

SOUTH FLORIDA
**FREIGHT &
PASSENGER**



• RAIL ENHANCEMENT PROJECT

Phase 2 · New Northwood Connection

Drainage Technical
Memorandum - FINAL
November 2013



U.S. Department of Transportation
Federal Railroad Administration



TO:	File
FROM:	Clint Smith
DATE:	11/04/2013
SUBJECT:	Drainage Analysis for the South Florida Freight and Passenger Rail Enhancement Study

Executive Summary

After review of available project data, permit documents and coordination with the South Florida Water Management District (SFWMD), it does not seem that phase 1A, 1B or 2 of the above-referenced study will require additional ROW in order to comply with governing regulatory stormwater requirements. Phase 1A qualifies for a permit exemption while Phase 1B and 2 will include some minor permitting activities. The latter two phases will also require stormwater treatment where sufficient surface area exists within the available ROW footprint.

Project Description

The South Florida Freight and Passenger Rail Enhancement Study is focused on improving mobility between the FEC and SFRC Rail Lines. It consists of three projects: Northwood Connection Phase 1A, NE Iris Connection Phase 1B, and Northwood Connection Phase 2. Northwood Connection Phase 1A involves the rehabilitation of the existing single track Northwood Connection on the existing alignment. The existing track infrastructure on the Northwood Connection is in poor condition and in a state of disuse, limiting freight mobility. This connection will facilitate direct connections from the SFRC (northbound and southbound) to FEC Railway (southbound only). The IRIS NE Connection Phase 1B involves the construction of a single track connection within the existing FDOT right-of-way in order to provide an additional connection between the FEC Railway to the SFRC. Northwood Connection Phase 2 involves the construction of an additional single track connecting northbound FEC Railway to the southbound SFRC. Phase 2 will allow both northbound and southbound freight to move efficiently between the FEC and SFRC lines at the Northwood location.

Existing Conditions

The existing conditions of the two project areas are summarized below. In addition refer to the attached appendix for a collection of map exhibits that contain information regarding project location, soils, flood zones, regulatory basins, drainage basins, and quad maps.

Iris Connection

This project site is located on an existing industrial facility. The site is located within FEMA flood zone X, which is defined as "Areas determined to be outside 500-year floodplain, determined to be outside the 1% and 0.2% annual chance floodplains." Review of NRCS soil data reveals that the soils of the project area are classified as urban land. The urban land classification does not include a classification of hydrologic soil group or percolation properties. However, permit documents of past rail projects performed adjacent to the project area reveal that the site exhibits soils with high percolation properties.

Northwood Connection

The Northwood site is also located adjacent to industrial properties. The Northwood Connection sits primarily within Flood zone X but the western portion of the project that connects to the South Florida Rail Corridor is within zone X500. X500 is defined as "Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. An area inundated by 0.2% annual chance flooding". Soils at this location are classified under Hydrologic soil groups A and A/D although there is a region of soil present that is defined as urban land. Permitted design data was found adjacent to this project area also that included geotechnical data confirming that the soils have high permeability.

Design Criteria

The South Florida Water Management District is the primary regulatory agency regarding stormwater for these two projects. Neither project site was found to be within the boundaries of any special drainage district or water control district. SFWMD water quality treatment requirements for dry retention are to percolate the greater volume between 0.5 inch over the total area or 1.25 inches over the impervious area. Projects located within a nutrient impaired basin (aka WBID) will need to perform a nutrient loading analysis to demonstrate that post development nutrient discharge does not exceed pre development levels.

Iris Connection

The Iris site is located within basins C-6 and C-7 as identified by SFWMD. The discharge criteria for both of these basins are essentially unlimited. The allowable discharge for these two basins as stated by SFWMD is "Essentially unlimited flow by gravity connections..." The project is also located within WBIDS 3287 "C-7/Little River" and 3290 "C-6/Miami Canal". Neither of these WBIDS exhibit nutrient-related impairments.

Northwood Connection

The western portion of this project site is located within SFWMD basin C-17 and WBID 3242 "C-17". The discharge requirement for Basin C-17 is not to exceed 62.7 CFS per square mile for the 3 day, 25 year storm event. The eastern part of the project is found within the Intracoastal Basin as identified by SFWMD as well as WBID 3226E "ICCW Above Royal Palm Bridge". WBID 3242 has been classified as nutrient-impaired and therefore would typically require a nutrient loading analysis for new development. WBID 3226E does not contain a nutrient related impairment. The discharge criteria of the Intracoastal Basin are to limit peak discharge from the 3 day, 25 year storm event to be at or below predevelopment levels.

Permit History

There are two primary approved permits granted by SFWMD to recent rail projects which set firm precedents that help to determine the permitting approach of the proposed TIGER grant projects discussed in this memo.

All Aboard Florida Intercity Passenger Rail Project (SFWMD Perm No 50-10364-P; App No 130809-4)

This project involved constructing a rail line on top of an abandoned rail bed for a project length of 134 miles that extends from West Palm Beach to Cocoa. The existing rail bed within the FEC corridor was never removed, but simply had portions of the track abandoned or removed. A permit exemption was granted from SFWMD due to the fact that construction was over an existing rail bed and no additional rail lines were being constructed. The exemption letter from SFWMD for this project is included in the appendix. This project received permit approval on 10/10/2013.

Central Florida Commuter Rail Transit Phase 2 South (SFWMD Perm No 49-02300-P; App No 130404-2)

This project included proposed additional rail lines and therefore was required to provide stormwater treatment and attenuation. The stormwater treatment plan negotiated for this permit was to only provide facilities where there was enough existing ROW to construct, access, and maintain the stormwater facilities along with the rail lines. This project received approval on 6/24/13.

SFWMD Coordination

A conference call was conducted on 10/24/2013 including representatives from the consultant design team, SFWMD and FDOT staff to discuss environmental permit requirements for the proposed project phases. Refer to the meeting minutes included in the appendix of this technical memorandum. The resulting understandings and agreements from the SFWMD coordination are incorporated into the proposed drainage recommendations below.

Proposed Drainage Recommendations

Drainage collection ditches will be needed on both sides of the rail bed for all phases in order to convey stormwater runoff. It does not appear that the proposed designs will result in major obstructions for existing drainage ways or offsite basins. Any contributing offsite drainage areas to the project should be able to be managed without the need for additional ROW. A detailed analysis including survey data is required in order to develop a drainage layout that will convey stormwater runoff to historical discharge points without causing adverse flooding impacts to adjacent properties.

Northwood Connection Phase 1A

This phase of the project will qualify for an exemption from SFWMD permitting requirements because all activities involve rehabilitation to the existing rail bed. This follows the precedent set by the recently granted permit exemption for the All Aboard Florida project.

Iris Connection Phase 1B and Northwood Connection Phase 2

These design phases share two main properties: they both include construction of new rail lines and are proposed to be constructed on existing industrial property that is highly impervious. Basin areas, curve numbers, and runoff volumes were calculated for these two phases under both predevelopment and post development conditions. The analysis assumed the rail bed and ballast to be pervious, but to exhibit a high CN value of 89. This CN value for the rail bed was successfully used on the CFCRT project discussed above as well as in permitted calculations from the older Tri-Rail Double Tracking projects. The results of this analysis show a net reduction in impervious area and runoff volume for both Phase 1B and 2 (drainage analysis included in appendix). In spite of these reductions, SFWMD holds the stance that additional rail track lines require additional stormwater treatment.

It is recommended to meet stormwater treatment requirements with linear retention swales oriented parallel to the track. French drain systems may be necessary to meet treatment requirements in areas whose soils do not exhibit sufficient percolation properties.

SFWMD has indicated that they simply request that treatment requirements be met where there is available ROW to construct stormwater management facilities. SFWMD will also consider over-treatment in certain areas as compensation for project segments that do not exhibit sufficient surface area for stormwater treatment systems. Based off on these understandings, additional ROW should not be required any of the project phases.

Both Phase 1B and Phase 2 would qualify for a 10-2 Self Certification as defined by FDEP. Under this process, the design engineer of record must submit an electronic package certifying that the system has been designed by a registered Florida Professional Engineer and meets permit requirements for treatment and attenuation. Refer to the attached meeting minutes for more information regarding the 10-2 Self Certification process.

