

amec
 ENVIRONMENT AND
 INFRASTRUCTURE
 404 SW 140TH TERRACE
 NEWBERRY, FL 32669
 TEL: (352) 332-3318

- NOTES**
- EXISTING BRIDGE AND ALIGNMENT WILL REMAIN IN PLACE
 - SURFACE WATER IMPACTS FROM SHADING, NEW PILES, AND PLACEMENT OF RIP RAP
 - IN AREAS WHERE LAND SURFACE HAS BEEN PERMANENTLY ALTERED DUE TO CONSTRUCTION OF HISTORICAL BRIDGE STRUCTURES, WETLAND LINE DOES NOT DENOTE POTENTIAL JURISDICTIONAL WETLANDS, BUT RATHER EDGE OF SURFACE WATER IMPACT ASSESSMENT AREA

NOT VALID WITHOUT SIGNATURE AND DATE

PROJECT:
AAF MIAMI TO ORLANDO PASSENGER SERVICE

APPLICANT:
ALL ABOARD FLORIDA

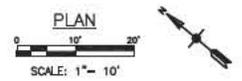
AMEC PROJECT No:
 6063-12-0212

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:
 DRAWN BY: AMW
 CHECKED BY: GWC
 APPROVED BY: CAS
 DATE: 05/21/14

SHEET TITLE:
 EARMAN RIVER
 MP 291.86
 ENVIRONMENTAL
 PLAN

SHEET NUMBER: REV. #
 SHEET XX OF XX SHEETS

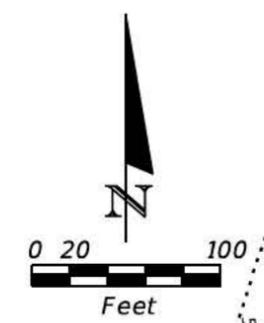


LEGEND	
	WETLAND AREA DELINEATION
	CONSTRUCTION LIMITS
	FLOATING TURBIDITY BARRIERS
	EXISTING RIGHT OF WAY
	SILT FENCE
	PROPOSED WALKWAY
	SURFACE WATER IMPACT - SHADING
	SURFACE WATER IMPACT - FILL/RIP RAP
	SURFACE WATER IMPACT - PILE

PROJECT IMPACT SUMMARY TABLE			
IMPACT TYPE	DESCRIPTION	ACRES	SQ. FEET
SUBMERGED AQUATIC VEGETATION IMPACTS	N/A	---	---
	SHADING	0.0527	2296.33
SURFACE WATER IMPACTS	RIPRAP INSTALL	0.0043	186.15
	PILINGS	0.006	263.15
TEMPORARY WETLAND IMPACTS	N/A	---	---
TEMPORARY SURFACE WATER IMPACTS	N/A	---	---

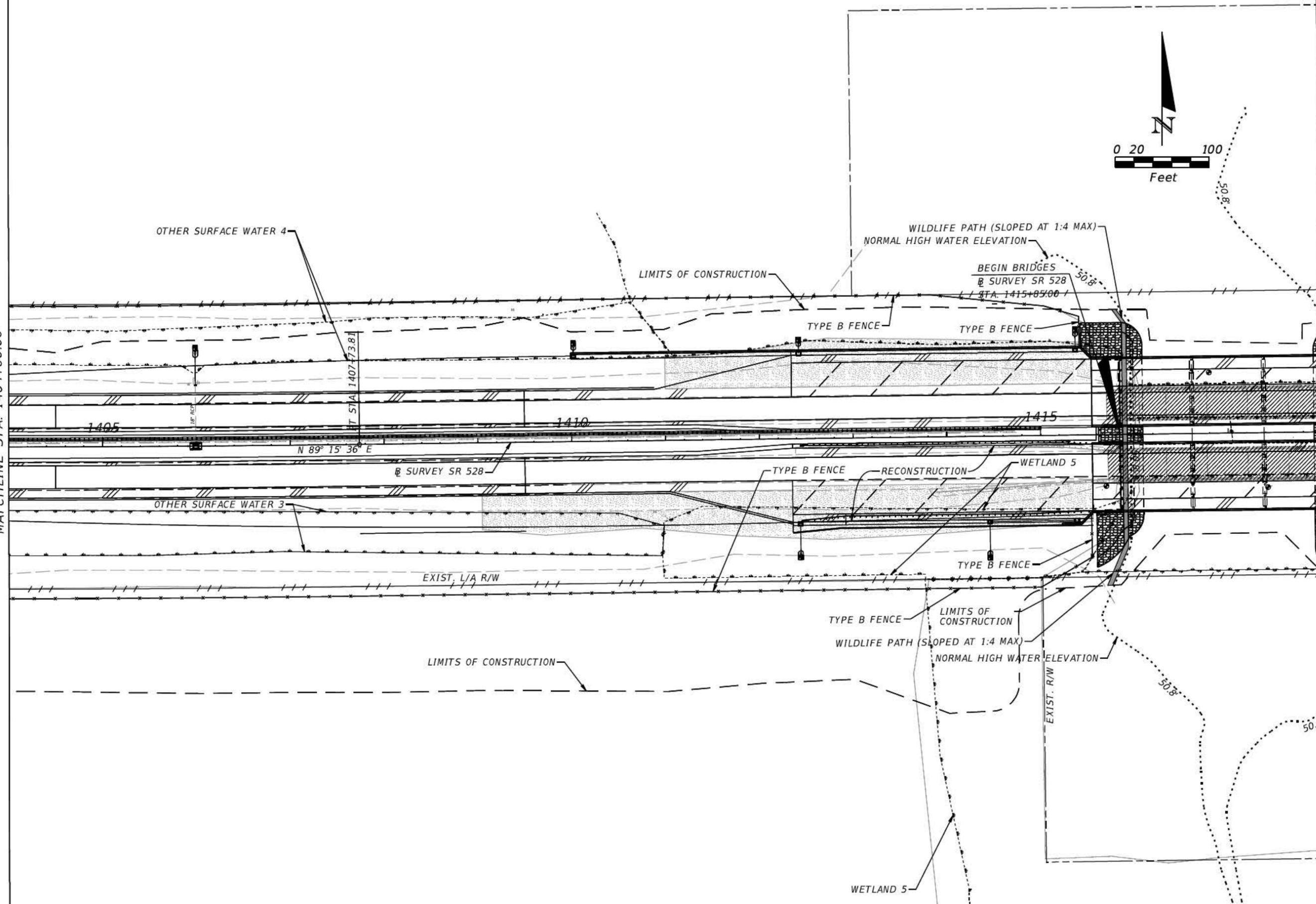
PROJECT AREA TOTALS			
DESCRIPTION	ACRES	SQ. FEET	LINEAR FEET
SHORELINE	---	---	159.94
SURFACE WATER / WETLAND	0.4249	18507.77	---

Construction Plans



MATCHLINE STA. 1404+00.00

MATCHLINE STA. 1418+00.00

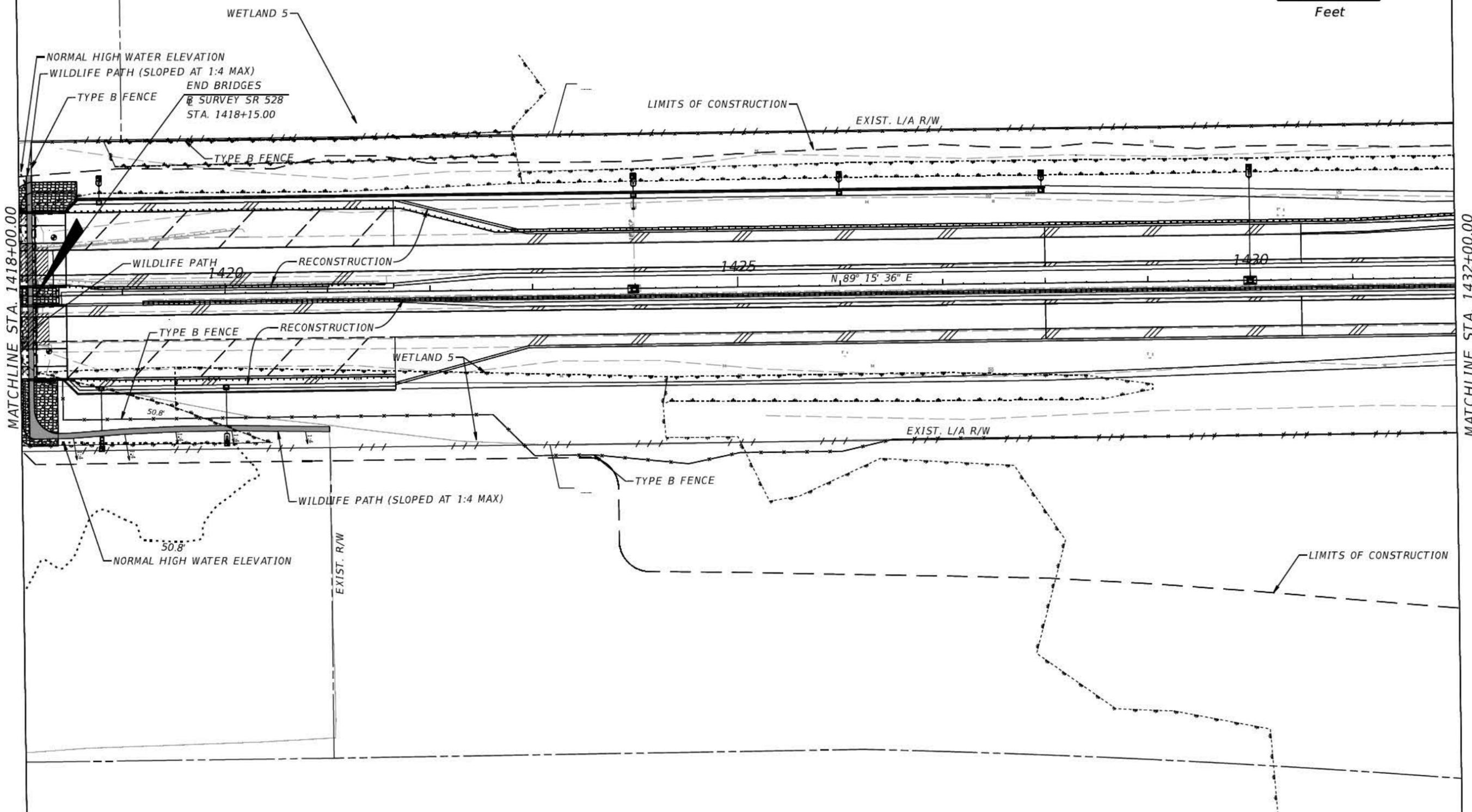
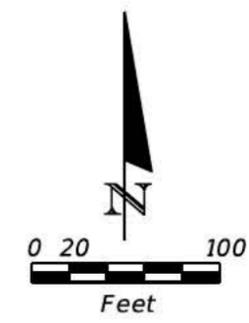


REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP|Parsons Brinckerhoff, Inc.
 301 E. Pine Street, Suite 1020
 Orlando, FL 32801
 (407) 587-7800
 Cert. of Auth. No. 01462
 EOR: WILLIAM M. JOHNSON, P.E. License No: 65008

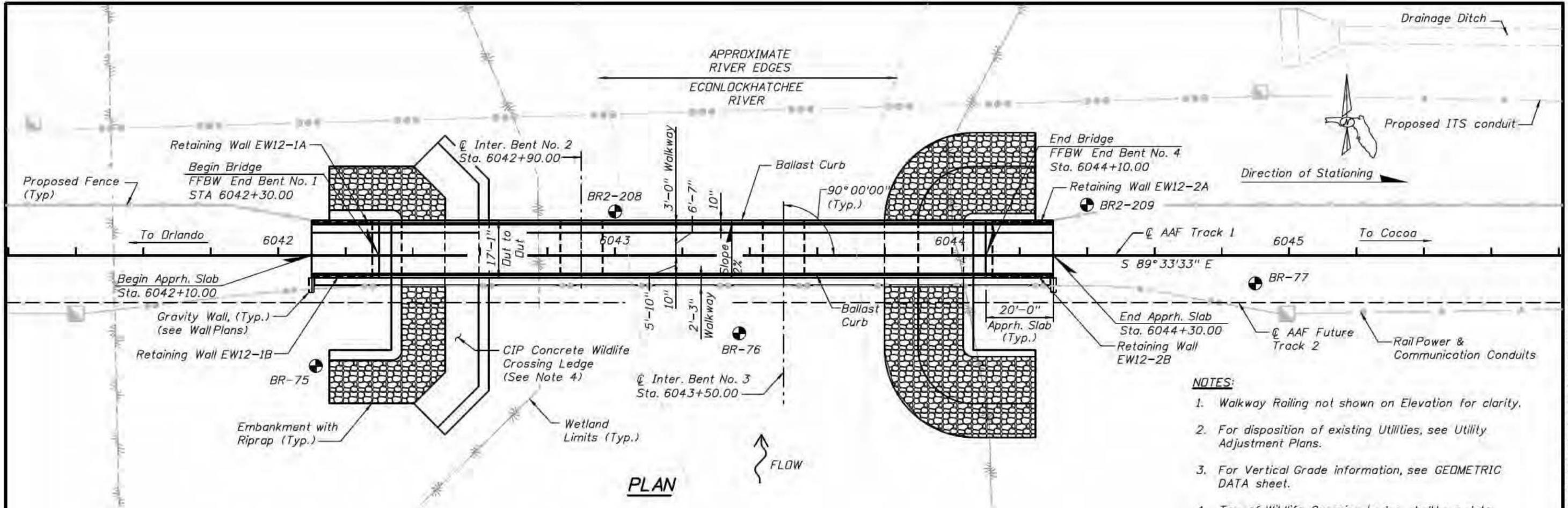
CENTRAL FLORIDA EXPRESSWAY AUTHORITY	
ROAD NO.	PROJECT ID
528	528131

WILDLIFE ACCESS	SHEET NO. 1
------------------------	-----------------------



REVISIONS				CENTRAL FLORIDA EXPRESSWAY AUTHORITY		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	PROJECT ID	
				528	528131	2

WSP|Parsons Brinckerhoff, Inc.
 301 E. Pine Street, Suite 1020
 Orlando, FL 32801
 (407) 587-7800
 Cert. of Auth. No. 01462
 EOR: WILLIAM M. JOHNSON, P.E. License No: 65008



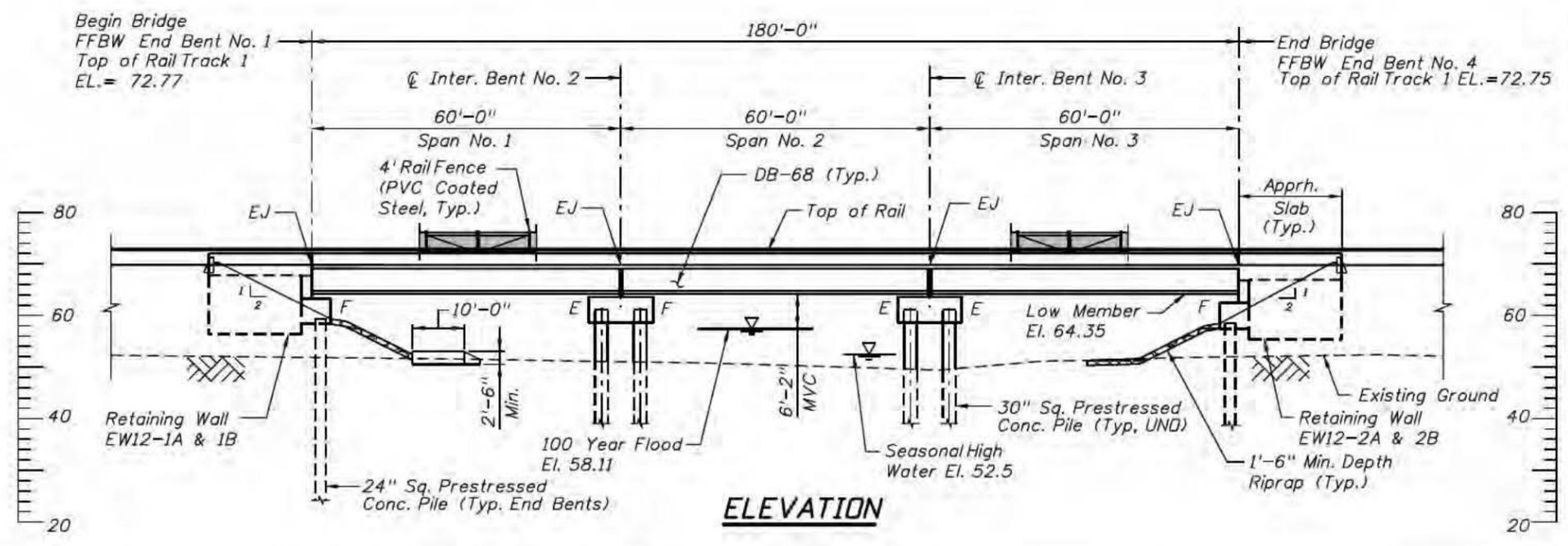
PLAN

NOTES:

1. Walkway Railing not shown on Elevation for clarity.
2. For disposition of existing Utilities, see Utility Adjustment Plans.
3. For Vertical Grade information, see GEOMETRIC DATA sheet.
4. Top of Wildlife Crossing Ledge shall be set to Minimum Elevation 53.0. The concrete top surfaces shall be intentionally roughened.

LEGEND:

- ⊕ = Approximate Location of Standard Penetration Test (SPT) Boring
- FFBW = Front Face of Backwall
- MVC = Minimum Vertical Clearance
- E = Expansion Bearing
- F = Fixed Bearing
- EJ = Expansion Joint
- DB = Decked Beam
- UND = Unless Noted Otherwise
- CIP = Cast in Place



ELEVATION

REVISIONS			
DATE	BY	DESCRIPTION	
		READY FOR RFC NOT FOR CONSTRUCTION	

HNTB
 HNTB CORPORATION
 610 CRESCENT EXECUTIVE CT
 SUITE 400
 LAKE MARY, FL 32746
 (407) 805-0355
 CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: Christopher J. Mills
 PE: # 56801

ALL ABOARD FLORIDA

DESIGNED BY: CM
 CHECKED BY: WLH

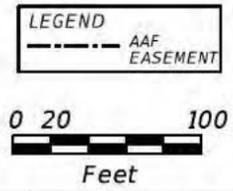
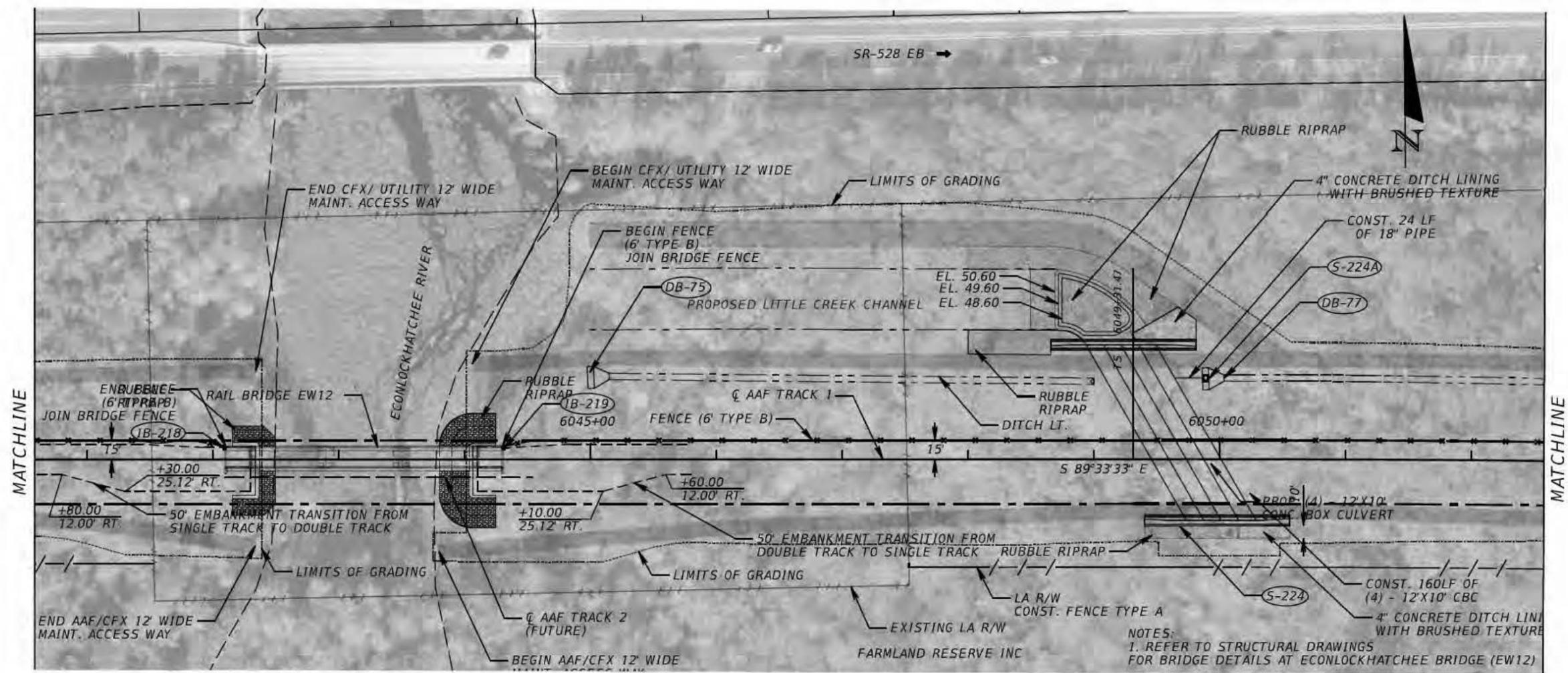
MAF CONTRACT: C02
 MILEPOST: EW 114 44
 COUNTY: ORANGE

PLAN AND ELEVATION
 BR-EW12-114.44 ECONLOCKHATCHEE RIVER

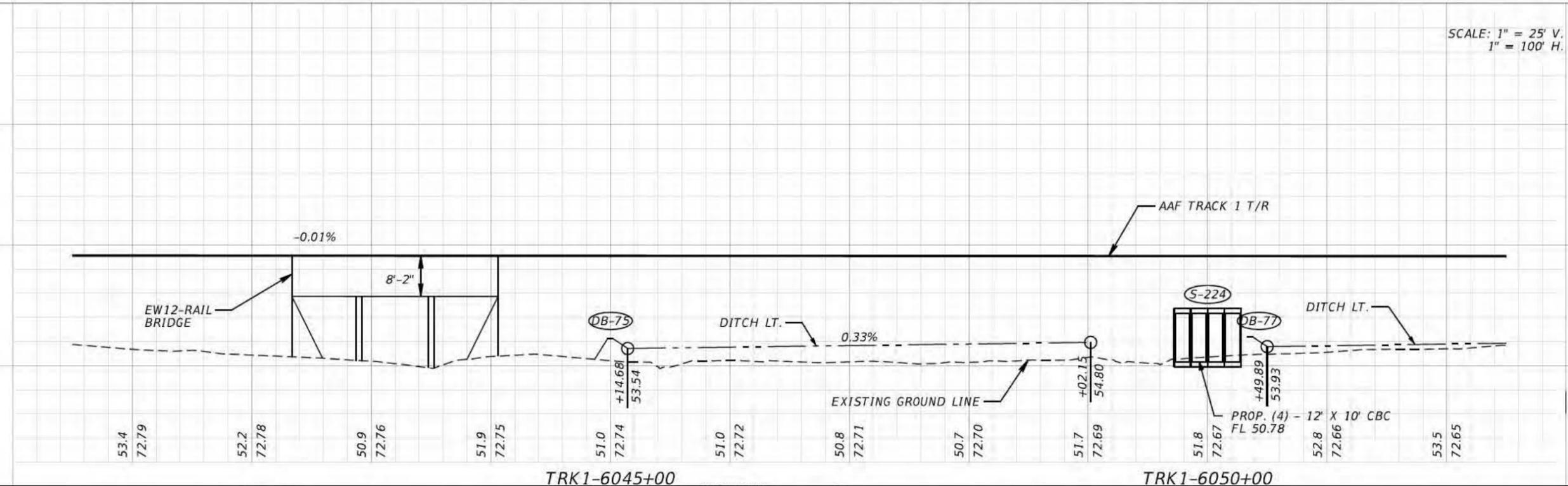
PROJECT NAME: NEW RAILWAY
 ORLANDO INT'L AIRPORT (MP 98.54) TO FEC RAILWAY (MP 137.58)

SHEET NO.: EW12-1

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



NOTES:
1. REFER TO STRUCTURAL DRAWINGS FOR BRIDGE DETAILS AT ECONLOCKHATCHEE BRIDGE (EW12)



SCALE: 1" = 25' V.
1" = 100' H.

MODEL: Default
PRINT DRIVER: FDOT\PDF.plt
PEN TABLE: FDOT_GrayExisting.tbl

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HNTB
 HNTB CORPORATION
 60 CRESCENT EXECUTIVE COURT
 SUITE 400, LAKE MARY, FL 32746
 (407) 905-0355
 CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD/ FL. REGISTRATION NO.
 CIVIL DESIGN: ANIL J. SHARMA 74240
 DRAINAGE DESIGN: RICARDO A. CINTRON 76423
 RAIL DESIGN: JOSHUA A. BAIR 76774

ALL ABOARD FLORIDA

ROAD NO.	COUNTY	PROJECT
	ORANGE	ALL ABOARD FLORIDA CONTRACT C02

**AAF RAILROAD TRACK
PLAN / PROFILE SHEET**

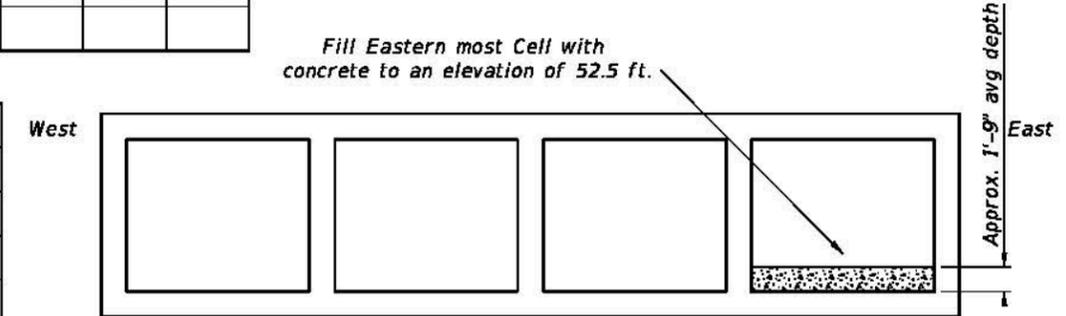
SHEET NO.
TK-287

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

BOX CULVERT DATA TABLES

BOX, HEADWALL AND CUTOFF WALL DATA TABLE (inches unless shown otherwise)																				Table Date 7-01-09	
LOCATION	STRUCTURE /BRIDGE NUMBER	BOX									HEADWALL AND CUTOFF WALL										
		Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	#cells	Lc(ft)	Cover	Blhw	Hlhw	Brhw	Hrhw	Blcw	Hlcw	Brcw	Hrcw	SL(deg)	SR(deg)	
6050+00	S-224	12	10	16	16	16	16	4	136	2	14	48	14	48	14	44	14	44	0	0	

LEFT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																	Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL									LEFT BEGIN WINGWALL								
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)
S-224	38	12	108	14	90	26.6	14	14	30	38	12	108	14	90	26.6	14	14	30



RIGHT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																	Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	RIGHT END WINGWALL									RIGHT BEGIN WINGWALL								
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)
S-224	38	12	108	14	90	26.6	14	14	30	38	12	108	14	90	26.6	14	14	30

ESTIMATED CONCRETE QUANTITIES (CY)																				Table Date 7-01-13	
STRUCTURE /BRIDGE NUMBER	BOX								LEFT END WINGWALL			LEFT BEGIN WINGWALL			RIGHT END WINGWALL			RIGHT BEGIN WINGWALL			
	Left Cutoff Wall	Right Cutoff Wall	Bottom Slab	Walls	Top Slab	Left Head Wall	Right Head Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	
S-224	5.51	5.51	376	337	368	6.3	6.3	1110	18	15.6	33.5	18	15.6	33.5	18	15.6	33.5	18	15.6	33.5	

- NOTES:**
1. Environmental Class, Moderately Aggressive
 2. Reinforcing Steel, Grade 60
 3. Concrete Class IV $f'c = 5.5$ ksi
 4. Soil Properties:
Friction Angle 30°
Modulus of Subgrade Reaction 100,000 lbf/Cu Ft.
Nominal Bearing Resistance 5000 lb/Sq ft.
 5. Work this Drawing with Design Standards Index No. 289.
 6. Settlement criteria for Precast Box Culvert option (Index No. 291).
 7. Quantities for Type I and Type II Connections include 2 ft. additional payment length beyond Lc for connection to existing box culvert. (See Summary of Box Culvert Quantities box in Plans)
 8. For Pipe Penetration Details See Sheet S-205 & 206.
 9. For Structure S-224, fill the bottom of the eastern most cell to elevation 52.5' with concrete to create a wildlife crossing path per Appendix 5A of the C02 Stormwater Report. See S-224 Cross Section above.

MAIN STEEL REINFORCEMENT SPACING (inches)																		Table Date 7-01-09	
STRUCTURE /BRIDGE NUMBER	BOX														HEADWALLS		CUTOFF WALLS		
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115, 116...	803	806	809	812
S-224	6	6	6	6	6	6	6	6	12	12	12	12	12	12	12	12	12	12	12

WINGWALL STEEL REINFORCEMENT SPACING (inches)																										Table Date 7-01-09		
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL							LEFT BEGIN WINGWALL							RIGHT END WINGWALL							RIGHT BEGIN WINGWALL						
	401 (407(8))	402 (403)	404 (405)	406	409	410	411	501 (507(8))	502 (503)	504 (505)	506	509	510	511	601 (607(8))	602 (603)	604 (605)	606	609	610	611	701 (707(8))	702 (703)	704 (705)	706	709	710	711
S-224	6	12	12	12	6	12	12	6	12	12	12	6	12	12	6	12	12	12	6	12	12	6	12	12	12	6	12	12

WINGWALL NOTE: Bar designations in "()" are only required for variable height wingwalls.

