Revised 9/19/16

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

GOVERNING BOARD

REGULAR MEETING AGENDA
September 23, 2016
9:30 a.m.

South Florida Regional Transportation Authority
Board Room
800 NW 33rd Street
Pompano Beach, FL 33064

SFRTA BOARD MEETINGS ARE SCHEDULED ON THE FOURTH FRIDAY OF EACH MONTH AT 9:30 A.M. FOR FURTHER INFORMATION CALL (954)942-RAIL (7245). TIME OF MEETINGS SUBJECT TO CHANGE.

SFRTA Board Members

Commissioner Steven L. Abrams
Frank Frione
F. Martin Perry
Beth Talabisco
Commissioner Bruno Barreiro
Nick Inamdar
Commissioner Tim Ryan, Chair
Andrew Frey
Gerry O'Reilly
James A. Scott

Executive Director

Jack Stephens

GOVERNING BOARD REGULAR MEETING
OF SEPTEMBER 23, 2016

The meeting will convene at 9:30 a.m., and will be held in the Board Room of the South Florida Regional Transportation Authority, Administrative Offices, 800 NW 33rd Street, Pompano Beach, Florida 33064.

CALL TO ORDER

MOMENT OF SILENCE

PLEDGE OF ALLEGIANCE

AGENDA APPROVAL – Additions, Deletions, Revisions

MATTERS BY THE PUBLIC – Persons wishing to address the Board are requested to complete an "Appearance Card" and will be limited to three (3) minutes. Please see the Minutes Clerk prior to the meeting.

PUBLIC HEARING 1

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

NOTICE OF PUBLIC HEARING FOR DISCONTINUATION OF THE OPA-LOCKA SOUTH ROUTE COMMUTER BUS SERVICE BEGINNING NOVEMBER 1, 2016

NOTICE IS HEREBY GIVEN THAT at the Governing Board Meeting of September 23, 2016, the South Florida Regional Transportation Authority (SFRTA) will hold a Public Hearing at 9:30 A.M. to receive public input on the SFRTA's intent to discontinue the Opa-locka South Route (South Route). All interested individuals and/or groups are invited to attend this meeting and will have an opportunity to present their views and comments, or by responding in writing to the South Florida Regional Transportation Authority at 800 NW 33rd Street, Suite 100, Pompano Beach, FL 33064.

The following is a description of the proposed service changes:

- Discontinuation of the Opa-locka South Route beginning November 1, 2016

Public Hearing 1

1. Open Public Hearing

2. Close Public Hearing

PH1 - MOTION TO APPROVE: Discontinuation of the South Florida Regional Transportation Authority (SFRTA) Opa-Locka South Route Commuter Bus Service by November 1, 2016.

Department: Planning and Capital Development Department Director: William L. Cross, P.E.
Project Manager: Loraine Cargill Procurement Director: N/A

PUBLIC HEARING 2

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

NOTICE IS HEREBY GIVEN that a public hearing will be held by the governing board (the "Board") of the South Florida Regional Transportation Authority (the "Authority") on September 23, 2016 at 9:30 a.m. at the SFRTA Boardroom, located at 800 Northwest 33rd Street, Pompano Beach, Florida 33064, in order to obtain input into the proposed issuance by the Authority of a taxable promissory note in an aggregate principal amount not to exceed $22,000,000 (the "Note") and the negotiated sale of the Note, as identified in the following Authority Resolution:

A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, AUTHORIZING A LOAN IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $22,000,000 FROM BANKUNITED, N.A. FOR THE PRINCIPAL PURPOSE OF PAYING COSTS OF THE PROJECT; AUTHORIZING THE EXECUTION AND DELIVERY OF A LOAN AGREEMENT AND A TAXABLE PROMISSORY NOTE TO EVIDENCE THE OBLIGATION OF THE AUTHORITY TO REPAY SUCH LOAN; PROVIDING SECURITY FOR THE REPAYMENT OF THE LOAN; AUTHORIZING OTHER ACTIONS IN CONNECTION WITH THE LOAN AND THE PROJECT; AND PROVIDING AN EFFECTIVE DATE.

Public Hearing 2

1. Open Public Hearing

2. Close Public Hearing

PH2 - MOTION TO APPROVE: Resolution No. 16-06, authorizing the attached Loan Agreement between the South Florida Regional Transportation Authority ("SFRTA") and BankUnited, N.A. ("BankUnited") pursuant to which SFRTA will obtain a loan in an aggregate principal amount not to exceed $22,000,000 as evidenced by a Taxable Promissory Note (the "Note") for the principal purpose of paying costs of the Trackage Improvements, Access Fee and PTC Costs (all as defined below).

Department: Executive- Jack L. Stephens
Project Manager: Richard D. Chess

Department: Legal - Teresa J. Moore
Procurement Director: N/A

DISCUSSION ITEM – Update on Safety and Security

CONSENT AGENDA

Those matters included under the Consent Agenda are self-explanatory and are not expected to require review or discussion. Items will be enacted by one motion in the form listed below. If discussion is desired by any Board Member, however, that item may be removed from the Consent Agenda and considered separately.

C1. **MOTION TO APPROVE**: Minutes of Governing Board's Regular Meeting of August 26, 2016.

REGULAR AGENDA

Those matters included under the Regular Agenda differ from the Consent Agenda in that items will be voted on individually. In addition, presentations will be made on each motion, if so desired.

R1. **MOTION TO APPROVE:** Agreement No. 15-011, between South Florida Regional Transportation Authority (SFRTA) and Solares Electrical Services, Inc. for services needed to upgrade existing electrical and mechanical systems at the Hialeah Yard in the amount of $1,099,000.00.

Department: Operations
Project Manager: Wayne Ramnarine
Department Director: Bradley Barkman
Procurement Director: Christopher Bross

R2. **MOTION TO APPROVE:** Joint Participation Agreement FM #440145-1-57-01 between the South Florida Regional Transportation Authority (SFRTA) and the State of Florida Department of Transportation (FDOT), in the amount of $350,000.00 for SFRTA (JPA) to complete various capital improvements at the Hialeah Yard Wastewater Treatment Plant (WWTP).

Department: Engineering & Construction
Project Manager: Brandy Creed, P.E., D.WRE
Department Director: Brandy Creed, P.E., D.WRE
Procurement Director: N/A

R3. **MOTION TO APPROVE:** Joint Participation Agreement (JPA), FM #430458-1 between the South Florida Regional Transportation Authority (SFRTA) and the State of Florida Department of Transportation (FDOT), for State funds in the amount of $1,500,000 for the Boca Raton II Station environmental analysis, design and specifications package.

Department: Planning & Capital Development
Project Manager: Barbara Handrahan
Department Director: William L. Cross, P.E.
Procurement Director: N/A

R4. REQUESTED ACTION:

A. MOTION TO APPROVE: Subrecipient Agreement between the South Florida Regional Transportation Authority (SFRTA) and the South Florida Regional Council (SFRC) for professional services relating to the Federal Transit Administration (FTA) Transit Oriented Development (TOD) Pilot Program.

B. MOTION TO APPROVE: Subrecipient Agreement between the South Florida Regional Transportation Authority (SFRTA) and the Treasure Coast Regional Planning Council (TCRPC) for professional services relating to the FTA TOD Pilot Program.

Department: Planning & Capital Development Department Director: William L. Cross, P.E.
Project Manager: Lynda Kompelien Westin, AICP Procurement Director: Christopher Bross

R5. MOTION TO APPROVE: A delegation to Commissioner Abrams to negotiate, finalize and execute the Tri-Rail Trackage Improvements Agreement between SFRTA and All Aboard Florida – Operations LLC, consistent with the concepts and principles that are included in the terms and conditions set forth therein.