It has been identified that a portion of Phase 2 Northwood extends over a historic site potentially including buried archeological artifacts. Regulations require minimal excavation and proposed grading in this area which means that this portion of the project will not receive treatment. An overtreatment approach will be used to demonstrate adequate compensatory treatment for the untreated portion of Phase 2 Northwood.

Summary

Collection swales lining the proposed rail improvements will be sufficient to manage stormwater runoff within the project corridor without the need for additional ROW. Phase 1A qualifies for an exemption from stormwater treatment requirements and permitting. Phase 1B and 2 will require stormwater treatment recommended in the form of linear retention facilities within the available ROW footprint. Both of these phases qualify to be permitted under FDEP's 10-2 Self Certification process. SFWMD has also indicated that the level of treatment required will not be such that additional ROW will need to be acquired.

Should you have any questions, comments, or concerns regarding the contents of this memo, please do not hesitate to contact me.

Sincerely,



Clint Smith PE CFM

Associate Project Manager

Bowen Civil Engineering, Inc.

Now a part of

Hanson Professional Services Inc.

ccsmith@hanson-inc.com

Attachments:

Appendix

Project Location Map

Quad Maps

FEMA Maps

Soils Maps

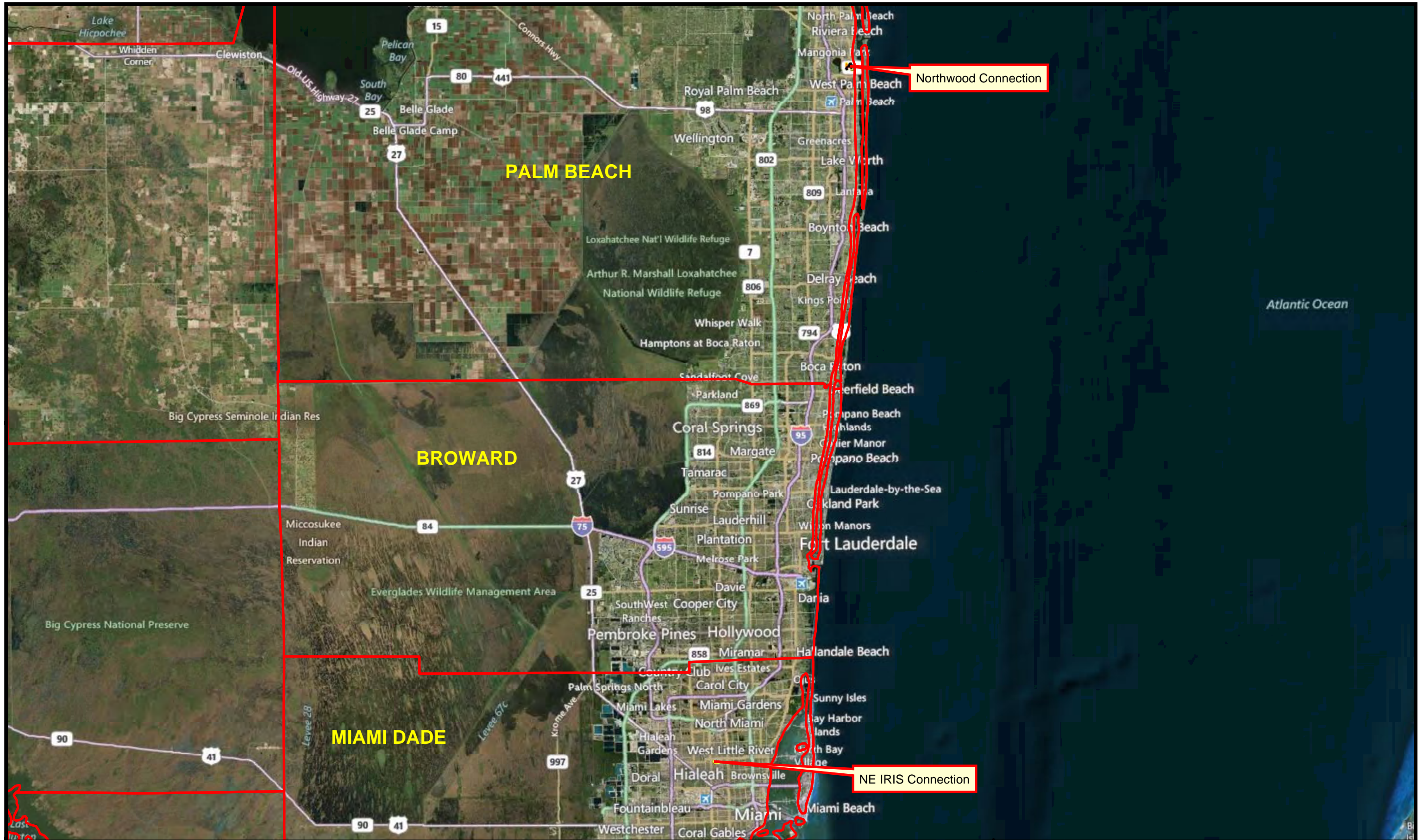
Regulatory Basin Maps

Existing and Proposed Drainage Maps

Drainage Analysis Calculations

All Aboard Florida Permit Extension from SFWMD

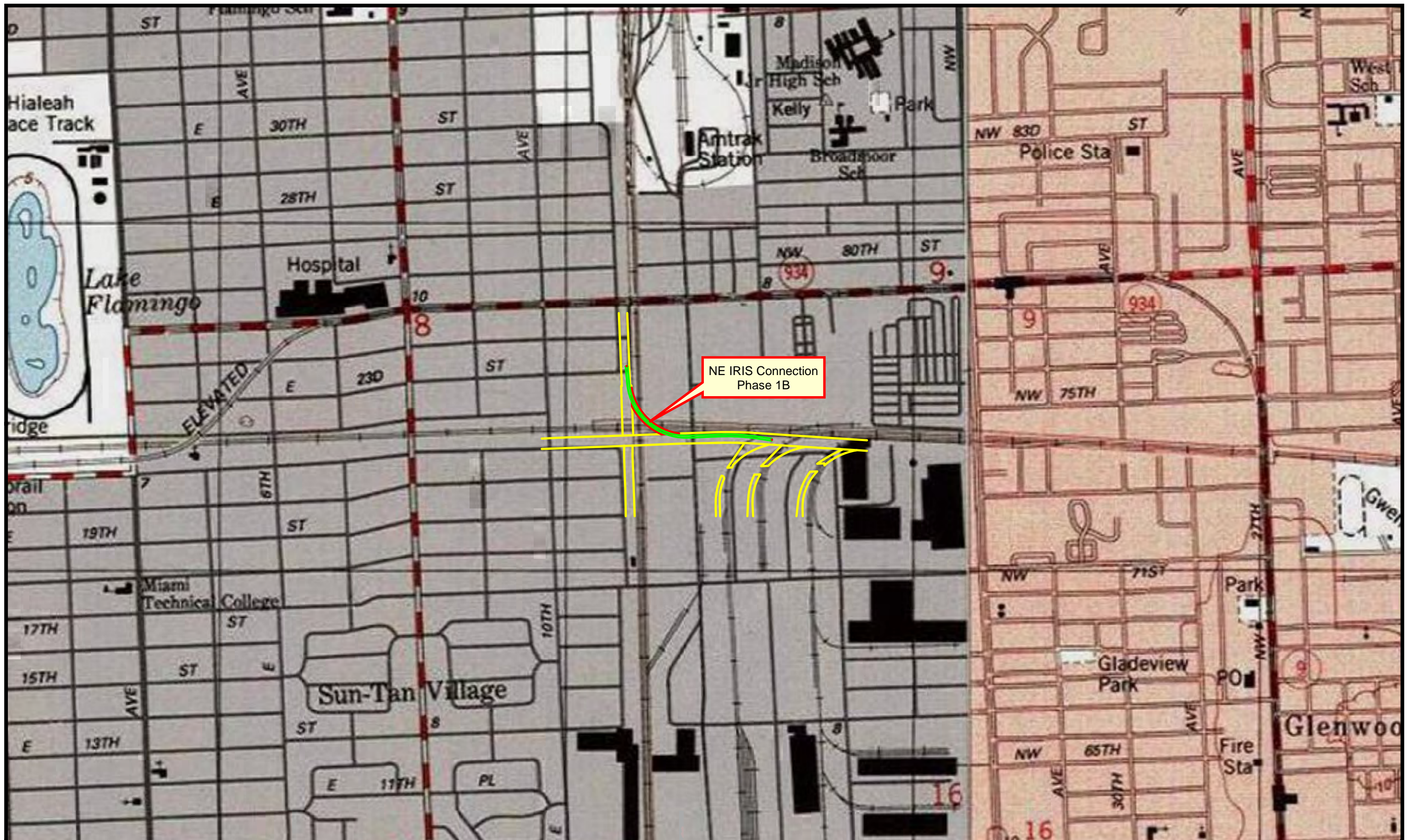
Meeting Minutes from SFWMD Coordination Teleconference