REVISIONS DATE BY DESCRIPTION DATE BY DESCRIPTION				MORALES CONSULTING ENGINEERS, INC. 3832-010 BAYMEADOWS RD. SUITE 132 JACKSONVILLE, FL 32217 (904) 434-4366 CERT. OF AUTH. NO. 30712	DRAWN BY: EJM Jr. CHECKED BY: EJM Sr. DESIGNED BY: EJM Jr. CHECKED BY: EJM Sr.				SHEET TITLE: BOX CULVERT STRUCTURES DATA TABLE	
						PROJECT NAME: NEW RAILWAY ORLANDO INT'L AIRPORT (MP 98.54) TO FEC RAILWAY (MP 137.58)	SHEET NO. DS-203			

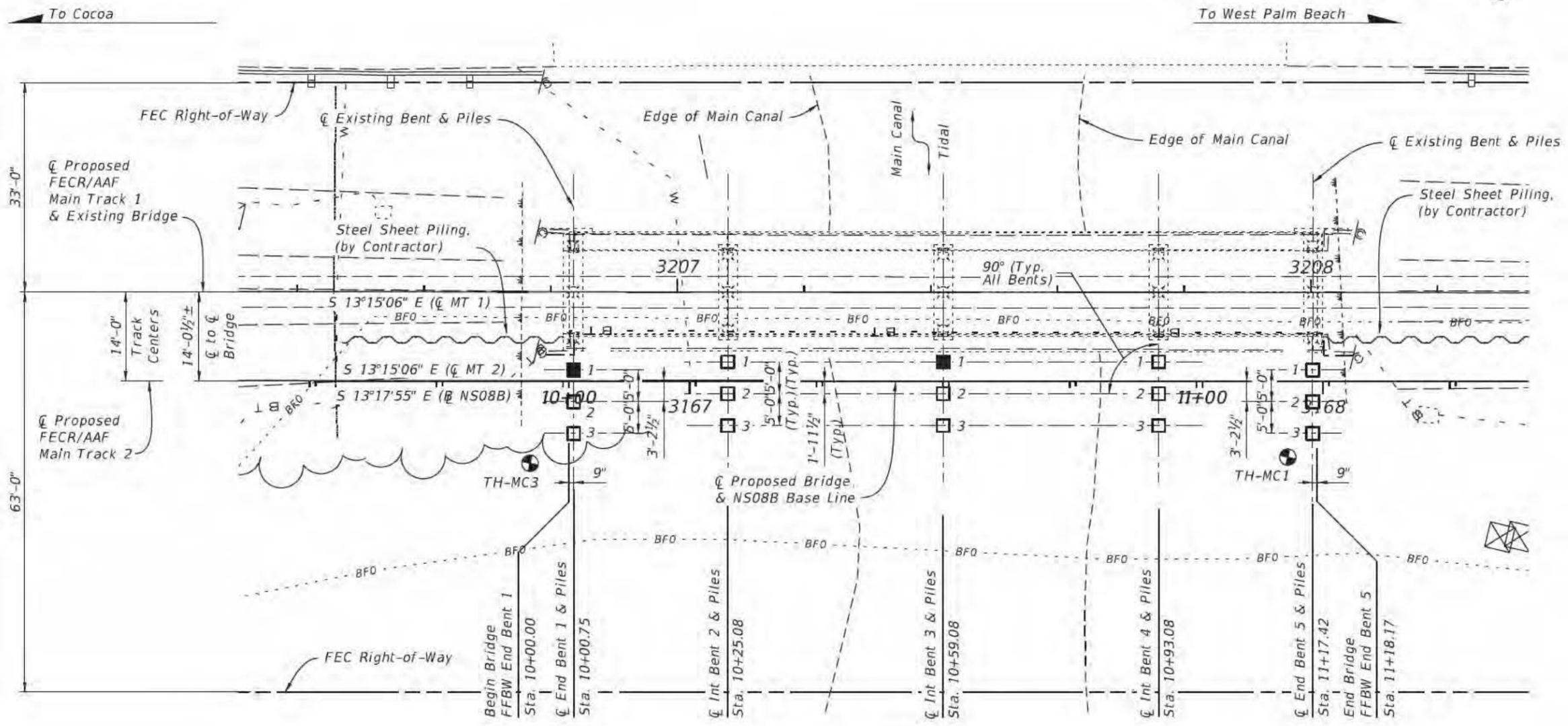
Attachment 3

Revised Main Canal Construction Drawings Sheet NS08B-7

Boring TH-MC2
Sta. 10+57.4 (@ NS08B), 109.9' Left

LEGEND

- 1 24" Square Prestressed Concrete Pile and Pile Number
- 1 24" Square Prestressed Concrete Pile and Pile Number (See Note 2)
- () Existing Pile
- ⊙ Boring Location



PLAN

Note:
1. For the Following See: Sheet No.
24" Square Concrete Pile Details..... B-13 thru B-15
Pile Data and Pile Installation Notes..... NS08-8
2. All Dimensions are Measured to @ NS08B.

**PRELIMINARY
NOT FOR CONSTRUCTION**

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MICHAEL P. LEONARD, P.E.
P.E. LICENSE NUMBER 64075
BERGMANN ASSOCIATES
8653 BAYPIE ROAD, SUITE 100
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION 30503

DRAWN BY: ODR
CHECKED BY: MPL
DESIGNED BY: MCW
CHECKED BY: MPL

ALL ABOARD FLORIDA

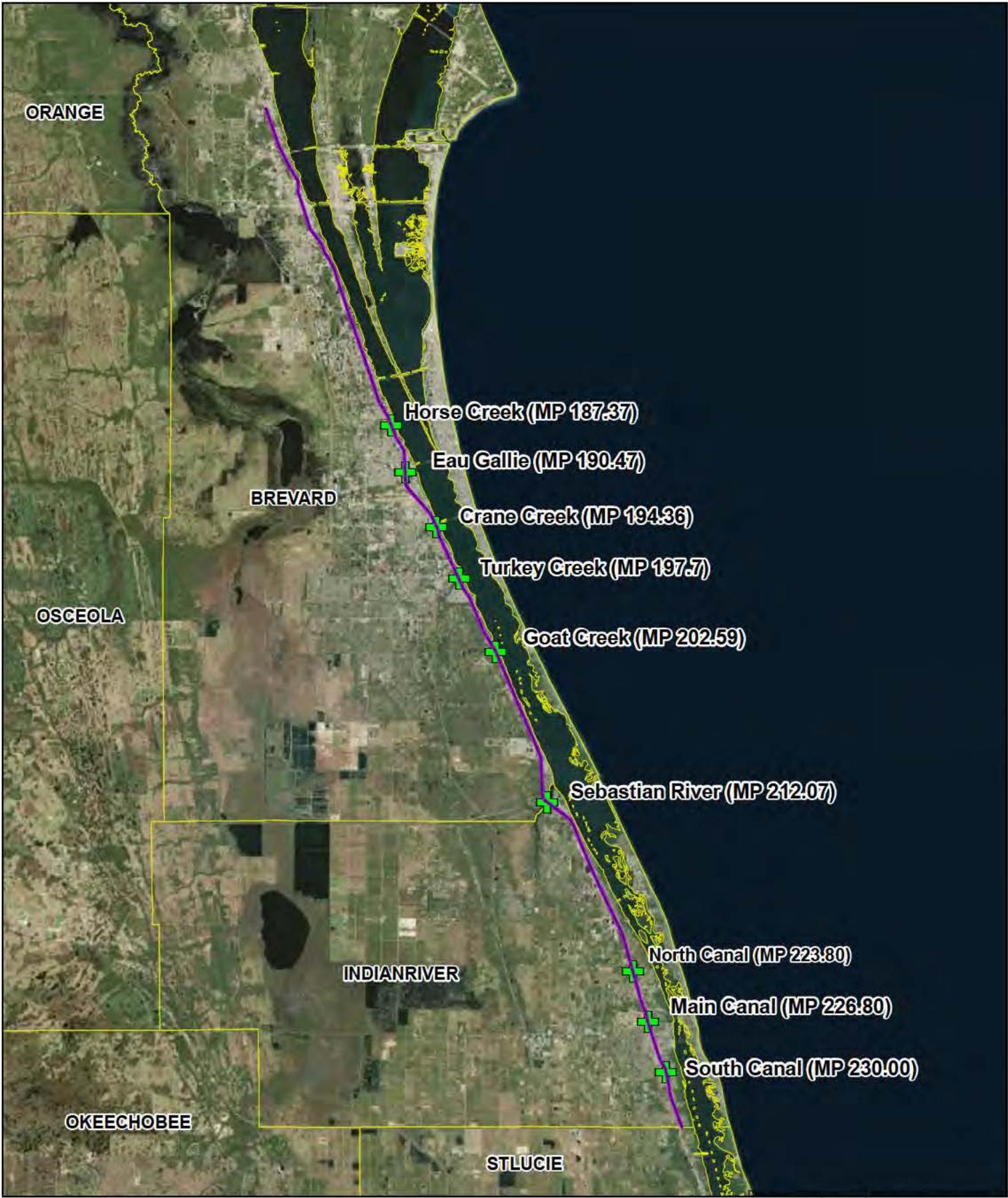
CONTRACT	MILEPOST	COUNTY
C08	NS 226.78	INDIAN RIVER

SHEET TITLE: **FOUNDATION LAYOUT**
BR-NS08B-226.78 OVER MAIN CANAL

PROJECT NAME: **MULTIPLE BRIDGES ALONG THE NORTH-SOUTH CORRIDOR**
COCOA (MP170.3) TO WEST PALM BEACH (MP299.0)

REF. DWG. NO. SHEET NO. NS08B-7

Construction Plans

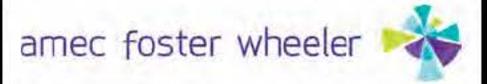
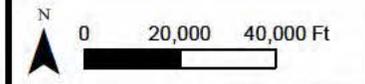


LEGEND

-  Fiber Optic Alignment(D08)
-  Bridges

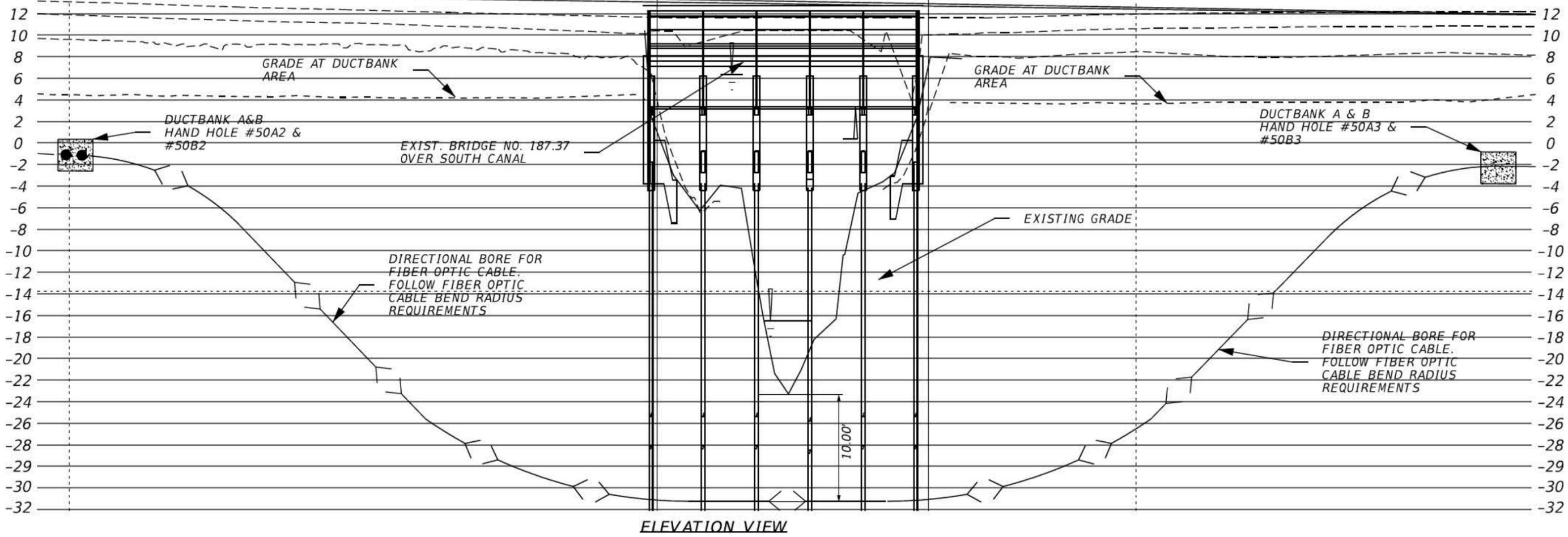
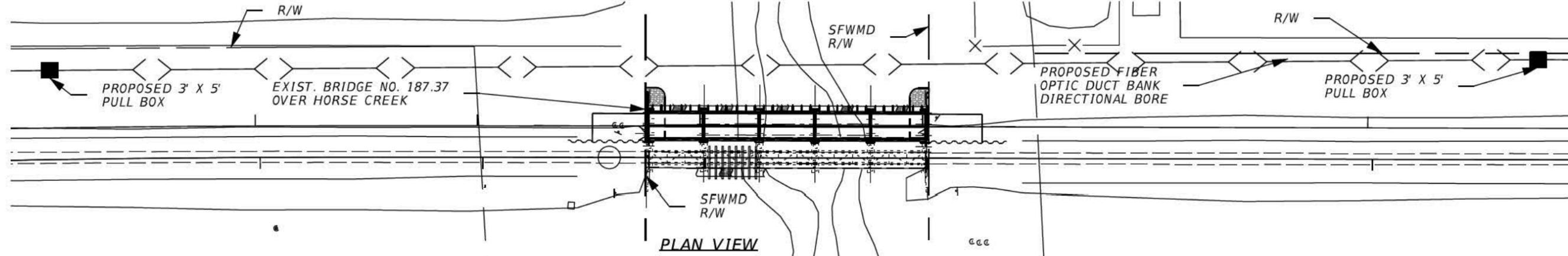
Fort Pierce to Cocoa Beach (D08 Segment)

Fiber Optic Location Map



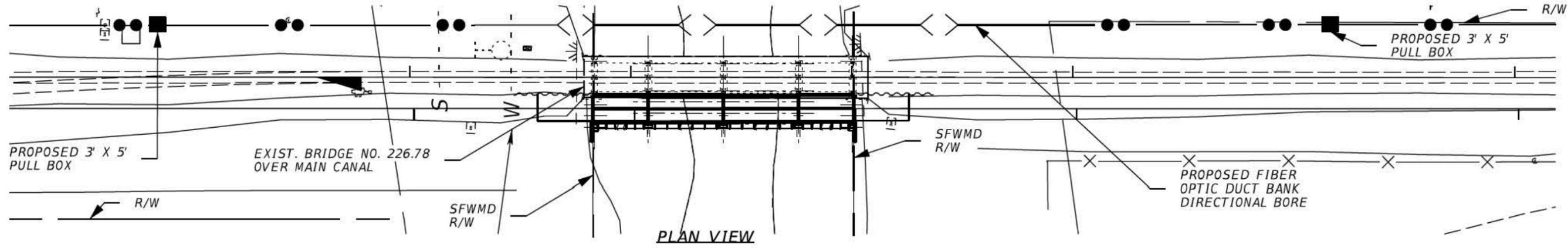
Data Sources: ESRI (Aerial, 2012), AAF 2014, AMEC 2012

Path: C:\Users\greg.coming\Desktop\AAF\AAF SOW Fiber Optics\D08 and D08 Fiber Optics Section\GIS\Figure 2 Project Location_ALL_D08.mxd Project # 6063-12-0212

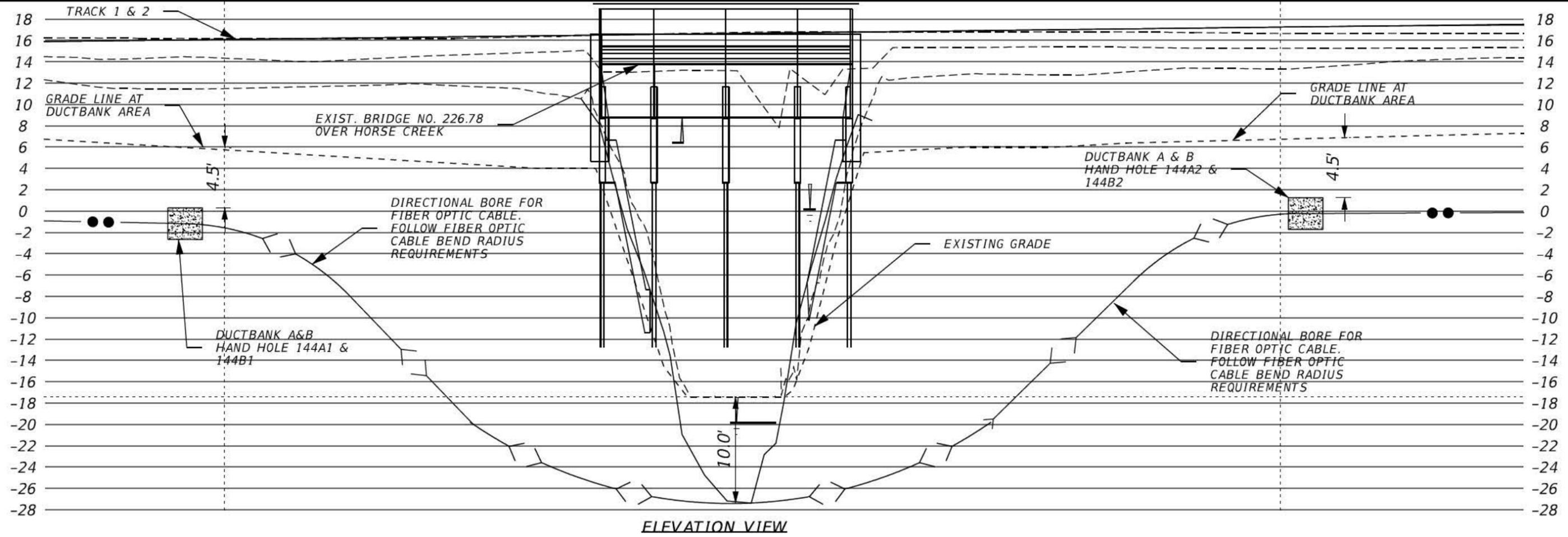


- NOTES:**
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICHEVER IS DEEPER.
 3. WHEN USED, CASING DIAMETER AND THICKNESS SHALL BE DESIGNED ACCORDING TO THE GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF-WAY. CASING OUTSIDE DIAMETER SHALL NOT EXCEED 24 INCHES.
 4. DIRECTIONAL BORE DEPTH OUTSIDE OF CANAL BANK CAN BE REDUCED TO 5 FT. MINIMUM DEPTH.
 5. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
 6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 50 FT. FROM TOP OF BANK AND OUTSIDE OF THE SFWMD RIGHT-OF-WAY.
 7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
 8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.
 9. CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTOR TO CONFIRM/VERIFY LOCATIONS
 10. OF EXISTING AND PROPOSED BRIDGE FOUNDATIONS TO AVOID CONFLICTS. CONTRACTOR TO PROVIDE PROPOSED LAYOUT OF DIRECTIONAL BORE ROUTE AND PULL BOX LOCATIONS 10 DAYS PRIOR TO WORK BEING PERFORMED.

REVISIONS							SUBAQUOUS CROSSINGS PLAN-PROFILES SOUTH CANAL		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	AAF CONTRACT	SECTION	COUNTY			
9/4/15	FOR PERMITTING ONLY			FECR	D08	BREVARD INDIAN RIVER			FODB020
				 4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510					
				ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217					
				tglibengood 9/3/2015 10:50:50 AM c:\transystems\pw_local\transyscorp-pw1\tglibengood\d0235275\FODB020.dgn					



PLAN VIEW

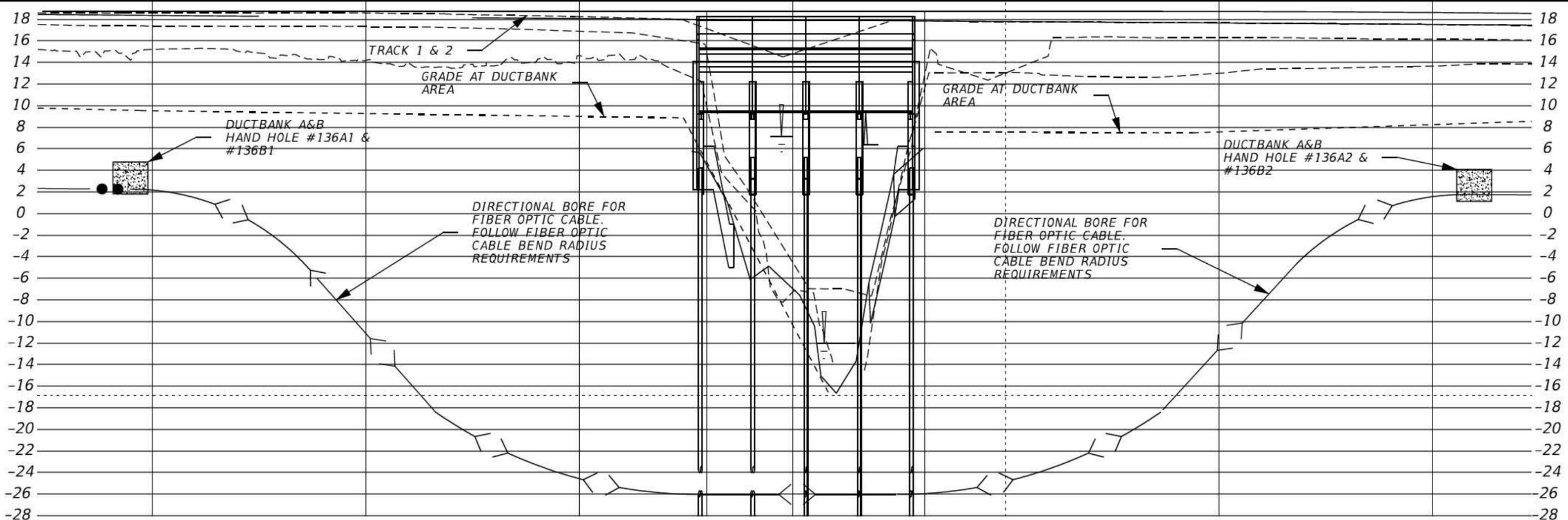
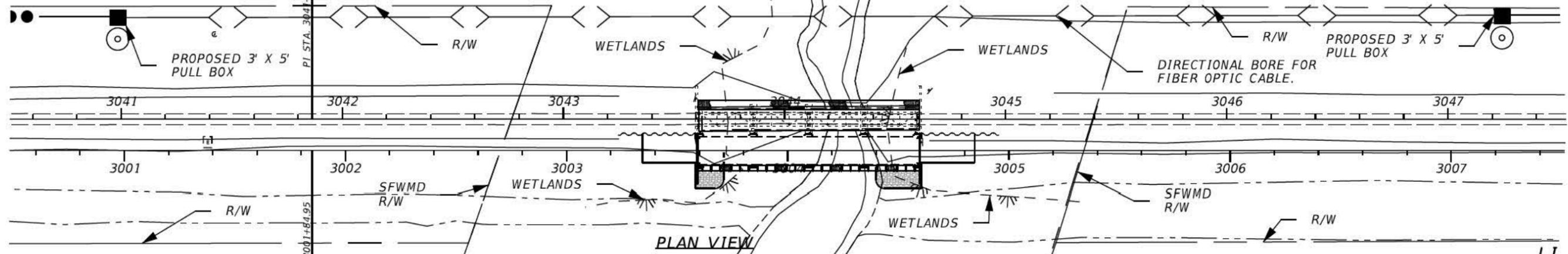


ELEVATION VIEW

NOTES:

1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE
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10. OF EXISTING AND PROPOSED BRIDGE FOUNDATIONS TO AVOID CONFLICTS. CONTRACTOR TO PROVIDE PROPOSED LAYOUT OF DIRECTIONAL BORE ROUTE AND PULL BOX LOCATIONS 10 DAYS PRIOR TO WORK BEING PERFORMED.

REVISIONS										SUBAQUOUS CROSSINGS PLAN-PROFILES MAIN CANAL		SHEET NO. FODB019
DATE	DESCRIPTION	DATE	DESCRIPTION	4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510			AAF CONTRACT	SECTION	COUNTY	BREVARD INDIAN RIVER		
9/4/15	FOR PERMITTING ONLY			ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217			FECR	D08				

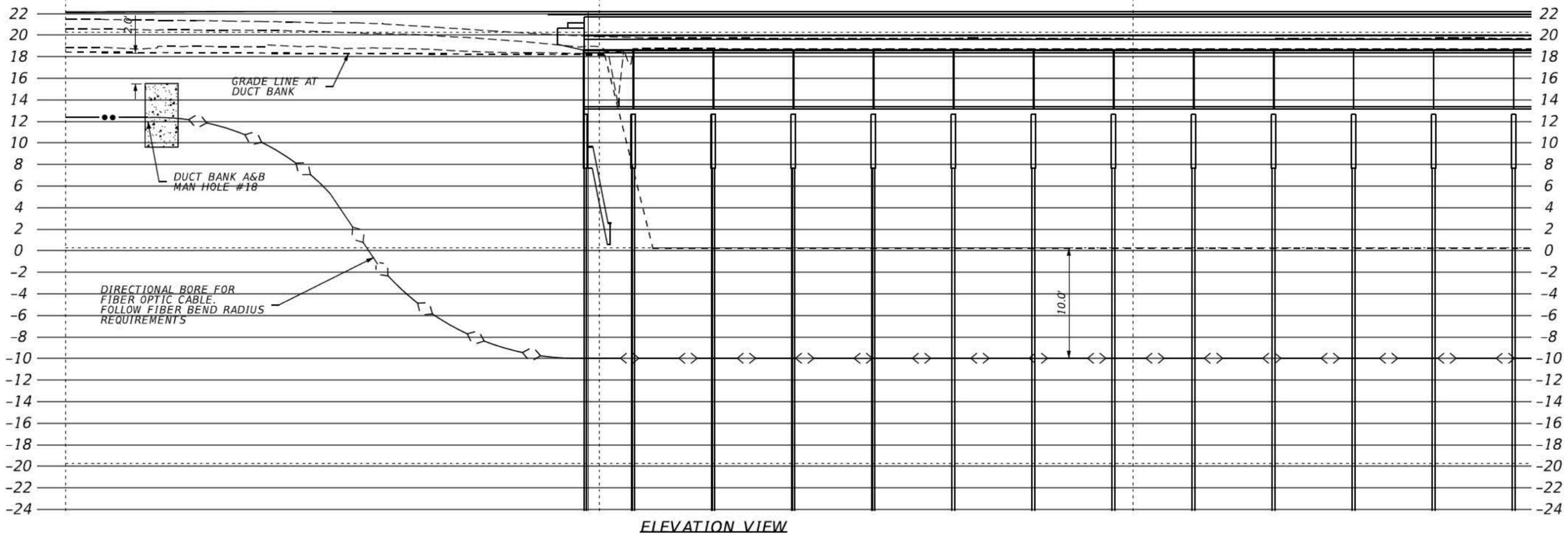
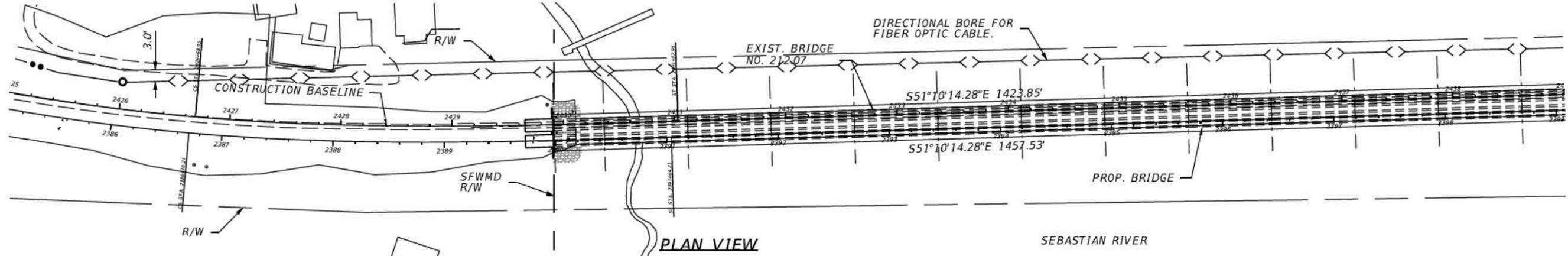


ELEVATION VIEW

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REVISIONS		REVISIONS		 <small>4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510</small>				SUBAQUOUS CROSSINGS PLAN-PROFILES NORTH CANAL BRIDGE	SHEET NO. FODB018
DATE	DESCRIPTION	DATE	DESCRIPTION		AAF CONTRACT	SECTION	COUNTY		
9/4/2015	FOR PERMITTING ONLY			ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217	FECR	D08	BREVARD INDIAN RIVER		

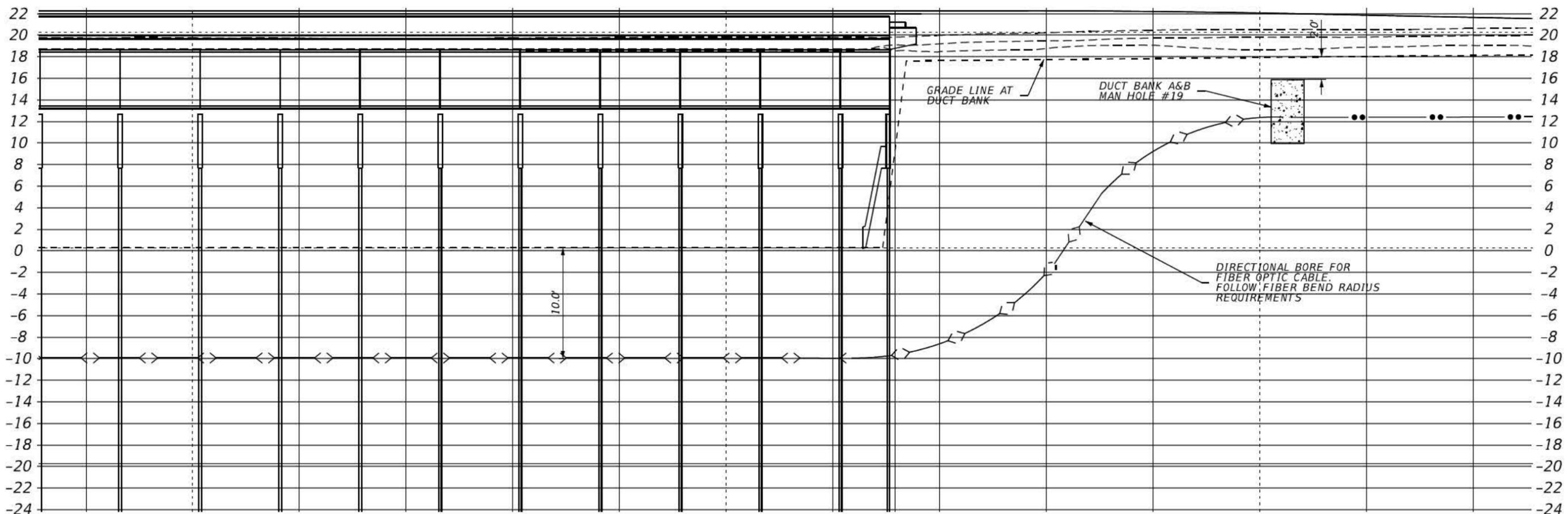
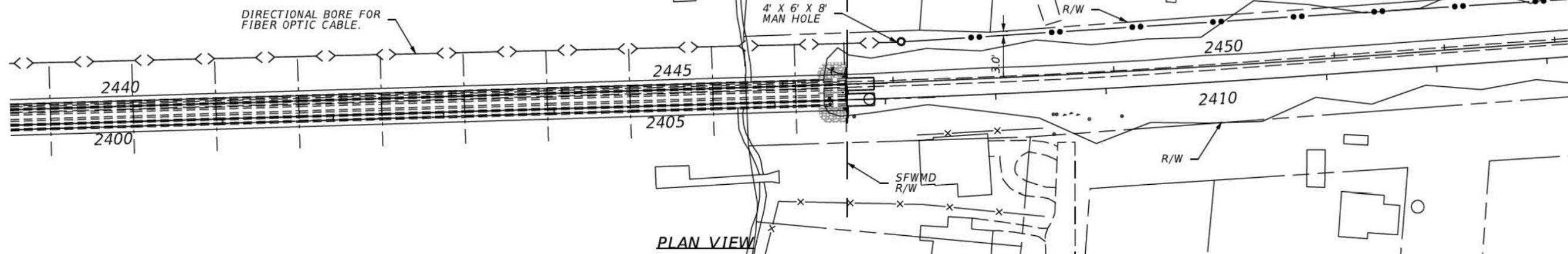
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MATCHLINE SEE SHEET FODB017