Department: Executive- Jack L. Stephens Department: Legal - Teresa J. Moore
Project Manager: N/A Procurement Director: N/A

R6. MOTION TO APPROVE: Resolution No. 16-05 approving a Revised Interlocal Agency Agreement between Southeast Overtown/Park West Community Redevelopment Agency, City of Miami and SFRTA for design and Construction of The Tri-Rail Downtown Miami Link Station Improvements in the not-to-exceed amount of $17,528,059

Department: Executive- Jack L. Stephens Department: Legal - Teresa J. Moore
Project Manager: N/A Procurement Director: N/A

R7. MOTION TO APPROVE: Amendment No. 2 to the South Florida Regional Transportation Authority (SFRTA) Capital Budget to increase the overall 5 year Capital Budget by $22,253,328 to provide for the following:

1. Addition of Tri-Rail Downtown Miami Link project of $20,290,000 for trackage improvements of $16,190,000, positive train control equipment of $3,100,000, and the corridor access fee of $1,000,000.

2. Repayment of a commercial loan secured in order to provide trackage improvements, positive train control equipment, and the corridor access fee for the Tri-Rail Downtown Miami Link project in the amount of $20,290,000 in principal and approximately $1,963,328 in interest.

   Repayment also includes closing costs for commitment fees and legal counsel fees of $55,000 and $27,500, respectively and interest payments on the required reserve fund amount of $1,000,000.

Department: Finance Department Director: Richard D. Chess
Project Manager: Elizabeth Walter-Ebersole Procurement Director: N/A

R8. **MOTION TO APPROVE:** Amendment No. 1 to the South Florida Regional Transportation Authority (SFRTA) FY 2015-2016 Operating Budget to transfer $2,000 to the Legal Department in order to balance the department's budget. This transfer is necessary to provide the remaining monies to fund the increase in Purchase Order No. 16-000037 with Kaplan, Kirsch and Rockwell, LLP, which is requested in a separate agenda item.

Department: Finance
Project Manager: Elizabeth Walter-Ebersole

Department Director: Richard D. Chess
Procurement Director: N/A

R9. **MOTION TO APPROVE:** Approval of an additional amount of $11,127.06 for Kaplan, Kirsch and Rockwell, LLP Purchase Order No. 16-000037 ("PO") for the Tri-Rail Downtown Miami Link for a total PO not-to-exceed amount of $131,127.06.

Department: Legal
Project Manager: Teresa J. Moore

Department Director: Teresa J. Moore
Procurement Director: N/A

INFORMATION / PRESENTATION ITEMS

Action not required, provided for information purposes only. If discussion is desired by any Board Member, however, that item may be considered separately.

I-1. **PRESENTATION** - Tri-Rail Coastal Link on the FEC Corridor

I-2. **PRESENTATION** - Tax Incremental Financing (TIF) Opportunities

I-3. **PRESENTATION** - Draft SFRTA TOD Policy

I-4. **PRESENTATION** - Downtown Boca Raton Transit Feasibility Study

I-5. **INFORMATION** - Railroad Safety Technology Grant Application For Tri-Rail Positive Train Control Implementation

COMMITTEE REPORTS / MINUTES

Action not required, provided for information purposes only. If discussion is desired by any Board Member, however, that item may be considered separately.

A. PROPERTY TASK FORCE
B. CONSTRUCTION OVERSIGHT COMMITTEE
C. PLANNING TECHNICAL ADVISORY COMMITTEE
D. MARKETING COMMITTEE
E. OPERATIONS TECHNICAL COMMITTEE
F. CITIZENS ADVISORY COMMITTEE
G. AUDIT COMMITTEE
H. LEGISLATIVE COMMITTEE
I. ADVISORY COMMITTEE FOR PERSONS WITH DISABILITIES
J. LEGAL SERVICES COMMITTEE

MONTHLY REPORTS

Action not required, provided for information purposes only. If discussion is desired by any Board Member, however, that item may be considered separately.

A. ENGINEERING & CONSTRUCTION MONTHLY PROGRESS REPORTS – August

B. RIDERSHIP GRAPHS – August

C. ON-TIME PERFORMANCE GRAPHS – August

D. MARKETING MONTHLY SUMMARY – August

E. BUDGETED INCOME STATEMENT – August

F. PAYMENTS OVER $2,500.00 – August

G. REVENUE AND FARE EVASION REPORTS – August

H. SOLICITATION SCHEDULE – August

I. CONTRACT ACTIONS EXECUTED UNDER THE EXECUTIVE DIRECTOR'S AUTHORITY – August

J. CONTRACT ACTIONS EXECUTED UNDER THE CONSTRUCTION OVERSIGHT COMMITTEE – August

K. PROPERTY TASK FORCE – PROJECT SCHEDULE - N/A

L. SECURITY REPORT – August

M. EXPIRING CONTRACTS – August

N. CONTRACT ACTIONS EXECUTED UNDER GENERAL COUNSEL'S AUTHORITY – August

OTHER BUSINESS

EXECUTIVE DIRECTOR REPORTS/COMMENTS

LEGAL COUNSEL COMMENTS

CHAIR COMMENTS

BOARD MEMBER COMMENTS

ADJOURNMENT

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons with disabilities needing special accommodation to participate in this proceeding, must at least 48 hours prior to the meeting, provide a written request directed to the Executive Office at 800 NW 33rd Street, Pompano Beach, Florida, or telephone (954) 942-RAIL (7245) for assistance; if hearing impaired, telephone (800) 273-7545 (TTY) for assistance.

Any person who decides to appeal any decision made by the Governing Board of the South Florida Regional Transportation Authority with respect to any matter considered at this meeting or hearing, will need a record of the proceedings, and that, for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Persons wishing to address the Board are requested to complete an "Appearance Card" and will be limited to three (3) minutes. Please see the Minutes Clerk prior to the meeting.

MINUTES
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD REGULAR MEETING
OF AUGUST 26, 2016

The regular meeting of the South Florida Regional Transportation Authority Governing Board was held at 9:30 a.m. on Friday, August 26, 2016 in the South Florida Regional Transportation Authority Board Room, 800 Northwest 33rd Street, Pompano Beach, Florida 33064.

BOARD MEMBERS PRESENT:
Steven L. Abrams, Vice Chair, Palm Beach County Commissioner
Bruno Barreiro, Miami-Dade County Commissioner
Andrew Frey, Miami-Dade County Governor's Appointee
Frank Frione, Palm Beach County Governor's Appointee
Nick A. Inamdar, Miami-Dade County Citizen Representative
Gerry O'Reilly, Florida Department of Transportation, District IV
Tim Ryan, Chair, Broward County Commissioner
James A. Scott, Broward County Governor's Appointee
Beth Talabisco, Broward County Citizen Representative

BOARD MEMBERS ABSENT:
F. Martin Perry, Palm Beach County Citizen Representative

ALSO PRESENT:
Jack L. Stephens, Executive Director, SFRTA
C. Mikel Oglesby, Deputy Executive Director, SFRTA
Bonnie Arnold, Public Information Officer, SFRTA
Chris Bross, Director of Procurement, SFRTA
Bradley Barkman, Director of Operations, SFRTA
William Cross, Director of Planning & Capital Development, SFRTA
Diane Hernandez Del Calvo, Director of Administration/ EEO Officer, SFRTA
Rene Matthews, Comptroller/Director of Information Technology, SFRTA
Daniel Mazza, P.E., Director of Engineering & Construction, SFRTA
Teresa Moore, General Counsel, SFRTA
Jeffrey Olson, Deputy General Counsel, SFRTA
Sandra Thompson, Executive Administrative Coordinator, SFRTA
Maryanne Walsh, Director of Human Resources, SFRTA
Allen Yoder, Director of Safety and Security, SFRTA

CALL TO ORDER

The Chair called the meeting to order at 9:40 a.m.

PLEDGE OF ALLEGIANCE

AGENDA APPROVAL – Additions, Deletions, Revisions

The Chair asked if there were any additions, deletions or revisions to the Agenda.

Mr. Stephens reported the following changes to the Agenda:

The addition of Agenda Item R10 - MOTION TO APPROVE: Wave Project Assumption Agreement between the South Florida Regional Transportation Authority ("SFRTA") and the Florida Department of Transportation ("FDOT"). This item was sent to your office on Monday, August 22nd. He noted that Ms. Teresa Moore, General Counsel, SFRTA had something to say.