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 P.E. LICENSE NUMBER 67711
 HANSON PROFESSIONAL SERVICES INC.
 8075 GATE PARKWAY WEST, SUITE 204
 JACKSONVILLE, FLORIDA 32216-3685
 CERTIFICATION OF AUTHORIZATION 00007961

FEC AND SFRC CONNECTIONS

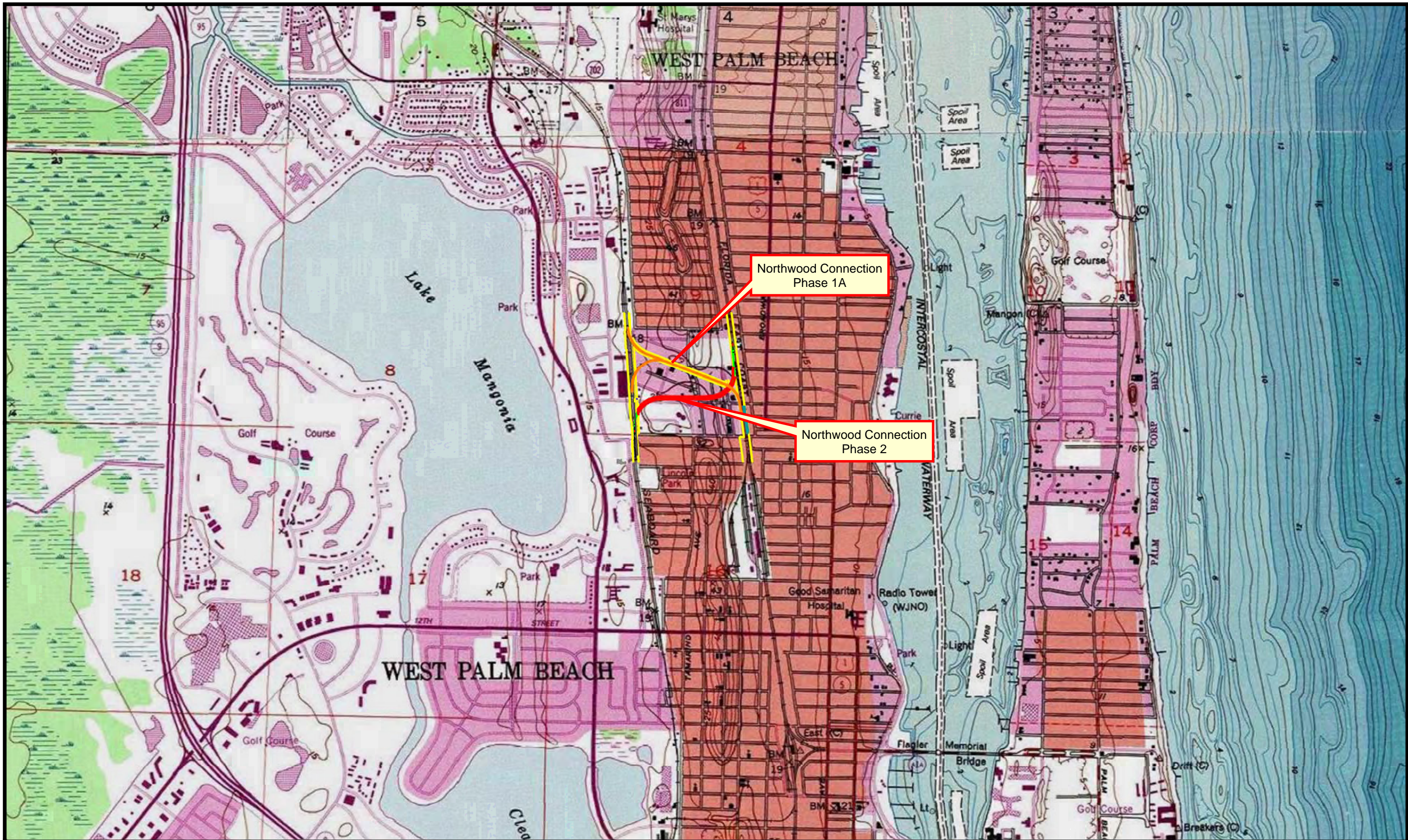
NE IRIS & Northwood Connections
 Location Map