- NOTES:**
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICHEVER IS DEEPER.
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REVISIONS							SUBAQUOUS CROSSINGS PLAN-PROFILES SEBASTIAN RIVER BRIDGE		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	AAF CONTRACT	SECTION	COUNTY			
9/4/2015	FOR PERMITTING ONLY			FECR	D08	BREVARD INDIAN RIVER			FODB016
				 4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6500					
				ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217					
				tglbengood			9/3/2015 9:52:31 AM		c:\transystems\pw_local\transyscorp-pw1\tglbengood\d0235275\FODB016.dgn



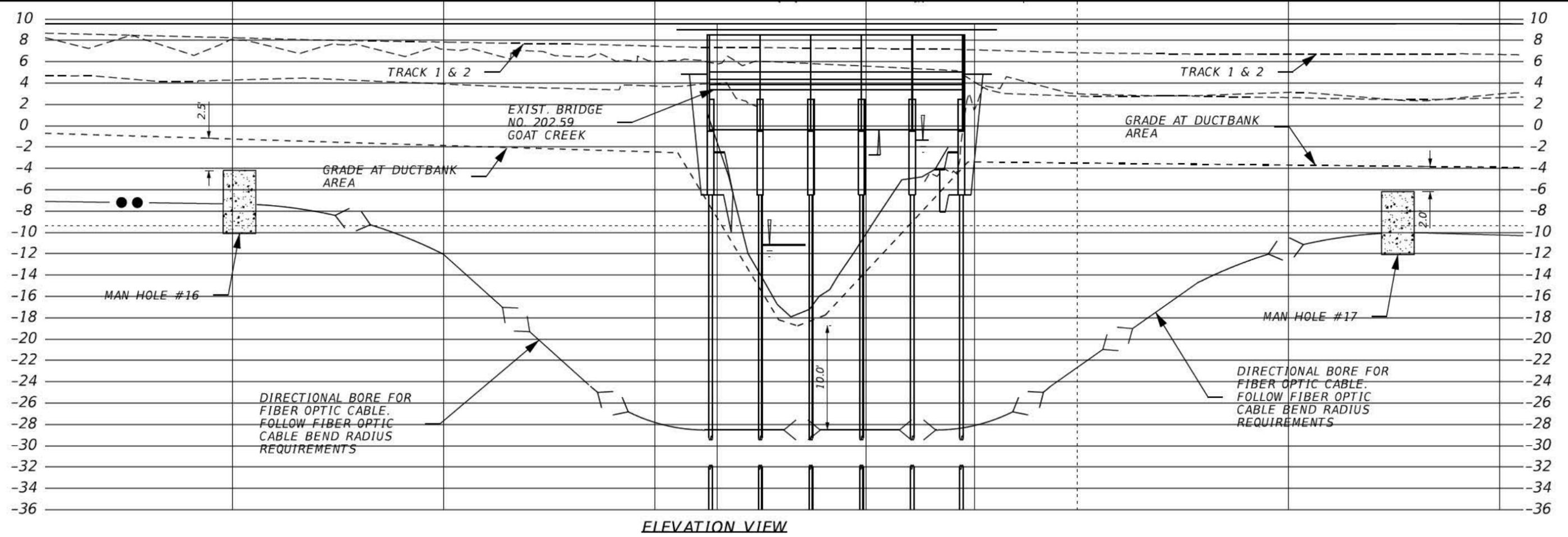
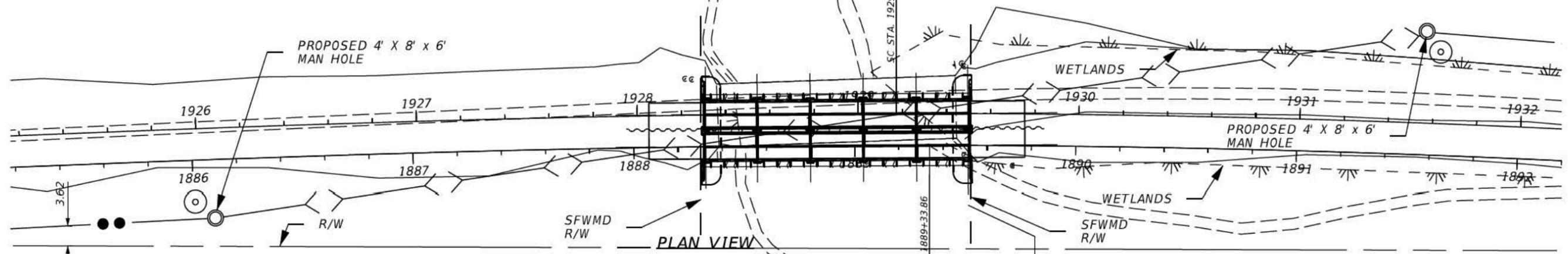
MATCHLINE SEE SHEET F0DB017

ELEVATION VIEW

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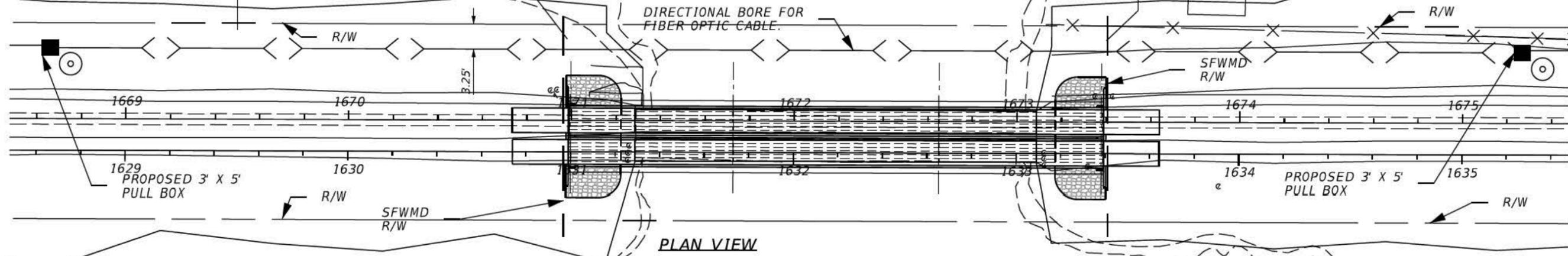
REVISIONS										SUBAQUOUS CROSSINGS PLAN-PROFILES SEBASTIAN RIVER BRIDGE		SHEET NO. F0DB017
DATE	DESCRIPTION	DATE	DESCRIPTION	4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510			AAF CONTRACT	SECTION	COUNTY	BREVARD INDIAN RIVER		
9/4/2015	FOR PERMITTING ONLY			ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217			FECR	D08				
						tglibengood	9/3/2015	10:23:21 AM	c:\transystems\pw_local\transyscorp-pw1\tglibengood\d0235275\F0DB017.dgn			



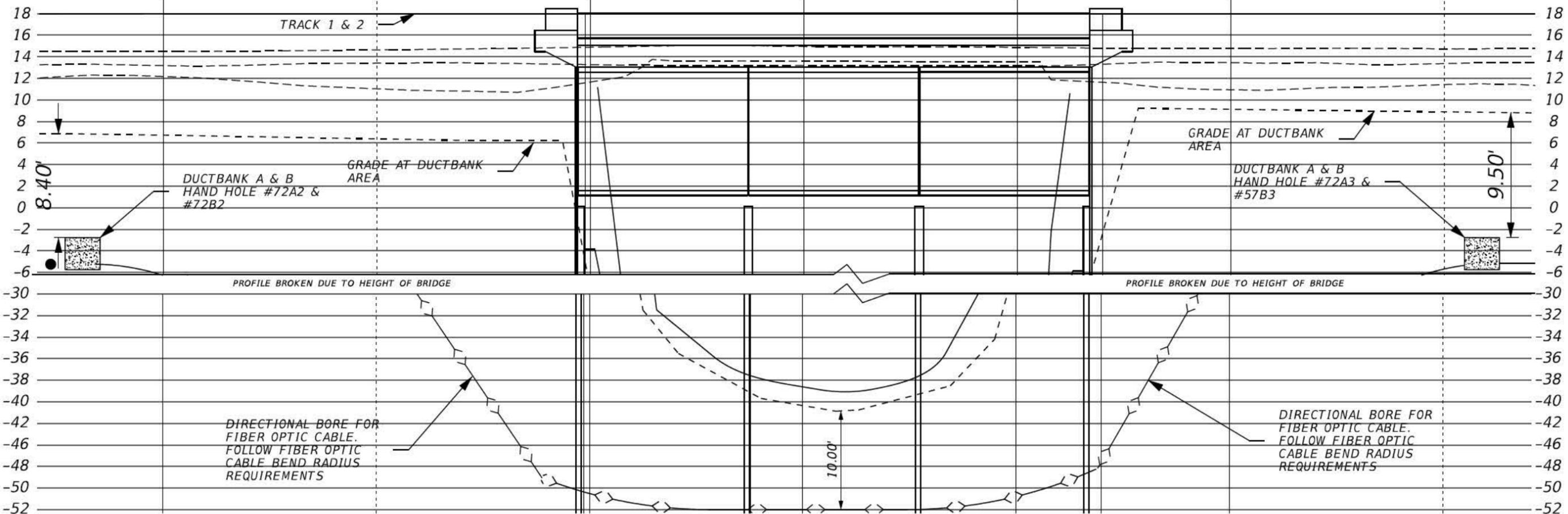
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REVISIONS				 <small>4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510</small>						SUBAQUOUS CROSSINGS PLAN-PROFILES GOAT CREEK BRIDGE	SHEET NO. FODB015
DATE	DESCRIPTION	DATE	DESCRIPTION	AAFC CONTRACT	SECTION	COUNTY	BREVARD INDIAN RIVER				
9/4/15	FOR PERMITTING ONLY			ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217	FECR	D08					

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PLAN VIEW

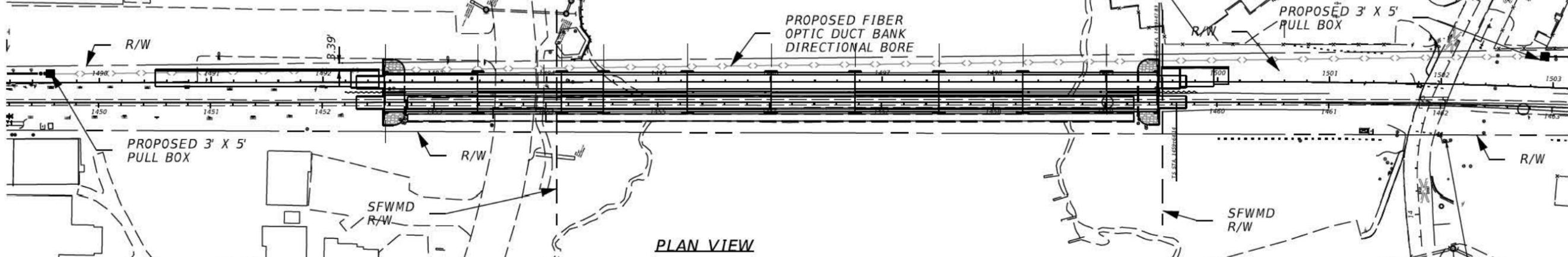


ELEVATION VIEW

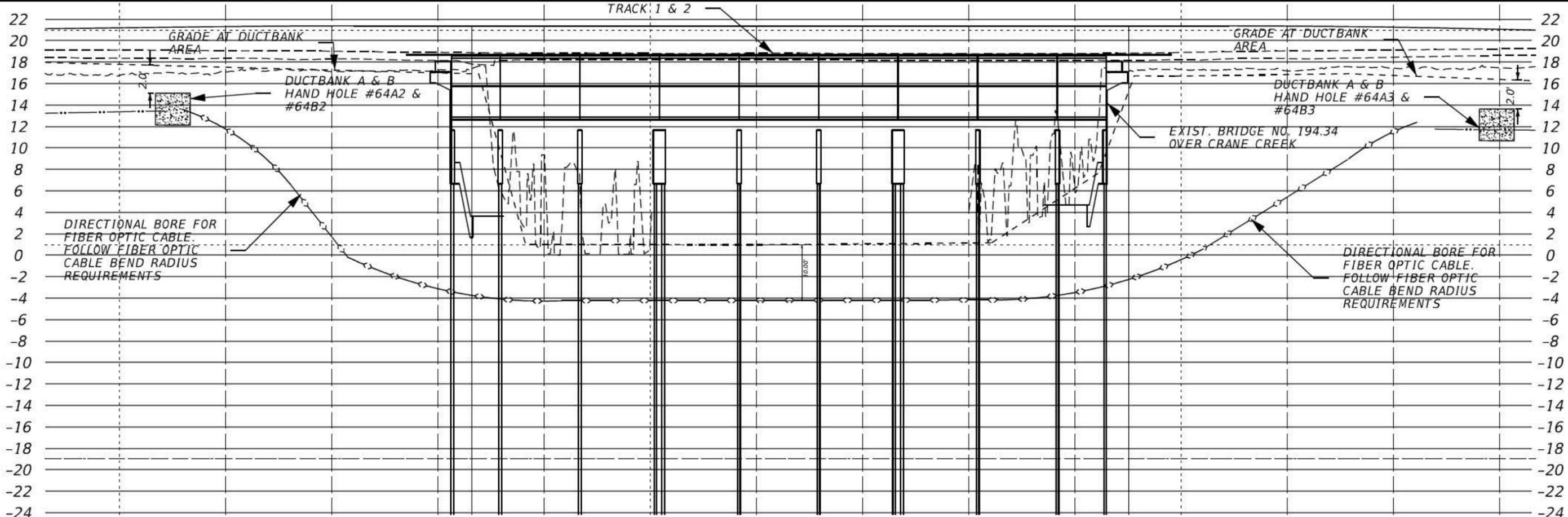
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REVISIONS										SUBAQUOUS CROSSINGS PLAN-PROFILES TURKEY CREEK BRIDGE		SHEET NO. FODB014
DATE	DESCRIPTION	DATE	DESCRIPTION	4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6500			AAF CONTRACT	SECTION	COUNTY			
9/4/15	FOR PERMITTING ONLY			ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217			FECR	D08	BREVARD INDIAN RIVER			
							tglbengood		9/3/2015 10:55:26 AM		c:\transystems\pw_local\transyscorp-pw1\tglbengood\d0235275\FODB014.dgn	



PLAN VIEW



ELEVATION VIEW

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/4/15	FOR PERMITTING ONLY		

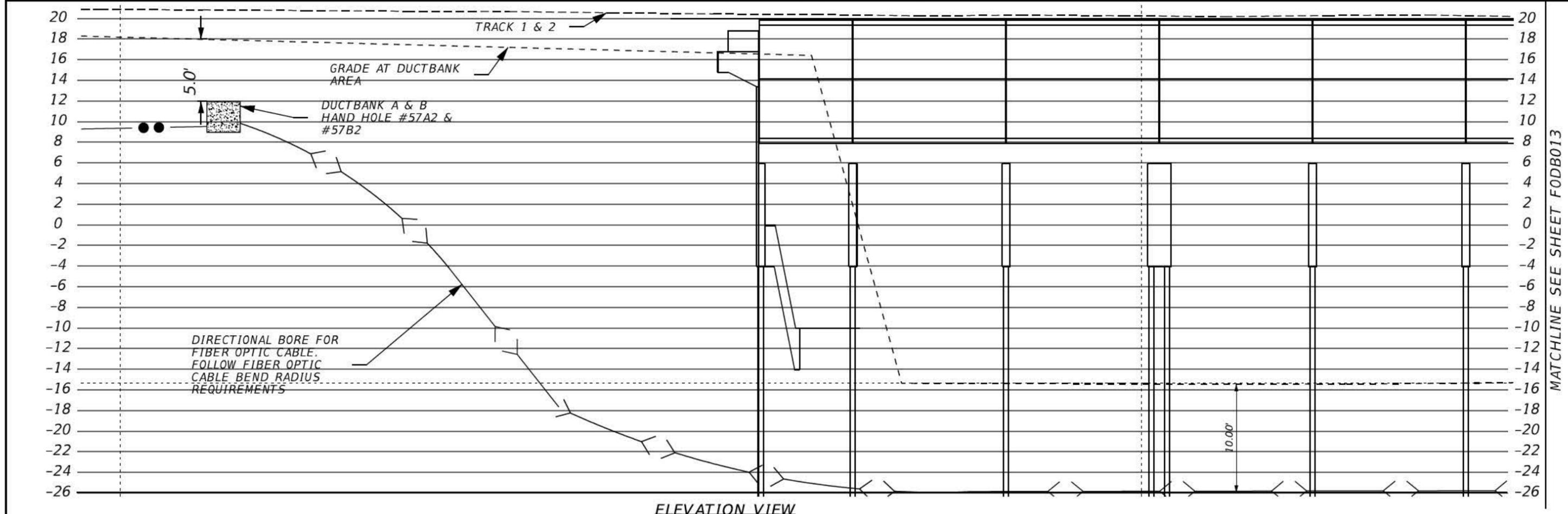
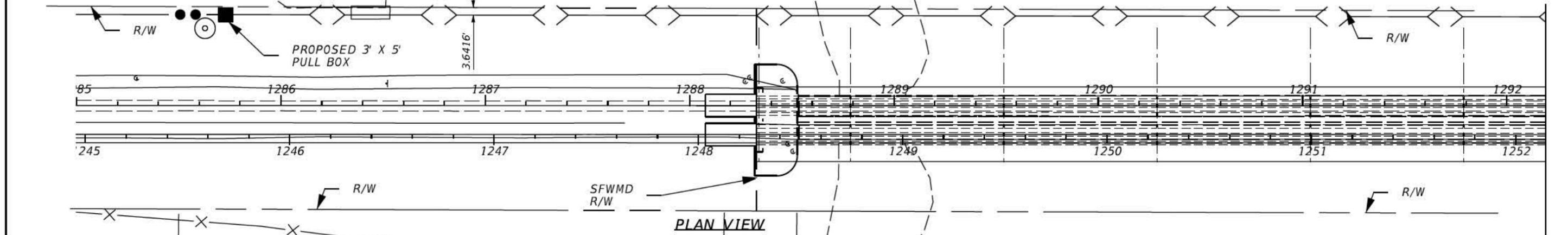
TranSystems
 4500 SALISBURY ROAD, SUITE 440
 JACKSONVILLE, FL. 32216
 CA# 7503
 PHONE: (904) 245-6500
 FAX: (904) 245-6510

ENGINEER OF RECORD: MICHAEL G. BELL
 PE: 43217

ALL ABOARD FLORIDA		
AAF CONTRACT	SECTION	COUNTY
FECR	D08	BREVARD INDIAN RIVER

**SUBAQUOUS CROSSINGS
 PLAN-PROFILES
 CRANE CREEK BRIDGE**

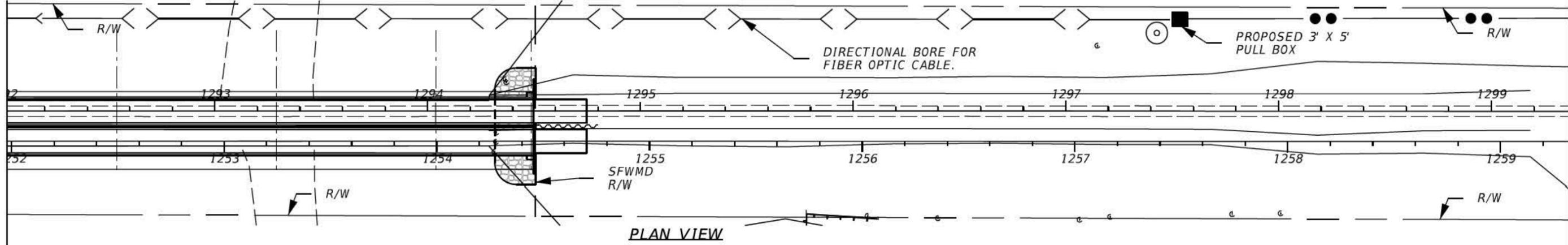
SHEET NO.
FODB011



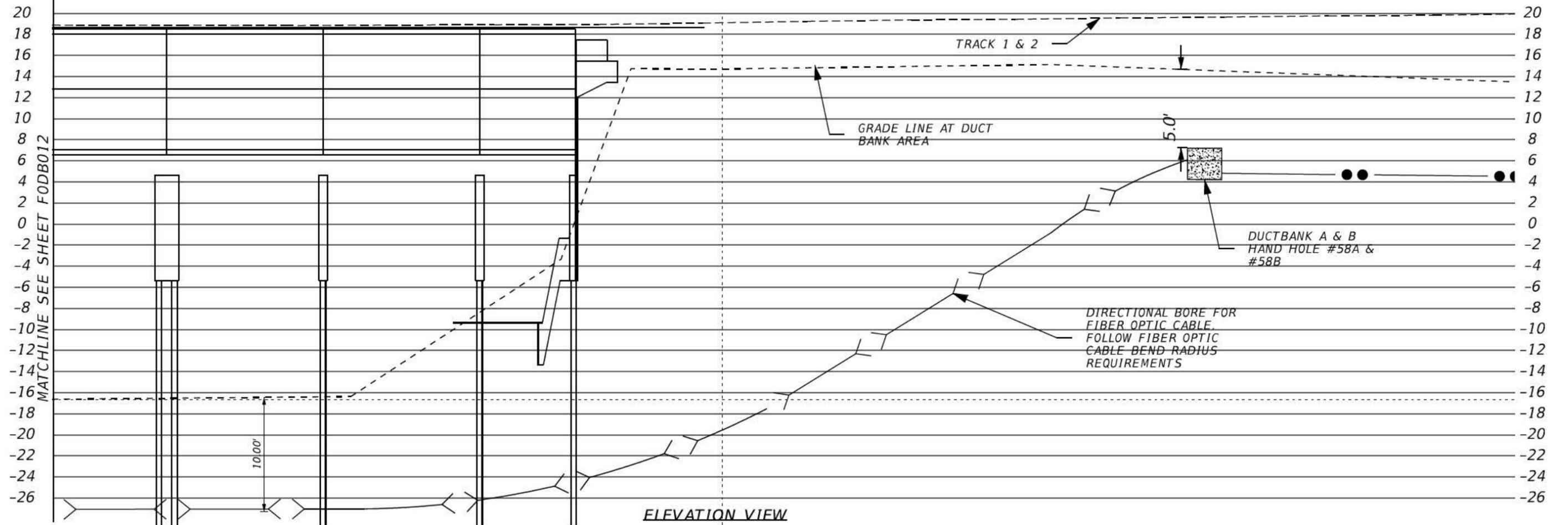
MATCHLINE SEE SHEET FODB013

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REVISIONS									
DATE	DESCRIPTION	DATE	DESCRIPTION	TranSystems		ALL ABOARD FLORIDA		SUBAQUOUS CROSSINGS	
9/4/2015	FOR PERMITTING ONLY			4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510		AAFC CONTRACT		SHEET NO.	
				ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217		SECTION		EAU GALLIE BRIDGE	
						D08		FODB012	
						COUNTY		SHEET NO.	
						BREVARD		FODB012	
						INDIAN RIVER		FODB012	



PLAN VIEW

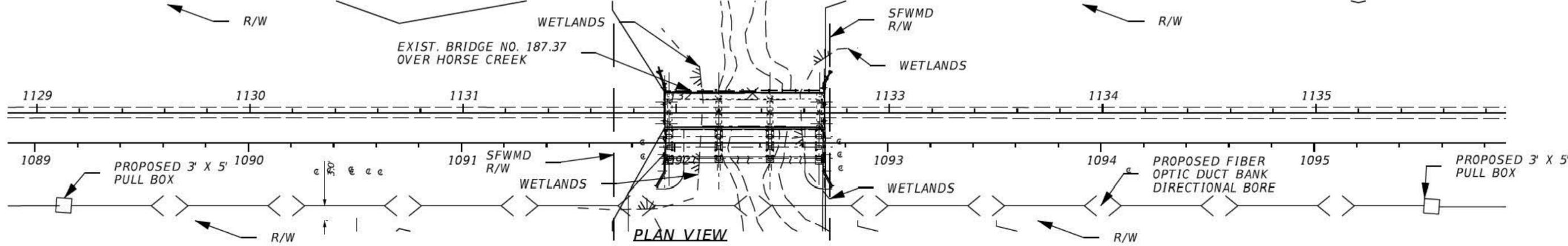


ELEVATION VIEW

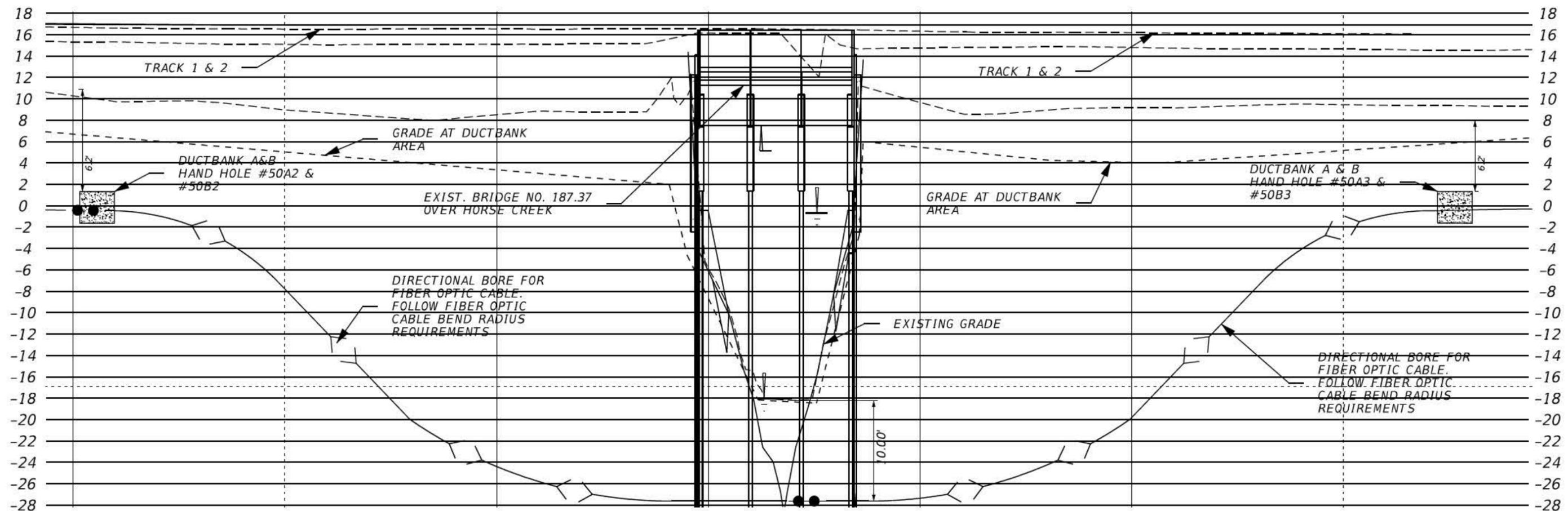
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DATE	DESCRIPTION	DATE	DESCRIPTION	4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6510			AAF CONTRACT	SECTION	COUNTY	FODB013		
9/4/15	FOR PERMITTING ONLY			ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217			FECR	D08	BREVARD INDIAN RIVER			



PLAN VIEW



ELEVATION VIEW

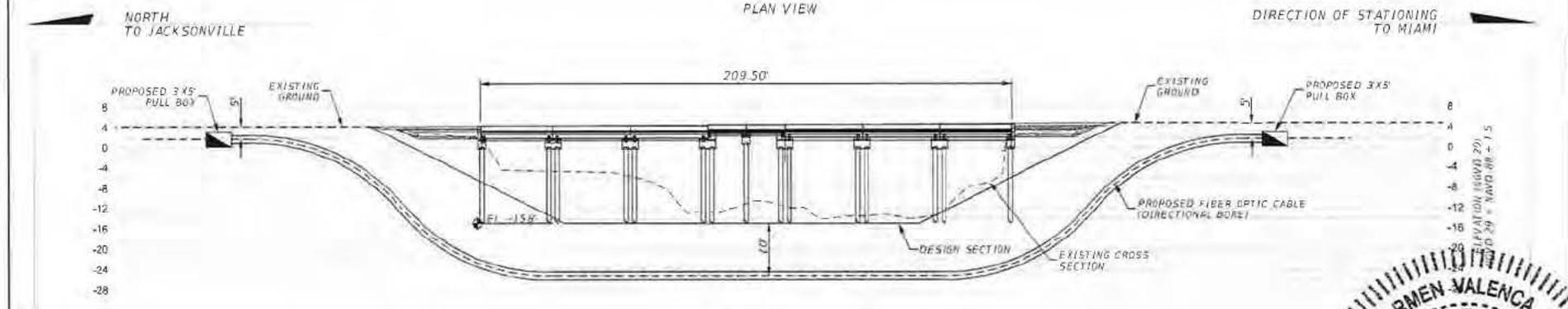
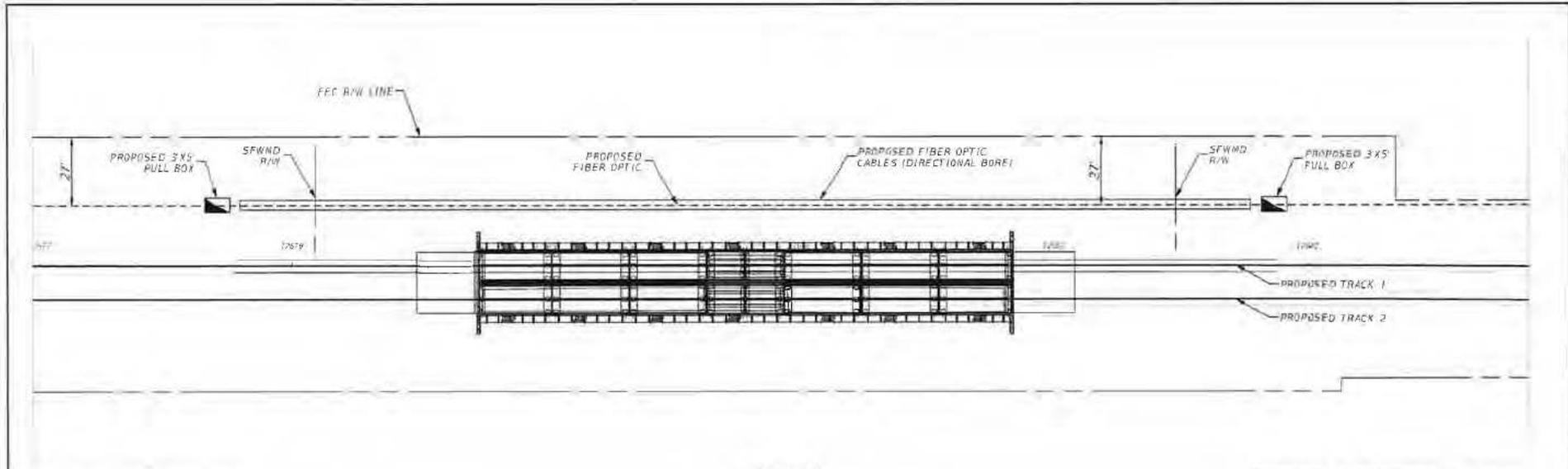
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FOR PERMITTING PURPOSES ONLY

