wetlands, causes forest and fire management to be critically important and integrally linked. It is crucial to understand that the planning and application of forest and fire management activities must be coordinated to achieve restoration and management goals.

Virtually all of the upland areas within the conservation area are either fire dependent or fire influenced, making prescribed fire one of the most important land management tools available for use in the restoration and maintenance of natural communities. Prescribed fire promotes community diversity, maintains ecotones, and reduces potentially hazardous fuel loads.

Forest and fire management activities will be concentrated in the uplands in the northeastern portion of the conservation area. Upland natural communities range from wet flatwoods at lower elevations to sandhill at higher elevations. Though the overstory is sparse in some areas, the groundcover is diverse and abundant. The application of prescribed fire will promote the growth of native understory species as well as stimulate the regeneration of desirable overstory species.

Please see the attached fire management plan for Deep Creek North Conservation Area (Appendix A) for more information.

Though prescribed fire is the preferred restoration and maintenance tool used within the conservation area, in certain circumstances it may be necessary to implement alternative methods. During periods of prolonged drought, or in areas where implementing prescribed fire safely is not feasible, the District may mechanically treat natural communities with mowing, rollerchopping, or overstory removal in order to mimic the effects of fire. Chemical treatments may be used when appropriate. Additionally, the District will remove trees as needed in the case of insect infestations, disease, damage from severe weather, or other occurrences that could jeopardize the health of the natural communities. In cases where timber removal is necessary, the District will focus on reestablishing the native overstory species appropriate for individual sites through planting. If necessary and if practical, such planting operations may include planting of native groundcover to disturbed sites.

Forest Management Strategies

- Reduce shrub layer along roads.
- Determine appropriate overstory species for areas where overstory has been impacted by wildfire.
- Replant or direct seed in conjunction with natural regeneration when necessary.
- Utilize prescribed fire as a forest management tool.
- Monitor forested areas for drought, disease, insect infestations, or other damage.

Fire Management Strategies

- Install additional firelines as needed.
- Introduce dormant season burns in order to reduce fuel loads in areas where fire has been excluded for long periods of time.
- Continue to conduct dormant season burns until fuel reduction goals are met and growing season burns can be safely conducted.
- Begin implementing growing season burns in areas with reduced fuels.

Wildlife

Detailed inventories of wildlife species on the properties have not been conducted as of yet. However, observations by District staff and Florida Fish and Wildlife Conservation Commission wildlife biologists indicate that the areas provide habitat for a variety of vertebrate and

invertebrate species. Species of note include black bears, bald eagles, gopher tortoises, white-tailed deer, Virginia opossum, eastern cottontail, wild turkey, raccoon, and pygmy rattlesnakes. Numerous species of waterfowl and wading birds occur in the wetland portions of the conservation area. The simple act of acquiring the properties in order to connect them to other nearby conservation lands affords more short-term protection for these species than almost any other activity. Restoration of uplands and maintenance of ecotones between natural communities will enhance the habitats utilized by these species and provide long-term protection as well.

Wildlife Protection Strategies

- Continue to restore natural communities at the conservation areas.
- Continue to maintain ecotones between natural communities.

Invasive Species

Several invasive plant species are known from Deep Creek North Conservation Area. These species include cogon grass, camphor, chinaberry, air potato, Chinese tallow, and Japanese climbing fern. The property is included in the District's invasive plant management program. Though it is unlikely that staff will completely eradicate invasive plant populations at the conservation area, populations are being held at a "maintenance" level. The property is regularly monitored, and chemical treatments are applied as necessary in order to keep the populations from spreading. Although feral hogs are a common problem throughout the state of Florida, populations at Deep Creek North Conservation Area are relatively small. Should hogs become a nuisance, the District will coordinate with a feral hog trapper in order to reduce the population.

Invasive Species Strategies

- Continue to monitor for invasive plant species and treat as necessary.
- Continue to monitor feral hog activity within the conservation area.
- If necessary, issue a special use authorization (SUA) to a local hog trapper in order to assist with the removal of feral hogs.

Cultural Resources Protection

A review of the Department of State, Division of Historical Resources (DHR) digital Master Site files indicates that there is one registered cultural site within the conservation area. If additional sites are located, District staff will document and report the sites to the Division of Historical Resources. District land management activities that may disturb these resources will be evaluated and modified to minimize disturbance. Furthermore, it is the policy of the District not to identify sites on public maps.