Ms. Moore stated that there is a change on paragraph 10 of the Agreement that has been negotiated with FDOT.

Mr. Stephens continued that there is a deletion of Agenda Item R8 - MOTION TO APPROVE: Resolution No. 16-04 approving the Revised Interlocal Agency Agreement by and between the Southeast Overtown/Park West Community Redevelopment Agency, the City of Miami and the South Florida Regional Transportation Authority.

Board Member Andrew Frey moved for approval of the Agenda as amended. The motion was seconded by Board Member Beth Talabisco.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

MATTERS BY THE PUBLIC – Persons wishing to address the Board are requested to complete an "Appearance Card" and will be limited to three (3) minutes. Please see the Minutes Clerk prior to the meeting.

The Chair called upon any persons wishing to address the Board.

Mr. Mark Erickson of Juno Beach, Florida, representing Allied Pilots Association, et al (American Airlines) addressed the Board. Mr. Erickson thanked the Board and staff and commented on the opening of Miami Intermodal Center (MIC) Tri-Rail Station and completion. He stated that taking the train is now a pleasure in that the Tri-Rail stops directly at the MIC. The building is professional looking and is a great improvement over the bussing and will impress the European customers that are used to riding trains. He added that he represents the pilots, flight attendants, support staff and TSA and all have the same goals when riding Tri-Rail. Mr. Erickson commented on the on-time-performance issues and asked that Tri-Rail focus on better performance and safety. He commented on safety and the G4S team doing a professional job. He noted that there were 64 auto burglaries' in the station lots. This has deterred a lot of riders from riding the train and thus driving to Miami. He encouraged Tri-Rail to engage and invest in safe parking enhancements. Communications and the "Real-Time App" have been well received. He requested staff to add more real time delays into the messaging system. Currently a website has to be accessed and then on to a map to check the trains. The conductors are communicated delays and this is an improvement. A review to reevaluate the frequency of the trains is requested for the northbound train schedule. Currently the last weekday northbound train departs at 9:45 p.m. There is a gap in the weekend trains and an additional train between 6:17 p.m. and 9:42 p.m. Later trains would be well appreciated. He stated that these issues are listed in Tri-Rail Goals. He encouraged Tri-Rail to improve the passenger experience.

The Chair called upon Keolis to present an award.

Mr. Michael Ake, Senior Vice President of Operations, Keolis Transit, Pompano Beach, Florida, addressed the Board. Mr. Ake introduced Mr. Robert Anderson, Vice President of Keolis North American Corporate office, Boston, MA.

Mr. Anderson addressed the Board. He expressed appreciation, on behalf of the local team, and is honored to present to SFRTA/Tri-Rail the award for the outstanding partnership, appreciation for the trust, guidance and patience to carry forward through this contract.

There was a photo opportunity.

CONSENT AGENDA

Those matters included under the Consent Agenda are self-explanatory and are not expected to require review or discussion. Items will be enacted by one motion in the form listed below. If discussion is desired by any Board Member, however, that item may be removed from the Consent Agenda and considered separately.

C1. **MOTION TO APPROVE**: Minutes of Governing Board's Regular Meeting of June 24, 2016.

Board Member Andrew Frey moved for approval of the Minutes. The motion was seconded by Board Member Nick Inamdar.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

REGULAR AGENDA

Those matters included under the Regular Agenda differ from the Consent Agenda in that items will be voted on individually. In addition, presentations will be made on each motion, if so desired.

R1. **MOTION TO APPROVE**: Amendment No. 1 to the South Florida Regional Transportation Authority (SFRTA) Capital Budget to increase the FY 2016-2017 Budget by $55,527,408, and the overall 5 year Capital Budget by $243,526,445 to provide for the following projects:

1. Tri-Rail Downtown Miami Link Station Improvements in the amount of $48,902,749
2. Repayment of All Aboard Florida Loan for Tri-Rail Station Improvements and interest in the amount of $20,046,225
3. Wave-Ft. Lauderdale Street Car in the amount of $165,285,815
4. Wave Northern Loop in the amount of $7,544,568
5. Scrap rail cleanup along the SFRC Corridor in the amount of $1,627,509
6. Roof replacement on the Hialeah Administration Building in the amount of $119,579

Mr. Stephens read the list of projects for bifurcation. He requested of the Board to consider Items 1 and 2 separately from the Items 3, 4, 5 and 6.

The Chair agreed and called for any conflicts on Items 1 and 2.

Board Member Frank Frione recused himself from voting on Items 1 and 2 due to his company, GFA, International, having contractual obligations with AAF.

Board Member Jim Scott recused himself from voting on Items 1 and 2 due to his law firm may have represented AAF on unrelated matters.

The Chair noted the recusals for the record.

FORM 8B "MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS" has been filed with the office.

Board Member Beth Talabisco moved for approval of Items 1 and 2. The motion was seconded by Board Member Nick Inamdar.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

The Chair called for any conflicts on Items 3, 4, 5 and 6. Seeing none.

The Chair called for a vote on Items 3, 4, 5 and 6.

Board Member Gerry O'Reilly moved for approval of Items 3, 4, 5 and 6. The motion was seconded by Board Member Andrew Frey.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

R2. MOTION TO APPROVE: The South Florida Regional Transportation Authority (SFRTA) Transit Development Plan (TDP) Annual Update for Fiscal Years (FY) 2017-2026.

Mr. Stephens called upon Ms. Loraine Kelly-Cargill, Manager of Planning and Capital Development, SFRTA to give a presentation.

Ms. Kelly-Cargill addressed the Board. She acknowledged and thanked staff member Vicki Gatanis for her efforts in the documentation and presentation.

Ms. Kelly-Cargill gave a detailed Power Point presentation on the Annual TDP updates.

The Chair inquired as to the FTA planning grant for TOD and if it was related to a tri-county planning grant. He inquired of specific parameters for station placement.

Mr. Bill Cross, Director of Planning and Capital Development, SFRTA clarified that this grant, received from the FTA is to support the development of TOD's associated with the Coastal Link project, FEC specific. The two RPC's are to implement the process and selection and development where the SFRTA will pick three of the future station sites along the FEC to be studied. The RPC's assist the communities with the unique plans and code requirements of the cities. Mr. Cross stated that FDOT is the technical lead and has general parameters on station placement. FDOT has identified 25 sites to be brought into the project development phase for further study. Site selection is part of this process.

Board Member O'Reilly affirmed Mr. Cross' statement. He added that there are maps and ridership studies for the best locations.

It was requested to bring the station site presentations back to the Board next month.

Board Member Frey commented that this is an opportunity to develop generalized TOD benchmarks for along the corridor.

Board Member Gerry O'Reilly moved for approval. The motion was seconded by Board Member Andrew Frey.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

R3. <u>MOTION TO APPROVE:</u> Resolution No. 16-03 of the SFRTA providing support for the Miami-Dade Metropolitan Planning Organization (MPO) Strategic Miami Area Rapid Transit (SMART) Plan.

Mr. Stephens introduced Mr. Wilson Fernandez, representing the Miami-Dade Metropolitan Planning Organization (MDMPO) to the podium.

Mr. Fernandez addressed the Board. He stated that he is speaking on behalf of Aileen Boucle', Executive Director of MDMPO and expressed appreciation for consideration of the SMART Plan. The TRCL is part of the "Plan" and the MDMPO has been working with the MPO partners to the north.

A video of the SMART Plan was shown.

Board Member Inamdar commented that Commissioner Barreiro sits on the MDMPO Board and would appreciate updates.

Commissioner Barreiro replied that the "Plan" is doable. He added that it consists mostly light-rail and a combination of busses.

Board Member O'Reilly commented it is a great "Plan" and reminded that operating funds will be needed, as well as access to the corridor. He added that FDOT is in support of capital development programs that support transportation infrastructure.

Board Member Nick Inamdar moved for approval. The motion was seconded by Board Member Beth Talabisco.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

R4. MOTION TO APPROVE: Second Amendment to Sole Source Agreement No 14-004 between South Florida Regional Transportation Authority (SFRTA) and Cubic Transportation Systems, Inc. to procure additional fare collection equipment in the amount of $2,458,920.00.