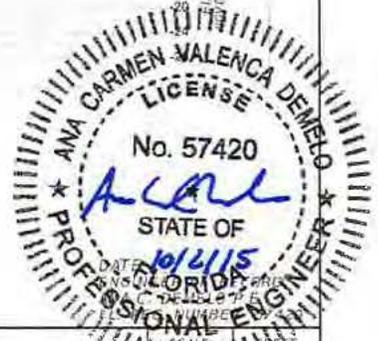
REVISIONS							SUBAQUOUS CROSSINGS		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	AAF CONTRACT	SECTION	COUNTY	PLAN-PROFILES		
9/4/15	FOR PERMITTING ONLY			FECR	D08	BREVARD INDIAN RIVER	HORSE CREEK BRIDGE		FODB010
				 4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FL. 32216 CA# 7503 PHONE: (904) 245-6500 FAX: (904) 245-6500					
ENGINEER OF RECORD: MICHAEL G. BELL PE: 43217									

Construction Plans



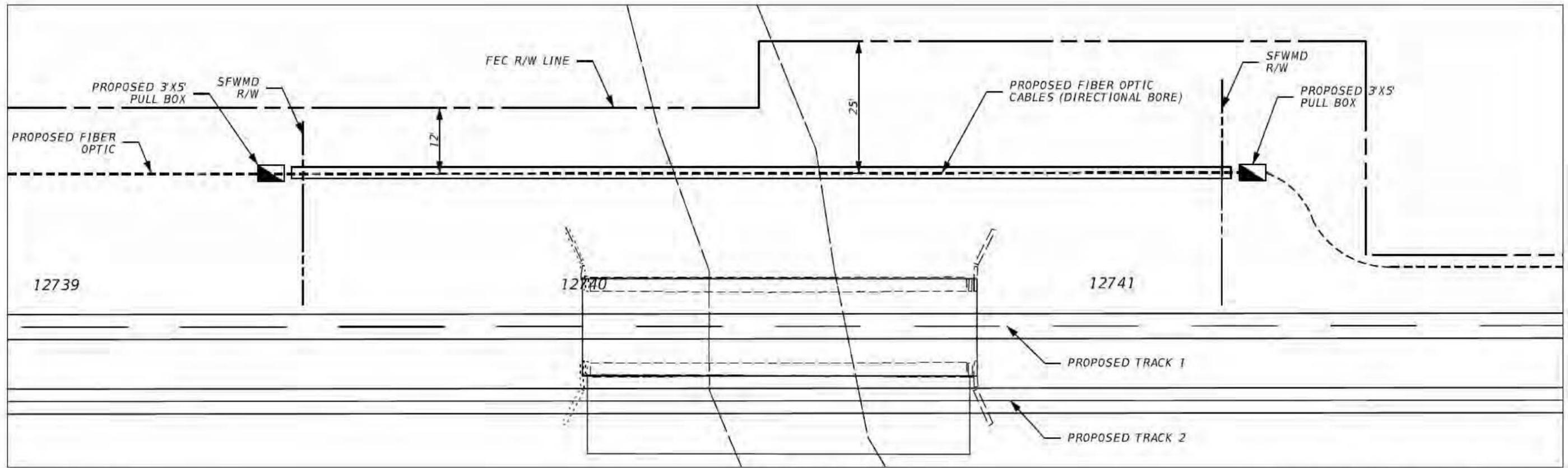
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FOR PERMITTING PURPOSES ONLY

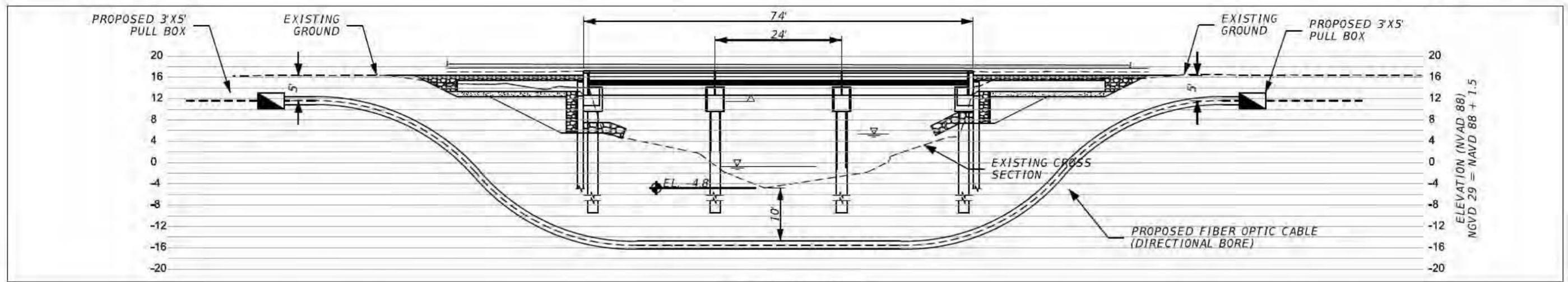
REVISIONS		DATE	DESCRIPTION	URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000003	ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED			FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS TAYLOR CREEK (MP 240.10)	SCALE 1" = 10'	SHEET NO. TAYLOR CREEK
NO.	DATE				DESCRIPTION	SECTION	DATE			
					D09	ST. LUCIE				



PLAN VIEW

NORTH TO JACKSONVILLE

DIRECTION OF STATIONING TO MIAMI



ELEVATION VIEW

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 6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 50 FT. FROM TOP OF BANK AND OUTSIDE THE SFWMD RIGHT-OF-WAY.
 7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
 8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.

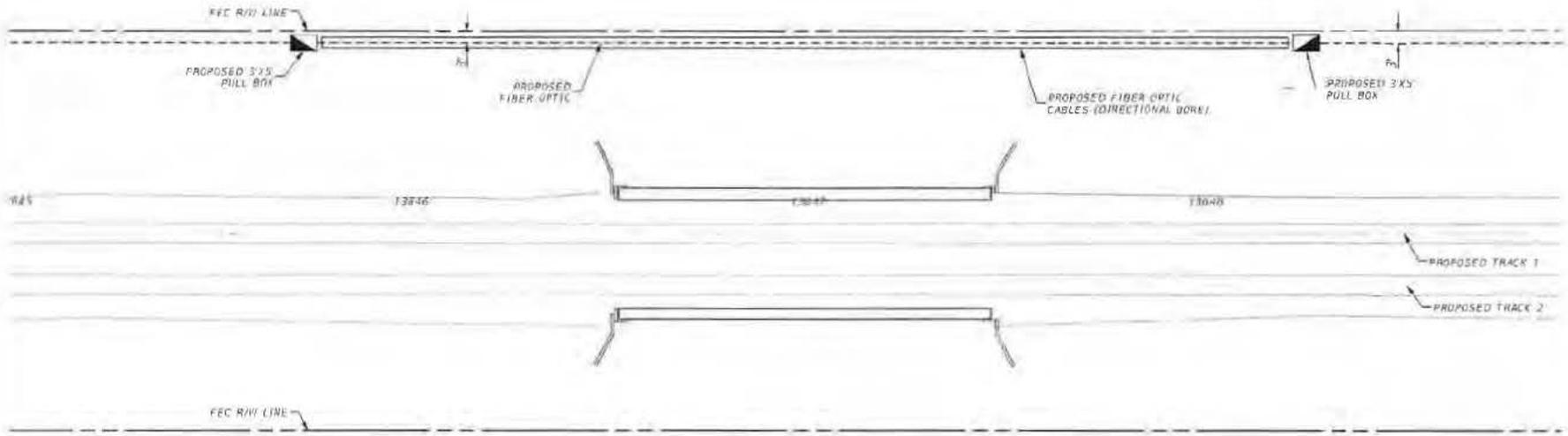
9. CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTOR TO CONFIRM/VERIFY LOCATIONS OF EXISTING AND PROPOSED BRIDGE FOUNDATIONS TO AVOID CONFLICTS.
10. CONTRACTOR TO PROVIDE PROPOSED LAYOUT OF DIRECTIONAL BORE ROUTE AND PULL BOX LOCATIONS 10 DAYS PRIOR TO WORK BEING PERFORMED.

FOR PERMITTING PURPOSES ONLY

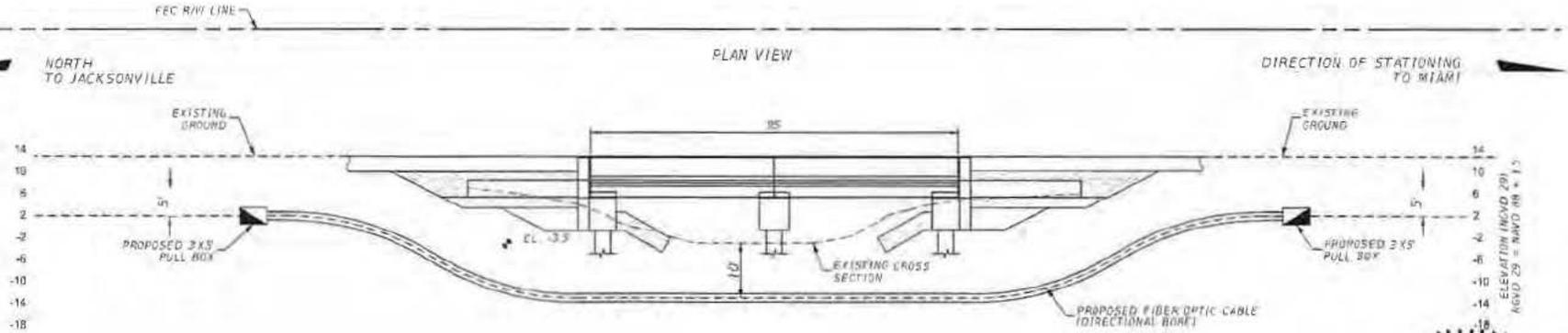
DATE: _____
 ENGINEER OF RECORD:
 ANA C. DEMELO P.E.
 FL. REG. NUMBER: 57420

REVISIONS		DESCRIPTION	URSA	ALL ABOARD FLORIDA			SCALE: 1"=20'	SHEET NO.
DATE	DESCRIPTION			AAF CONTRACT	SECTION	COUNTY		
			URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002		D09	ST. LUCIE	FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS MOORES CREEK (MP 241.27)	3/29/2015

MOORES CREEK



PLAN VIEW



ELEVATION VIEW

NOTES

1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
3. WHEN USED, CASING DIAMETER AND THICKNESS SHALL BE DESIGNED ACCORDING TO THE GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF-WAY CASING OUTSIDE DIAMETER NOT TO EXCEED 24 INCHES.
4. DIRECTIONAL BORE DEPTH OUTSIDE OF CANAL BANK CAN BE REDUCED TO 5 FT. MINIMUM DEPTH.
5. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 50 FT. FROM TOP OF BANK AND OUTSIDE THE SPREAD RIGHT-OF-WAY.
7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.

9. CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTOR TO CONFIRM/VERIFY LOCATIONS OF EXISTING AND PROPOSED BRIDGE FOUNDATIONS TO AVOID CONFLICTS.
10. CONTRACTOR TO PROVIDE PROPOSED LAYOUT OF DIRECTIONAL BORE ROUTE AND PULL BOX LOCATIONS 10 DAYS PRIOR TO WORK BEING PERFORMED.

FOR PERMITTING PURPOSES ONLY



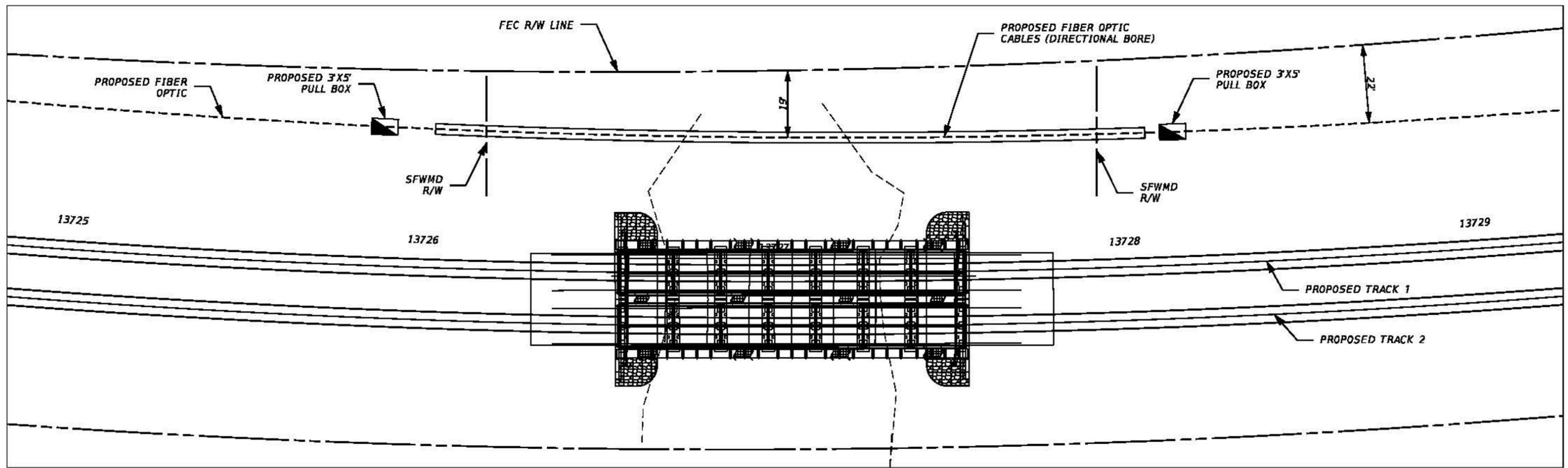
DATE	REVISIONS DESCRIPTION

UNIS CORPORATION SOUTHERN
 7800 CONGRESS AVENUE, SUITE 200
 BOCA RATON, FL 33487
 CERTIFICATE OF AUTHORIZATION EB 00000093

ALL AGENCIES FLORIDA		
DATE RECEIVED	SECTION	LOCATION
	D09	ST. LUCIE

FIBER OPTIC PERMITTING
 SUBAQUEOUS CROSSINGS
 WARNER CREEK (MP 258.45)

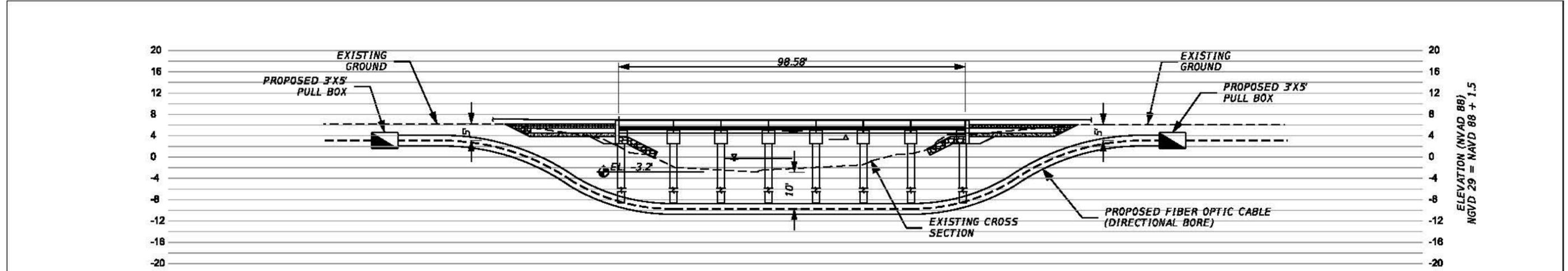
SHEET NO. 1
 WARNER CREEK



PLAN VIEW

NORTH
TO JACKSONVILLE

DIRECTION OF STATIONING
TO MIAMI



ELEVATION VIEW

- NOTES:
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
 3. WHEN USED, CASING DIAMETER AND THICKNESS SHALL BE DESIGNED ACCORDING TO THE GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF-WAY. CASING OUTSIDE DIAMETER NOT TO EXCEED 24 INCHES.
 4. DIRECTIONAL BORE DEPTH OUTSIDE OF CANAL BANK CAN BE REDUCED TO 5 FT. MINIMUM DEPTH.
 5. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
 6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 50 FT. FROM TOP OF BANK AND OUTSIDE THE SFWMD RIGHT-OF-WAY.
 7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
 8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.

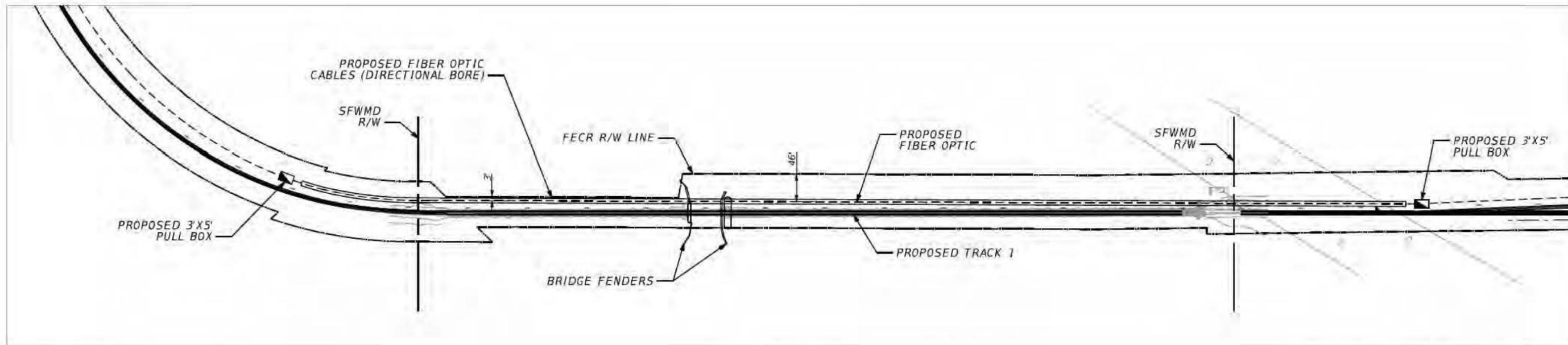
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FOR PERMITTING PURPOSES ONLY

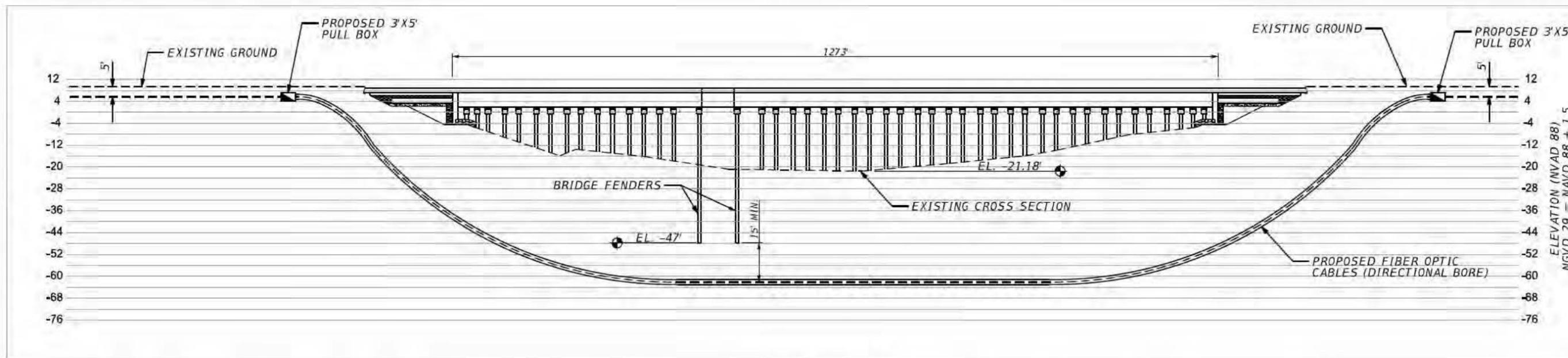
DATE:
ENGINEER OF RECORD:
ANA C. DEMELO P.E.
FL. REG. NUMBER: 57420

REVISIONS		DESCRIPTION	DATE	URSA	ALL ABOARD FLORIDA			SCALE: 1"=30'	SHEET NO.
DATE	DESCRIPTION				AAF CONTRACT	SECTION	COUNTY		
					D09	ST. LUCIE	FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS RIO GRAND (MP 259.95)	5/29/2015	RIO GRAND

URS CORPORATION SOUTHERN
7800 CONGRESS AVENUE, SUITE 200
BOCA RATON, FL 33487
CERTIFICATE OF AUTHORIZATION EB 00000002



PLAN VIEW



ELEVATION VIEW

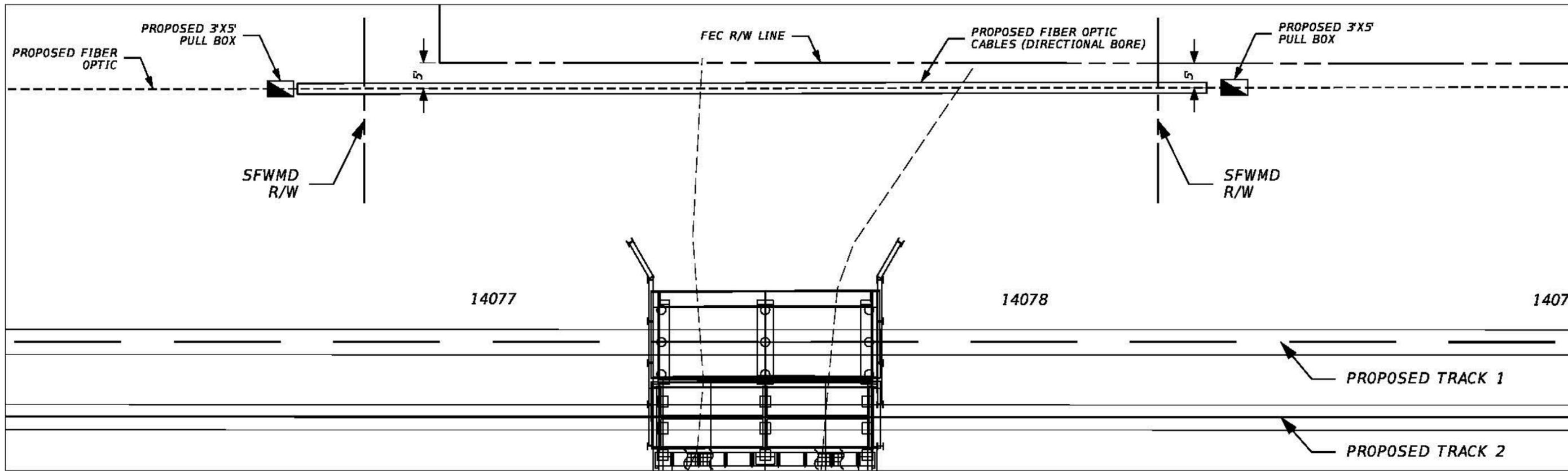
NOTES:

1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 15 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING BRIDGE FENDERS (ESTIMATED AT ELEVATION -62 FT.) AND MAINTAIN A MINIMUM OF 15 FT. DEPTH AT THE CANAL SIDE SLOPES.
3. WHEN USED, CASING DIAMETER AND THICKNESS SHALL BE DESIGNED ACCORDING TO THE GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF-WAY. CASING OUTSIDE DIAMETER NOT TO EXCEED 24 INCHES.
4. DIRECTIONAL BORE DEPTH OUTSIDE OF CANAL BANK CAN BE REDUCED TO 5 FT. MINIMUM DEPTH.
5. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 250 FT. FROM TOP OF BANK AND OUTSIDE THE SFWMD RIGHT-OF-WAY.
7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.
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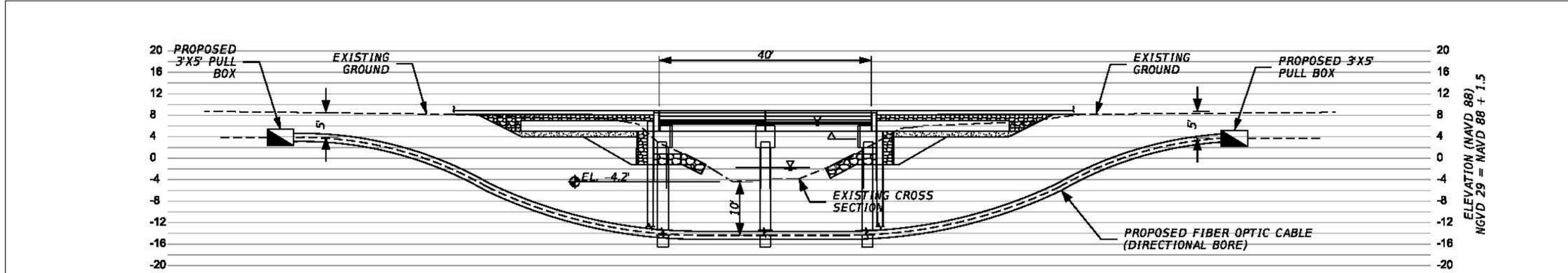
FOR PERMITTING PURPOSES ONLY

DATE: _____
 ENGINEER OF RECORD:
 ANA C. DEMELO P.E.
 FL. REG. NUMBER: 57420

REVISIONS		DATE	DESCRIPTION	URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002	ALL ABOARD FLORIDA			FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS ST. LUCIE RIVER (MP 260.82)	SCALE: N.T.S.	SHEET NO.
DATE	DESCRIPTION				AAF CONTRACT	SECTION	COUNTY			
					D09	ST. LUCIE		SDATES	ST. LUCIE RIVER	



PLAN VIEW



ELEVATION VIEW

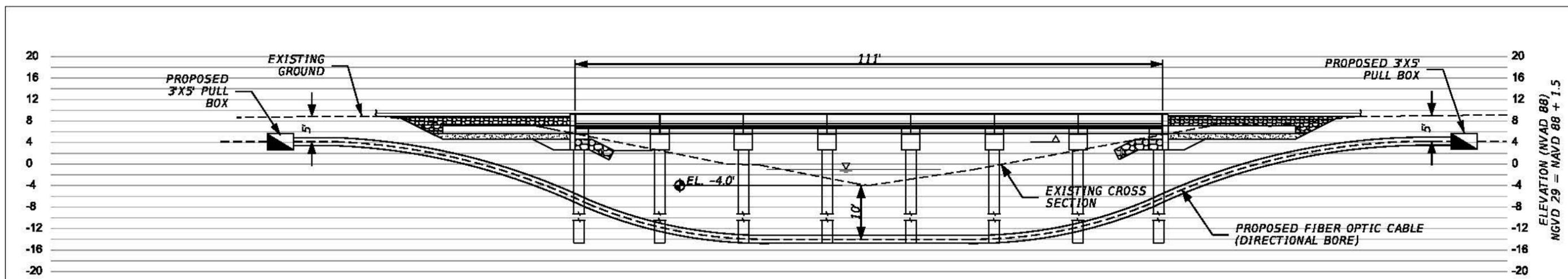
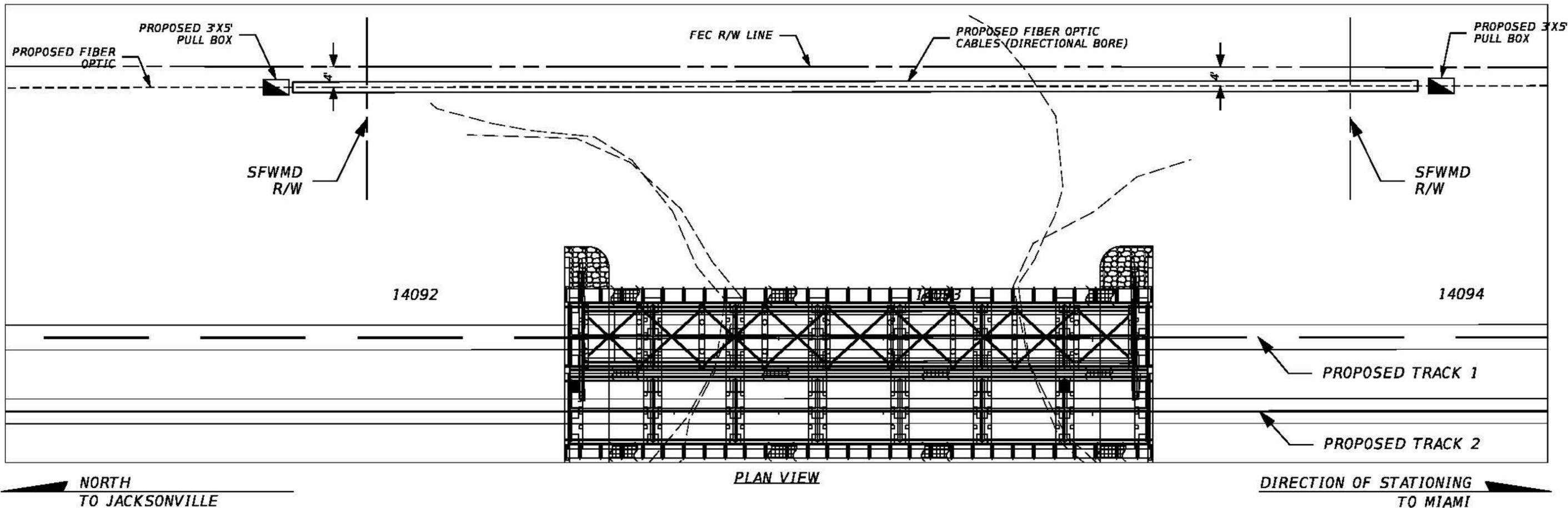
- NOTES:
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
 3. WHEN USED, CASING DIAMETER AND THICKNESS SHALL BE DESIGNED ACCORDING TO THE GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF-WAY. CASING OUTSIDE DIAMETER NOT TO EXCEED 24 INCHES.
 4. DIRECTIONAL BORE DEPTH OUTSIDE OF CANAL BANK CAN BE REDUCED TO 5 FT. MINIMUM DEPTH.
 5. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
 6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 50 FT. FROM TOP OF BANK AND OUTSIDE THE SFWMD RIGHT-OF-WAY.
 7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
 8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.