Cultural Resource Protection Strategies

- Protect existing cultural and historical site by eliminating disturbance in relation to resource management activities.
- Identify and report any new sites to Florida Division of Historical Resources.

LAND USE MANAGEMENT

The St. Johns River Water Management District is legislatively mandated to provide recreation opportunities on District-owned land where compatible with land management goals. The

District may restrict use as necessary for protection of natural resources, restoration and conservation projects, and avoidance of conflicting uses.

Access

Two roads lead from CR 13 west into the property. The northernmost road is narrow and was poorly constructed initially. Moderately deep ditches are located on each side of the road. Additionally, shrubs have begun to grow in the ditches, significantly limiting access from the road to other portions of the uplands. District staff plan to clean out the shrub-filled ditches and recontour the road. The intent is to smooth the road and lessen the depth of the ditches, helping to prevent erosion while providing improved access to the uplands for land management and maintenance activities. Portions of the road will be used in the future trail system for the conservation area; however public vehicular access will be prohibited. A small fenced parking area will be constructed near the road's intersection with County Road 13; a walk-through area will be provided, but the entrance road (from the parking area into the conservation area) will be gated and locked at all times.

The southernmost road is narrow as well, but was constructed simply by removing the vegetation from the area. The road has not been ditched and erosion does not appear to be a problem. The road will be used by District staff for land management and maintenance activities; public vehicular access will be prohibited.

County Road 13 serves as the primary access route to uplands within the conservation area. The vegetation in the portions of the uplands adjacent to the road has been allowed to grow very dense. For this reason, fencing along CR 13 may not be immediately necessary. A small residential area is located along the boundary line in the southernmost portion of the upland area. The District will fence the uplands along this boundary line. Should vehicular trespassing become a problem, the District will fence all accessible upland boundaries within the conservation area.

There is an area of approximately 300 upland acres in the southeastern portion of DCNCA. Currently, the District has no legal upland access to this area. However, District staff are communicating with neighboring landowners in hopes of securing legal upland access to the area.

Access Strategies-

- Improve roads within the conservation area in order to reduce potential for erosion and to provide improved access for land management activities.
- Install parking area and walk-through in order to provide public access to the conservation area.
- Maintain roads and parking area.
- Fence upland boundaries as needed.
- Post boundaries and install informational signage near parking area.
- Maintain fencing, gates, boundary markers, and informational signage as needed.

- Continue communicating with neighboring landowners in order to acquire legal upland access to southeastern portions of DCNCA.