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FEC AND SFRC CONNECTIONS

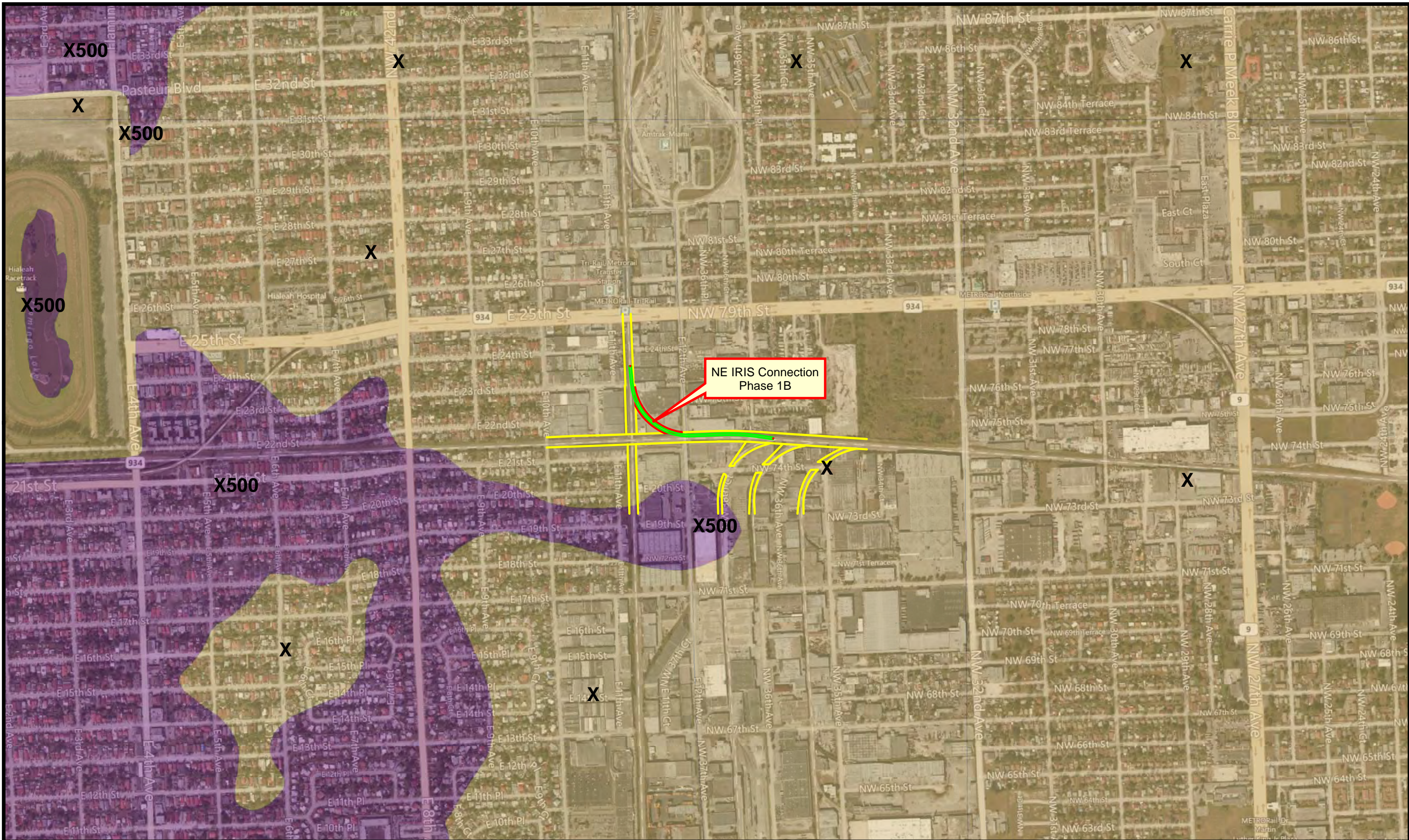
NE IRIS Connection
 Quad Map



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FEC AND SFRC CONNECTIONS

Northwood Connection
 Quad Map

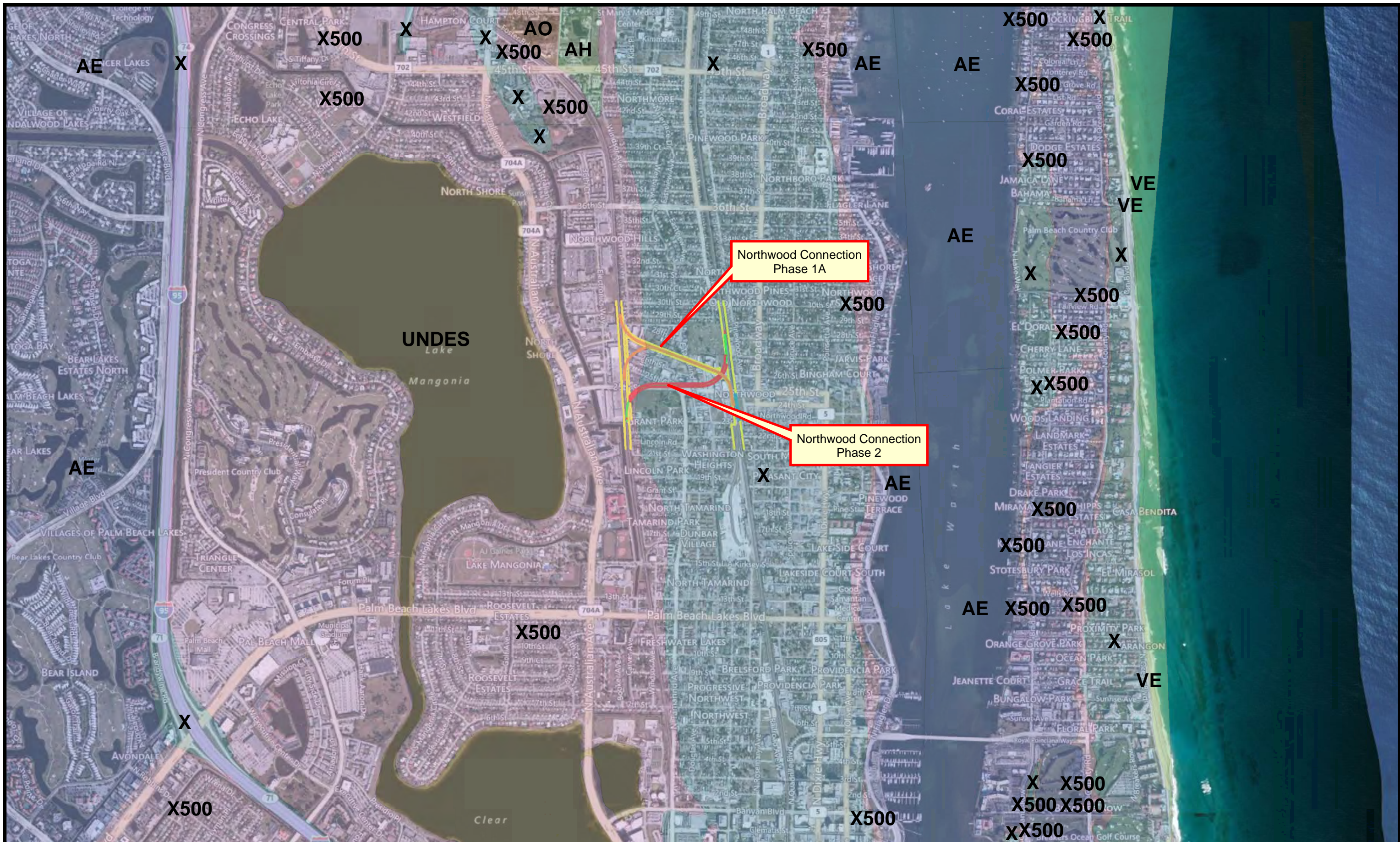


NE IRIS Connection
Phase 1B

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FEC AND SFRC CONNECTIONS

NE IRIS Connection
FEMA Map



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FEC AND SFRC CONNECTIONS

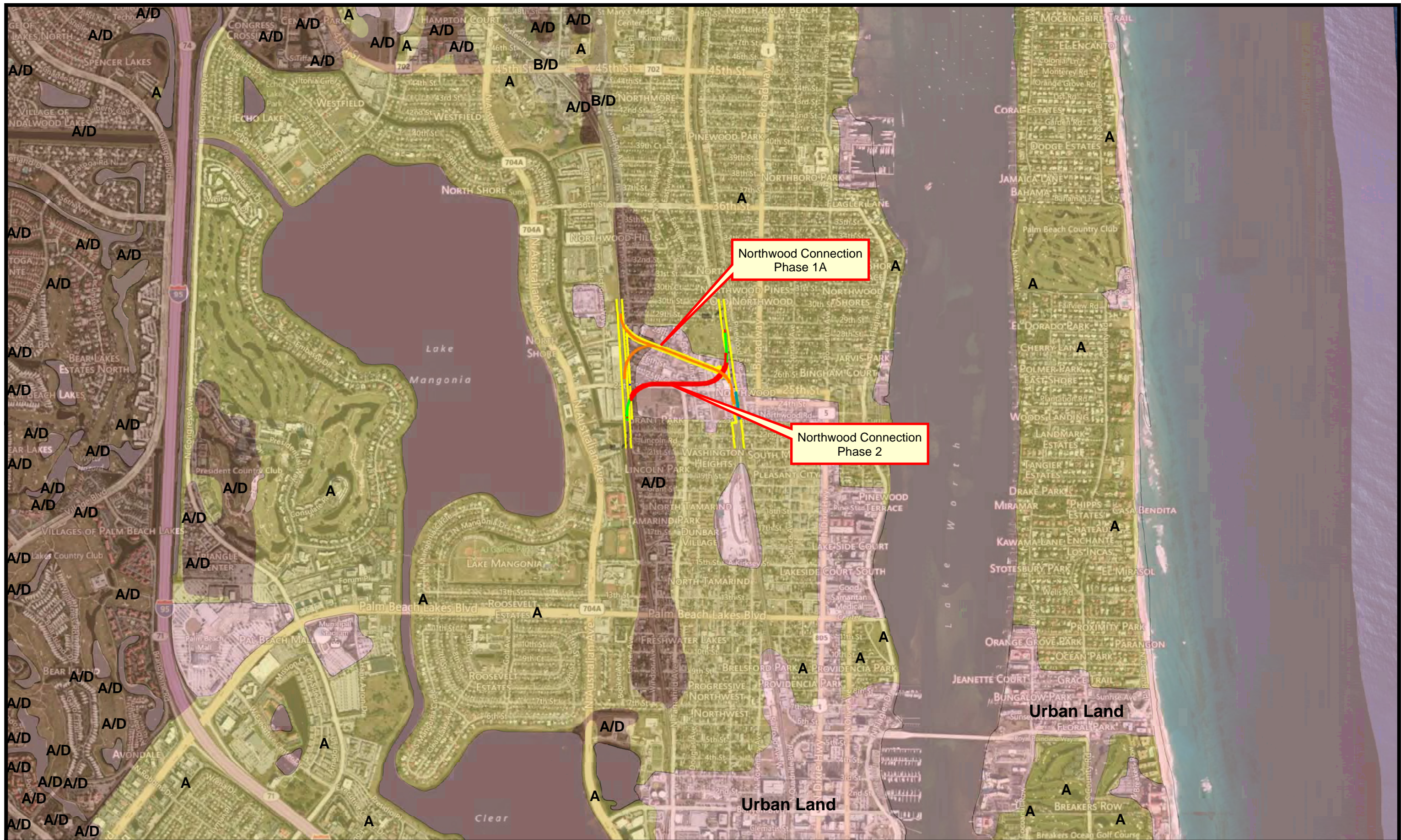
Northwood Connection
 FEMA Map



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FEC AND SFRC CONNECTIONS

**NE IRIS Connection
 Soils Map**