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10. CONTRACTOR TO PROVIDE PROPOSED LAYOUT OF DIRECTIONAL BORE ROUTE AND PULL BOX LOCATIONS 10 DAYS PRIOR TO WORK BEING PERFORMED.

FOR PERMITTING PURPOSES ONLY

DATE: _____
 ENGINEER OF RECORD:
 ANA C. DEMELO P.E.
 FL. REG. NUMBER: 57420

REVISIONS		DATE	DESCRIPTION	URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002	ALL ABOARD FLORIDA			FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS SALERNO NORTH (MP 266.58)	SCALE: 1"=20' 5/29/2015	SHEET NO. SALERNO NORTH
DATE	DESCRIPTION				AAF CONTRACT	SECTION	COUNTY			
					D09	ST. LUCIE				



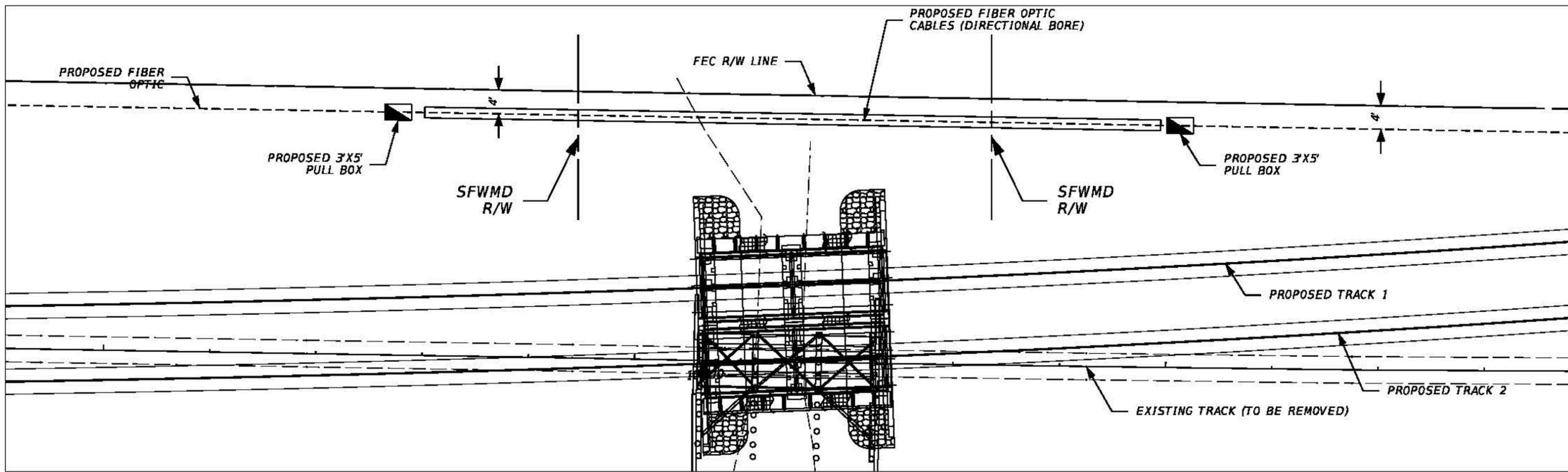
- NOTES:**
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
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FOR PERMITTING PURPOSES ONLY

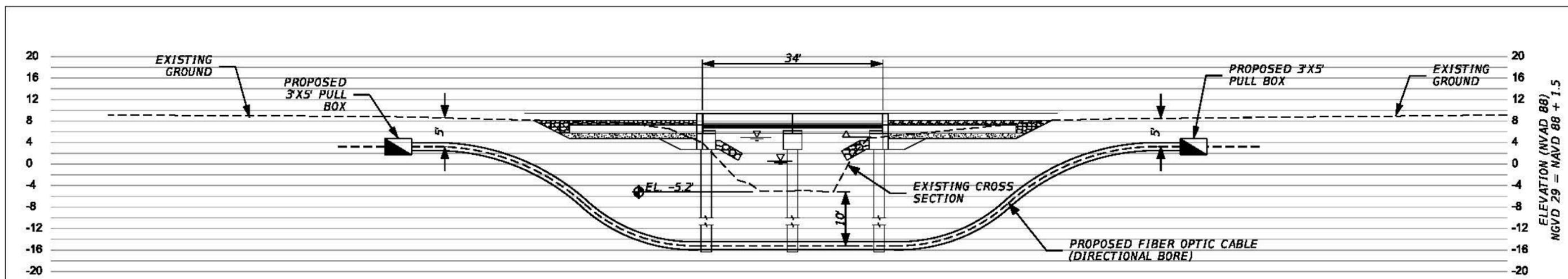
DATE:
 ENGINEER OF RECORD:
 ANA C. DEMELO P.E.
 FL. REG. NUMBER: 57420

REVISIONS		DESCRIPTION	URSA	ALL ABOARD FLORIDA			SCALE: 1"=20'	SHEET NO.
DATE	DESCRIPTION			AAF CONTRACT	SECTION	COUNTY		
			URSA CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002		D09	ST. LUCIE	FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS SALERNO SOUTH (MP 266.86)	5/29/2015



NORTH
TO JACKSONVILLE

PLAN VIEW



ELEVATION VIEW

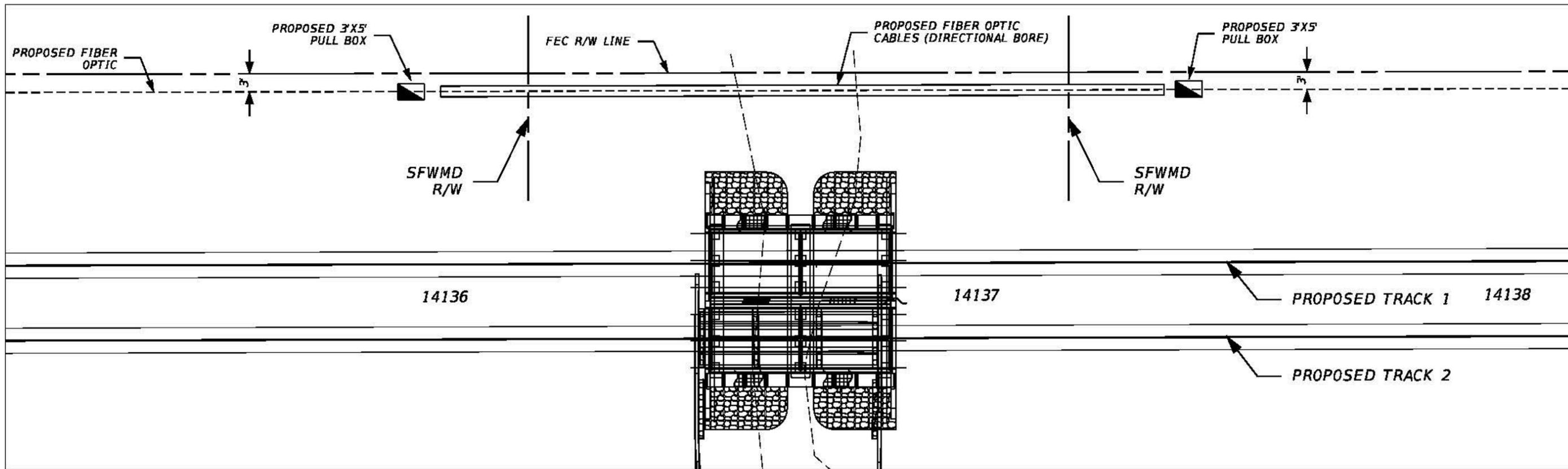
- NOTES:
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
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 5. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
 6. THE DIRECTIONAL DRILL AND PULL POINT WILL BE POSITIONED A MINIMUM OF 50 FT. FROM TOP OF BANK AND OUTSIDE THE SFWMD RIGHT-OF-WAY.
 7. THE CONTRACTOR SHALL COMPLY WITH THE USACE DRILLING FLUID REQUIREMENTS OF 10 PSI.
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FOR PERMITTING PURPOSES ONLY

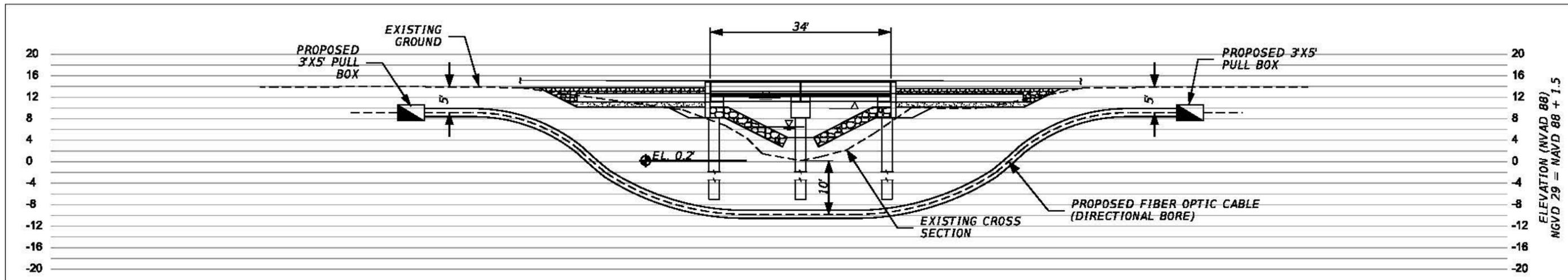
DATE:
ENGINEER OF RECORD:
ANA C. DEMELO P.E.
FL. REG. NUMBER: 57420

REVISIONS		DATE	DESCRIPTION	URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002	ALL ABOARD FLORIDA			FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS MANATEE NORTH (MP 267.34)	SCALE: 1"=20'	SHEET NO.
DATE	DESCRIPTION				AAF CONTRACT	SECTION	COUNTY			
					D09	ST. LUCIE		5/29/2015	MANATEE NORTH	



NORTH
TO JACKSONVILLE

PLAN VIEW



ELEVATION VIEW

NOTES:

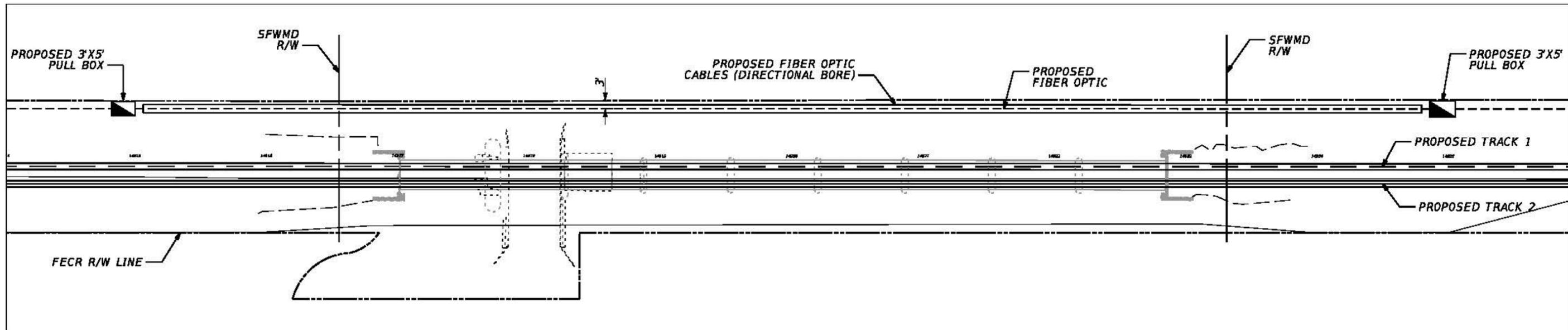
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
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FOR PERMITTING PURPOSES ONLY

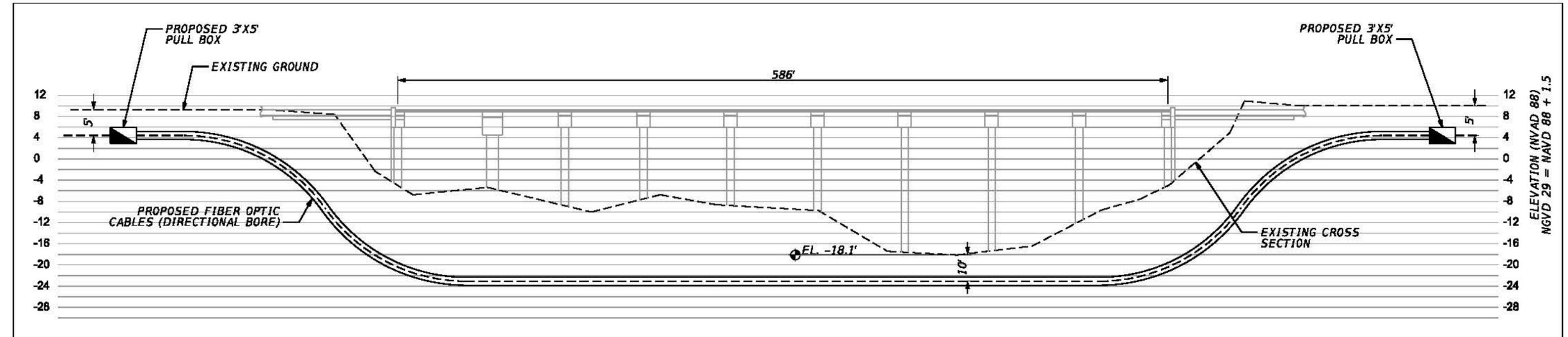
DATE:
ENGINEER OF RECORD:
ANA C. DEMELO P.E.
FL. REG. NUMBER: 57420

REVISIONS		DATE	DESCRIPTION	URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002	ALL ABOARD FLORIDA			FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS MANATEE SOUTH (MP 267.70)	SCALE: 1"=20' 5/29/2015	SHEET NO. MANATEE SOUTH
DATE	DESCRIPTION				AAF CONTRACT	SECTION	COUNTY			
					D09	ST. LUCIE				



PLAN VIEW

NORTH TO JACKSONVILLE DIRECTION OF STATIONING TO MIAMI



ELEVATION VIEW

NOTES:

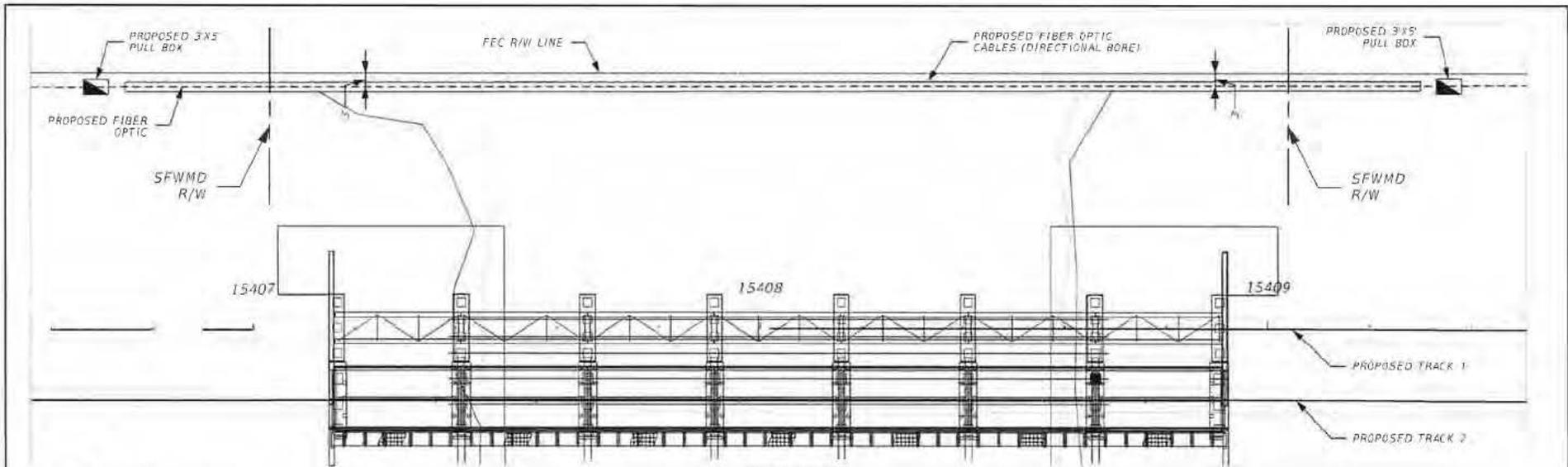
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
3. WHEN USED, CASING DIAMETER AND THICKNESS SHALL BE DESIGNED ACCORDING TO THE GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF-WAY. CASING OUTSIDE DIAMETER NOT TO EXCEED 24 INCHES.
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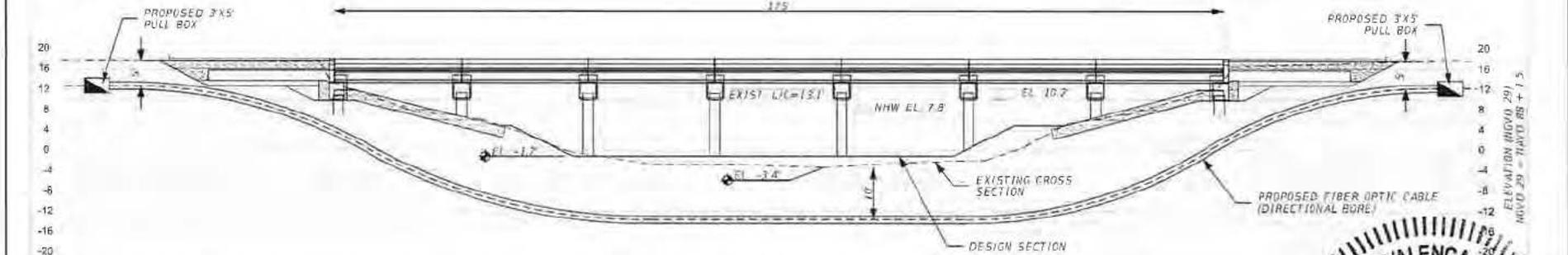
FOR PERMITTING PURPOSES ONLY

DATE: _____
 ENGINEER OF RECORD:
 ANA C. DEMELO P.E.
 FL. REG. NUMBER: 57420

REVISIONS			ALL ABOARD FLORIDA			FIBER OPTIC PERMITTING SUBAQUOUS CROSSINGS JUPITER RIVER (MP 282.58)	SCALE: 1"='	SHEET NO.
DATE	DESCRIPTION		AAF CONTRACT	SECTION	COUNTY			
		URS CORPORATION SOUTHERN 7800 CONGRESS AVENUE, SUITE 200 BOCA RATON, FL 33487 CERTIFICATE OF AUTHORIZATION EB 00000002		D09	ST. LUCIE		8/13/2015	JUPITER RIVER



PLAN VIEW



ELEVATION VIEW

- NOTES:
1. PLACE PIPE ACROSS WATER CROSSING USING DIRECTIONAL BORE METHOD.
 2. PLACE DIRECTIONAL BORE PIPE AT A MINIMUM OF 10 FT. BELOW THE LOWEST BOTTOM OF THE EXISTING WATER CROSSING AND SIDE SLOPES AND/OR THE DESIGN CROSS SECTION BOTTOM AND SIDE SLOPES, WHICH EVER IS DEEPER.
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 8. THE CONTRACTOR SHALL REVIEW THE FRAC-OUT PLAN AS OUTLINED IN THE PERMIT DOCUMENTS AND SHALL DEVELOP AND SUBMIT WORKING DRAWINGS AND WRITTEN PROCEDURES FOR PROPOSED METHOD AND ENTIRE DIRECTIONAL DRILLING OPERATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCEMENT.

9. CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTOR TO CONFIRM/VERIFY LOCATIONS OF EXISTING AND PROPOSED BRIDGE FOUNDATIONS TO AVOID CONFLICTS.
10. CONTRACTOR TO PROVIDE PROPOSED LAYOUT OF DIRECTIONAL BORE ROUTE AND PULL BOX LOCATIONS 10 DAYS PRIOR TO WORK BEING PERFORMED.

FOR PERMITTING PURPOSES ONLY



REVISIONS	
DATE	DESCRIPTION

URS CORPORATION SOUTHERN
 7400 CONGRESS AVENUE, SUITE 300
 BOCA RATON, FL 33487
 CERTIFICATE OF AUTHORIZATION EB 00000002

ALL AROUND SIGNING		
BY (NAME)	DESIGN	CHECK
	009	PALM BEACH

FIBER OPTIC PERMITTING
 SUBAQUOUS CROSSINGS
 EARMAN RIVER (MP 291.86)

SHEET NO.
 EARMAN RIVER



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE PERMIT NO. 48-02603-P**

DATE ISSUED: MAY 3, 2017

PERMITTEE: ALL ABOARD FLORIDA
2855 LE JEUNE ROAD 4TH FLOOR
CORAL GABLES, FL 33134
(ALL ABOARD FLORIDA EAST-WEST RAILWAY PE02 CFX SFWMD SEGMENT)

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL TOWER ROAD
ORLANDO, FL 32807

PROJECT DESCRIPTION CONSTRUCTION AND OPERATION OF A STORMWATER MANAGEMENT SYSTEM SERVING 9.22 MILES OF RAILWAY KNOWN AS ALL ABOARD FLORIDA EAST-WEST RAILWAY PE02 CFX SFWMD SEGMENT.

PROJECT LOCATION: ORANGE COUNTY , SECTION 32 TWP 23S RGE 31E
SECTION 31 TWP 23S RGE 31E

PERMIT DURATION: See Special Condition No:1.

This is to notify you of the District's agency action concerning Permit Application No. 161013-16, dated October 13, 2016. This action is taken pursuant to the provisions of Chapter 373, Part IV, Florida Statutes (F.S.).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit is in effect for this project subject to:

1. Not receiving a filed request for an administrative hearing pursuant to Section 120.57 and Section 120.569, or a request for a judicial review pursuant to Section 120.68, Florida Statutes.
2. The attached 18 General Conditions.
3. The attached 12 Special Conditions.
4. The attached 4 Exhibits.

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Should you wish to object to the proposed agency action or file a petition, please provide written objections, petitions and/or waivers to:

Office of the District Clerk
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406
e-mail: clerk@sfwmd.gov

Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

CERTIFICATION OF SERVICE

I HEREBY CERTIFY THAT this written notice has been mailed or electronically submitted to the Permittee (and the persons listed on the attached distribution list) this 4th day of May, 2017, in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (my.sfwmd.gov/ePermitting).

By 
DEPUTY CLERK
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Attachments

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on May 3, 2022.
2. Operation and maintenance of the stormwater management system shall be the responsibility of ALL ABOARD FLORIDA - OPERATIONS LLC.
3. Discharge Facilities: As Shown in Exhibit 2
4. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
5. The following are exhibits to this permit. Exhibits noted as incorporated by reference are available on the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) under this application number.

Exhibit No. 1 Location Map

Exhibit No. 2 Construction Plans, Pages 1 - 75

Exhibit No. 3.1 Ecological Evaluation Report, Incorporated by Reference

Exhibit No. 3.2 Wetland Inventory, Pages 1-23

Exhibit No. 3.3 Mitigation Summary Table, Pages 1-2

Exhibit No. 3.4 Mitigation, Pages 1-2

Exhibit No. 3.5 Cumulative Impact Analysis, Pages 1-15

Exhibit No. 3.6 Wildlife Evaluation, Pages 1-8

Exhibit No. 3.7 Eagle Nest, Pages 1-4

Exhibit No. 3.8 DHR Letter, Pages 1-3

Exhibit No. 3.9 Public Interest Test, Pages 1-6

Exhibit No. 3.10 Work Schedule

Exhibit No. 4 Summary Tables, Pages 1 - 6

6. Prior to initiating construction activities associated with this Environmental Resource Permit (ERP), the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors, District Environmental Resource Compliance (ERC) staff, and any other local government entities as necessary.

The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties.

To schedule a pre-construction meeting, please contact ERC staff from the Orlando Service Center at (407) 858-6100 or via e-mail at: pre-con@sfwmd.gov. When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.

7. Floodplain compensation storage for this phase of construction shall be constructed and operational prior to the placement of any fill between the average wet season water table elevation and the 100 year flood elevation that would adversely affect the rights of others.
8. Dry retention area 1A shall be constructed and operational prior to filling the ponds serving the interchange between Narcoossee Road and State Road 528.

9. A permit modification of Department of Environmental Protection permit ERP48-0243304-001-EI will be required prior to beginning construction that impacts the stormwater ponds serving the interchange between Narcoossee Road and State Road 528.
10. The permittee shall comply with the USFWS's bald eagle management guidelines in accordance with the Bald and Golden Eagle Protection Act. Prior to the start of construction, a disturbance/take permit must be obtained.
Golden Eagle Protection Act. Prior to the start of construction, a disturbance/take permit must be obtained.
11. The District reserves the right to require remedial measures to be taken by the permittee if monitoring or other information demonstrates that adverse impacts to onsite or offsite wetlands, upland conservation areas or buffers, or other surface waters have occurred due to project related activities.
12. Prior to commencement of construction and in accordance with the work schedule in Exhibit No. 3.4, the permittee shall submit documentation that 38.6 FF and 0.52 FH credits have been deducted from the ledger for Lucky L Mitigation Bank, and 2.57 credits have been deducted from T-M Econ Mitigation Bank.

GENERAL CONDITIONS

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, Florida Administrative Code (F.A.C.). Any deviations that are not so authorized shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. 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.
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), 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 Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice" indicating the expected start and completion dates. If available, an Agency 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 Applicant's Handbook 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 Agency in writing of changes required by any other regulatory agency 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 Agency 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 Agency 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, Agency 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 Agency 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 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 Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be **affected by the South Florida Water Management District's** (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. **The District's normal business hours are 8:00 a.m. – 5:00 p.m.,** excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and **petitioner's representative, if any.**
3. An explanation **of how the petitioner's substantial interests will be affected by the agency** determination.
4. A statement of when and how the petitioner received notice of the SFWMD's **decision.**
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's **proposed action.**
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's **proposed action.**
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's **proposed action.**

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

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

PERMIT NO: 136255-6

DATE ISSUED: December 20, 2017

PROJECT NAME: All Aboard Florida East-West Railway PE02 CFX SJRWMD Segment

A PERMIT AUTHORIZING:

Construction of a Stormwater Management System for All Aboard Florida East-West Railway PE02 CFX SJRWMD Segment, a 229.0 - acre project to be constructed and operated as per plans received by the District on December 15, 2017 and December 18, 2017.

LOCATION:

Section(s): 32, 36, 33, 35, Township(s): 23S Range(s): 32E
34, 31

Orange County

Receiving Water Body:

Name	Class
Green Branch	III Fresh
Turkey Creek	III Fresh, OFW
Econlockhatchee River	III Fresh, OFW
Little Creek	III Fresh, OFW

ISSUED TO:

J Acquisitions Volusia, LLC
401 Ferguson Dr
Orlando, FL 32805-1009

Circle C Ranch II LLC
18716 E Colonial Dr
Orlando, FL 32820-3003

JEL Land Development, LLC
2649 Stanmore Ct
Orlando, FL 32817-2947

Keewin Conservation, LLC
121 Garfield Ave
Winter Park, FL 32789-3861

All Aboard Florida-Operations LLC
4
2855 S Le Jeune Rd
Coral Gables, FL 33134-6612

The 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 the 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.

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated December 20, 2017

AUTHORIZED BY: St. Johns River Water Management District
Division of Regulatory Services

A handwritten signature in black ink, appearing to read "John Julianna". The signature is fluid and cursive, with a long horizontal stroke at the end.

By:

John Julianna
Regulatory Coordinator

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 136255-6
All Aboard Florida East-West Railway PE02 CFX SJRWMD Segment
DATED December 20, 2017

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. This permit for construction will expire five years from the date of issuance.
20. 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.
21. 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.
22. 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.

23. The permittee has proposed a mitigation plan which includes an offsite donation of land to the District. This offsite land donation shall be completed prior to the start of construction activities authorized under the permit within the permitted project boundary. The proposed parcel for donation known as "Kemcho Mitigation Tract (J Acquisitions Volusia LLC)" is depicted in Figure 2 of the Bio-Tech Consulting, Inc." PE02 Kemcho Mitigation Tract " received by the District on December 13, 2017, and comprises 300.25 acres in total. The portion of the donation parcel associated with this project is depicted on Figure 2 "PE02 Kemcho Mitigation Tract " received by the District on December 13, 2017, and is comprised of 82.06 acres. The remaining acreage in the 218.19-acre parcel will be used as offsite mitigation for one other permit (Permit No. 136255-5). The ecological value associated with the proposed mitigation plan has been assessed based on the entire 300.25-acre parcel being donated in one transaction and being perpetually managed. If the 300.25-acre parcel is not donated in one transaction, the permittee shall propose additional mitigation to address the mitigation deficit, which is acceptable to the District, prior to the start of construction activities authorized under the permit within the permitted project boundary. Since the permittee offers this property as mitigation to offset the proposed adverse impacts approved under this permit, the property must, at the time of transfer, be in as good an environmental condition as when the property was offered as mitigation, and must be free of encumbrances that adversely affect the mitigation value of the property. Prior to transfer of the property to the District, the permittee shall contact the Bureau of Land Management and Real Estate Services to coordinate the procedure and provide the required documents for the property transaction. The permittee shall pay for all costs associated with the transfer of the property including, but not limited to, title insurance, boundary surveys including boundary lines marked on the ground, environmental assessments with a 50-year chain of title report, recording fees, documentary stamps, preparation of the warranty deed, prorated property taxes prior to transfer to the District, and a management endowment of \$500 per acre. In addition, the permittee is responsible for all remediation prior to transfer to the District.
24. The permittee has proposed a mitigation plan which includes an offsite donation of land to the District. This offsite land donation shall be completed prior to the start of construction activities authorized under the permit within the permitted project boundary. The proposed parcel for donation known as "Conley Mitigation Tract (Keewin Conservation, LLC)" is depicted in Figure 3 of the Bio-Tech Consulting, Inc." PE02 Mitigation Package" received by the District on October 17, 2017, and comprises 100.87 acres in total. The portion of the donation parcel associated with this project is depicted on Figure 3 "PE02 Mitigation Package" received by the District on October 17, 2017, and is comprised of 87.55 acres. The remaining acreage in the 13.32-acre parcel was used as offsite mitigation for one other permit (Permit No. 65713-6). The ecological value associated with the proposed mitigation plan has been assessed based on the entire 100.87-acre parcel being donated in one transaction and being perpetually managed. If the 100.87-acre parcel is not donated in one transaction, the permittee shall propose additional mitigation to address the mitigation deficit, which is acceptable to the District, prior to the start of construction activities authorized under the permit within the permitted project boundary. Since the permittee offers this property as mitigation to offset the proposed adverse impacts approved under this permit, the property must, at the time of transfer, be in as good an environmental condition as when the property was offered as mitigation, and must be free of encumbrances that adversely affect the mitigation value of the property. Prior to transfer of the property to the District, the permittee shall contact the Bureau of Land Management and Real Estate Services to coordinate the procedure and provide the required documents for the property transaction. The permittee shall pay for all costs

associated with the transfer of the property including, but not limited to, title insurance, boundary surveys including boundary lines marked on the ground, environmental assessments with a 50-year chain of title report, recording fees, documentary stamps, preparation of the warranty deed, prorated property taxes prior to transfer to the District, and a management endowment of \$500 per acre. In addition, the permittee is responsible for all remediation prior to transfer to the District.