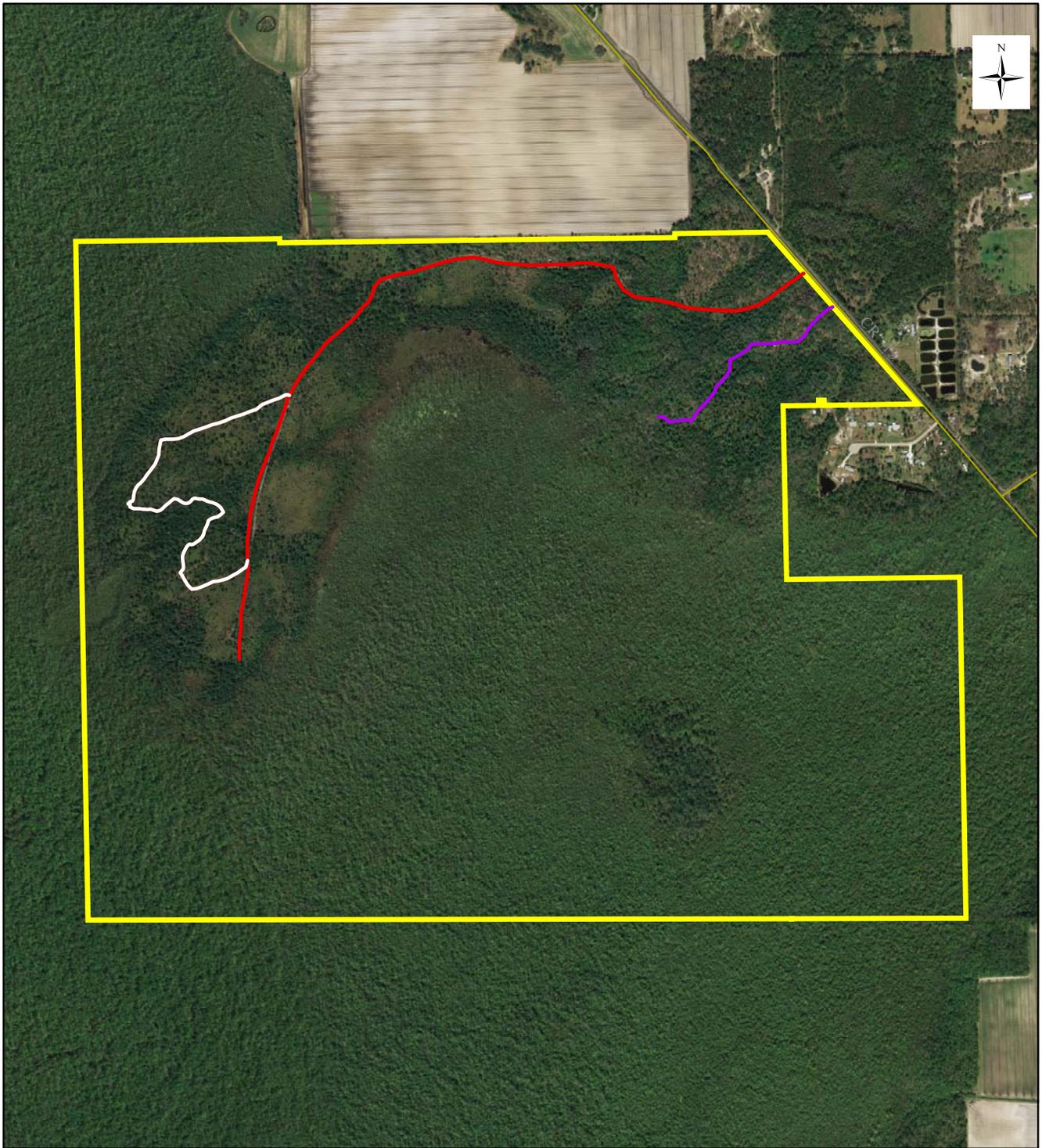


Figure 8. Roads and Trails
Deep Creek North
Conservation Area



0.07 0.0350 0.07 Miles
 1:12000

 **The Lambert Parcel**

Roads and Trails

-  All weather road maintained as needed
-  Multi-use trail mowed routinely
-  Woods road mowed annually

Aerial imagery courtesy of St. Johns County.