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FEC AND SFRC CONNECTIONS

**Northwood Connection
 Soils Map**



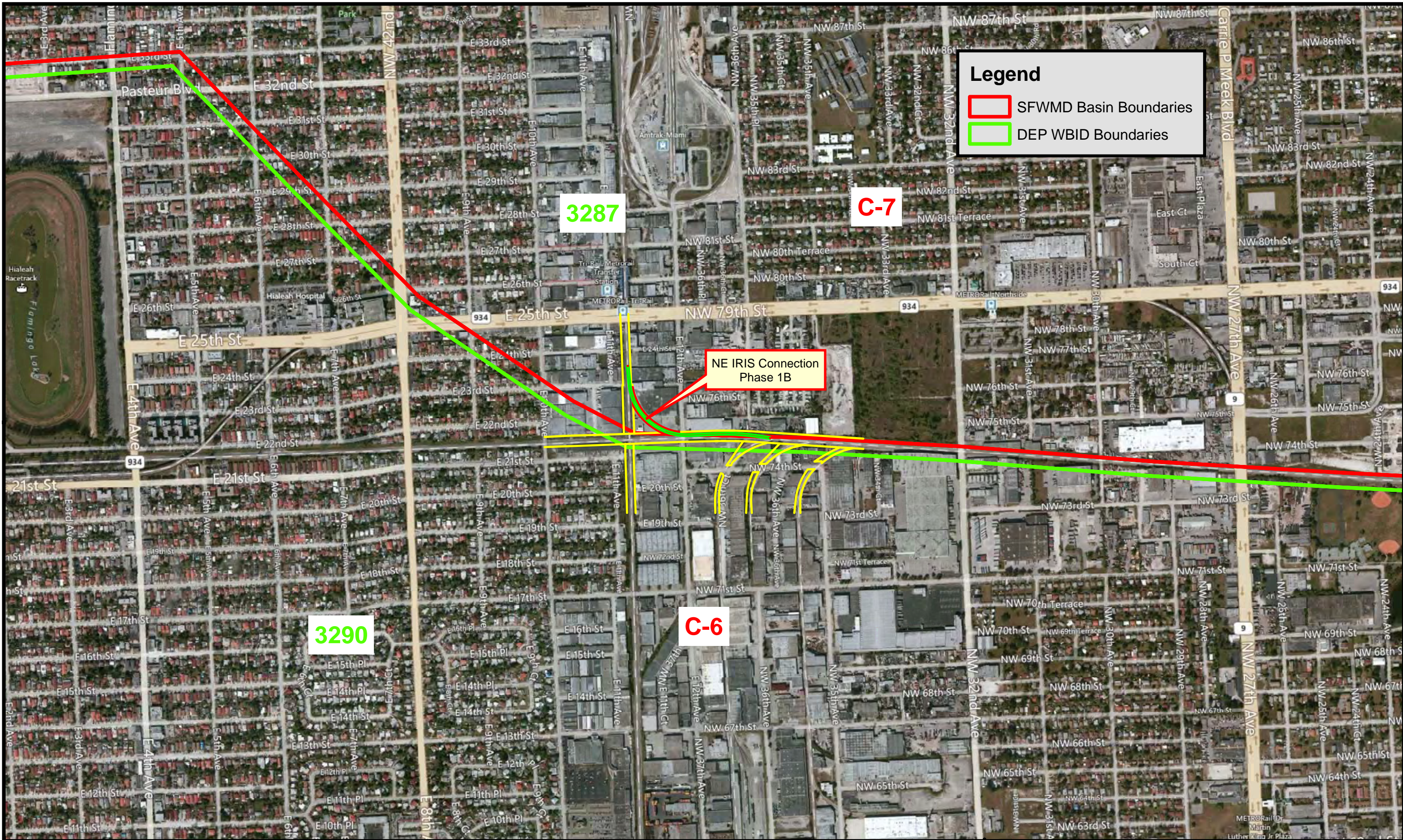
Legend

- SFWMD Basin Boundaries
- DEP WBID Boundaries

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FEC AND SFRC CONNECTIONS

**Northwood Connection
 Regulatory Basin Map**



Legend

- SFWMD Basin Boundaries
- DEP WBID Boundaries

NE IRIS Connection
Phase 1B

3287

C-7

3290

C-6

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FEC AND SFRC CONNECTIONS

**NE IRIS Connection
Regulatory Basin Map**



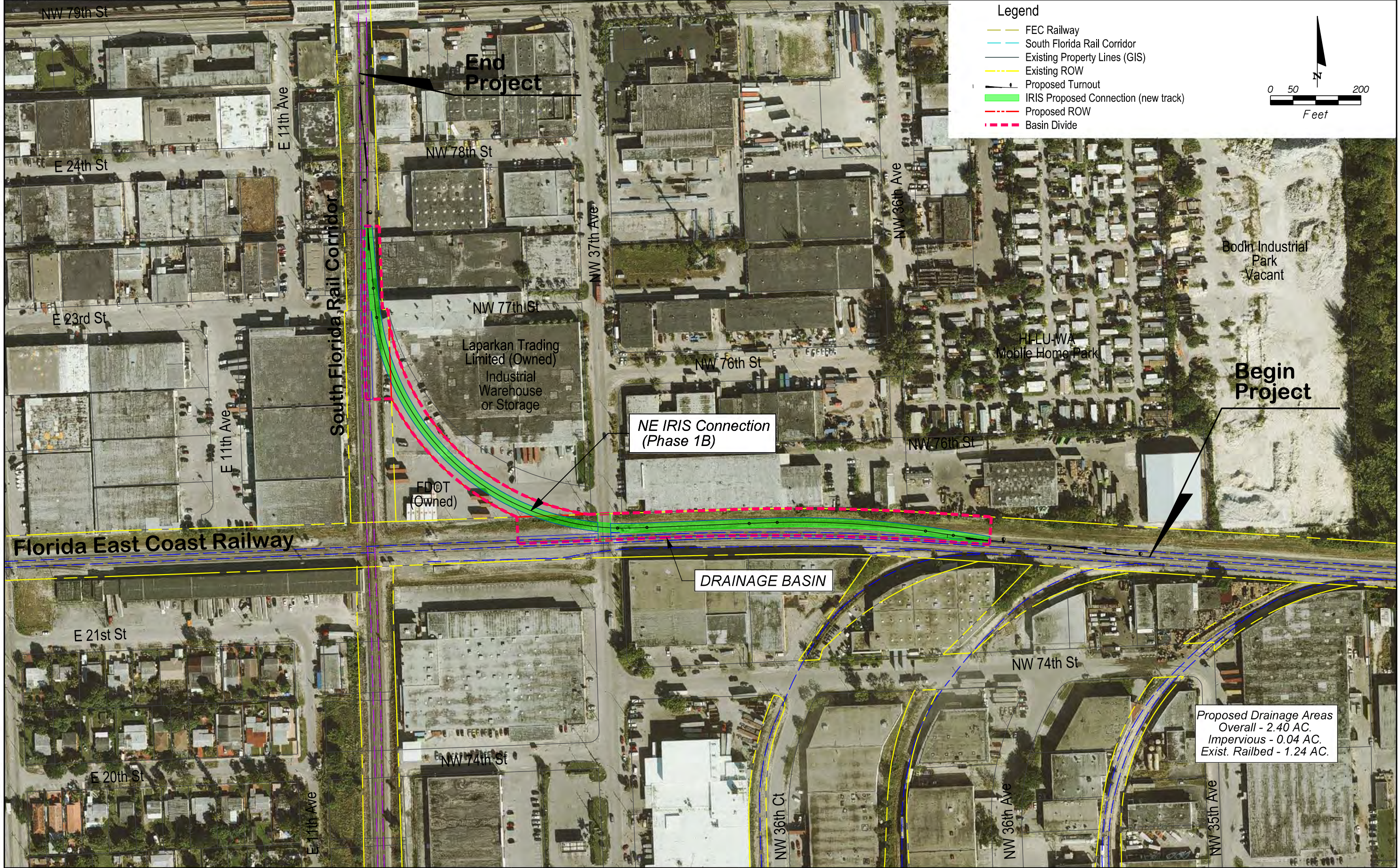
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DATE	DESCRIPTION
October 01, 2013	
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MIAMI-DADE	417031-3-22-01