Board Member Frank Frione moved for approval. The motion was seconded by Board Member Andrew Frey.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

Commissioner Barreiro suggested that the new equipment is the latest so upgrades can be made easily.

R5. MOTION TO APPROVE:

(A) Results of performance monitoring relative to Tri-Rail system-wide service standards and service policies, as required by the Title VI Circular, 4702.1B "Title VI Requirements and Guidelines for Federal Transit Administration Recipients"; and

(B) The South Florida Regional Transportation Authority's Updated 2016 Title VI Program, in accordance with Title VI of the Civil Rights Act of 1964.

Commissioner Steven Abrams moved for approval of (A) and (B). The motion was seconded by Board Member Andrew Frey.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

R6. MOTION TO APPROVE: Amendment No. 4 to Agreement No. 06-113, between the South Florida Regional Transportation Authority (SFRTA) and Bombardier Mass Transit Corporation (BMT), for accident repair to Cab Car 510 in the amount not to exceed $595,768.00.

Board Member Frank Frione moved for approval. The motion was seconded by Board Member Andrew Frey.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

R7. MOTION TO APPROVE: Amendment No. 4 to Agreement No. 06-101, between the South Florida Regional Transportation Authority (SFRTA) and National Railroad Passenger Corp. (Amtrak), for Transition, Dispatching, Train Control and Yard Services, for a three (3) month time extension in the amount of $982,941.75.

Commissioner Steven Abrams moved for approval. The motion was seconded by Board Member Andrew Frey.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

R8. DELETED

Mr. Stephens noted that Item R8 was deleted from the Agenda. He called upon Mr. Clarence Woods to address the Board regarding the Southeast Overtown/Park West CRA .

Mr. Clarence Woods, Executive Director, Southeast Overtown/Park West CRA gave an update on the agreement and confirmed the SEOPW CRA commitment for the platform at the AAF station. He stated that the agreement was finalized last night and fully executed copy of the agreement will be available within two weeks.

Board Member Inamdar inquired as to why R8 was deleted.

Mr. Stephens clarified that the two items, R8 and R9 are related. Item R8 would have had to come to the Board finalized and fully executed for passage and thus making Item R9 moot. This execution was not finalized until last night and a full review by legal is necessary before staff would be comfortable bringing it to the Board for a vote. It was requested that Mr. Woods come before the Board to express support and confidence, on behalf of the SEOPW CRA to the Board. On the phone is Mr. Fernando Casamayer, CFO, City of Miami to address this Board. This is to confirm and allow the Board Members a level of confidence and commitment for the agreement. Mr. Stephens ask the Board for permission to allow Mr. Casamayer to address the Board.

The Board consented to allow Mr. Casamayer to address the Board.

Mr. Fernando Casamayer stated that the negotiations that were held yesterday were acceptable to all parties and an agreement was reached. An agreement has been made on funding bonds and payment. Both parties are happy with the agreement. It is a matter of legalese to be final within the next couple of days.

Commissioner Abrams noted that this is a three party agreement. He stated that he has received the agreement that the two parties have reached. In this interim period, should the SFRTA have questions, he inquired if there is an avenue for concerns.

Ms. Moore responded affirmatively and that Mr. Jeffrey Olson, Deputy General Counsel, SFRTA has been in contact this morning regarding the proposed language and it is being worked out. A finalized agreement is expected to be returned to the Board in September.

Commissioner Abrams addressed support of the waiver.

Board Member Frey inquired as to the substance of the "language" that the SFRTA is concerned about.

Ms. Moore responded that the first concern is, - the City has 12 months after the property comes on the tax rolls to issue the bonds. The recent language added some conditions to that 12 month period. The bond validation hearing would have had to occur before the 12 month time frame would begin and there is no obligation of the City to go to a bond validation hearing, yet, their counsel has expressed a desire to do that. That potentially could extend the period of time by which we would receive the proceeds of the bond. It is understood that the CRA attorney is not in opposition of taking out that condition of the 12 month obligation. It is also understood that the assistant City attorney is not objecting to it, but has yet to talk to the client on the condition. Ms. Moore continued with the second issue is, - to be certain that the CRA and the City will review invoices simultaneously with the SFRTA presentation of the invoices and not wait until the bond proceeds came available. This is also agreeable amongst the parties.

Mr. Javier Fernandez, representing Sterns, Weaver, Miller on behalf of the SFRTA and AAF addressed the Board. He stated that in respect to this issue, the practice of preapproving the invoices is a process that is already agreed to in other reimbursements with the City of Miami. Confirmation is expected to be acceptable.

Mr. Jeffrey Olson, Deputy General Counsel, SFRTA addressed the Board. He stated that the other issues are minor in nature and talking through them should be successful.

Ms. Moore asked of Mr. Fernandez, based on the recent changes that have been negotiated between the City and the CRA, do either of the parties need to return to their commissions, or does Mr. Fernandez (the attorney) have sufficient authority to approve the new language.

Mr. Fernandez responded that the current approach does not violate the spirit of the resolutions that both have passed, thus this does not need to return to the boards for approval.

The Chair moved on to R9.

R9. MOTION TO APPROVE: Waiver of the condition in the Access, Operating and Funding Agreement for execution of the SEOPW CRA/City of Miami Revenue Agreement prior to the disbursal of funds to AAF for the payment of Invoice No. 1 (as defined herein) and the Change Order (also as defined herein).

Board Member Frank Frione recused himself from voting on Item R9.

Board Member Jim Scott recused himself from voting on Item R9.

The Chair noted the recusals for the record.

FORM 8B "MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS" has been filed with the office.

There was Board discussion for clarification.

Mr. Stephens simplified that the issue is that Invoice No. 1 has been submitted for payment. All other partners are in agreement. What this waiver does is that in this one case with this one invoice, and in showing good faith effort with the partners, this one invoice for $16 million of the 49 (or the full station), SFRTA will be able to transfer the funds to AAF as good faith effort in terms of partnership.

Board Member Frey commented that this would be an SFRTA problem and the pressure would be on the CRA and the City.

Mr. Stephens responded that the pressure would be from the public to move on with the business of getting Brightline into the station and getting the public portion of TRCL into the Miami Central Station.

Commissioner Abrams clarified that there is an agreement between the CRA and City. SFRTA is just to review the documents.

Board Member O'Reilly stated that Agency staff has done a tremendous job in getting this far. He added that there is huge money at stake and to sign over $16.5 million without having guarantee from the CRA is a bitter pill. The terms are there for protection. What would be SFRTA exposure if the waiver is not approved?

Ms. Moore responded that if the Agency does not waive the requirement, the SFRTA has no obligation to make the payment until the CRA is executed.

Mr. Stephens invited Mr. Francois Illas, Vice President Corporate Development, AAF/FECI to address the Board.

Mr. Illas stated for clarification, the processing of the first invoice and in the contract that waiver was authorized to the SFRTA Board as authority to do in the contract, should one of the parties not be in place. He informed that the two agencies have come to terms on their issues and this agreement will be executed on that agreement. The second matter is that the $16 million invoice,

and to be clear, SFRTA is not paying $16 million on Invoice No. 1. , because 35.84% of that invoice is the CRA and that money is not coming to SFRTA or the AAF until the end and AAF is carrying that with no interest. He stated that it is clear that this company has gone the extra mile to assure that it and the money will eventually solidify the deal at the end are met. AAF is putting a lot of skin in the game. AAF has been carrying, to date thru June of 2016 over $20 million invested in the SFRTA segment of the station, at no interest. All AAF is asking today is that this process of the invoicing is to begin. The SFRTA owes 11.6% of the invoice and will pay within 30 days if the SFRTA agrees to all the documentation that has been given. That process needs to start. He stated that AAF is asking that this occurs in parallel and not wait the additional two weeks. It becomes difficult for our executives to justify to the investors the continued partnership.

The Chair expressed that his concerns are consistent with those of Board Member O'Reilly.