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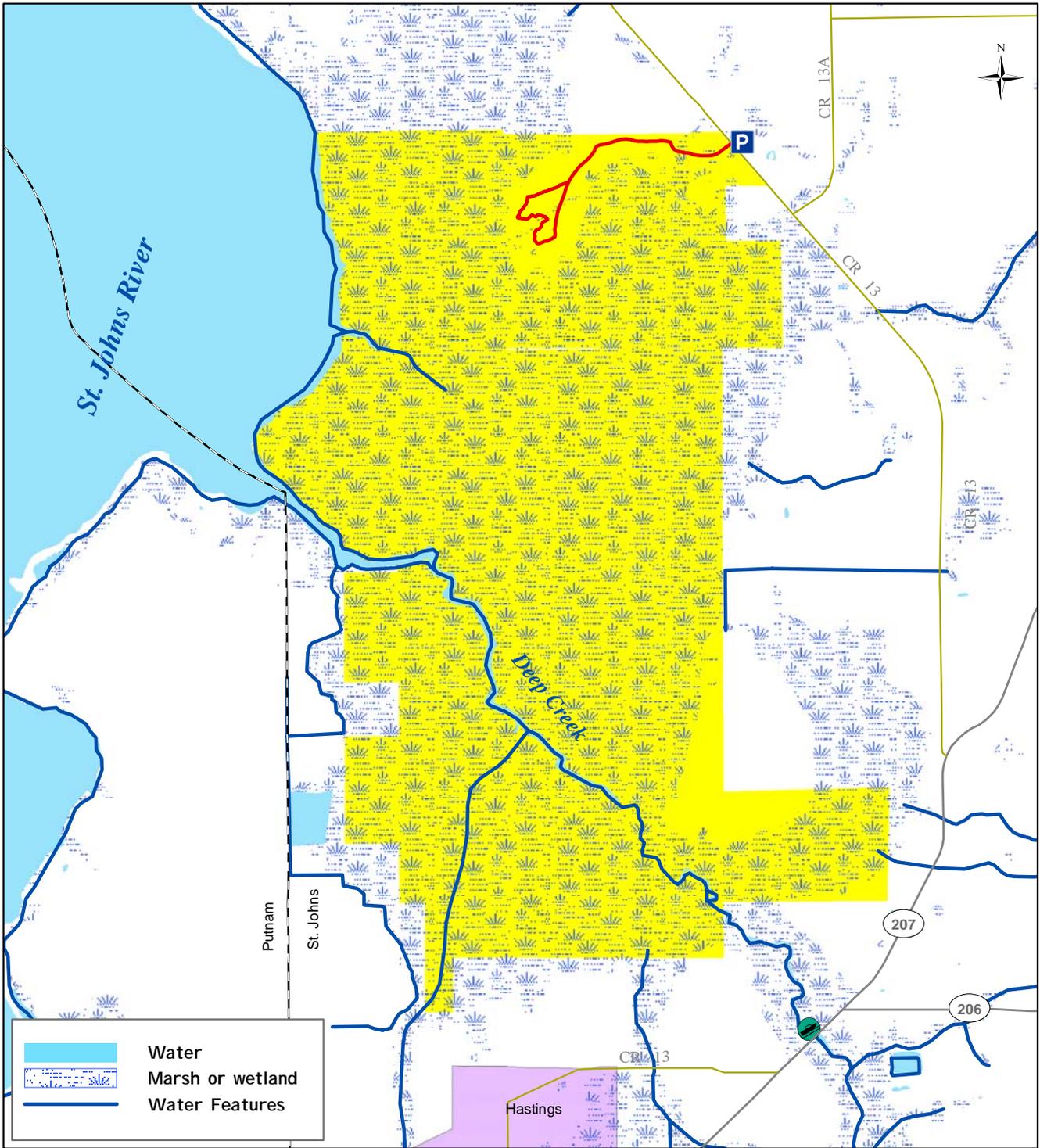
Recreation

District staff plan to install a multi-use trail at the conservation area. In all likelihood, the northernmost road within the uplands at the conservation area will serve as the public entrance to the property. A small parking area will be constructed near the road's intersection with CR 13. A gate separating the parking area from the remainder of the conservation area will remain locked at all times, effectively prohibiting public vehicular access within the conservation area. A trail system will be established, using existing roads and firebreaks whenever possible. Allowed activities will include hiking, bicycling, birdwatching, wildlife viewing, and photography. Equestrian activities will be allowed as well; however, users should be aware that parking will be limited.

Though there is no access from the conservation area itself, the wetlands surrounding the conservation area provide numerous opportunities to enjoy both Deep Creek and the St. Johns River. Photography, bird watching, wildlife viewing, fishing, boating, and canoeing can all be enjoyed from either Deep Creek or the St. Johns River. A makeshift boat launch located off State Route 207 (where the road crosses Deep Creek near Hastings) provides the closest available water access to the conservation area.

Recreation Strategies-

- Install and maintain trails.
- Install an informational kiosk describing allowed activities near the parking area.
- Create a brochure detailing the trail system at the conservation area utilizing GPS data.
- Continue to update and maintain brochure.



**Figure 9. Conceptual Recreation Map
Deep Creek North Conservation Area**



0.25 1250 0.25 Miles
1:38000

-  Deep Creek North Conservation Area
-  Proposed trail route
-  Boat Ramp
-  Railroad
-  County Roads
-  State Roads

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Environmental Education

The conservation area provides opportunities to groups and individuals to study Florida's natural communities and wildlife. The District will continue to identify and encourage environmental education opportunities within the conservation area.

Environmental Education Strategies

- Encourage environmental education opportunities as they arise.

Security

Portions of upland boundaries within the conservation area will be marked and fenced. Gates will be installed at all access points. These gates will remain locked at all times. A small subdivision abuts a portion of the uplands within the Lambert parcel. This area will be fenced in order to lessen the likelihood of trespass, poaching, vandalism, or other activities not allowed by the District. County Road 13 provides the best available access to the conservation area. However, the portion of the boundary that parallels the road is overgrown and essentially impenetrable. This portion of the upland boundary will not be fenced initially. District staff will continue to evaluate the need to fence this area; should the need arise, the entire boundary along CR 13 will be fenced.