FEC / SFRC Connections
NE IRIS Connection - PHASE 1B
Existing Drainage Map

SHEET NO.



Proposed Drainage Areas
 Overall - 2.40 AC.
 Impervious - 0.04 AC.
 Exist. Railbed - 1.24 AC.

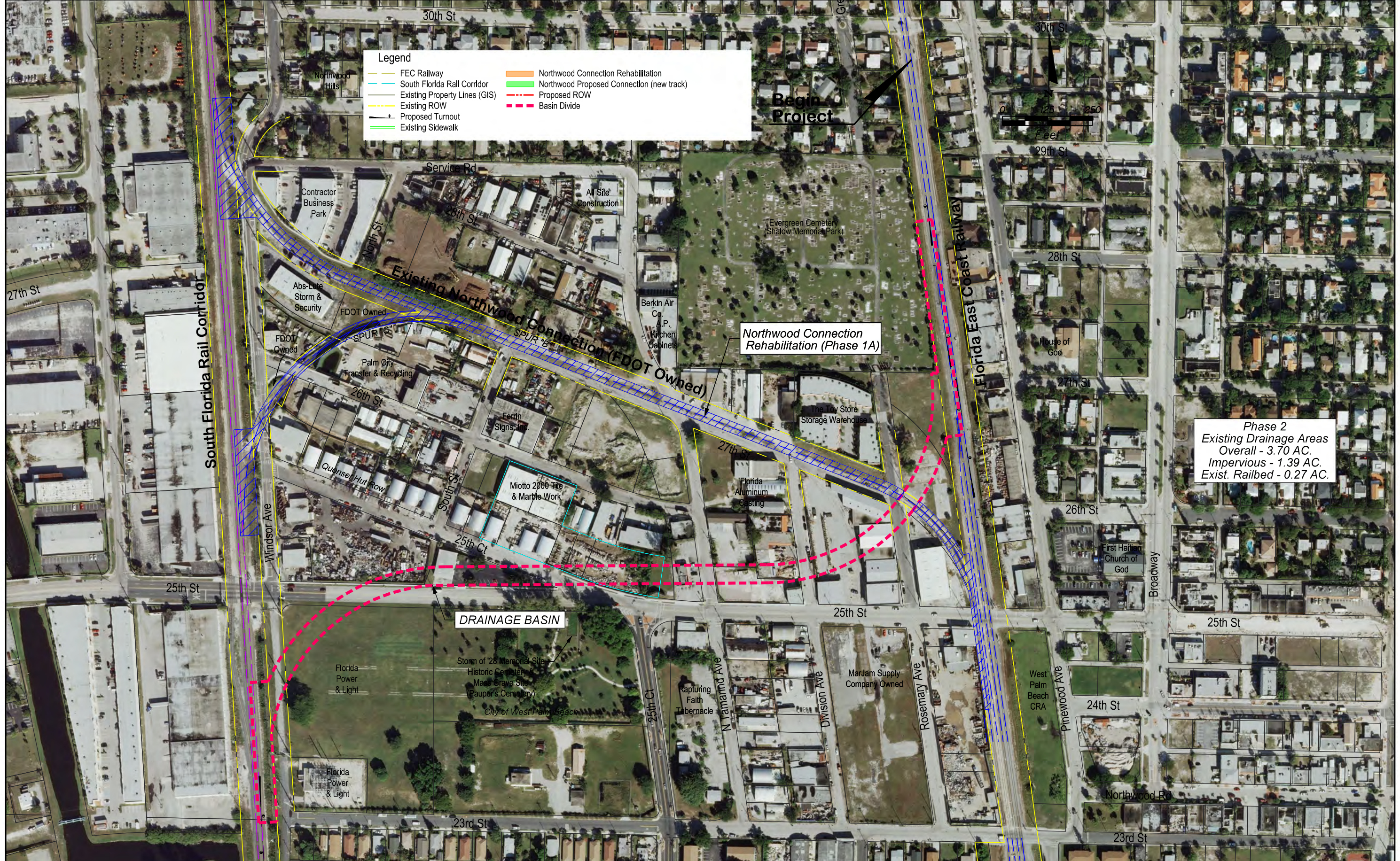
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		October 01, 2013	
		DRAFT	

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MIAMI-DADE	417031-3-22-01

FEC / SFRC Connections
NE IRIS Connection - PHASE 1B
Proposed Drainage Map

SHEET NO.



Legend

- FEC Railway
- South Florida Rail Corridor
- Existing Property Lines (GIS)
- Existing ROW
- Proposed Turnout
- Existing Sidewalk
- Northwood Connection Rehabilitation
- Northwood Proposed Connection (new track)
- - - Proposed ROW
- - - Basin Divide

Phase 2
Existing Drainage Areas
Overall - 3.70 AC.
Impervious - 1.39 AC.
Exist. Railbed - 0.27 AC.

DRAINAGE BASIN

REVISIONS	
DATE	DESCRIPTION
October 01, 2013	
DRAFT	

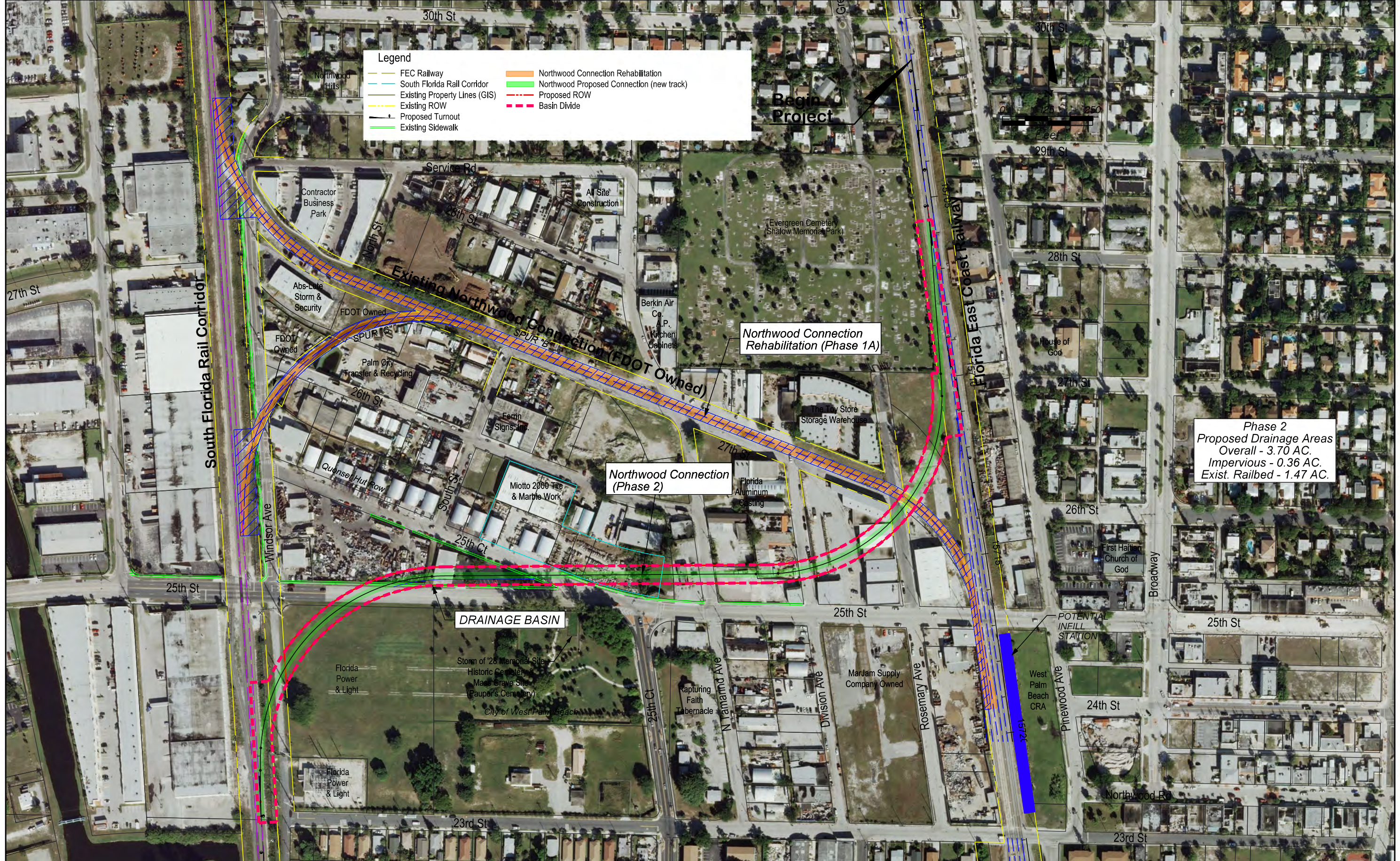
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CERTIFICATE OF AUTHORIZATION 00007961