Ms. Moore clarified what Mr. Illas said on the record. She stated that, although we are not paying out of our money all of the $16.5 million, as General Counsel, I want to make sure the Board is making an educated decision. The risk here is that if the CRA agreement is never executed, the Board would be obligated, if it had made payment to AAF, the Board would be obligated to pay that money back to its revenue partners.

Commissioner Abrams added that he is confident with the assurances of both parties, as heard today, that they have reached agreement. We have heard from counsel, based on preliminary review that there is a resolution to the loose ends. Yes, there is a risk, but it is minimal and this should go forward with the waiver.

Board Member O'Reilly added that it is his definition of coming together are the signatures on the paper. The risk that exposes the Agency for $16.5 million is a lot. Do what it takes to get it signed. He suggested a special board meeting.

Board Member Inamdar added that a lot of effort has been expended. He is in support of the waiver.

Board Member Talabisco inquired as to how soon a special meeting would take place

Mr. Stephens stated that, in his experience, a special board meeting is difficult to get a quorum. He noted that the concerns are understandable. He expressed his confidence in the document being signed. Should the document not be signed, the concerns are greater in that the project is dead. There will be no further forward movement on the public sector of the Miami Central Station project and it will no longer exist. The cost of the public portion of the station is locked in at $59 million.

Mr. Illas confirmed the price of the agreement with SFRTA. He added that upon entering the discussions two years ago, the price was $48.9 million and as of today it is a bit under $60 million, and AAF has not returned the to this board to request the differential. There comes a point where AAF executives are hamstrung to tell the investors to continue with the project. AAF is set to deliver this station in the third quarter of 2017 with SFRTA. AAF will be operational in the summer of 2017.

Commissioner Abrams noted that it is the on the SFRTA to complete the agreement.

Commissioner Barreiro is in support of the item.

The Chair called for a vote.

Commissioner Steven Abrams moved for approval. The motion was seconded by Board Member Nick Inamdar.

The Chair called for further discussion and/or opposition to the motion. There was opposition. The Chair declared the motion carried 5:2 with Board Member Gerry O'Reilly and the Chair voting against.

R10. MOTION TO APPROVE: Wave Project Assumption Agreement between the South Florida Regional Transportation Authority ("SFRTA") and the Florida Department of Transportation ("FDOT").

Ms. Moore announced that there is a revision in paragraph 10. It is to recognize that FDOT needs title in the property to begin the remediation activities. Pursuant to SFRTA's agreement with the City, it would hold title to the property. SFRTA is making the transfer of the title to FDOT contingent on the City's approval. All parties are comfortable with the revisions as it stands and it is recommended for approval of the agreement as revised.

Board Member Nick Inamdar moved for approval as revised. The motion was seconded by Board Member Beth Talabisco.

The Chair called for further discussion and/or opposition to the motion. Upon hearing none, the Chair declared the motion carried unanimously.

INFORMATION / PRESENTATION ITEMS

Action not required, provided for information purposes only. If discussion is desired by any Board Member, however, that item may be considered separately.

I-1. INFORMATION - Tri-Rail Coastal Link on the FEC Corridor

Mr. Stephens reported that there have been discussions with the FTA regarding this project. The FTA is fully aware of what the SFRTA is trying to do in regards to Miami Central. SFRTA has made requests of the FTA to assist in finding ways of financial support without federalizing the project.

I-2. INFORMATION - Tax Incremental Financing (TIF) Opportunities

The Chair announced that he saw Board Member Frey's picture in a section of the Sunday Miami Herald as an innovative developer. He created housing on very small lot without parking requirements.

Board Member Frey commented that a loan was provided by Continental Bank. This is a small development of 8 units without parking. This is definitely a small segment of the market.

The Chair added that this is an alternative to housing in that could work its way for workforce housing.

Board Member Frey added that pursuant to the SMART plan, Miami Dade County is looking how to fund the Coastal Link within Miami Dade County up to Aventura. It was reported that the mechanism of interest is a TIF like approach, with the radius around proposed stations. The County is aggressively pursuing ordinances and actions that will set the stage for funding along the corridor in Miami-Dade County. He stated that this is an opportunity for the SFRTA to prepare and lead a discussion with the other two counties about the TIF mechanism and a way to finance the Coastal Link ultimately.

Ms. Moore referenced a Transportation Development Authority permitted under Statute 163.31.82 of the Florida Statutes that states, when there is a transportation deficiency that has been recognized in an area, local taxing authorities have the right to create these authorities that then can collect additional taxes to fund transportation improvements within these deficient areas. This is one mechanism that MD County has been looking into.

There was discussion on funding speculation among the members.

The Chair requested counsel to prepare a memo on this item.

COMMITTEE REPORTS / MINUTES

Action not required, provided for information purposes only. If discussion is desired by any Board Member, however, that item may be considered separately.

A. PROPERTY TASK FORCE
B. CONSTRUCTION OVERSIGHT COMMITTEE

Board Member Frey reported that the COC approved the change order for the additional Audio Visual equipment.

C. PLANNING TECHNICAL ADVISORY COMMITTEE
D. MARKETING COMMITTEE
E. OPERATIONS TECHNICAL COMMITTEE
F. CITIZENS ADVISORY COMMITTEE
G. AUDIT COMMITTEE
H. LEGISLATIVE COMMITTEE

I. ADVISORY COMMITTEE FOR PERSONS WITH DISABILITIES
J. LEGAL SERVICES COMMITTEE

MONTHLY REPORTS
Action not required, provided for information purposes only. If discussion is desired by any Board Member, however, that item may be considered separately.

A. ENGINEERING & CONSTRUCTION MONTHLY PROGRESS REPORTS – June & July

B. RIDERSHIP GRAPHS – June & July

C. ON-TIME PERFORMANCE GRAPHS – June & July

D. MARKETING MONTHLY SUMMARY – June & July

E. BUDGETED INCOME STATEMENT – June & July

F. PAYMENTS OVER $2,500.00 – June & July

G. REVENUE AND FARE EVASION REPORTS – June & July

H. SOLICITATION SCHEDULE – June & July

I. CONTRACT ACTIONS EXECUTED UNDER THE EXECUTIVE DIRECTOR'S AUTHORITY – June & July

J. CONTRACT ACTIONS EXECUTED UNDER THE CONSTRUCTION OVERSIGHT COMMITTEE – June & July

K. PROPERTY TASK FORCE – PROJECT SCHEDULE - N/A

L. SECURITY REPORT – June & July

M. EXPIRING CONTRACTS – June & July

N. CONTRACT ACTIONS EXECUTED UNDER GENERAL COUNSEL'S AUTHORITY – June & July

EXECUTIVE DIRECTOR REPORTS/COMMENTS

Mr. Stephens called Mr. Oglesby to address the Board.

Mr. Oglesby, Deputy Executive Director and gave a PowerPoint Presentation on the Tri-Rail Commuter Bus. Mr. Oglesby stated that the journey is to change the first and last mile for the commuter. The SFRTA is not just a shuttle bus any longer. It is a "Commuter Connector." Keolis has stepped up to the plate with the proposed contract. The complaints were heard and solutions are being made to provide a better service experience. There are new busses, new uniforms, GPS, better training and a customer service focus. The contract service began March 1st for a 5-year contract with two 1-year renewals. There are 28 new vehicles and two refurbished, the design is

for fixed route service 365 days a year and seating capacity of up to 40 persons. There are medium and heavy duty vehicles. One of which is outside for your inspection. There is Thermal King air conditioning and 3 space bus rack. There is improved passenger flow with dual entries, push button open/close doors and 108' luggage rack. All are ADA enhanced and maintained inside the "Connector." There is a seven camera system, interior and exterior, audio/visual recording for safety and "Real Time" tracking built in and Wi-Fi equipped. The color scheme is iconic. The service begins at Florida airports September 5th. The entire new fleet will be in service by the end of the year. Please join us after the meeting for a review of the "Connector' and a photo shoot.