Florida Fish and Wildlife Conservation Commission (FWC) law enforcement officers and local law enforcement officers regularly patrol the conservation area. There are no plans at this time to establish a security residence within the conservation area. The District will reevaluate the need for a security residence should problems arise.

The District provides recreation guides informing users of regulations and allowable uses of the properties. Within the timeframe of this management plan, the District plans to install a kiosk and produce brochures containing information about the trail system.

Security Strategies

- Install and maintain fencing, gates, boundary markings, and other signage.
- Install additional fencing should it become necessary.
- Continue cooperation with FWC and local law enforcement officers.

ADMINISTRATION

Acquisition

District staff are seeking additional acquisition of parcels within the general vicinity of the conservation area. Therefore, additional acquisitions are likely to occur within the area in the next five years.

Cooperative Agreements

No cooperative agreements are anticipated within the next five years.

Leases, Easements, and Concessions

No proposals for additional leases, easements, or concessions are expected within the next five years. District staff will maintain lease agreement with the Board of Trustees of the Internal Improvement Trust Fund.

MANAGEMENT PLAN IMPLEMENTATION CHART
DEEP CREEK CONSERVATION AREA

Task	Responsible Lead	Due Date	Cooperators
Resource Protection and Management			
<i>Water Resource Protection</i>			
Recontour entrance road to property in order to reduce potential for erosion.	DLM	2007	DPWNR
Regularly inspect roads and crossings for erosion problems	DLM	Annually	DPWNR
<i>Forest Management</i>			
Conduct a detailed inventory of timber resources on property	DLM	2006- 2007	
Utilize prescribed fire as a forest management tool	DLM	Ongoing	
Monitor forested areas for disease or insect infestations	DLM	Annually	
<i>Fire Management</i>			
Install additional firebreaks as necessary	DLM	2007	
Introduce dormant season burns in areas where fire has been excluded	DLM	2006-2007	
Continue to conduct dormant season burns until fuel reduction goals are met	DLM	Ongoing	
Introduce growing season burns in areas with reduced fuels	DLM	2010	
<i>Wildlife</i>			
Continue to restore natural communities	DLM	Annually	
Continue to maintain ecotones between natural communities	DLM	Annually	
<i>Exotic Species</i>			
Continue to monitor for invasive plant species and treat as necessary	DLM	Annually	
Evaluate the need to utilize a hog trapper for removal of feral hogs	DLM	As Needed	
<i>Cultural Resources</i>			
Protect existing cultural and historical sites	DLM	Ongoing	DHR
Identify and report any new sites to Florida Division of Historical Resources	DLM	As Needed	DHR

Land Use Management			
<i>Access</i>			
Repair entrance road in order to provide improved access for land management activities.	DLM	2007	DPWNR
Install and maintain parking area	DLM	2006	DPWNR
Maintain limited access points and roads necessary for resource management activities	DLM	As Needed	DPWNR
Maintain kiosk and associated informational signage near trailhead	DLM	As Needed	
Pursue legal upland access to southeastern portions of the conservation area	DLA	2007	
<i>Recreation</i>			
Install marked trail system	DLM	2006	TC
Install an informational kiosk	DLM	2006	KC
Maintain multi-use trail	DLM	Ongoing	TC
Create a brochure detailing trail system and allowed activities	DLM	2006	OC
Update and maintain brochure for trail system	DLM	As Needed	OC
<i>Environmental Education</i>			
Encourage educational opportunities as they arise	DLM	As Needed	OC
<i>Security</i>			
Install additional gates and fencing	DLM	2006	DPWNR
Maintain fencing, gates, and boundary markers	DLM	As Needed	DPWNR
Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	DLM	Annually	
Maintain fencing and boundary marking.	DLM	Annually	

Key

- DLM Division of Land Management
- OC Office of Communications
- DLA Division of Land Acquisition
- DOF Division of Forestry
- DPWNR Division of Public Works Northern Region
- FWC Florida Fish and Wildlife Conservation Commission
- DHR Division of Historical Resources
- TC Trailhead Developer Contractor
- KC Kiosk Contractor

ANTICIPATED BUDGET

ACTIVITY	ESTIMATED COST
Entrance Sign	\$1400
Parking Area	\$3000
Road Repair	\$4000
Fencing and Gate Installation	\$5800
Fireline Construction	\$800
Mowing/ Rollerchopping	\$65/ acre
Trail Marking and Construction	\$600
Kiosk Construction	\$1600
Prescribed Burning	\$12/ acre
Security	N/A