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	PALM BEACH	417031-3-22-01

FEC / SFRC Connections
Northwood Connection - Phase 1A and 2
Existing Drainage Map

SHEET NO.

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



REVISIONS	
DATE	DESCRIPTION
October 01, 2013	DRAFT

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	PALM BEACH	417031-3-22-01

FEC / SFRC Connections
 Northwood Connection - Phase 1A and 2
 Proposed Drainage Map

SHEET NO.

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South Florida Freight and Passenger Rail Enhancement Study

Comp. By: CCS
 Date: 10/18/2013
 Checked By: CFB
 FPID: 426905-3-32-01

Drainage Analysis: Curve Number Calculations

IRIS Existing

Total Roadway Area (ac): 2.40
 Roadway Pervious Area (ac): 1.72
 Roadway Impervious Area (ac): 0.68
 Pond Site Area (ac): 0.00

Land Use Description	CN	Imperv %	Area	CN*A	IMP Area
Open, Good, B	60	0%	1.24	74.40	0.00
Impervious	98	100%	0.68	66.64	0.68
Rail Bed (assumed as Dirt, Type D)	89	0%	0.48	42.72	0.00
Total Area:			2.40	183.76	0.68
Post Composite Curve Number:				76.6	
Post Total Impervious:					0.68

IRIS Proposed

Total Area (ac): 2.40
 Roadway Pervious Area (ac): 2.36
 Roadway Impervious Area (ac): 0.04
 Pond Site Area (ac): 0.00

Land Use Description	CN	Imperv %	Area	CN*A	IMP Area
Open, Good, B	60	0%	1.12	67.20	0.00
Impervious	98	100%	0.04	3.92	0.04
Rail Bed (assumed as Dirt, Type D)	89	0%	1.24	110.36	0.00
Total Area:			2.40	181.48	0.04
Post Composite Curve Number:				75.6	
Post Total Impervious:					0.04
Post Composite Event Mean Concentration for Nitrogen:					

Northwood Phase 2 Existing

Total Roadway Area (ac): 3.70
 Roadway Pervious Area (ac): 2.31
 Roadway Impervious Area (ac): 1.39
 Pond Site Area (ac): 0.00

Land Use Description	CN	Imperv %	Area	CN*A	IMP Area
Open, Good, B	60	0%	2.04	122.40	0.00
Impervious	98	100%	1.39	136.22	1.39
Rail Bed (assumed as Dirt, Type D)	89	0%	0.27	24.03	0.00
Total Area:			3.70	282.65	1.39
Post Composite Curve Number:				76.4	
Post Total Impervious:					1.39
Post Composite Event Mean Concentration for Nitrogen:					
Post Composite Event Mean Concentration for Phosphorus:					

Northwood Phase 2 Proposed

Total Area (ac): 3.70
 Roadway Pervious Area (ac): 3.34
 Roadway Impervious Area (ac): 0.36
 Pond Site Area (ac): 0.00

Land Use Description	CN	Imperv %	Area	CN*A	IMP Area
Open, Good, B	60	0%	1.87	112.20	0.00
Impervious	98	100%	0.36	35.28	0.36
Rail Bed (assumed as Dirt, Type D)	89	0%	1.47	130.83	0.00
Total Area:			3.70	278.31	0.36
Post Composite Curve Number:				75.2	
Post Total Impervious:					0.36
Post Composite Event Mean Concentration for Nitrogen:					
Post Composite Event Mean Concentration for Phosphorus:					

Iris Connection

SCS Curve Number Method with antecedent moisture condition II:

$$Q = \text{Runoff, inches} = (P - 0.2 \cdot S)^2 / (P + 0.8 \cdot S)$$

$$P_{\text{SFWMD}} = \text{Rainfall Volume for the 3 Day 25 Year Event} \\ = 13.00 \text{ in}$$

$$S = \text{Storage Volume on and within Soils after Saturation} \\ = (1000/\text{CN}) - 10$$

$$S_{\text{pre}} = 3.06 \text{ ac-ft}$$

$$S_{\text{post}} = 3.22 \text{ ac-ft}$$

Pre-Post Runoff Comparison

$$Q_{\text{Pre}} = 9.93 \text{ in}$$

$$Q_{\text{Post}} = 9.80 \text{ in}$$

$$\text{Net Runoff Difference} = (Q_{\text{Post}} \cdot A_{\text{Post}}) - (Q_{\text{Pre}} \cdot A_{\text{Pre}})$$

$$\text{Net Runoff Difference} = -0.33 \text{ ac-ft} \quad (\text{Net reduction in flow when compared to pre-development})$$

Northwood Connection Phase 2

SCS Curve Number Method with antecedent moisture condition II:

$$Q = \text{Runoff, inches} = (P - 0.2 \cdot S)^2 / (P + 0.8 \cdot S)$$

$$P_{\text{SFWMD}} = \text{Rainfall Volume for the 3 Day 25 Year Event} \\ = 13.00 \text{ in}$$

$$S = \text{Storage Volume on and within Soils after Saturation} \\ = (1000/\text{CN}) - 10$$

$$S_{\text{pre}} = 3.09 \text{ ac-ft}$$

$$S_{\text{post}} = 3.29 \text{ ac-ft}$$

Pre-Post Runoff Comparison:

$$Q_{\text{Pre}} = 9.91 \text{ in}$$

$$Q_{\text{Post}} = 9.74 \text{ in}$$

$$\text{Net Runoff Difference} = (Q_{\text{Post}} \cdot A_{\text{Post}}) - (Q_{\text{Pre}} \cdot A_{\text{Pre}})$$

$$\text{Net Runoff Difference} = -0.62 \text{ ac-ft} \quad (\text{Net reduction in flow when compared to pre-development})$$



Regulation
Application No.: 130809-4

October 10, 2013

ALL ABOARD FLORIDA
2855 LE JEUNE ROAD 4TH FL
CORAL GABLES, FL 33134

Dear Permittee:

SUBJECT: 50-10364-P

Project : ALL ABOARD FLORIDA COCOA TO WEST PALM BEACH

Location: Palm Beach County,

This is to acknowledge receipt of your application for the rehabilitation and replacement of upland portions of an existing rail system within a 134-mile segment of the Florida East Coast (FEC) rail corridor known as the All Aboard Florida Line from Cocoa to West Palm Beach. While the proposed project falls within both the South Florida Water Management District (SFWMD) and the St. Johns River Water Management District (SJRWMD), a Special Case Agreement has been executed between the two agencies and the Florida Department of Protection (FDEP) granting the SFWMD the authority to review and process the exemption request in consultation with the SJRWMD and FDEP.