25. The permittee has proposed a mitigation plan which includes donation to the District of an offsite 24.15-acre conservation easement, which is part of a 57.12-acre tract that will be donated to Orange County and perpetually managed as conservation land. The conservation easement shall be recorded and the donation of the 57.12-acre tract to Orange County completed before the start of construction activities authorized under the permit within the permitted project boundary. The proposed conservation easement parcel known as Pietrzak Mitigation Tract (Circle C Ranch II, LLC) is depicted on Figure 1 of the Bio-Tech Consulting, Inc. document titled "Pietrzak Mitigation Tract" received by the District on November 17, 2017. The ecological value associated with the proposed mitigation plan has been assessed based on the 24.15-acre conservation easement being recorded before donation of the entire 57.12-acre parcel to Orange County and its perpetual conservation and management. If the 24.15-acre parcel conservation easement is not recorded and the entire 57.12-acre parcel subsequently donated to Orange County, the permittee shall propose additional mitigation to address the mitigation deficit, which is acceptable to the District, prior to the start of construction activities authorized under the permit within the permitted project boundary. Before recording the conservation easement, the permittee shall provide to the District for review and written approval a copy of: (a) the preliminary plat showing the area to be encumbered by the conservation easement, or (b) a surveyor's sketch and legal description of the area to be placed under the conservation easement, per the approved mitigation plan. The conservation easement shall include restrictions on the real property pursuant to section 704.06, Florida Statutes, and be consistent with section 10.3.8, Applicant's Handbook, (October 1, 2013). The conservation easement shall be in the form approved in writing by the District and, if no plat has been submitted, the easement shall include the approved legal description and surveyor's sketch. If the District does not provide written comments on the preliminary plat or surveyor's sketch and legal description within 45 days of receipt, then the permittee may record the conservation easement with the legal description and surveyor's sketch or plat reference previously submitted. If the District provides written disapproval of the preliminary plat or surveyor's sketch and legal description, the permittee shall, within ten (10) days of receipt of the disapproval, correct all errors with the conservation easement, including the preliminary plat or legal description and surveyor's sketch, and record the conservation easement.

Pursuant to section 704.06, Florida Statutes, the conservation easement shall prohibit all construction, including clearing, dredging, or filling, except that which is specifically authorized by this permit, within the mitigation areas delineated on the final plans and/or mitigation proposal approved by the District. The easement must contain the provisions set forth in paragraphs 1(a)-(h) of section 704.06, Florida Statutes, as well as provisions indicating that the easement may be enforced by the District, and may not be amended without written District approval. The permittee shall ensure that the conservation easement identifies, and is executed by, the correct grantor, who must hold sufficient record title to the land encumbered by the easement. If the easement's grantor is a partnership, the partnership shall provide to the District a partnership affidavit stating that the person executing the conservation easement has the legal authority to convey an interest in the partnership land. If there exist any mortgages on the land, the permittee shall also have each mortgagee execute a consent and joinder of mortgagee subordinating the mortgage to the conservation easement. The consent and joinder of the mortgagee shall be recorded simultaneously with the conservation easement in the public records of the county where the land is located. Within 30 days of recording, the permittee shall provide

the District with: (a) the original recorded easement (including exhibits) showing the date it was recorded and the official records book and page number, (b) a copy of the recorded plat (if applicable), (c) a surveyor's sketch of the easement area plotted on the appropriate USGS topographic map, and (d) the original recorded consent and joinder(s) of mortgagee (if applicable).

26. The permittee has proposed a mitigation plan which includes an offsite donation of land to the District. This offsite land donation shall be completed prior to the start of construction activities authorized under the permit within the permitted project boundary. The proposed parcel for donation known as "Lowe Mitigation Tract (JEL Land Development, LLC)" is depicted in Figure 4A of the Bio-Tech Consulting, Inc. "Wetland Mitigation Documents" received by the District on November 29, 2017, and comprises 21.11 acres in total. The ecological value associated with the proposed mitigation plan has been assessed based on the entire 21.11-acre parcel being donated in one transaction and being perpetually managed. If the 21.11-acre parcel is not donated in one transaction, the permittee shall propose additional mitigation to address the mitigation deficit, which is acceptable to the District, prior to the start of construction activities authorized under the permit within the permitted project boundary. Since the permittee offers this property as mitigation to offset the proposed adverse impacts approved under this permit, the property must, at the time of transfer, be in as good an environmental condition as when the property was offered as mitigation, and must be free of encumbrances that adversely affect the mitigation value of the property. Prior to transfer of the property to the District, the permittee shall contact the Bureaus of Land Management and Real Estate Services to coordinate the procedure and provide the required documents for the property transaction. The permittee shall pay for all costs associated with the transfer of the property including, but not limited to, title insurance, boundary surveys including boundary lines marked on the ground, environmental assessments with a 50-year chain of title report, recording fees, documentary stamps, preparation of the warranty deed, prorated property taxes prior to transfer to the District, and a management endowment of \$500 per acre. In addition, the permittee is responsible for all remediation prior to transfer to the District.
27. Before the start of any construction, the permittee must provide the District with documentation demonstrating that 0.38 mitigation credit have been debited from the TM-Econ Mitigation Bank Phase IV (UMAM) ledger. In the event that the permittee does not successfully complete the transaction to obtain 0.38 mitigation credits from TM-Econ Mitigation Bank Phase IV (UMAM), the permittee must obtain a permit modification to provide alternative mitigation.
28. All Aboard Florida – Operations LLC shall be responsible for the construction and operation and maintenance of the stormwater management system. JEL Land Development, LLC, Keewin Conservation, LLC, Circle C Ranch II, LLC, and J Acquisitions Volusia, LLC shall be responsible for the operation and maintenance of the off-site mitigation areas owned by each entity respectively.

All Aboard Florida – Operations LLC shall be responsible for compliance with conditions 1 – 27 and 29 - 32. JEL Land Development, LLC shall be responsible for compliance with conditions 21 and 26 as relevant to the parcels under its ownership. Keewin Conservation, LLC shall be responsible for compliance with conditions 21 and 24 as relevant to the parcels under its ownership. Circle C Ranch II, LLC shall be responsible for compliance with conditions 21 and 25 as relevant to the parcels under its ownership. J Acquisitions Volusia, LLC shall be responsible for compliance with conditions 21 and 23 as relevant to the parcels under its ownership.
29. Fencing must be installed along both sides of the railway corridor to encourage the movement of wildlife through culverts and bridges and minimize wildlife mortality, as depicted on the permitted construction plans.

30. The proposed project must be constructed and operated as per plans received by the District on December 15, 2017 and December 18, 2017.
31. At least thirty days prior to initiation of construction, the permittee shall submit a final 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:
- Identification of any areas where any dewatering will be performed during construction;
 - Identification of areas where cross flows will be maintained during construction;
 - Details of specific erosion and sediment control measures to be implemented to control the discharge of turbid water due to any dewatering or cross flow conveyance activities;
 - Construction sequencing and location of all areas of material stockpiling and equipment staging; and,
 - 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.

32. Two (2) days before commencing work in Turkey Creek, Green Branch, Little Creek, or the Econlockhatchee River, the permittee must measure water turbidity from fixed points upstream and downstream from the work site. ("Work" includes turbidity screen installation, clearing, grading, pile-driving, or any activity that could introduce substrate material into the water column and diminish river/stream water quality.) Sampling must then continue for the duration of the work in those waters according to the following protocol:

Upstream samples are intended to measure the natural, ambient turbidity of the stream prior to entering the work zone. Upstream samples must be taken from flowing water beyond any visible turbid plume that maybe associated with the work authorized by this permit. The upstream sample shall be taken from the same fixed point upstream of the work area.

Downstream samples are intended to measure stream turbidity attributable to work zone disturbance. Downstream samples must be taken from flowing water. The downstream sample shall be taken from the same fixed point downstream of the work zone.

a) Samples must be collected twice daily: once during the morning (0700-1100h) and once during the afternoon (1300-1800h), at least four hours apart.

b) Water samples must be collected in clean bottles and evaluated within 60 minutes of collection. Data shall be reported in Nephelometric Turbidity Units (NTU).

c) Turbidity data must be compiled as a summary report and submitted every seven (7) days to the St. Johns River Water Management District (e-mail: ComplianceSupport@SJRWMD.com). Each report must include:

- the permit number
- a map showing the location of the sample sites
- collection date and time of each sample
- depth of each sample
- direction (or absence) of flow
- weather conditions during each sample
- additional comments as needed to explain unusual sample events (e.g., heavy rains, sample gear failures, missed samples, lost data, etc.)

If at any time the downstream turbidity levels exceed State Water Quality Standards (see 62-302.700(1) and 62-4.242(2)(a)2., FAC), then the permittee must make a full effort to reduce turbid discharges (including, but not limited to, an immediate work stoppage in and around surface waters). Work can not resume until the downstream turbidity values return to acceptable levels and otherwise comply with the State Water Quality Standards. Any such incident must be reported immediately to the St. Johns River Water Management District.

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

PERMIT NO: 136255-5

DATE ISSUED: December 20, 2017

PROJECT NAME: All Aboard Florida Proposed East-West Rail Corridor Segment PE03 Along SR 528 from SR 520 to US 1

A PERMIT AUTHORIZING:

Construction of a Stormwater Management System for All Aboard Florida Proposed East-West Rail Corridor Segment PE03 Along SR 528 from SR 520 to US 1, a 343.0 - acre project to be constructed and operated as per plans received by the District on December 15, 2017, as amended by Sheets TK-334 and TK-355, received by the District on December 18, 2017, Sheet D-222, received by the District on December 19, 2017, and Sheets TK-396, TK-471, and TK-472, received by the District on December 20, 2017 for C03W and the plans received by the District on December 15, 2017, as amended by Sheets TK-318 through TK-320 and Sheet D-326, received by the District on December 18, 2017 for C03E.

LOCATION:

Section(s):	13, 10, 12, 9, 11, 6, 8, 5 36 18 29, 30, 26, 28, 27	Township(s):	24S 23S 24S 23S	Range(s):	35E 33E 36E 34E
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Brevard; Orange County

Receiving Water Body:

Name	Class
Lake Wilson,Lake Florence	III Fresh
Indian River	III Marine, IW
Jim Creek	III Fresh, OFW, IW
Taylor Creek	III Fresh, OFW
Second Creek	III Fresh, OFW
St. Johns River	III Fresh, OFW, IW

ISSUED TO:

All Aboard Florida-Operations LLC
4
2855 S Le Jeune Rd
Coral Gables, FL 33134-6612

J Acquisitions Volusia, LLC
401 Ferguson Dr
Orlando, FL 32805-1009

J Acquisitions Brevard, LLC
401 Ferguson Dr
Orlando, FL 32805-1009

The 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 the 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.

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated December 20, 2017

AUTHORIZED BY: St. Johns River Water Management District
Division of Regulatory Services



By:

John Julianna
Regulatory Coordinator

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 136255-5
All Aboard Florida Proposed East-West Rail Corridor Segment PE03 Along SR 528 from SR
520 to US 1
DATED December 20, 2017

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. This permit for construction will expire five years from the date of issuance.
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. 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.
22. 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.

23. The permittee has proposed a mitigation plan which includes an offsite donation of land to the District. This offsite land donation shall be completed prior to the start of construction activities authorized under the permit within the permitted project boundary. The proposed parcel for donation known as "Kemcho Mitigation Tract (J Acquisitions Volusia, LLC)" is depicted in Figure 2 of the Bio-Tech Consulting, Inc. document title "PE03 Kemcho Mitigation Tract Package Final" received by the District on December 13, 2017, and comprises 300.25-acres in total. The portion of the donation parcel associated with this project is depicted on Figure 2 "PE03 Kemcho Mitigation Tract Package Final" received by the District on December 13, 2017, and is comprised of 218.19-acres. The remaining acreage in the 82.06-acre parcel will be used as offsite mitigation for one other permit (Permit No. 136255-6). The ecological value associated with the proposed mitigation plan has been assessed based on the entire 300.25-acre parcel being donated in one transaction and being perpetually managed. If the 300.25-acre parcel is not donated in one transaction, the permittee shall propose additional mitigation to address the mitigation deficit, which is acceptable to the District, prior to the start of construction activities authorized under the permit within the permitted project boundary. Since the permittee offers this property as mitigation to offset the proposed adverse impacts approved under this permit, the property must, at the time of transfer, be in as good an environmental condition as when the property was offered as mitigation, and must be free of encumbrances that adversely affect the mitigation value of the property. Prior to transfer of the property to the District, the permittee shall contact the Bureaus of Land Management and Real Estate Services to coordinate the procedure and provide the required documents for the property transaction. The permittee shall pay for all costs associated with the transfer of the property including, but not limited to, title insurance, boundary surveys including boundary lines marked on the ground, environmental assessments with a 50-year chain of title report, recording fees, documentary stamps, preparation of the warranty deed, prorated property taxes prior to transfer to the District, and a management endowment of \$500 per acre. In addition, the permittee is responsible for all remediation prior to transfer to the District.
24. The permittee has proposed a mitigation plan which includes an offsite donation of land to the District. This offsite land donation shall be completed prior to the start of construction activities authorized under the permit within the permitted project boundary. The proposed parcel for donation known as "South Lake Mitigation Tract (J Acquisitions Brevard, LLC)" is depicted on Figure 5b of the Bio-Tech Consulting, Inc. document titled "South Lake Mitigation Tract - Mitigation Package" received by the District on September 7, 2017, and comprises 164.91-acres in total. The ecological value associated with the proposed mitigation plan has been assessed based on the entire 164.91-acre parcel being donated in one transaction and being perpetually managed. If the 164.91-acre parcel is not donated in one transaction, the permittee shall propose additional mitigation to address the mitigation deficit, which is acceptable to the District, prior to the start of construction activities authorized under the permit within the permitted project boundary. Since the permittee offers this property as mitigation to offset the proposed adverse impacts approved under this permit, the property must, at the time of transfer, be in as good an environmental condition as when the property was offered as mitigation, and must be free of encumbrances that adversely affect the mitigation value of the property. Prior to transfer of the property to the District, the permittee shall contact the Bureaus of Land Management and Real Estate Services to coordinate the procedure and provide the required documents for the property transaction. The permittee shall pay for all costs associated with the transfer of the property including, but not limited to, title insurance, boundary surveys including boundary lines marked on the ground, environmental assessments with a 50-year chain of title report, recording fees, documentary stamps, preparation of the warranty deed,

prorated property taxes prior to transfer to the District, and a management endowment of \$500 per acre. In addition, the permittee is responsible for all remediation prior to transfer to the District.

25. Before the start of any construction, the permittee (All Aboard Florida-Operations LLC) must provide the District with documentation demonstrating that 0.47 herbaceous freshwater mitigation credits have been debited from the Lake Washington Mitigation Bank ledger. In the event that the permittee does not successfully complete the transaction to obtain 0.47 herbaceous freshwater mitigation credits from Lake Washington Mitigation Bank, the permittee must obtain a permit modification to provide alternative mitigation.
26. Before the start of any construction, the permittee (All Aboard Florida-Operations LLC) must provide the District with documentation demonstrating that 3.88 herbaceous freshwater mitigation credits have been debited from the Lucky L Ranch Mitigation Bank ledger. In the event that the permittee does not successfully complete the transaction to obtain 3.88 herbaceous freshwater mitigation credits from Lucky L Ranch Mitigation Bank, the permittee must obtain a permit modification to provide alternative mitigation.
27. All Aboard Florida – Operations LLC shall be responsible for the construction and operation and maintenance of the stormwater management system. J Acquisitions Brevard, LLC and J Acquisitions Volusia, LLC shall be responsible for the operation and maintenance of the off-site mitigation areas owned by each entity respectively.

All Aboard Florida – Operations LLC shall be responsible for compliance with conditions 1 – 26 and 28 - 32. J Acquisitions Brevard, LLC shall be responsible for compliance with conditions 20 and 24 as relevant to the parcels under its ownership. J Acquisitions Volusia, LLC shall be responsible for compliance with conditions 20 and 23 as relevant to the parcels under its ownership.

28. Fencing must be installed along both sides of the railway corridor to encourage the movement of wildlife through culverts and bridges and minimize wildlife mortality, as depicted on the permitted construction plans.
29. At least thirty days prior to initiation of construction, the permittee shall submit a final 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. Identification of areas where cross flows will be maintained during construction;
 - c. Details of specific erosion and sediment control measures to be implemented to control the discharge of turbid water due to any dewatering or cross flow conveyance activities;
 - d. Construction sequencing and location of all areas of material stockpiling and equipment staging; and,
 - e. 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.

30. Two (2) days before commencing work in Jim Creek, Second Creek, Taylor Creek, or the St. Johns River, the permittee must measure water turbidity from fixed points upstream and downstream from the work site. (“Work” includes turbidity screen installation, clearing, grading, pile-driving, or any activity that could introduce substrate material into the water column and diminish river/stream water quality.) Sampling must then continue for the duration of the work in those waters according to the following protocol:

Upstream samples are intended to measure the natural, ambient turbidity of the stream prior to entering the work zone. Upstream samples must be taken from flowing water beyond any visible turbid plume that maybe associated with the work authorized by this permit. The upstream sample shall be taken from the same fixed point upstream of the work area.

Downstream samples are intended to measure stream turbidity attributable to work zone disturbance. Downstream samples must be taken from flowing water. The downstream sample shall be taken from the same fixed point downstream of the work zone.

a) Samples must be collected twice daily: once during the morning (0700-1100h) and once during the afternoon (1300-1800h), at least four hours apart.

b) Water samples must be collected in clean bottles and evaluated within 60 minutes of collection. Data shall be reported in Nephelometric Turbidity Units (NTU).

c) Turbidity data must be compiled as a summary report and submitted every seven (7) days to the St. Johns River Water Management District (e-mail: ComplianceSupport@SJRWMD.com). Each report must include:

- the permit number
- a map showing the location of the sample sites
- collection date and time of each sample
- depth of each sample
- direction (or absence) of flow
- weather conditions during each sample
- additional comments as needed to explain unusual sample events (e.g., heavy rains, sample gear failures, missed samples, lost data, etc.)

If at any time the downstream turbidity levels exceed State Water Quality Standards (see 62-302.700(1) and 62-4.242(2)(a)2., FAC), then the permittee must make a full effort to reduce turbid discharges (including, but not limited to, an immediate work stoppage in and around surface waters). Work can not resume until the downstream turbidity values return to acceptable levels and otherwise comply with the State Water Quality Standards. Any such incident must be reported immediately to the St. Johns River Water Management District.

31. The proposed C03W project must be constructed and operated in accordance with the plans received by the District on December 15, 2017, as amended by Sheets TK-334 and TK-355, received by the District on December 18, 2017, Sheet D-222, received by the District on December 19, 2017, and Sheets TK-396, TK-471, and TK-472, received by the District on December 20, 2017.
32. The proposed C03E project must be constructed and operated in accordance with the plans received by the District on December 15, 2017, as amended by Sheets TK-318 through TK-320 and Sheet D-326, received by the District on December 18, 2017.

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

PERMIT NO: 135214-2

DATE ISSUED: August 24, 2016

PROJECT NAME: All Aboard Florida North South Rail Corridor Segment D08 (FEC Railroad from MP 166.9 to MP 233.4)

A PERMIT AUTHORIZING:

This permit authorizes 3.70 acres of wetland impacts, 11.12 acres of surface water impacts and an associated off-site mitigation plan and construction of a stormwater management system with stormwater treatment for All Aboard Florida North South Rail Corridor Segment D08 (FEC Railroad from MP 166.9 to MP 233.4), a 680.0 - acre project to be constructed as per plans received by the District on June 10, 2016 as amended by plans received by the District on August 5, 2016.

LOCATION:

Section(s):	20, 33, 28, 6, 17, 18, 21, 7 1, 12, 13 31 30, 34 36, 31 31, 30, 32, 18, 19 25, 3, 2, 11, 24, 14, 13 6, 7, 29, 20, 21, 8, 33, 28, 17 13, 1, 24, 12, 2 14, 11, 3, 9 16, 8, 17, 5, 6, 21, 28, 33 15, 14, 36, 9, 26, 23, 35, 4, 10 23, 15, 35, 10, 3, 22, 26, 4 9, 8, 28, 5, 27, 34, 16, 21 30, 19, 31	Township(s):	24S 26S 23S 28S 23S 26S 28S 31S 33S 30S 29S 25S 32S 27S 33S	Range(s):	36E 36E 36E 38E 35E 37E 37E 39E 39E 38E 38E 36E 39E 37E 40E
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Indian River; Brevard County

Receiving Water Body:

Name	Class
Indian River	II, OFW, AP, IW
Indian River Lagoon	III Marine, IW

ISSUED TO:

J Acquisitions Brevard LLC
401 Ferguson Dr
Orlando, FL 32805-1009

RAM Land Holdings LLC
PO Box 533327
Orlando, FL 32853-3327

All Aboard Florida - Operations, LLC
2855 S Le Jeune Rd Fl 4
Coral Gables, FL 33134-6612

The 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 the 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.

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated August 24, 2016

AUTHORIZED BY: St. Johns River Water Management District
Division of Regulatory, Engineering and Environmental Services

By: 

John Julianna
Regulatory Coordinator

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 135214-2
All Aboard Florida North South Rail Corridor Segment D08 (FEC Railroad from MP 166.9 to
MP 233.4)
DATED August 24, 2016

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, an 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. This permit for construction will expire five years from the date of issuance.
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. *Prior to the commencement of construction on the project or donation of any mitigation parcels to Brevard County - Environmentally Endangered Lands Program, whichever occurs first*, the permittee shall have recorded a conservation easement, in the form approved in writing by the District on July 6, 2016, and shall include the approved legal description and surveyor's sketch.

Pursuant to section 704.06, Florida Statutes, the conservation easement shall prohibit all construction, including clearing, dredging, or filling, except that which is specifically authorized by this permit, within the mitigation areas delineated on the final plans and/or mitigation proposal approved by the District. The easement must contain the provisions set forth in paragraphs 1(a)-(h) of section 704.06, Florida Statutes, as well as provisions

indicating that the easement may be enforced by the District, and may not be amended without written District approval.

The permittee shall ensure that the conservation easement identifies, and is executed by, the correct grantor, who must hold sufficient record title to the land encumbered by the easement. If the easement's grantor is a partnership, the partnership shall provide to the District a partnership affidavit stating that the person executing the conservation easement has the legal authority to convey an interest in the partnership land. If there exist any mortgages on the land, the permittee shall also have each mortgagee execute a consent and joinder of mortgagee subordinating the mortgage to the conservation easement. The consent and joinder of the mortgagee shall be recorded simultaneously with the conservation easement in the public records of the county where the land is located. Within 30 days of recording, the permittee shall provide the District with:

- (a) the original recorded easement (including exhibits) showing the date it was recorded and the official records book and page number,
- (b) a copy of the recorded plat (if applicable),
- (c) a surveyor's sketch of the easement area plotted on the appropriate USGS topographic map, and
- (d) the original recorded consent and joinder(s) of mortgagee (if applicable).

Demarcation of Conservation Easement Area. Prior to lot or parcel sales, all changes in direction of the easement area boundaries must be permanently monumented above ground on the project site.

- 22. Prior to work in wetlands that warrant mitigation, the permittee shall submit evidence to the District demonstrating that all the mitigation parcels, (Brevard County Tax IDs: 2941118, 2957510, 2952752, 2957669, 2942500 and 2952857), have been successfully transferred to the Brevard County Environmentally Endangered Lands Program. The conservation easement must be recorded prior to donation to the county. Should the transfer of ownership of all the Basin 22 off-site mitigation parcels not be successfully completed, the permittee must obtain a permit modification to provide alternative mitigation prior to wetland impacts.
- 23. Before the start of any construction, the permittee must provide the District with documentation demonstrating that 0.25 forested mitigation credits have been debited from the Basin 22 Mitigation Bank ledger.
- 24. In the event that the permittee does not successfully complete the transaction to obtain 0.25 forested mitigation credits from Basin 22 Mitigation Bank, the permittee must obtain a permit modification to provide alternative mitigation.
- 25. For all bridge construction activity that includes in-water work (including but not limited to: equipment, excavators, and turbidity barriers) Horse Creek (MP 187.37), Goat Creek (MP 202.59), North Canal (MP 223.7) Main Canal (MP 226.8), and South Canal (MP 230.03) the Standard Manatee Construction Conditions for In-water Work (2011) must be followed.

26. **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.
27. For all concrete pile-driving activity related to the bridge construction at Horse Creek (MP 187.37), Goat Creek (MP 202.59), North Canal (MP 223.7) Main Canal (MP226.8), and South Canal (MP 230.03):
- a. At least one dedicated observer shall be present during pile driving activities and shall perform no other duties that may interfere with their ability to observe for protected marine species. Observer(s) must have prior on-the-job experience observing manatees during dredging projects or in-waterwork where the activities were similar in nature to this project. Observer(s) shall have the authority to cease project operations
 - 1) upon sighting a manatee within 50 feet of the pile driving or vessel activity; and
 - 2) if detection of manatees is not possible due to weather or other conditions.
 - b. Pile driving activities shall be limited to daylight hours in order to maximize visibility for protected species observers. Monitoring shall occur for 15 minutes prior to, during, and for 15 minutes after pile driving ends.

c. During pile driving, the project will utilize a ramp-up measure. At the start of pile driving activity, pile driving hammers will initially be operated at low levels, then gradually increase to the necessary power required for pile installation.

1. If the activities appear to injure a protected marine species, then work shall cease immediately and not resume until after consultation with the Florida Fish and Wildlife Conservation Commission (ImperiledSpecies@myfwc.com or 850-922-4330). Consultation with FWC will include the identification of additional conservation measures deemed necessary to minimize the risks to protected species.

2. If there is any unusual manatee behavior in the vicinity of the pile driving (such as if manatees are attracted to the activity, or if they appear spooked or otherwise act unnaturally), please report this behavior as soon as practical to the Florida Fish and Wildlife Conservation Commission at ImperiledSpecies@myfwc.com.

28. Blasting is not authorized for this project.

29. To reduce the risk of entrapment and drowning of manatees, manatee exclusion devices (such as grating) shall be installed and maintained over any existing or proposed pipes or culverts greater than 8 inches, but smaller than 8 feet in diameter that are submerged or partially submerged and reasonably accessible to manatees. If horizontal or vertical bars are used, no more than 8 inch gaps on center shall be allowed. Grates or valves shall be in place at the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.

30. Deed of Conservation Easement

This permit requires the recording of a conservation easement over Volusia County parcels 844702052830 and 844702082720 (parcel IDs) and Brevard County parcels 2003960 and 200397921 (tax IDs) in Basin 21 and Brevard County parcels 2941118, 2957510, 2952752, 2957669, 2942500 and 2952857 (tax IDs) in Basin 22. Within 30 days of recording, the permittee shall provide the District with:

(a) the original recorded easement (including exhibits) showing the date it was recorded and the official records book and page number,

(b) a copy of the recorded plat (if applicable),

(c) a surveyor's sketch of the easement area plotted on the appropriate USGS topographic map, and

(d) the original recorded consent and joinder(s) of mortgagee (if applicable). Before recording them, the permittee shall ensure that these documents are acceptable to the District as described below.

Recording of Conservation Easement.

Before

(1) dredging, filling, or clearing any wetland or surface water for which mitigation is required,

(2) clearing any upland within a Riparian Habitat Protection Zone for which mitigation is required,

(3) the sale of any lot or parcel,

(4) the recording of the subdivision plat, or

(5) use of the infrastructure for its intended use, whichever occurs first, the permittee shall record a conservation easement in the form approved in writing by the District on July 6, 2016, which shall include restrictions on the real property pursuant to section 704.06, Florida Statutes, and be consistent with section 10.3.8, Applicant's Handbook, Vol I. The conservation easement shall be in the form approved in writing by the District on July 6, 2016 and shall include the approved legal description and surveyor's sketch. The conservation easement shall include restrictions on the real property pursuant to section 704.06, Florida Statutes, and be consistent with section 10.3.8, ERP Applicant's Handbook, Volume I (October 1, 2013) and Fla. Admin.Code R. 62-330.301(6).

Pursuant to section 704.06, Florida Statutes, the conservation easement shall prohibit all construction, including clearing, dredging, or filling, except that which is specifically authorized by this permit, within the mitigation areas delineated on the final plans and/or mitigation proposal approved by the District.

The easement may not be amended without written District approval.

Additional Documents Required.

The permittee shall ensure that the conservation easement identifies, and is executed by, the correct grantor, who must hold sufficient record title to the land encumbered by the easement. If the easement's grantor is a partnership, the partnership shall provide to the District a partnership affidavit stating that the person executing the conservation easement has the legal authority to convey an interest in the partnership land. If there exist any mortgages on the land, the permittee shall also have each mortgagee execute a consent and joinder of mortgagee subordinating the mortgage to the conservation easement. The consent and joinder of the mortgagee shall be recorded simultaneously with the conservation easement in the public records of the county where the land is located. Within 30 days of recording, the permittee shall provide the District with:

(a) the original recorded easement (including exhibits) showing the date it was recorded and the official records book and page number,

(b) a copy of the recorded plat (if applicable),

(c) a surveyor's sketch of the easement area plotted on the appropriate USGS topographic map, and

(d) the original recorded consent and joinder(s) of mortgagee (if applicable).

Demarcation of Conservation Easement Area. Prior to lot or parcel sales, all changes in direction of the easement area boundaries must be permanently monumented above ground on the project site.

31. Permittee agrees to implement the Archaeological Monitoring/Unanticipated Discoveries Plan identified in the "Draft Programmatic Agreement" dated July 11, 2016 (DPA) submitted by the Permittee to the District on July 11, 2016. The Plan is applicable to the historic properties identified in the DPA that are subject to monitoring and that involve regulated activities in, on, or over wetlands or other surface waters and are within the project boundary of this permit.

32. The proposed project must be constructed and operated in accordance with the plans received by the District on June 10, 2016 as amended by plans received by the District on August 5, 2016 and August 24, 2016.