Appendix D – UMAM Evaluation

site: SAV Impacts and Mitigation

date: 12/8/2017

Impacts	Habitat Type	Location and Landscape Support		Water Environment		Community Structure		Acres	Functional Loss	Total Impact Acres	Total Creation Acres	Total Enhancement Provided	Upland Acres Provided
		before	after	before	after	before	after						
1									0.0000	2.24	2.21	0	0
2	645	9	7	8	8	8	0	2.24	0.7467				
3									0.0000				
4									0.0000				
5									0.0000				
6									0.0000				
7									0.0000	0.747	0.095	0.842	
8									0.0000				
9									0.0000				
10									0.0000				
11									0.0000				

Total Functional Loss: 0.747
 Total Functional Gain Units: 0.842

Mitigation	Habitat Type	Location and Landscape Support		Water Environment		Community Structure		Time Lag	Risk	Preservation Adjustment Factor	Relative	Acres	Functional Gain Units
		before	after	before	after	before	after						
preservation													
1								1	1.00		0.0000		0.0000
2								1	1.00		0.0000		0.0000
3								1	1.00		0.0000		0.0000
4								1	1.00		0.0000		0.0000
5								1	1.00		0.0000		0.0000
6								1	1.00		0.0000		0.0000
enh/creation		before	after	before	after	before	after						
7								1	1.00	n/a	0.0000		0.0000
8	645	0	9	0	8	0	8	1.25	1.75	n/a	0.3810	2.21	0.8419
9								1	1.00	n/a	0.0000		0.0000
10								1	1.00	n/a	0.0000		0.0000
uplands		before	after	before	after	before	after						
11	u			x	x			1	1.00		0.0000		0.0000
12	u			x	x			1	1.00		0.0000		0.0000
13	u			x	x			1	1.00		0.0000		0.0000
14	u			x	x			1	1.00		0.0000		0.0000
15	u			x	x			1	1.00		0.0000		0.0000

site: **TFF Impacts and Mitigation**

date: **3/15/2018**

Impacts	Habitat Type	Location and Landscape Support		Water Environment		Community Structure		Acres	Functional Loss	Total Impact Acres	Total Creation Acres	Total Enhancement Provided	Upland Acres Provided
		before	after	before	after	before	after						
W22,F1,F2	630	7	0	7	0	9	0	4.91	3.7643	35.73	156.42	8.32	0
W57,F1	615	8	0	8	0	8	0	13.87	11.0960				
W59,F1	615	8	0	9	0	9	0	12.19	10.5647				
W59,F1	630	7	0	7	0	8	0	0.76	0.5573				
W128,F1	615	8	0	9	0	9	0	1.11	0.9620				
W128,F2	615	8	0	9	0	9	0	1.92	1.6640				
W153,F1	617	7	0	8	0	8	0	0.97	0.7437	31.188	1.001	32.189	
									0.0000				
SHADE		1	0	0	0	5	0	6.34	1.2680				
TEMP		0	0	0	0	3	0	5.68	0.5680				
									0.0000				

Mitigation	Habitat Type	Location and Landscape Support		Water Environment		Community Structure		Time Lag	Risk	Preservation Adjustment Factor	Relative	Acres	Functional Gain Units
		before	after	before	after	before	after						
preservation								1	1.00		0.0000		0.0000
								1	1.00		0.0000		0.0000
								1	1.00		0.0000		0.0000
								1	1.00		0.0000		0.0000
								1	1.00		0.0000		0.0000
								1	1.00		0.0000		0.0000
enh/creation		before	after	before	after	before	after						
Restoration		0	8	0	8	0	8	1.46	1.50	n/a	0.3653	8.32	3.0393
								1	1.00	n/a	0.0000		0.0000
A		6	8	6	8	6	8	1.14	1.25	n/a	0.1404	88.51	12.4225
B		4	8	4	8	4	8	1.14	1.25	n/a	0.2807	59.59	16.7270
uplands		before	after	before	after	before	after						
	u			x	x			1	1.00		0.0000		0.0000
	u			x	x			1	1.00		0.0000		0.0000
	u			x	x			1	1.00		0.0000		0.0000
	u			x	x			1	1.00		0.0000		0.0000
	u			x	x			1	1.00		0.0000		0.0000