The proposed exempt activities within the jurisdictional limits of the SJRWMD include replacing approximately 51 miles of rail that will provide a second main track within the existing FEC corridor, installing a total of approximately 3.2 miles of upland pedestrian crossovers at MP 173.4, MP 174.1, MP 182.6, MP 190.1, MP 197.2, MP 200.4, MP 211.4, MP 220.8, MP 226.7, and MP 231.5, which will provide connection of the rehabilitated second track to the single main line.

The proposed exempt activities within the jurisdictional limits of the SFWMD include 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. Please refer to Exhibits 1.1 and 1.2 for general and detailed location maps, respectively, and Exhibit 2.1 for cross-sections.

The South Florida Water Management District (District) has reviewed the information submitted and has determined that the proposed activity will have only minimal or insignificant individual or cumulative adverse impacts on the water resources of the District. Therefore, based solely on the documents submitted to the District on September 23, 2013, the project qualifies for an exemption pursuant to subsection 373.406(6), Florida Statutes. Activities which qualify for this exemption must be conducted and operated using appropriate best management practices and in a manner which does not cause a water quality violation pursuant to Florida Administrative Code 62-302.

This letter does not relieve you from the responsibility of obtaining other permits (federal, state or local) which may be required for the project.

Application No.: 130809-4
October 10, 2013
Page : 2


The determination that this project qualifies as an exempt activity may be revoked if the installation is substantially modified, if the basis for the exemption is determined to be materially incorrect, or if the installation results in violation of state water quality standards. Any changes made in the construction plans or location of the project may necessitate a permit from the District. Therefore, you are advised to contact the District before beginning the project and before beginning any work in wetlands which is not specifically described in the submittal.

The notice of determination that the project qualifies as an exempt activity constitutes final agency action by the District unless a petition for administrative hearing is filed. Upon timely filing of a petition, this Notice will not be effective until further Order of the District.

The District has not published a notice in the newspaper advising the public that it is determining that this activity is exempt pursuant to subsection 373.406(6), Florida Statutes. Enclosed is a sample package used for newspaper noticing by the District. Publication, using the District form, notifies members of the public (third parties) of their rights to challenge the determination. If proper notice is given by publication, third parties have a 21-day time limit to file a petition opposing the determination. If you do not publish a notice, a party's right to challenge the determination extends for an indefinite period of time. If you wish to have certainty that the period of filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation. A copy a list of newspapers typically used by the District is attached for your information (Attachment 1). If you choose to publish this notice, please provide us with proof of publication when it becomes available. A sample notice is included to provide guidance on the language used in the publication (see Attachment 2, Sample Notice).

Should you have any questions concerning this matter, please contact this office.

Sincerely,



Carlos A. de Rojas, P.E.
Section Leader - Swm
Regulation Division

CD/jm

c: S J R W M D
F D E P
A M E C

MEETING MINUTES

Bowen Civil Engineering, Inc.
Now a part of
Hanson Professional Services Inc.

DATE: 10-24-13	BY: Chantal Bowen
PROJECT NO.: 13H0036	FPID NO.: 434948-1,433514-1, 434948-1
PROJECT NAME: South Florida Freight and Passenger Rail Enhancement: TIGER Grant Projects	
PROJECT MEETING LOCATION: Conference Call with South Florida Water Management District	
SUBJECT: Review of Preliminary Drainage Analysis & Permit Approach	
MEETING DATE: 10-23-13	
PARTICIPANTS: Kevin Homrich-Micocci (FDOT), Jesse Markle (SFWMD), Sunseera Dalton (CH2M Hill), Chantal Bowen (Hanson), Clint Smith (Hanson)	
DISTRIBUTION: All Participants, File	
<i>The following minutes express our understanding of the items discussed. Please respond in writing within five (5) days of receipt if any changes are required. Action items noted in bold italics (including persons responsible for taking actions):</i>	

A conference call was held to discuss permit approach for three FEC projects that are on a fast track schedule due to the recent TIGER Grant award to FDOT. The attached exhibits were provided to all attendees for the purposes of discussion. Below are summaries to the key discussion topics:

Project Introduction:

The South Florida Freight and Passenger Rail Enhancement projects are focused on improving mobility between the FEC and SFRC Rail Lines. It consists of three projects: Northwood Connection Phase 1A, NE Iris Connection Phase 1B, and Northwood Connection Phase 2. Northwood Connection Phase 1A involves the rehabilitation of the existing single track Northwood Connection on the existing alignment. The NEPA documents are scheduled for a mid-November submittal.

Phase 1A (FPID 434948-1 Rehab Existing Northwood Connection): The existing track infrastructure on the Northwood Connection Phase 1A is listed as an active FEC track; however it is in poor condition and in a state of disuse, limiting freight mobility. This connection will facilitate direct connections from the SFRC (northbound and southbound) to FEC Railway (southbound only).

- Discussions were held on recent rail permits issued to FEC for similar projects. All Aboard Florida Intercity Passenger Rail Project (AAF)(SFWMD Perm No 50-10364-P; App No 130809-4).
 - This project involved constructing a rail line on top of an abandoned rail bed for a project length of 134 miles that extends from West Palm Beach to Cocoa. The existing rail bed within the FEC corridor was never removed, but simply had portions of the track abandoned or removed. A permit exemption was granted from SFWMD due to the fact that construction was over an existing rail bed and no additional rail lines were being constructed. This project received permit approval on 10/10/2013.
- Jesse agreed that the Phase IA project is similar in nature to the AAF project and that it would also qualify for a permit exemption.

Phase 1B (FPID 433514-1 Iris NE Connection)/ Phase 2 (FPID 434948-1 New Northwood Connection):

The IRIS NE Connection Phase 1B involves the construction of a single track connection within the existing FDOT right-of-way in order to provide an additional connection between the FEC Railway to the SFRC. Northwood Connection Phase 2 involves the construction of an additional single track connecting northbound FEC Railway to the southbound SFRC. Phase 2 will allow both northbound and southbound freight to move efficiently between the FEC and SFRC lines at the Northwood location.

- Clint explained his pre vs. post curve number analysis based on assuming the rail bed to be Hydrologic Type D soils and land use of "Dirt" for post conditions. The results of this analysis show that proposed conditions result in a decrease in CN, impervious area and runoff volume. It was requested that these two projects be considered for an exemption as well.
- Jesse indicated that recent permits issued to Sun Rail (Central Florida Commuter) and U.S.Sugar (issued 2012) for new tracks required treatment and attenuation.
- Jesse indicated that treatment would be the only criteria to consider since the areas are less impervious under post conditions. Treatment of one inch would be required. Volumetric calculations will suffice and the treatment can be accommodated elsewhere along the corridor if ROW limitations are present. This is quite common for linear projects.
- Given the size of these two projects, it was agreed that they both would qualify for 10-2 Self Certification. Permit thresholds for 10-2 Self Certifications are project areas less than 10 acres and with less than 2 acres of impervious area. Under this new rule, a stormwater management system still needs to be designed, operated and maintained. The construction of such a system may proceed without further coordination with FDEP or the water management district, if within 30 days after construction begins, an electronic self-certification is submitted that certifies the proposed system was designed by a Florida registered professional. Design parameters are listed in Section 19. Subsection (12) 403.814, Florida Statutes.
- Since the two projects are not contiguous projects, they would be registered separately.
- As part of the drainage analysis, Jesse would want to us to verify that drainage patterns are not interrupted from off-site areas. It was agreed that the design intent will allow for any local runoff in the area to pass through the corridor and not be blocked. All agreed it was unlikely that off-site areas would increase the size of the project to the point of not qualifying for the 10-2 status.
- It was noted that for Phase 2 (New Northwood Connection) there was a nearby historic burial ground that would pose limitations on the ability to provide excavation for treatment swales.