LEGAL COUNSEL COMMENTS

BOARD MEMBER COMMENTS

Board Member O'Reilly thanked the staff in reference to the Wave Agreement. He added that the comments from the airline pilots on on-time-performance were excellent and on point and the service can improve. The bundling contract is coming up and in draft form and the ability to align the contractors' desires with SFRTA, so to incentivize on-time-performance. The goal is to drive up the on-time-performance and safety.

Board Member Frey inquired if there was some on-time liquidated damages.

Ms. Moore responded that there are key primary and secondary indicators in the contract in which there are incentives and penalties if not met on a quarterly basis.

Mr. Stephens noted that the current experience with on-time-performance is not acceptable to this Agency. On Monday (August 22nd) the principals were called together and examinations of the current failures in performance were addressed. There will always be issues, but they should be a unique situation. Staff examined root cause analysis and it was explained to the contractors that the root cause analysis is an industry wide standard. At the end of this meeting, SFRTA had a commitment from Bombardier, VTMI, Transdev. All agreed to work together to do analysis from a customer perspective and to increase the on-time-performance. O-T-P has increased from 50% to 80%. It is expected to be in the 90% and at 92% the incentive kicks in and is the goal. It is understood that the only time that a failure in O-T-P is acceptable is for a safety issue. Safety is first and foremost. Customers and staff expect O-T-P and service reliability. He noted that all the contractors are expecting to be proposing on the bundling contract. It has been explained and is expected that they are to be performing on a level of amazement.

Commissioner Abrams noted that most of the delays seem to come in early morning or late evening. There is something about those particular times that could be focused on. He stated that he still takes the train and finds it to be reliable. A unique area would be when there is an accident or a trespasser and there is work to be done on the protocols to deal with the various agencies and multiple jurisdictions.

CHAIR COMMENTS

The Chair commented on the discussion of bundling, the big sell was to have one company to have accountability to end the finger pointing. The message here is to hold the contractor accountable with specific standards, incentives and consequences.

The Chair referred to the pilot's comments on the safety and security aspects in relation to the car burglaries in the parking lots and other safety issues. The Chair requested that at next meeting to have a discussion item on security.

ADJOURNMENT

There being no further business, the meeting adjourned at 11:45 a.m.

R1
1,2

FORM 8B MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS

LAST NAME—FIRST NAME—MIDDLE NAME Frione, Frank	NAME OF BOARD, COUNCIL, COMMISSION, AUTHORITY, OR COMMITTEE South Florida Regional Transportation Authority (SFRTA)
MAILING ADDRESS 1215 Wallace Drive	THE BOARD, COUNCIL, COMMISSION, AUTHORITY OR COMMITTEE ON WHICH I SERVE IS A UNIT OF: ☐ CITY ☐ COUNTY ☑ OTHER LOCAL AGENCY
CITY: Delray Beach COUNTY: Palm Beach	NAME OF POLITICAL SUBDIVISION:
DATE ON WHICH VOTE OCCURRED 8/26/2016	MY POSITION IS: ☐ ELECTIVE ☑ APPOINTIVE

WHO MUST FILE FORM 8B

This form is for use by any person serving at the county, city, or other local level of government on an appointed or elected board, council, commission, authority, or committee. It applies equally to members of advisory and non-advisory bodies who are presented with a voting conflict of interest under Section 112.3143, Florida Statutes.

Your responsibilities under the law when faced with voting on a measure in which you have a conflict of interest will vary greatly depending on whether you hold an elective or appointive position. For this reason, please pay close attention to the instructions on this form before completing the reverse side and filing the form.

INSTRUCTIONS FOR COMPLIANCE WITH SECTION 112.3143, FLORIDA STATUTES

A person holding elective or appointive county, municipal, or other local public office MUST ABSTAIN from voting on a measure which inures to his or her special private gain or loss. Each elected or appointed local officer also is prohibited from knowingly voting on a measure which inures to the special gain or loss of a principal (other than a government agency) by whom he or she is retained (including the parent organization or subsidiary of a corporate principal by which he or she is retained); to the special private gain or loss of a relative; or to the special private gain or loss of a business associate. Commissioners of community redevelopment agencies under Sec. 163.356 or 163.357, F.S., and officers of independent special tax districts elected on a one-acre, one-vote basis are not prohibited from voting in that capacity.

For purposes of this law, a "relative" includes only the officer's father, mother, son, daughter, husband, wife, brother, sister, father-in-law, mother-in-law, son-in-law, and daughter-in-law. A "business associate" means any person or entity engaged in or carrying on a business enterprise with the officer as a partner, joint venturer, coowner of property, or corporate shareholder (where the shares of the corporation are not listed on any national or regional stock exchange).

* * * * * * * * * * * * * * * *

ELECTED OFFICERS:

In addition to abstaining from voting in the situations described above, you must disclose the conflict:

PRIOR TO THE VOTE BEING TAKEN by publicly stating to the assembly the nature of your interest in the measure on which you are abstaining from voting; *and*

WITHIN 15 DAYS AFTER THE VOTE OCCURS by completing and filing this form with the person responsible for recording the minutes of the meeting, who should incorporate the form in the minutes.

* * * * * * * * * * * * * * * *

APPOINTED OFFICERS:

Although you must abstain from voting in the situations described above, you otherwise may participate in these matters. However, you must disclose the nature of the conflict before making any attempt to influence the decision, whether orally or in writing and whether made by you or at your direction.

IF YOU INTEND TO MAKE ANY ATTEMPT TO INFLUENCE THE DECISION PRIOR TO THE MEETING AT WHICH THE VOTE WILL BE TAKEN:

- You must complete and file this form (before making any attempt to influence the decision) with the person responsible for recording the minutes of the meeting, who will incorporate the form in the minutes. (Continued on other side)

APPOINTED OFFICERS (continued)

- A copy of the form must be provided immediately to the other members of the agency.
- The form must be read publicly at the next meeting after the form is filed.

IF YOU MAKE NO ATTEMPT TO INFLUENCE THE DECISION EXCEPT BY DISCUSSION AT THE MEETING:

- You must disclose orally the nature of your conflict in the measure before participating.
- You must complete the form and file it within 15 days after the vote occurs with the person responsible for recording the minutes of the meeting, who must incorporate the form in the minutes. A copy of the form must be provided immediately to the other members of the agency, and the form must be read publicly at the next meeting after the form is filed.

DISCLOSURE OF LOCAL OFFICER'S INTEREST

I, Frank Frione, hereby disclose that on August 26, 20 16:

(a) A measure came or will come before my agency which (check one)

☐ inured to my special private gain or loss;

___ inured to the special gain or loss of my business associate, _____;

___ inured to the special gain or loss of my relative, _____;

✓ inured to the special gain or loss of GFA International, Inc., by whom I am retained; or

___ inured to the special gain or loss of _____, which is the parent organization or subsidiary of a principal which has retained me.

(b) The measure before my agency and the nature of my conflicting interest in the measure is as follows:

Agenda Item R1 was presented before the SFRTA Governing Board and I abstained from voting for projects 1 and 2 listed below because my firm, GFA International, Inc., is doing work for All Aboard Florida.

R1 - MOTION TO APPROVE - Amendment No. 1 to the South Florida Regional Transportation Authority (SFRTA) Capital Budget to increase the FY 2016-2017 Budget by $55,527,408, and the overall 5 year Capital Budget by $243,526,445 to provide for the following projects:

1. Tri-Rail Downtown Miami Link Station Improvements in the amount of $48,902,749
2. Repayment of All Aboard Florida Loan for Tri-Rail Station Improvements and interest in the amount of $20,046,225
3. Wave-Ft. Lauderdale Street Car in the amount of $165,285,815
4. Wave Northern Loop in the amount of $7,544,568
5. Scrap rail cleanup along the SFRC Corridor in the amount of $1,627,509
6. Roof replacement on the Hialeah Administration Building in the amount of $119,579

8/26/2016
Date Filed

Signature

NOTICE: UNDER PROVISIONS OF FLORIDA STATUTES §112.317, A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR AND MAY BE PUNISHED BY ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED $10,000.