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
PERMIT MODIFICATION NO. 13-05321-P
DATE ISSUED: AUGUST 19, 2016**

FORM #0157
Rev. 07/09

PERMITTEE:

ALL ABOARD FLORIDA OPERATIONS, L.L.C.
(ALL ABOARD FLORIDA NORTH-SOUTH RAIL
CORRIDOR SEGMENT D09)
2855 LE JEUNE ROAD, 4TH FLOOR
CORAL GABLES, FL 33134

FLORIDA EAST COAST RAILWAY, L.L.C.
(ALL ABOARD FLORIDA NORTH-SOUTH
RAIL CORRIDOR SEGMENT D09)
7411 FULLERTON STREET, SUITE 10
JACKSONVILLE, FL 32256

ORIGINAL PERMIT ISSUED: MARCH 7, 2014

ORIGINAL PROJECT DESCRIPTION: CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE 11 RAILWAY FACILITIES TOTALING 81.45 ACRES COLLECTIVELY KNOWN AS ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH.

APPROVED MODIFICATION: AUTHORIZATION FOR THE CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE RAILWAY FACILITIES WITHIN 254.69 ACRES, COLLECTIVELY KNOWN AS ALL ABOARD FLORIDA NORTH-SOUTH RAIL CORRIDOR SEGMENT D09. AUTHORIZATION IS NOT INCLUDED FOR WORK WITHIN ROADWAY CROSSINGS. BRIDGE OPERATIONAL CHANGES ARE ALSO NOT AUTHORIZED.

PROJECT LOCATION: PALM BEACH COUNTY, MARTIN COUNTY, AND ST. LUCIE COUNTY

PERMIT DURATION: CONSTRUCTION PHASE SHALL EXPIRE ON AUGUST 19, 2021

This is to notify you of the District's agency action concerning Permit Application No. 150922-3, dated September 22, 2015. This action is taken pursuant to the provisions of Chapter 373, Part IV, Florida Statutes (F.S.).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit Modification is in effect for this project subject to:

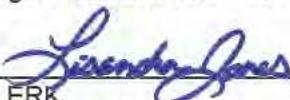
1. Not receiving a filed request for an administrative hearing pursuant to Section 120.57, Section 120.569, or request a judicial review pursuant Section 120.68, Florida Statutes;
2. The 17 General Conditions attached to the Environmental Resource Permit staff report;
3. The 15 Special Conditions attached to the Environmental Resource Permit staff report; and
4. The 4 Exhibits attached to the Environmental Resource Permit staff report.

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Should you wish to object to the proposed agency action or file a petition, please provide written objections, petitions and/or waivers to:

Office of the District Clerk
South Florida Water Management District
Post Office Box 24680
West Palm Beach, FL 33416-4680
e-mail: clerk@sfwmd.gov

If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

This written notice has been mailed or electronically submitted to the Permittee (and the persons listed on the attached distribution list) this 19th day of August, 2016, in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (my.sfwmd.gov/ePermitting).

By 
DEPUTY CLERK
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

Last Date For Agency Action: August 21, 2016

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: All Aboard Florida North-South Rail Corridor Segment D09

Permit No.: 13-05321-P

Application No.: 150922-3

Application Type: Environmental Resource (Construction/Operation Modification)

Location: Palm Beach County,

Location: Martin County,

Location: St. Lucie County,

Permittee : All Aboard Florida Operations, L.L.C.
Florida East Coast Railway, L.L.C.

Operating Entity : All Aboard Florida Operations, L.L.C.
Florida East Coast Railway, L.L.C.

Project Area: 254.69 acres

Permit Area: 254.69 acres

Project Land Use: Other

Drainage Basin: TIDAL ST. LUCIE

Drainage Basin: BASIN 2

Drainage Basin: INTRACOASTAL WATERWAY

Drainage Basin: JONATHAN DICKINSON

Drainage Basin: MIDDLE COASTAL

Drainage Basin: NORTH COASTAL

Receiving Body: Multiple

Class: CLASS III

Special Drainage District: NA

Total Acres Wetland Onsite: 4.71

Total Acres Wetland Preserved Onsite: 4.36

Total Acres Impacted Onsite : .35

Total Acres Presv/Mit Compensation Onsite: 4.36

Offsite Mitigation Credits-Mit.Bank: .06 Loxahatchee Mitigation Bank

Offsite Mitigation Credits-Mit.Bank: .30 Bluefield Ranch

Offsite Mitigation Credits-Mit.Bank: .12 Bear Point Mitigation Bank

Offsite Mitigation Credits-Mit.Bank: .02 F.P.L. Everglades Mitigation Bank

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT SUMMARY:

This Environmental Resource Permit authorizes construction and operation of a stormwater management system to serve railway facilities totaling 254.69 acres collectively known as All Aboard Florida North-South Rail Corridor Segment D09.

As stated in the application, All Aboard Florida "(AAF) is proposing to develop a 235-mile intercity passenger railroad system that will connect Orlando, Florida and Miami, Florida, with intermediate stops in Fort Lauderdale and West Palm Beach, Florida (Project)". This permit authorizes the construction and operation of the surface water management facilities for certain rail facilities within the West Palm Beach to St. Lucie County-Indian River County line segment (referred to as Segment D09), totaling portions of 254.69 acres within the existing Florida East Coast Railway (FECR) corridor. More specifically, the application requests construction and operation authorization for: the installation of additional tracks, some of which require additional stormwater treatment, including two main track areas; Port Seawall siding; Salerno siding; Salerno team track; Florida Gunite track extension; Hobe Sound track extension; Camp Murphy runaround track north end; the Riviera Beach lead; and curve modification areas to accommodate the high speed nature of the proposed passenger rail. The application also requests construction and operation authorization for culvert extensions/modifications required at ten existing culverts, and bridge modifications at: the Earman River (MP 291.86); Moores Creek (MP 241.27); Tributary to Manatee Creek 2 (MP 267.34); Tributary to Manatee Creek 1 (MP 267.7); Unnamed Creek (MP 259.95); Unnamed Tributary 2 (MP 266.58); and Unnamed Tributary 1 (MP 266.86). For areas where the existing stormwater management configuration is maintained or replaced with an equivalent system, and in areas where there used to be a second track in existence, no stormwater management modifications will be required.

If there are any inconsistencies between the narrative provisions of the staff report and exhibits, plans or drawings, the narrative provisions shall prevail. If inconsistencies are identified, they must be corrected prior to commencing work on the portion of the project for which an inconsistency has been identified.

The Applicant asserts that its anticipated work within roadway crossings qualifies for an exemption pursuant to Rule 62-330.051(4)(c), Florida Administrative Code (F.A.C.), and therefore has declined to request that the District evaluate work within roadway crossings as part of its application. The Applicant also has declined to request that the District verify at this time whether its anticipated work within roadway crossings qualifies for this or another exemption (see Section 5.5.3.4, Applicant's Handbook Vol. I). Therefore, this permit does not authorize the Applicant to perform any work within roadway crossings nor does this permit constitute verification of an exemption for work within roadway crossings. Except as provided for in the October 10, 2013 verification of exemption or in General Permit Number 56-03422-P, the Applicant must obtain either a modification of this permit or verification of exemption from the District prior to performing any work within roadway crossings.

This permit does not authorize any modifications to bridge operations.

Please refer to Exhibit 2.1 for the project plans, Exhibit 2.2 for the construction methodology/operation and maintenance plans, and Exhibit 2.3 for the project calculations.

The proposed project includes work that will occur in, on, or over a total of 1.17 acres of wetlands or other surface waters, and includes adverse wetlands impacts that will be mitigated off-site, as described in the Wetlands and Other Surface Waters section of this staff report.

This permit is issued pursuant to the water quality net improvement provisions of Rule 62-330.062, F.A.C.; therefore, the state water quality certification is waived.

PROJECT EVALUATION:**PROJECT SITE DESCRIPTION:**

This segment of the project is located in Palm Beach, Martin and St. Lucie Counties, starting in downtown West Palm Beach at the south end and ending at the St. Lucie County-Indian River County line at the north end. Please refer to Exhibits 1.1 and 1.2 for the location and vicinity maps.

The proposed facilities are located within the existing FECR corridor, which contains existing tracks, ballast, sub-ballast, road crossings, culverts, and bridges.

For information on the wetlands and surface waters within the project, please refer to the Wetlands and Surface Waters section of this staff report.

BACKGROUND:

A de minimus exemption (Exemption No. 50-10364-P, Application No. 130809-4) was issued on October 10, 2013 for the rehabilitation and replacement for portions of the upland areas of the existing rail system. The de minimus exemption is limited to: "replacing approximately 48 miles of rail that will provide a second main track within the existing FEC Corridor, rehabilitating one bridge deck (which crosses over an upland road) and re-establishing a second track at MP 241.22, and installing 2.4 miles of upland pedestrian crossovers at MP 241.4, MP 244.8, MP 252.6, MP 262.8, MP 283.4, and MP 292.8, which will provide connection of the rehabilitated second track to the single main line." This verification of exemption was final agency action by the District, as of October 10, 2013.

In addition, a General Permit (Permit No. 56-03442-P, Application No. 151002-23) was issued in November of 2015 for the installation of 65 miles of fiber optic cable within the railway right-of-way from West Palm Beach to the St. Lucie County-Indian River County line.

WATER QUANTITY :**Discharge Rate :**

Dry detention areas are proposed for the third track additions and the permittee has demonstrated that the difference in pre- versus post-development runoff volume is attenuated within those facilities. Please refer to Exhibit 2.3 for the calculations.

The permittees have provided reasonable assurance that the construction and operation of the project will not cause adverse water quality impacts to receiving waters and adjacent lands or adverse flooding, as required by Rule 62-301(1)(a) and (b), F.A.C.

WATER QUALITY :

Dry detention areas are proposed for the third track additions and the permittee has demonstrated that the dry detention provides water quality treatment, including an additional fifty percent of volume for discharge to impaired waters or Outstanding Florida Waters (OFW). There will therefore be a net improvement in water quality. Please refer to Exhibit 2.3 for the calculations.

To ensure that proposed construction activities do not degrade adjacent wetlands, surface waters and off-site areas, temporary silt fences and turbidity barriers which extend to the bottom of the waterbodies, will be installed and maintained around the limits of construction in accordance with project plans included in the Ecological Evaluation reports included as Exhibit 2.4, and as stipulated in the special conditions of this permit. The temporary silt fences and turbidity barriers will be installed prior to and will

be removed upon completion of construction activities.

The permittees have provided reasonable assurance, as required in Rule 62-330.301(1)(e), F.A.C., that the project will not adversely affect the quality of receiving waters such that state water quality standards set forth in Chapters 62-4 and 62-302, F.A.C., including the anti-degradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., subsections 62-4.242(2) and (3), F.A.C. and Rule 62-330.300, F.A.C. and any special standards for Outstanding Florida Waters set forth in subsection 62-4.242(2) and (3), F.A.C. will be violated.

No adverse water quality impacts are anticipated as a result of the proposed project.

WETLANDS:

Wetlands And Other Surface Waters:

There are a total of 4.71 acres of wetlands located on-site within the FECR right-of-way as identified in the summary table included Exhibit 3.2. There are also a number of off-site wetlands which are located outside of and directly adjacent, and within close proximity to the FECR right-of-way. The on-site wetlands primarily consist of mangrove wetlands, freshwater marsh wetlands and wet prairie wetlands.

The project includes work in, on, or over a total of 1.17 acres of wetlands or other surface waters. The project will not result in adverse impacts to other surface waters resources (e.g. protected benthic habitats such as submerged/emergent aquatic vegetation or hard bottom community) but will result in adverse impacts to a total of 0.35 acres of wetlands as depicted on the wetland impacts summary table included as Exhibit 3.3. Since the proposed work is within the limits of an existing operational railway corridor that has been in existence for decades, no new secondary impacts to wetlands are anticipated as a result of this proposed work.

The direct wetlands impacts consist of 0.09 acre of freshwater marsh wetlands and 0.26 acre of tidal mangrove wetlands depicted in the locations and as described in the Ecological Evaluation reports included as Exhibit 3.1. The tidal mangrove wetlands and freshwater marsh wetlands are predominantly in a degraded condition due to past hydrologic alterations and soil disturbances from the original construction of, and historical use and maintenance of, the FECR railway corridor, and by infestation by exotic plant species. In addition, most of these wetlands are surrounded by disturbed uplands within the railway corridor, and surrounded by developed and disturbed uplands outside of the railway corridor, which contribute to a significantly reduced habitat value of the wetlands.

The project also includes mangrove trimming and subsequent maintenance trimming within and directly adjacent to the railway corridor in accordance with Exhibit 3.4.

Mitigation Plan:

Mitigation is proposed to offset direct impacts to the 0.09 acre of freshwater marsh wetlands and 0.26 acre of tidal mangrove wetlands. Due to the linear nature of the project and based upon the small quantity of the wetland impacts, the low quality of the impact areas and the minimal functional value that they provide to wetland-dependent fish and wildlife, the permittees were not required to implement practicable design modifications to eliminate or reduce adverse wetland impacts in accordance with Subsection 10.2.1.2, of the Applicant's Handbook Volume I.

The permittees will mitigate for the adverse impacts to the freshwater marsh wetlands by purchasing 0.01

freshwater herbaceous credits at the Bluefield Ranch Mitigation Bank and 0.06 freshwater herbaceous credits at the Loxahatchee Mitigation Bank as identified on the mitigation summary table included as Exhibit 3.5. The permittees will also mitigate for the tidal mangrove wetlands impacts by purchasing 0.12 saltwater credits at the Bear Point Mitigation Bank and 0.02 saltwater credits at the Florida Power and Light (F.P.L.) Everglades Mitigation Bank, as identified in Exhibit 3.5.

Linear projects such as this project may use the identified mitigation banks to provide compensatory mitigation for wetland impacts located within the jurisdictional boundary of the South Florida Water Management District pursuant to the subsection 373.4136(6)(d)2, F.S. and Rule 62-342.600(4)(b) and (c), F.A.C.. Authorization is granted on a case-by-case basis upon sufficient demonstration of ecological compatibility and/or "like kind replacement."

Pursuant to Rule 62-345.100(6), F.A.C., the amount of mitigation needed to offset the functional loss of the impacted wetlands and the associated number of credits needed at each identified mitigation bank was calculated pursuant to the functional evaluation method identified within the state permit for each respective mitigation bank. Specifically, the Modified Wetland Rapid Assessment Procedure (MWRAP) was utilized for the Bluefield Ranch Mitigation Bank, Loxahatchee Mitigation Bank, and Bear Point Mitigation Bank. In addition, the Wetland Assessment Technique for Environmental Review (WATER) was utilized for the F.P.L. Everglades Mitigation Bank permit. District-approved MWRAP and WATER calculations and scoring are included in the Ecological Assessments reports included as Exhibit 3.1.

Letters of reservation from the Loxahatchee Mitigation Bank, Bear Point Mitigation Bank and F.P.L. Everglades Mitigation Bank, which confirm that the required number and type of credits have been reserved for this project, are included as Exhibit 3.6. Pursuant to Exhibit 4.1 and as stipulated in the special conditions of this permit, no later than September 19, 2016, and prior to the commencement of any authorized wetland impacts, the permittees will submit to the District verification that the all of the credits have been debited from the Loxahatchee Mitigation Bank, Bear Point Mitigation Bank and F.P.L. Everglades Mitigation Bank for this project. The required mitigation credits have already been debited from the mitigation ledger for the Bluefield Ranch Mitigation Bank as identified in Exhibit 3.6. Based on the proposed mitigation, the applicants have therefore provided reasonable assurances to satisfy Rule 62-330.301(1)(d), F.A.C.

The permittees have also purchased an additional 0.29 freshwater herbaceous credits at the Bluefield Ranch Mitigation Bank, as identified on page 7 of Exhibit 3.6, which is in addition to that required to offset the adverse wetlands impacts as described above. Therefore, a total of 0.30 freshwater herbaceous credits have been purchased at the Bluefield Ranch Mitigation Bank.

Cumulative Impact Assessment:

The project includes 0.05 acre of mangrove wetland impacts and 0.07 acre of freshwater marsh wetland impacts which are located in the Loxahatchee River drainage basin. Mitigation to offset the 0.05 acre of mangrove wetland impacts will also be conducted out-of-basin at the F.P.L. Everglades Mitigation Bank which is located in the East Everglades drainage basin. In addition, mitigation to offset the 0.07 acre of freshwater marsh wetland impacts will be conducted out-of-basin at the Loxahatchee Mitigation Bank which is located in the Eastern Palm Beach County drainage basin.

The project also includes 0.21 acre of mangrove wetland impacts and 0.02 acre of freshwater marsh wetland impacts which are located in the St. Lucie drainage basin. Mitigation to offset the 0.21 acre of mangrove wetland impacts will be conducted in-basin within St. Lucie drainage basin. Mitigation to offset the 0.02 acre of freshwater marsh wetland impacts will be conducted out-of-basin at the Bluefield Ranch Mitigation Bank which is located in the Nubbin Slough and C-23 drainage basins.

However, in accordance with Subsections 373.414(8)(a) and (b), F.S., Rule 62-330.302(1)(b), F.A.C.,

and Section 10.2.8 of the Applicant's Handbook Volume I, no unacceptable cumulative impacts are anticipated for the out-of-basin mitigation in accordance with the results of the cumulative impact analysis. Please refer to Exhibit 3.7 for detailed information and results of the cumulative impact analysis.

Wetland Inventory :

CONSTRUCTION NEW -Undisturbed Wetlands Within FECR Railway Corridor

Site Id	Site Type	Pre-Development				Post-Development						
		Pre Fluc cs	AA Type	Acreage (Acres)	Current Wo Pres	With Project	Time Lag (Yrs)	Risk Factor	Pres. Adj. Factor	Post Fluc cs	Adj Delta	Functional Gain / Loss
1	ON	600	Preservation	4.36								
Total:				4.36								

Wetland Inventory :

CONSTRUCTION NEW -Wetlands Impacts

Site Id	Site Type	Pre-Development				Post-Development						
		Pre Fluc cs	AA Type	Acreage (Acres)	Current Wo Pres	With Project	Time Lag (Yrs)	Risk Factor	Pres. Adj. Factor	Post Fluc cs	Adj Delta	Functional Gain / Loss
MP 241.:ON	612	Direct		.01							.000	.000
MP 254 ON	641	Direct		.01							.000	.000
MP 259.:ON	612	Direct		.08							.000	.000
MP 266.:ON	612	Direct		.02							.000	.000
MP 266.:ON	612	Direct		.10							.000	.000
MP 267.:ON	641	Direct		.01							.000	.000
MP 277.:ON	641	Direct		.01							.000	.000
MP 279 ON	641	Direct		.06							.000	.000
MP 282.:ON	612	Direct		.05							.000	.000
OSW ON	500	Direct		.82							.000	.000
Total:				1.17								.00

<u>Fluc cs Code</u>	<u>Description</u>
500	Water
600	Wetlands
612	Mangrove Swamps
641	Freshwater Marshes

MITBANK

BEAR POINT MITIGATION BANK

Type Of Credits	Number Of Credits
	Mitigation Bank Cr Used

MITBANK		BEAR POINT MITIGATION BANK	
		Mitigation Bank Cr Used	
Salt Water Forested			.12
Total:			.12
MITBANK		BLUEFIELD RANCH	
Type Of Credits		Number Of Credits	
		Mitigation Bank Cr Used	
Fresh Water Herbaceous			.29
Fresh Water Herbaceous			.01
Total:			.30
MITBANK		F.P.L. EVERGLADES MITIGATION BANK	
Type Of Credits		Number Of Credits	
		Mitigation Bank Cr Used	
Salt Water Forested			.02
Total:			.02
MITBANK		LOXAHATCHEE MITIGATION BANK	
Type Of Credits		Number Of Credits	
		Mitigation Bank Cr Used	
Fresh Water Herbaceous			.06
Total:			.06

Fish And Wildlife Issues:

Based upon the degraded condition of the freshwater wetlands and mangrove wetlands resulting from the original construction and historical use of the FECR railway corridor, the wetlands affected by the project are not considered a preferred habitat for wetland-dependent endangered or threatened wildlife species or species of special concern. In addition, no wetland-dependent endangered or threatened wildlife species or species of special concern were observed within or directly adjacent to these wetlands areas. Therefore, it is not anticipated that any adverse impacts will occur to wetland-dependent endangered or threatened wildlife species or species of special concern, associated with the construction or operation of the proposed project.

Some of the tidal waterways in, on or over which the bridge modifications will occur are accessible to and within the known range of: 1) the West Indian manatee (*Trichechus manatus latirostris*), a listed threatened species by the Florida Fish and Wildlife Conservation Commission (FWC); 2) loggerhead sea turtles (*Caretta caretta*), green sea turtles (*Chelonia mydas*), and hawksbill sea turtles (*Eremochelys imbricate*), which are listed as either endangered or threatened by the FWC; and 3) the smalltooth sawfish (*Pristis pectinata*), a listed endangered species by the FWC. For additional information regarding the condition of the wetlands and specific wildlife observations, please refer to the Ecological Evaluation report included as Exhibit 3.1.

The FWC provided comments and recommendations on the overall railway project, extending from Miami to Orlando, which are available in Exhibit 3.8. The permittees will implement FWC's standard manatee, sea turtle and smalltooth sawfish protection provisions during all in-water project construction activities as stipulated in the special conditions of this permit. Therefore, District staff do not anticipate any impacts to manatees, sea turtles or the smalltooth sawfish or their preferred habitat, associated with the construction or operation of the surface water management system for the proposed project.

This permit does not relieve the permittees from complying with all applicable rules and any other agencies' requirements if, in the future, endangered or threatened species or species of special concern are discovered on the site.

SPECIAL CONSIDERATIONS:

Based on the criteria set forth in Section 373.414(1), F.S., Rule 62-330.302(1)(a), F.A.C., and Sections 10.2.3 to 10.2.3.7 of the Applicant's Handbook Volume I, the permittee has provided reasonable assurances to demonstrate that the project will not be contrary to the public interest. This finding is based on the submitted application documents and the information included as Exhibit 3.11.

CERTIFICATION, OPERATION, AND MAINTENANCE:

Pursuant to Rule 62-330.310, F.A.C., Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

In accordance with Subsection 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of stormwater management systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity will be responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4 of the Applicant's Handbook Volume I for Minimum Operation and Maintenance Standards.

SOVEREIGNTY SUBMERGED LANDS:

According to the title determination provided by the Department of Environmental Protection, Division of State Lands (DSL) the submerged lands in, on, or over which the existing bridges and bridge modifications are located include both lands which are not state-owned sovereign submerged lands, and lands which are state-owned sovereign submerged lands. The DSL also determined that because the portions of the project over the sovereign submerged lands are located within the existing FECR right-of-way, consent to use the sovereign submerged lands is provided pursuant to Section 10, Chapter 1987, Laws of Florida (1874) and no additional proprietary authorization is required from the Board of Trustees of the Internal Improvement Trust Fund. A copy of the DSL determination is provided as Exhibit 3.11.

RELATED CONCERNS:**Water Use Permit Status:**

The permittees have indicated that neither dewatering nor consumptive water uses are required for the construction and operation of the project.

This permit does not release the permittees from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which propose consumptive use, construction dewatering and irrigation.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

Historical/Archeological Resources:

Correspondence from the Florida Department of State, Division of Historical Resources (DHR) indicates that the agency concurs with the Federal Railroad Administration's finding of no adverse effect to the historic FECR corridor, as well as the bridges historic structures, three historic districts, and six archaeological sites within the project area. This concurrence is subject to specific conditions identified in the DHR correspondence which is included as Exhibit 3.9, and as stipulated in the special conditions of this permit.

This permit includes a general condition regarding historic or archeological resources that may be discovered during earthwork activities at the project site.

This permit does not release the permittees from compliance with any other agencies' requirements in the event that historical and/or archaeological resources are found on the site.

DEO/CZM Consistency Review:

The issuance of this permit constitutes a finding of consistency with the Florida Coastal Management Program.

Third Party Interest:

Two county governments and one city government contacted the District with concerns about the project.

One interested third party contacted the District regarding potential impacts to historical/archaeological resources associated with the construction and operation of the project. As described in the Historical/Archaeological Resources section of the staff report, the DHR determined a finding of no adverse effect to the historic FECR corridor, as well as the bridges historic structures, three historic districts, and six archaeological sites within the project area, subject to identified conditions.

Another interested party contacted the District and requested to be notified of agency action.

These third parties will receive a copy of this permit.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF RECOMMENDATION TO EXECUTIVE DIRECTOR:

The Staff recommends that the following be issued :

Authorization for the construction and operation of a surface water management system to serve railway facilities within 254.69 acres, collectively known as All Aboard Florida North-South Rail Corridor Segment D09. Authorization is not included for work within roadway crossings. Bridge operational changes are also not authorized.

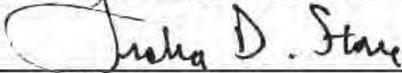
Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached General and Special Conditions.

STAFF REVIEW:

NATURAL RESOURCE MANAGEMENT APPROVAL

ENVIRONMENTAL EVALUATION



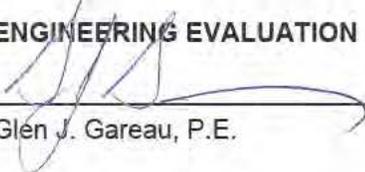
Trisha Stone

SUPERVISOR

Barbara J. Conmy

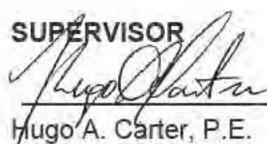
SURFACE WATER MANAGEMENT APPROVAL

ENGINEERING EVALUATION



Glen J. Gareau, P.E.

SUPERVISOR



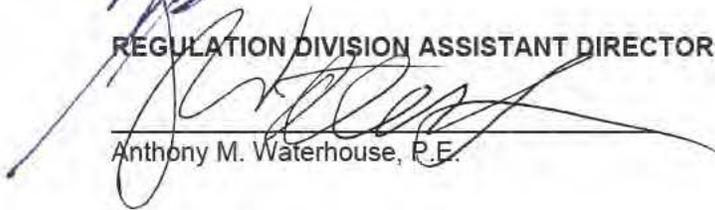
Hugo A. Carter, P.E.

ENVIRONMENTAL RESOURCE COMPLIANCE BUREAU CHIEF :


Ricardo A. Valera, P.E.

DATE: August 17, 2016

REGULATION DIVISION ASSISTANT DIRECTOR :


Anthony M. Waterhouse, P.E.

DATE: 8/17/16

GENERAL CONDITIONS

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 shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. 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.
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), 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 Agency a fully executed Form 62-330.350(1), F.A.C., "Construction Commencement Notice" indicating the expected start and completion dates. If available, an Agency 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., 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. "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
 - b. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

GENERAL CONDITIONS

7. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.
8. 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.
9. 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.
10. The permittee shall hold and save the Agency 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.
11. The permittee shall notify the Agency 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.
12. Upon reasonable notice to the permittee, Agency 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.
13. 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.
14. 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.

GENERAL CONDITIONS

15. 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.
16. 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 Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
17. 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 Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on August 19, 2021.
2. Operation and maintenance of the stormwater management system shall be the responsibility of the Florida East Coast Railway, L.L.C. and All Aboard Florida, L.L.C.

3. Discharge Facilities:

No discharge control structures are proposed.

4. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
5. Prior to initiating construction activities associated with this Environmental Resource Permit, the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors and District Environmental Resource Compliance (ERC) staff.

The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties.

To schedule a pre-construction meeting, please contact ERC staff from the West Palm Beach Office at (561) 686-8800 or via e-mail at: pre-con@sfwmd.gov. When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.

6. The permit shall be modified or a verification of exemption obtained prior to any work within the roadway crossings, except for that addressed in the October 10, 2013 verification of exemption, or the General Permit issued in November of 2015.
7. The permittee shall comply with the following conditions intended to protect manatees and marine turtles from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of marine turtles, manatees and manatee speed zones, and the need to avoid collisions with and injuries 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 and marine turtles cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee and marine turtle 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 marine turtles and manatee(s). All in-water operations, including vessels, must be shutdown if a marine turtle or manatee(s) comes within 50 feet of the operation. Activities will not resume until the animal(s) have moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

SPECIAL CONDITIONS

- e. Any collision with or injury to a marine turtle or manatee shall be reported immediately to the FWC Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Vero Beach (1-772-562-3909), 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. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area must be posted. A second sign measuring at least 8 1/2" 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 FWC at ImperiledSpecies@myFWC.com.
8. Turbidity control measures shall be implemented around the limits of all in-water work areas as shown in Exhibit 2.4. Prior to the commencement of construction in surface waters, floating turbidity curtains with weighted skirts that extend to the bottom of the water bodies shall be properly installed to isolate adjacent waters from the work area. The floating turbidity curtains shall be maintained and shall remain in place until all construction is complete and turbidity levels in the project area are within 29 NTUs of background levels. The permittee shall be responsible for ensuring that turbidity control devices are inspected daily and maintained in good working order so that there are no violations of state water quality standards outside of the turbidity screens.
9. Silt fencing shall be installed at the limits of upland construction areas to protect adjacent upland areas and surface waters from silt and sediment deposition during the construction of the project as shown on Exhibit 2.4. The silt fencing shall be installed prior to the commencement of any clearing or construction and shall remain in place and be maintained in good functional condition until all adjacent construction activities have been completed and all fill slopes have been stabilized.
10. The permittee shall comply with applicable state water quality standards, including:
- 62-302.400 F.A.C. - Classification of Surface Waters, Usage, Reclassification, Classified Waters;
 - 62-302.500, F.A.C. - Surface Waters: Minimum Criteria, General Criteria;
 - 62-302.530, F.A.C. - Table: Surface Water Quality Criteria; and
 - 62-302.700, F.A.C. - Special Protection, Outstanding Florida Waters, Outstanding National Resource Waters.
11. In accordance with the work schedule included as Exhibit 4.1, no later than September 19, 2016, the permittee shall submit verification that the required credits identified in Exhibits 3.6 and 3.7 have been debited from the Loxahatchee Mitigation Bank, Bear Point Mitigation Bank and F.P.L. Everglades Mitigation Bank for this project.
12. The permittee shall comply with the conditions of the Florida Department of State, Division of Historical Resources determination of no adverse effect for the construction and operation of the project, in accordance with Exhibit 3.9.
13. The permittee shall comply with the following protected species construction conditions:
- The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
 - The permittee shall advise all construction personnel that there are civil and criminal penalties for

SPECIAL CONDITIONS

harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/ rescue organization.

14. The following are exhibits to this permit. Exhibits noted as incorporated by reference are available on the District's ePermitting website (<http://my.sfwm.d.gov/ePermitting>) under this application number.