R9

FORM 8B MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS

LAST NAME—FIRST NAME—MIDDLE NAME Frione, Frank	NAME OF BOARD, COUNCIL, COMMISSION, AUTHORITY, OR COMMITTEE South Florida Regional Transportation Authority (SFRTA)
MAILING ADDRESS 1215 Wallace Drive	THE BOARD, COUNCIL, COMMISSION, AUTHORITY OR COMMITTEE ON WHICH I SERVE IS A UNIT OF: ☐ CITY ☐ COUNTY ☑ OTHER LOCAL AGENCY
CITY Delray Beach COUNTY Palm Beach	NAME OF POLITICAL SUBDIVISION:
DATE ON WHICH VOTE OCCURRED 8/26/2016	MY POSITION IS: ☐ ELECTIVE ☑ APPOINTIVE

WHO MUST FILE FORM 8B

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* * * * * * * * * * * * * * * *

ELECTED OFFICERS:

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PRIOR TO THE VOTE BEING TAKEN by publicly stating to the assembly the nature of your interest in the measure on which you are abstaining from voting; *and*

WITHIN 15 DAYS AFTER THE VOTE OCCURS by completing and filing this form with the person responsible for recording the minutes of the meeting, who should incorporate the form in the minutes.

* * * * * * * * * * * * * * * *

APPOINTED OFFICERS:

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APPOINTED OFFICERS (continued)

- A copy of the form must be provided immediately to the other members of the agency.
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DISCLOSURE OF LOCAL OFFICER'S INTEREST

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(a) A measure came or will come before my agency which (check one)

☐ inured to my special private gain or loss;

___ inured to the special gain or loss of my business associate, ___;

___ inured to the special gain or loss of my relative, ___;

✓ inured to the special gain or loss of GFA International, Inc., by whom I am retained; or

___ inured to the special gain or loss of ___, which is the parent organization or subsidiary of a principal which has retained me.

(b) The measure before my agency and the nature of my conflicting interest in the measure is as follows:

The following item was presented before the SFRTA Governing Board and I abstained from voting because my firm, GFA International, Inc., is doing work for All Aboard Florida.

R9. MOTION TO APPROVE: Waiver of the condition in the Access, Operating and Funding Agreement for execution of the SEOPW CRA/City of Miami Revenue Agreement prior to the disbursal of funds to AAF for the payment of Invoice No. 1 and the Change Order.

8/26/16
Date Filed

Signature

NOTICE: UNDER PROVISIONS OF FLORIDA STATUTES §112.317, A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR AND MAY BE PUNISHED BY ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED $10,000.

R1
1, 2

FORM 8B MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS

LAST NAME—FIRST NAME—MIDDLE NAME Scott, James A.	NAME OF BOARD, COUNCIL, COMMISSION, AUTHORITY, OR COMMITTEE South Florida Regional Transportation Authority (SFRTA)
MAILING ADDRESS 110 S.E. 6th Street, 15th Floor	THE BOARD, COUNCIL, COMMISSION, AUTHORITY OR COMMITTEE ON WHICH I SERVE IS A UNIT OF: ☐ CITY ☐ COUNTY ☑ OTHER LOCAL AGENCY
CITY: Fort Lauderdale COUNTY: Broward	NAME OF POLITICAL SUBDIVISION:
DATE ON WHICH VOTE OCCURRED 08/26/2016	MY POSITION IS: ☐ ELECTIVE ☑ APPOINTIVE

WHO MUST FILE FORM 8B

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For purposes of this law, a "relative" includes only the officer's father, mother, son, daughter, husband, wife, brother, sister, father-in-law, mother-in-law, son-in-law, and daughter-in-law. A "business associate" means any person or entity engaged in or carrying on a business enterprise with the officer as a partner, joint venturer, coowner of property, or corporate shareholder (where the shares of the corporation are not listed on any national or regional stock exchange).

* * * * * * * * * * * * * * * *

ELECTED OFFICERS:

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WITHIN 15 DAYS AFTER THE VOTE OCCURS by completing and filing this form with the person responsible for recording the minutes of the meeting, who should incorporate the form in the minutes.

* * * * * * * * * * * * * * * *

APPOINTED OFFICERS:

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APPOINTED OFFICERS (continued)

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DISCLOSURE OF LOCAL OFFICER'S INTEREST

I, James A. Scott, hereby disclose that on August 26, 20 16;

(a) A measure came or will come before my agency which (check one)

☐ inured to my special private gain or loss;

___ inured to the special gain or loss of my business associate, _____;

___ inured to the special gain or loss of my relative, _____;

___ inured to the special gain or loss of _____, by whom I am retained; or

___ inured to the special gain or loss of All Aboard Florida, which is the parent organization or subsidiary of a principal which has retained me.

(b) The measure before my agency and the nature of my conflicting interest in the measure is as follows:

Agenda Item R1 was presented before the SFRTA Governing Board and I abstained from voting for projects 1 and 2 listed below because my law firm represents All Aboard Florida with regard to an unrelated local matter in Fort Lauderdale, FL

R1 - MOTION TO APPROVE - Amendment No. 1 to the South Florida Regional Transportation Authority (SFRTA) Capital Budget to increase the FY 2016-2017 Budget by $55,527,408, and the overall 5 year Capital Budget by $243,526,445 to provide for the following projects:

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2. Repayment of All Aboard Florida Loan for Tri-Rail Station Improvements and interest in the amount of $20,046,225
3. Wave-Ft. Lauderdale Street Car in the amount of $165,285,815
4. Wave Northern Loop in the amount of $7,544,568
5. Scrap rail cleanup along the SFRC Corridor in the amount of $1,627,509
6. Roof replacement on the Hialeah Administration Building in the amount of $119,579

Aug 26 2016
Date Filed

Signature

NOTICE: UNDER PROVISIONS OF FLORIDA STATUTES §112.317, A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR AND MAY BE PUNISHED BY ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED $10,000.

R9

FORM 8B MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS

LAST NAME—FIRST NAME—MIDDLE NAME Scott, James A.	NAME OF BOARD, COUNCIL, COMMISSION, AUTHORITY, OR COMMITTEE South Florida Regional Transportation Authority (SFRTA)
MAILING ADDRESS 110 S.E. 6th Street, 15th Floor	THE BOARD, COUNCIL, COMMISSION, AUTHORITY OR COMMITTEE ON WHICH I SERVE IS A UNIT OF: ☐ CITY ☐ COUNTY ☑ OTHER LOCAL AGENCY
CITY Fort Lauderdale COUNTY Broward	NAME OF POLITICAL SUBDIVISION:
DATE ON WHICH VOTE OCCURRED 08/26/2016	MY POSITION IS: ☐ ELECTIVE ☑ APPOINTIVE

WHO MUST FILE FORM 8B

This form is for use by any person serving at the county, city, or other local level of government on an appointed or elected board, council, commission, authority, or committee. It applies equally to members of advisory and non-advisory bodies who are presented with a voting conflict of interest under Section 112.3143, Florida Statutes.

Your responsibilities under the law when faced with voting on a measure in which you have a conflict of interest will vary greatly depending on whether you hold an elective or appointive position. For this reason, please pay close attention to the instructions on this form before completing the reverse side and filing the form.

INSTRUCTIONS FOR COMPLIANCE WITH SECTION 112.3143, FLORIDA STATUTES

A person holding elective or appointive county, municipal, or other local public office MUST ABSTAIN from voting on a measure which inures to his or her special private gain or loss. Each elected or appointed local officer also is prohibited from knowingly voting on a measure which inures to the special gain or loss of a principal (other than a government agency) by whom he or she is retained (including the parent organization or subsidiary of a corporate principal by which he or she is retained); to the special private gain or loss of a relative; or to the special private gain or loss of a business associate. Commissioners of community redevelopment agencies under Sec. 163.356 or 163.357, F.S., and officers of independent special tax districts elected on a one-acre, one-vote basis are not prohibited from voting in that capacity.

For purposes of this law, a "relative" includes only the officer's father, mother, son, daughter, husband, wife, brother, sister, father-in-law, mother-in-law, son-in-law, and daughter-in-law. A "business associate" means any person or entity engaged in or carrying on a business enterprise with the officer as a partner, joint venturer, coowner of property, or corporate shareholder (where the shares of the corporation are not listed on any national or regional stock exchange).