Exhibit 1.1 Vicinity Map, Page 1

Exhibit 1.2 Location Map, Pages 1-79, Incorporated by Reference

Exhibit 2.1 Construction Plans, Pages 1-549, Incorporated by Reference

Exhibit 2.2 Construction Methodology/Operation and Maintenance Document, Pages 1-4

Exhibit 2.3 Project Calculations, Pages 1-9

Exhibit 2.4 Erosion and Sediment Control Plans, Pages 1-249, Incorporated by Reference

Exhibit 2.5 Track Cross Sections, Page 1-587, Incorporated by Reference

Exhibit 3.1 Ecological Evaluation Report, Pages 1-560, Incorporated by Reference

Exhibit 3.2 FECR Right-Of-Way Wetlands Summary Table, Page 1

Exhibit 3.3 Wetlands Impacts Summary Table, Page 1

Exhibit 3.4 Mangrove Trimming and Maintenance Plan, Pages 1-2

Exhibit 3.5 Wetlands Mitigation Summary Table, Page 1

Exhibit 3.6 Mitigation Banks Letters of Reservation, Pages 1-7

Exhibit 3.7 Wetlands Mitigation Cumulative Impacts Assessment, Pages 1-8

Exhibit 3.8 FWC Comments and Recommendations on Overall Project, Pages 1-7

Exhibit 3.9 Division of Historical Resources Historical/Archaeological Determination, 1-3

Exhibit 3.10 Division of State Lands Submerged Lands Title Determination, Pages 1-3

Exhibit 3.11 Public Interest Test, Pages 1-7

Exhibit 4.1 Environmental Work Schedule, Page 1

15. This permit does not relieve the permittee from the necessity to obtain approval by the U.S. Coast Guard for any revisions to the current bridge regulations.

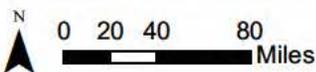


Explanation of Features

 Project Location

Project Location Map

All Aboard Florida Intercity Passenger Rail Project



amec foster wheeler



Figure 1

All Aboard Florida North-South Rail Corridor Segment D09

ERP App. No. 150922-3

**Exhibit 1.2 – Location Map
(Pages 1 - 79)**

***THIS EXHIBIT IS INCORPORATED BY REFERENCE AND CAN BE
VIEWED ON THE DISTRICT'S EPERMITTING WEBSITE UNDER THIS
APPLICATION NUMBER.***

**All Aboard Florida North-South Rail Corridor
Segment D09**

ERP App. No. 150922-3

**Exhibit 2.1 – Project Plans
(Pages 1 - 549)**

***THIS EXHIBIT IS INCORPORATED BY REFERENCE AND CAN BE
VIEWED ON THE DISTRICT'S EPERMITTING WEBSITE UNDER THIS
APPLICATION NUMBER.***

A. Project Overview

The purpose of the Project is to provide reliable and convenient intercity passenger rail transportation between Orlando and Miami, Florida (the Project Corridor), by extending (in Phase II) the previously reviewed Phase I All Aboard Florida (AAF) passenger rail service between West Palm Beach and Miami and by maximizing the use of existing transportation corridors. This transportation service would offer a safe and efficient alternative to automobile travel on congested highway corridors, add transportation capacity within those corridors (particularly Interstate 95), and encourage connectivity with other modes of transportation such as light rail, commuter rail, and air transportation.

AAF is a subsidiary of Florida East Coast Industries, LLC (FECI), which is a transportation, infrastructure and commercial real estate company based in Coral Gables, Florida. Florida East Coast Railway (FECR), an affiliate of FECI, owns the right-of-way (ROW) and existing railroad infrastructure within the corridor between Jacksonville and Miami, over which FECR operates a freight rail service. AAF has an exclusive, perpetual easement granted by FECR whereby AAF may develop and operate the proposed passenger service within the FECR Corridor. AAF will operate the proposed passenger rail service within the FECR Corridor in coordination with FECR's continued freight service. This portion of the project corridor, approximately 64 miles in length, represents of the FECR right-of-way (ROW) from West Palm Beach to Vero Beach and traverses through Palm Beach, Martin and St. Lucie Counties.

Construction within this section of the Project Corridor would take place within the existing FECR ROW and would not require acquisition of additional property. Construction activities would largely consist of restoring a second track, upgrading existing track, modifying several curves to accommodate higher speeds, upgrading and adding turnouts and crossovers, upgrading and expanding selected sidings, upgrading crossings, and replacing or repairing bridges across waterways.

B. Rail Track

This section of the Project Corridor begins at West Palm Beach station and ends just south of Vero Beach. The final design will include two main tracks and 74 at grade crossing modifications. In total, including work to modify and extend sidings, AAF will upgrade 84 existing track miles as necessary and construct 61.8 miles of new track to restore the double track corridor and to support higher passenger train travel speeds in this section.

The railway will be constructed with ballast, concrete ties, and welded rail. Typical track construction is a bottom-up procedure. Once there is a stabilized roadbed, the contractor will place the majority of the ballast on top of the roadbed over a given section. The contractor will then come back and place all the concrete ties on top of the ballast. Once the ties have been placed, the rail will be attached to the ties. The contractor will then flood the track with the remaining ballast, surface and de-stress the track. Each contractor on the project is responsible for their method of construction, and therefore the means and methods may vary slightly.

The contractor will be responsible for construction sequencing and for determining appropriate construction staging areas. Track construction will progress in a linear fashion once all other embankments and structures have been built. It is expected that most track construction materials will be either staged on existing FECR property or will be on rail equipment stored on railroad tracks already constructed in this section. New large, long-term staging areas are not expected to be required.

C. Bridges

Construction activities at bridges within the D09 segment will include the removal and replacement of existing railroad bridges, abutments and associated pilings in some locations, and the restoration of second track and abutments and associated pilings in other locations. Those existing bridges to be removed and replaced are typically timber trestles with open deck girders. Silt fence and floating turbidity barriers will be installed prior to construction and maintained during construction in accordance with performance standards for erosion and sediment control and stormwater treatment set forth in section 62-40.432, FAC. Floating turbidity barriers will be placed in the water on each side of the bridge prior to commencement of work. The arrangement of the turbidity curtains will be determined based on the width of the water body, flow direction, and navigability of the water body. It is not expected that the proposed construction of the D09 bridges will require the stationing of barges in the water; however, final determination will be made by the contractor. Existing pilings will be removed or cutoff 2 foot below the mudline. It is anticipated that this process will require minor excavation around the timber pilings. The proposed new double-track bridge consists of the installation of new pre-stressed concrete bridge slabs placed on top of prestressed concrete piles. The number of pilings is based on width of the water body and the distance of the proposed span. The bridge construction is likely to follow a similar sequence as described herein: piles will be driven to load bearing capacity for E80 loads. Piles will be driven with a steel pile driving template placed to prevent movement of the pile group. Multiple piles are connected by a cast in place pile bent cap or end bent at the abutments. The proposed superstructure will consist of Standard Precast Prestressed Concrete Bridge Slabs. The Bridge slabs will sit atop the pile bent cap. A crane will place the bridge slabs on the abutment. To form the end bents and backwall, a small area upslope will likely be excavated to install the forms. After installation is complete the area will be backfilled and compacted. When necessary rip-rap or similar material will be placed around the abutment for slope protection. The deck slab with curbs, constructed of reinforced concrete, will be placed onto the superstructure. A ballast deck with concrete for the track will be installed on the deck. Materials for the new bridges will be brought onsite via existing roads or rail. The new bridge construction will require access for a crane to remove the cutoff pilings and the existing structure from the site.

D. Stormwater and Erosion and Sediment Control

The at-grade track will be constructed for the most part on existing second track hardpan. Erosion control measures are as designed and will utilize best management practices to ensure silt and sediment remains within the construction limits.

Like with at-grade track, the elevated track will adhere to the erosion control guidelines specified in the permit package. On embankment, runoff will flow off the embankment, and will either enter the embankment slope or collect in a swale system at the toe of slope.

All stormwater runoff from this site shall be visually monitored during construction by the contractor to assure water quality and quantity is generally maintained to the pre-development levels. During construction of the bridges over any water crossing, the contractor must adhere to erosion control best management practices including the usage of floating turbidity curtains and staked turbidity curtains in necessary areas.

E. Operations / Maintenance

E.1 Operations

The proposed passenger rail service will be operated under a partnership / operating agreement between AAF and FECR. AAF will be responsible for the operation of the new passenger service between Miami and Orlando. FECR will have the sole right to operate and control freight rail services in the corridor.

AAF intends to operate a service of trains to include hourly passenger rail service between Miami and Orlando including 16 round trips daily with intermediate station stops at Fort Lauderdale and West Palm Beach, as well as 3 morning and 3 evening peak short-turn runs between West Palm Beach and Miami. The total running time is expected to be 3 hours 10 minutes.

Each train will consist of 4 coach cars, 2 business cars and a café car, with a locomotive at each end. The service schedule requires 8 consists to be in service each day, with 2 spare consists and 1 café car to cover repairs.

In addition to the AAF passenger train service, FECR will be operating freight trains in the shared corridor between Cocoa and Miami. Initially, it is assumed that an average of 20 freight trains will operate daily, in addition to the 16 passenger train round trips (a total of 32 passenger trains each day).

FECR will be responsible for the dispatching of all trains between Cocoa and Miami and for the passenger trains between Orlando and Cocoa. The FECR Dispatch Center in Jacksonville will be upgraded as part of the project, including the installation of updated equipment required for Positive Train Control (PTC).

E.2 Maintenance

E.2.1 Infrastructure

The infrastructure would be maintained by FECR under a Force Account Agreement with AAF. Capital and routine maintenance programs would be developed on an annual basis and any necessary adjustments to work windows / program schedules would be made jointly by AAF and FECR.

E.2.2 Stations

AAF would be responsible for the maintenance of all stations, except those parts of the station structures at Orlando and Miami that are the responsibility of other third party tenants. Maintenance and operation of the stations, including cleaning of trains, are currently identified as being performed by AAF employees.

E.2.3 Rolling Stock

The maintenance of the AAF train sets would be performed by the rolling stock supplier, Siemens Industries, as part of the overall procurement contract. Rolling Stock would be maintained as fixed train sets and to a scheduled program of daily maintenance and scheduled overhauls.

Maintenance functions would primarily be carried out at the Vehicle Maintenance Facility in Orlando, including all heavy maintenance operations. All trains will come out of service each night either at West Palm Beach (3 trains) or Orlando (5 trains) to minimize deadhead moves.

E.2.4 ROW

Improvements shall be maintained in a manner consistent with FRA regulations applicable to FRA Class 6, AREMA and Florida Department of Transportation standards and agency permit requirements. The ROW will be maintained in good working order, and safe condition and repair. The property will be kept free and clear of the over growth of grass, weeds, brush, and debris of any kind, so as to prevent the same becoming dangerous, inflammable, or objectionable. The stormwater management system shall be periodically inspected during storms to determine that it is operating properly. Any broken pipes or damaged inlets will be repaired or replaced. Any debris

clogging the system shall be removed as necessary. Any retention areas shall be periodically cleaned of debris or siltation as necessary.

APPENDIX E

SFWMD WATER QUALITY AND QUANTITY CALCULATIONS

Revised - April 13, 2016

TABLE E-0: SUMMARY OF DRAINAGE SWALE

No.	Location	Start Sta.	Stop Sta.	Distance (ft)	Swale Bottom Elev. (ft)	Swale Maximum Water Elev. (ft)	Swale Storage Depth (ft)	Swale Geometry (Bottom Width, Side Slope)	Swale Section Area (ft ²)	Storage Volume Provided (ft ³)
1	MAIN TRACK - Portion 1									
1a.	MAIN TRACK - Portion 1	12863+15	12868+50	535	21.4	22.5	1.1	2' wide, 2:1 Slope	4.62	2,472
1b.	MAIN TRACK - Portion 1	12869+55	12876+00	645	25.0	28.0	3.1	2' wide, 2:1 Slope	24.71	15,935
1c.	MAIN TRACK - Portion 1	12876+10	12885+00	890	27.0	28.3	1.3	2' wide, 2:1 Slope	5.63	5,006
Total:										23,413
2	MAIN TRACK - Portion 2									
2a.	MAIN TRACK - Portion 2	12891+00	12893+00	200	27.5	28.7	1.2	1.5' wide, 2:1 Slope	4.94	987
2b.	MAIN TRACK - Portion 2	12893+10	12896+00	290	28.0	30.0	2.0	1.5' wide, 2:1 Slope	11.10	3,218
2c.	MAIN TRACK - Portion 2	12896+10	12900+00	390	30.0	30.6	0.6	1.5' wide, 2:1 Slope	1.74	678
2d.	MAIN TRACK - Portion 2	12900+10	12901+00	90	29.0	30.5	1.5	1.5' wide, 2:1 Slope	6.83	614
Total:										5,497
3	MAINT TRACK - Portion 3									
3a.	MAINT TRACK - Portion 3	12903+00	12906+00	300	25.0	26.1	1.1	1.5' wide, 2:1 Slope	4.31	1,293
3b.	MAINT TRACK - Portion 3	12906+10	12908+00	190	27.0	28.6	1.6	1.5' wide, 2:1 Slope	7.68	1,459
3c.	MAINT TRACK - Portion 3	12908+10	12911+00	290	30.0	31.9	1.9	1.5' wide, 2:1 Slope	10.07	2,920
Total:										5,672
4	MAINT TRACK - Portion 4									
4a.	MAINT TRACK - Portion 4	12916+00	12918+00	200	33.0	33.9	0.9	1.0' wide, 2:1 Slope	2.38	477
Total:										477
5	MAINT TRACK - Portion 5									
5a.	MAINT TRACK - Portion 5	12921+00	12922+00	100	32.9	33.6	0.7	1.0' wide, 2:1 Slope	1.53	153
5b.	MAINT TRACK - Portion 5	12922+10	12923+00	90	31.7	33.2	1.5	1.0' wide, 2:1 Slope	6.07	546
Total:										699
6	MAINT TRACK - Portion 6									
6a.	MAINT TRACK - Portion 6	12923+10	12929+10	600	30.0	31.3	1.3	1.5' wide, 2:1 Slope	5.20	3,118
Total:										3,118
7	MAINT TRACK - Portion 7									
7a.	MAINT TRACK - Portion 7	12929+50	12932+00	250	25.4	26.7	1.3	1.5' wide, 2:1 Slope	5.26	1,316
7b.	MAINT TRACK - Portion 7	12932+10	12944+50	1240	23.7	25.1	1.5	1.5' wide, 2:1 Slope	6.45	8,002
7c.	MAINT TRACK - Portion 7	12944+60	12953+00	840	18.8	20.4	1.6	1.5' wide, 2:1 Slope	7.36	6,185
7d.	MAINT TRACK - Portion 7	12955+00	12962+00	700	18.0	19.5	1.5	1.5' wide, 2:1 Slope	6.75	4,725
Total:										20,228
8	MAINT TRACK - Portion 8									
8a.	MAINT TRACK - Portion 8	12964+00	12972+00	800	22.0	23.6	1.6	1.5' wide, 2:1 Slope	7.84	6,271
8b.	MAINT TRACK - Portion 8	12972+10	12978+00	590	24.0	25.6	1.6	1.5' wide, 2:1 Slope	7.76	4,578
8c.	MAINT TRACK - Portion 8	12978+10	12981+50	340	22.2	23.6	1.4	1.0' wide, 2:1 Slope	5.39	1,831
8d.	MAINT TRACK - Portion 8	12983+00	12986+00	300	21.5	23.0	1.5	1.5' wide, 2:1 Slope	6.75	2,025
8e.	MAINT TRACK - Portion 8	12986+10	12988+00	190	23.0	24.8	1.8	1.5' wide, 2:1 Slope	8.75	1,663
8f.	MAINT TRACK - Portion 8	12988+10	12995+00	690	25.0	26.4	1.4	1.5' wide, 2:1 Slope	5.74	3,960
8g.	MAINT TRACK - Portion 8	12995+10	12997+00	190	26.3	26.9	0.5	1.5' wide, 2:1 Slope	1.39	265
Total:										20,593
TOTAL MAIN TRACK STORAGE VOLUME PROVIDED										79,696
9	Port Seawall Siding (Existing low areas)									
9a.	Port Seawall Siding (Existing low areas)	13863+00	13868+00	500	varies	varies	varies	varies	4.00	2,000
TOTAL PORT SEAWALL STORAGE VOLUME PROVIDED										2,000
10	Salerno Team Track (Existing low areas)									
10a.	Salerno Team Track (Existing low areas)	13983+00	13989+00	600	varies	varies	varies	varies	2.00	1,200
TOTAL SALERNO TEAM TRACK STORAGE VOLUME PROVIDED										1,200
10	Florida Gunitite Track Extension									
10a.	Florida Gunitite Track Extension	14019+00	14034+50	1550	12.0	13.0	1.0	1.5' wide, 2:1 Slope	3.50	5,425
TOTAL FLORIDA GUNITITE TRACK STORAGE VOLUME PROVIDED										5,425
11	Camp Murphy Runaround Track North End									
11a.	Camp Murphy Runaround Track North End	14767+00	14769+00	200	5.0	6.7	1.7	2.0' wide, 2:1 Slope	9.27	1,854
11b.	Camp Murphy Runaround Track North End	14769+10	14775+00	590	3.0	4.5	1.5	2.0' wide, 2:1 Slope	7.50	4,425
TOTAL CAMP MURPHY RUNAROUND TRACK NORTH END STORAGE VOLUME PROVIDED										6,279
12	Riviera Beach Lead									
12a.	Riviera Beach Lead	15653+00	15655+00	200	15.0	16.2	1.2	1.5' wide, 2:1 Slope	4.37	874
12b.	Riviera Beach Lead	15656+20	15672+00	1580	15.0	16.1	1.1	1.5' wide, 2:1 Slope	3.78	5,972
12c.	Riviera Beach Lead	15672+10	15681+00	890	14.5	15.6	1.1	1.5' wide, 2:1 Slope	3.78	3,364
12d.	Riviera Beach Lead	15682+10	15684+00	190	14.0	15.5	1.5	1.5' wide, 2:1 Slope	6.90	1,311
TOTAL RIVIERA BEACH STORAGE VOLUME PROVIDED										11,522
13	Main Track									
13a.	Main Track	15697+00	15699+50	250	14.0	15.1	1.1	1.5' wide, 2:1 Slope	4.01	1,003
13b.	Main Track	15700+40	15712+00	1160	13.5	15.0	1.5	1.5' wide, 2:1 Slope	6.68	7,743
TOTAL MAIN TRACK STORAGE VOLUME PROVIDED										8,746

Note: Stations of swale block centerline

TABLE E-1: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

MAIN TRACK

TOTAL STORAGE PROVIDED) =	79,696 CU. FT 1.83 ACRE-FEET
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LENGTH OF TRACK=	12,655 FEET
WIDTH OF TRACK (TIE AND BALLAST AREA) =	14 FEET
DRAINAGE AREA =	4.07 ACRES

DRY DETENTION

- 1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE:
 A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES = 0.34 ACRE-FEET
 (Refer to Section 3.2 of the Report)
- 2) DISCHARGING TO O.F.W. = YES
 ADDITIONAL 50% VOLUME TO TREATMENT VOLUME = 0.17 ACRE-FEET

TOTAL WATER QUALITY REQUIRED VOLUME =	0.51 ACRE-FEET
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- 2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE FOR 25-YEAR/72-HR STORM EVENT:

A) PRE DEVELOPMENT PEAK DISCHARGE
 Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) =	89
S =	1.2
P(in) =	13
Q (in) =	11.6
A _m (mi ²)=	0.006
I _a =	0.247
I _a /P=	0.02
tc (hrs)=	0.3
q _u (csm/in)=	550
q _{Pre} (cfs)=	40.6
V _r (ft ³) =	171,649
V _r (ac-ft)=	3.94

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE
 Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) =	91
S =	1.0
P(in) =	13
Q (in) =	11.9
A _m (mi ²)=	0.006
I _a =	0.198
I _a /P=	0.02
tc (hrs)=	0.2
q _u (csm/in)=	625
q _{Post} (cfs)=	47.2
V _r (ft ³) =	175,459
V _r (ac-ft)=	4.03

B)CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

$$q_{pre}/q_{post} = 0.861$$

$$V_g/V_r = 0.175$$

WATER QUANTITY REQUIRED VOLUME V _s =	0.70 ACRE-FEET
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TABLE E-2: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

PORT SEAWALL SIDING

TOTAL STORAGE PROVIDED) =	2,000 CU. FT 0.05 ACRE-FEET
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LENGTH OF TRACK=	500 FEET
WIDTH OF TRACK (TIE AND BALLAST AREA) =	14 FEET
DRAINAGE AREA =	0.16 ACRES

DRY DETENTION

1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE THE LARGER QUANTITY BETWEEN:

A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES =	0.01 ACRE-FEET
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(Refer to Section 3.2 of the Report)

TOTAL WATER QUALITY REQUIRED VOLUME =	0.01 ACRE-FEET
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2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE:

A) PRE DEVELOPMENT PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) =	89
S =	1.2
P(in) =	13
Q (in) =	11.6
A _m (mi ²)=	0.0003
I _a =	0.247
I _a /P=	0.02
tc (hrs)=	0.3
q _u (csm/in)=	550
q _{pre} (cfs)=	1.6
V _r (ft ³) =	6,782
V _r (ac-ft)=	0.16

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) =	91
S =	1.0
P(in) =	13
Q (in) =	11.9
A _m (mi ²)=	0.0003
I _a =	0.198
I _a /P=	0.02
tc (hrs)=	0.2
q _u (csm/in)=	625
q _{post} (cfs)=	1.9
V _r (ft ³) =	6,932
V _r (ac-ft)=	0.16

B)CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

q _{pre} /q _{post} =	0.861
V _s /V _r =	0.175

WATER QUANTITY REQUIRED VOLUME V_s =	0.03 ACRE-FEET
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TABLE E-3: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

SALERNO TEAM TRACK

TOTAL STORAGE PROVIDED) =	1,200 CU. FT 0.03 ACRE-FEET
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LENGTH OF TRACK=	600 FEET
WIDTH OF TRACK (TIE AND BALLAST AREA) =	14 FEET
DRAINAGE AREA =	0.19 ACRES

DRY DETENTION

1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE THE LARGER QUANTITY BETWEEN:

A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES = 0.02 ACRE-FEET
(Refer to Section 3.2 of the Report)

TOTAL WATER QUALITY REQUIRED VOLUME =	0.02 ACRE-FEET
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2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE:

A) PRE DEVELOPMENT PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) =	89
S =	1.2
P(in) =	13
Q (in) =	11.6
A _m (mi ²)=	0.0003
I _a =	0.247
I _a /P=	0.02
tc (hrs)=	0.3
q _u (csm/in)=	550
q _{Pre} (cfs)=	1.9
V _r (ft ³) =	8,138
V _r (ac-ft)=	0.19

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) =	91
S =	1.0
P(in) =	13
Q (in) =	11.9
A _m (mi ²)=	0.0003
I _a =	0.198
I _a /P=	0.02
tc (hrs)=	0.2
q _u (csm/in)=	625
q _{Post} (cfs)=	2.2
V _r (ft ³) =	8,319
V _r (ac-ft)=	0.19

B) CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

q _{pre} /q _{post} =	0.861
V _s /V _r =	0.175

WATER QUANTITY REQUIRED VOLUME V_s =	0.03 ACRE-FEET
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TABLE E-4: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

FLORIDA GUNITE TRACK EXTENSION

TOTAL STORAGE PROVIDED) =	5,425 CU. FT 0.12 ACRE-FEET
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LENGTH OF TRACK= 1,450 FEET
 WIDTH OF TRACK (TIE AND BALLAST AREA) = 14 FEET
 DRAINAGE AREA = 0.47 ACRES

DRY DETENTION

1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE THE LARGER QUANTITY BETWEEN:

A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES = 0.04 ACRE-FEET
 (Refer to Section 3.2 of the Report)

TOTAL WATER QUALITY REQUIRED VOLUME =	0.04 ACRE-FEET
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2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE:

A) PRE DEVELOPMENT PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) = 89
 S = 1.2
 P(in) = 13
 Q (in) = 11.6
 A_m (mi²)= 0.001
 I_a= 0.247
 I_a/P= 0.02
 tc (hrs)= 0.3
 q_u (csm/in)= 550
 q_{pre} (cfs)= 4.7
 V_r (ft³) = 19,667
 V_r (ac-ft)= 0.45

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) = 91
 S = 1.0
 P(in) = 13
 Q (in) = 11.9
 A_m (mi²)= 0.001
 I_a= 0.198
 I_a/P= 0.02
 tc (hrs)= 0.2
 q_u (csm/in)= 625
 q_{post} (cfs)= 5.4
 V_r (ft³) = 20,104
 V_r (ac-ft)= 0.46

B)CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

q_{pre}/q_{post} = 0.861
 V_s/V_r = 0.175

WATER QUANTITY REQUIRED VOLUME V_s =	0.08 ACRE-FEET
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TABLE E-5: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

CAMP MURPHY RUNAROUND TRACK NORTH END

TOTAL STORAGE PROVIDED) =	6,279 CU. FT 0.14 ACRE-FEET
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LENGTH OF TRACK= 800 FEET
 WIDTH OF TRACK (TIE AND BALLAST AREA) = 14 FEET
 DRAINAGE AREA = 0.26 ACRES

DRY DETENTION

1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE THE LARGER QUANTITY BETWEEN:

A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES = 0.02 ACRE-FEET
 (Refer to Section 3.2 of the Report)

TOTAL WATER QUALITY REQUIRED VOLUME =	0.02 ACRE-FEET
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2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE:

A) PRE DEVELOPMENT PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) = 89
 S = 1.2
 P(in) = 13
 Q (in) = 11.6
 A_m (mi²)= 0.0004
 I_a= 0.247
 I_a/P= 0.02
 tc (hrs)= 0.3
 q_u (csm/in)= 550
 q_{pre} (cfs)= 2.6
 V_r (ft³) = 10,851
 V_r (ac-ft)= 0.25

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) = 91
 S = 1.0
 P(in) = 13
 Q (in) = 11.9
 A_m (mi²)= 0.0004
 I_a= 0.198
 I_a/P= 0.02
 tc (hrs)= 0.2
 q_u (csm/in)= 625
 q_{post} (cfs)= 3.0
 V_r (ft³) = 11,092
 V_r (ac-ft)= 0.25

B) CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

q_{pre}/q_{post} = 0.861
 V_s/V_r = 0.175

WATER QUANTITY REQUIRED VOLUME V _s =	0.04 ACRE-FEET
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TABLE E-6: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

RIVIERA BEACH LEAD

TOTAL STORAGE PROVIDED) =	11,522 CU. FT 0.26 ACRE-FEET
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LENGTH OF TRACK=	3,200 FEET
WIDTH OF TRACK (TIE AND BALLAST AREA) =	14 FEET
DRAINAGE AREA =	1.03 ACRES

DRY DETENTION

1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE THE LARGER QUANTITY BETWEEN:

A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES = 0.09 ACRE-FEET
(Refer to Section 3.2 of the Report)

TOTAL WATER QUALITY REQUIRED VOLUME =	0.09 ACRE-FEET
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2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE:

A) PRE DEVELOPMENT PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) =	89
S =	1.2
P(in) =	13
Q (in) =	11.6
A _m (mi ²)=	0.002
I _a =	0.247
I _a /P=	0.02
tc (hrs)=	0.3
q _u (csm/in)=	550
q _{pre} (cfs)=	10.3
V _r (ft ³) =	43,404
V _r (ac-ft)=	1.00

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) =	91
S =	1.0
P(in) =	13
Q (in) =	11.9
A _m (mi ²)=	0.002
I _a =	0.198
I _a /P=	0.02
tc (hrs)=	0.2
q _u (csm/in)=	625
q _{post} (cfs)=	11.9
V _r (ft ³) =	44,367
V _r (ac-ft)=	1.02

B)CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

q _{pre} /q _{post} =	0.861
V _s /V _r =	0.175

WATER QUANTITY REQUIRED VOLUME V _s =	0.18 ACRE-FEET
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TABLE E-7: DRY DETENTION VOLUME FOR SWALE ADJACENT TO TRACK 3

MAIN TRACK

TOTAL STORAGE PROVIDED) =	8,746 CU. FT. 0.20 ACRE-FEET
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LENGTH OF TRACK= 1,500 FEET
 WIDTH OF TRACK (TIE AND BALLAST AREA) = 14 FEET
 DRAINAGE AREA = 0.48 ACRES

DRY DETENTION

1) WATER QUALITY TREATMENT VOLUME REQUIREMENT SHALL BE THE LARGER QUANTITY BETWEEN:

A) VOLUME OF 1 INCH OF RAINFALL OVER THE DRAINAGE AREA IN ACRES = 0.04 ACRE-FEET
 (Refer to Section 3.2 of the Report)

TOTAL WATER QUALITY REQUIRED VOLUME =	0.04 ACRE-FEET
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2) WATER QUANTITY REQUIREMENT THAT POST DEVELOPMENT PEAK DISCHARGE TO BE EQUAL OR LESS THAN PRE DEVELOPMENT PEAK DISCHARGE:

A) PRE DEVELOPMENT PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Dirt - Type D soils) = 89
 S = 1.2
 P(in) = 13
 Q (in) = 11.6
 A_m (mi²)= 0.0008
 I_a= 0.247
 I_a/P= 0.02
 tc (hrs)= 0.3
 q_u (csm/in)= 550
 q_{pre} (cfs)= 4.8
 V_r (ft³) = 20,346
 V_r (ac-ft)= 0.47

B) POST DEVELOPMENT RUNOFF PEAK DISCHARGE

Type D Soils for worse case scenario

CN (St. and Rd.-Gravel-Type D soils) = 91
 S = 1.0
 P(in) = 13
 Q (in) = 11.9
 A_m (mi²)= 0.0008
 I_a= 0.198
 I_a/P= 0.02
 tc (hrs)= 0.2
 q_u (csm/in)= 625
 q_{post} (cfs)= 5.6
 V_r (ft³) = 20,797
 V_r (ac-ft)= 0.48

B)CALCULATING STORAGE VOLUME REQUIRED TO ATTENUATE PEAK DISCHARGE

q_{pre}/q_{post} = 0.861
 V_s/V_r = 0.175

WATER QUANTITY REQUIRED VOLUME V_s =	0.08 ACRE-FEET
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All Aboard Florida North-South Rail Corridor Segment D09

ERP App. No. 150922-3

**Exhibit 2.4 – Erosion and Sediment Control Plans
(Pages 1 - 249)**

THIS EXHIBIT IS INCORPORATED BY REFERENCE AND CAN BE VIEWED ON THE DISTRICT'S EPERMITTING WEBSITE UNDER THIS APPLICATION NUMBER.

**All Aboard Florida North-South Rail Corridor
Segment D09**

ERP App. No. 150922-3

**Exhibit 2.5 – Track Cross-Sections
(Pages 1 - 587)**

***THIS EXHIBIT IS INCORPORATED BY REFERENCE AND CAN BE
VIEWED ON THE DISTRICT'S EPERMITTING WEBSITE UNDER THIS
APPLICATION NUMBER.***

**All Aboard Florida North-South Rail Corridor
Segment D09**

ERP App. No. 150922-3

**Exhibit 3.1 – Ecological Evaluation Report
(Pages 1 - 560)**

***THIS EXHIBIT IS INCORPORATED BY REFERENCE AND CAN BE
VIEWED ON THE DISTRICT'S EPERMITTING WEBSITE UNDER THIS
APPLICATION NUMBER.***