* * * * * * * * * * * * * * * *

ELECTED OFFICERS:

In addition to abstaining from voting in the situations described above, you must disclose the conflict:

PRIOR TO THE VOTE BEING TAKEN by publicly stating to the assembly the nature of your interest in the measure on which you are abstaining from voting; *and*

WITHIN 15 DAYS AFTER THE VOTE OCCURS by completing and filing this form with the person responsible for recording the minutes of the meeting, who should incorporate the form in the minutes.

* * * * * * * * * * * * * * * *

APPOINTED OFFICERS:

Although you must abstain from voting in the situations described above, you otherwise may participate in these matters. However, you must disclose the nature of the conflict before making any attempt to influence the decision, whether orally or in writing and whether made by you or at your direction.

IF YOU INTEND TO MAKE ANY ATTEMPT TO INFLUENCE THE DECISION PRIOR TO THE MEETING AT WHICH THE VOTE WILL BE TAKEN:

- You must complete and file this form (before making any attempt to influence the decision) with the person responsible for recording the minutes of the meeting, who will incorporate the form in the minutes. (Continued on other side)

APPOINTED OFFICERS (continued)

- A copy of the form must be provided immediately to the other members of the agency.
- The form must be read publicly at the next meeting after the form is filed.

IF YOU MAKE NO ATTEMPT TO INFLUENCE THE DECISION EXCEPT BY DISCUSSION AT THE MEETING:

- You must disclose orally the nature of your conflict in the measure before participating.
- You must complete the form and file it within 15 days after the vote occurs with the person responsible for recording the minutes of the meeting, who must incorporate the form in the minutes. A copy of the form must be provided immediately to the other members of the agency, and the form must be read publicly at the next meeting after the form is filed.

DISCLOSURE OF LOCAL OFFICER'S INTEREST

I, James A. Scott, hereby disclose that on August 26, 20 16:

(a) A measure came or will come before my agency which (check one)

☐ inured to my special private gain or loss;

___ inured to the special gain or loss of my business associate, ___;

___ inured to the special gain or loss of my relative, ___;

___ inured to the special gain or loss of ___, by whom I am retained; or

✓ inured to the special gain or loss of All Aboard Florida, which is the parent organization or subsidiary of a principal which has retained me.

(b) The measure before my agency and the nature of my conflicting interest in the measure is as follows:

Item R9 before the SFRTA Board is the Waiver of the condition in the Access, Operating and Funding Agreement for execution of the SEOPW CRA/City of Miami Revenue Agreement prior to the disbursal of funds to AAF for the payment of Invoice No. 1 and the Change Order.

I abstained from voting because my law firm represents All Aboard Florida with regard to an unrelated local matter in Fort Lauderdale, FL.

Aug 26, 2016
Date Filed

Signature

NOTICE: UNDER PROVISIONS OF FLORIDA STATUTES §112.317, A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR AND MAY BE PUNISHED BY ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED $10,000.

Tracking No. 09231642 AGENDA ITEM NO. PH 1

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Public Hearing ☐ Regular

PUBLIC HEARING AND SERVICE EQUITY ANALYSIS FOR DISCONTINUATION OF THE OPA-LOCKA SOUTH ROUTE COMMUTER BUS SERVICE

REQUESTED ACTION:

MOTION TO APPROVE: Discontinuation of the South Florida Regional Transportation Authority (SFRTA) Opa-Locka South Route Commuter Bus Service by November 1, 2016.

SUMMARY EXPLANATION AND BACKGROUND:

The South Florida Regional Transportation Authority (SFRTA) has assisted the City of Opa-Locka (City) in the operation of the Opa-Locka South Route (South Route) over the last five (5) years. The South Route was funded through a Federal Transit Administration (FTA) Job Access and Reverse Commute (JARC) Grant which provided 50% of the funding for the South Route. The JARC Grant was matched by 25% funding from the City of Opa-Locka and 25% funding from the SFRTA.

The JARC Grant Program was repealed by the federal government and funding is no longer available to support continued service. Additionally, the Funding Agreement between SFRTA and the City expired on June 30, 2016 (Exhibit 1). Over the last year, SFRTA staff has notified the City on numerous occasions regarding the expiration of the JARC Grant funds, along with the expiration of the Funding Agreement between SFRTA and the City.

(Continued on page 2)

Department: Planning and Capital Development Department Director: William L. Cross, P.E.
Project Manager: Loraine Cargill Procurement Director: N/A

FISCAL IMPACT: There are no funds programmed for the Opa-Locka South Route in the approved FY 2016-2017 Operating Budget

EXHIBITS ATTACHED:
Exhibit 1 – Funding Agreement with City of Opa-Locka
Exhibit 2 – Service Equity Analysis Report
Exhibit 3 – Service Equity Analysis Presentation
Exhibit 4 – Public Hearing Notice

PUBLIC HEARING AND SERVICE EQUITY ANALYSIS FOR DISCONTINUATION OF THE OPA-LOCKA SOUTH ROUTE COMMUTER BUS SERVICE

SUMMARY EXPLANATION AND BACKGROUND (Continued):

On April 22, 2016, the SFRTA Governing Board also approved SFRTA's five (5) Year Commuter Bus Service and Financial Plan (Commuter Bus Plan) with no funding programmed for the continued operation of the South Route.

In accordance with SFRTA's policy regarding major service changes, SFRTA is required to conduct a Service Equity Analysis and Public Hearing for the South Route. Results of the Service Equity Analysis show that discontinuation of the South Route will adversely impact the population within the ¼ mile South Route transit access area, which includes minorities, low-income persons, and minorities that are also low-income (Exhibit 2).

In an effort to obtain public input about the service change, prior to the Public Hearing, SFRTA provided passengers the opportunity to direct comments through e-mail, phone, comment cards distributed on buses, and by mail. SFRTA also coordinated with the City of Opa-Locka throughout the public input process.

A Notice of Public Hearing for discontinuation of the South Route was advertised on September 12, 2016 on the SFRTA website and in local newspapers in each county. A Public Hearing will be held at the September 23, 2016 SFRTA Governing Board meeting. Results of the Service Equity Analysis will also be presented at the Governing Board meeting (Exhibit 3).

Upon approval by the SFRTA Governing Board, the South Route will cease operations on November 1, 2016.

AGENDA ITEM NO. PH 1

PUBLIC HEARING AND SERVICE EQUITY ANALYSIS FOR DISCONTINUATION OF THE OPA-LOCKA SOUTH ROUTE COMMUTER BUS SERVICE

Recommended by: _____ 9/16/16 Approved by: _____
Department Director Date Procurement Director Date

Authorized by: _____ 9/16/16 Approved as to Form by: _____
Executive Director Date General Counsel Date 9-16-16

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	_____ Yes ____ No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	_____Yes _____No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	_____Yes _____No
Frank Frione	____ Yes ____ No	James A. Scott	_____Yes _____No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	_____Yes _____No

AGREEMENT
Between
CITY OF OPA-LOCKA
And
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
For
THE FUNDING OF SHUTTLE BUS SERVICE (SOUTH ROUTE)

THIS AGREEMENT is made and entered into this 27th day of MARCH, 2015, by and between the SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, (hereinafter referred to as "**SFRTA**"), and the CITY OF OPA-LOCKA (hereinafter referred to as "the **CITY**").

RECITALS

A. In 2011, **SFRTA** and the **CITY** previously entered into an Agreement (the "Original Agreement") for the establishment of bus service to connect with the Opa-locka Tri-Rail Station (the "Opa-locka South Route").

B. The term of the Original Agreement was for (2) years with two additional one (1) year option.

C. The SFRTA Governing Board previously approved the renewal of both one (1) year options, the second of which expired February 12, 2015.

D. **SFRTA** wishes to assist the **CITY** by operating the Opa-locka South Route, and the **CITY** has agreed to fund 25% ($94,737.50) of the route as its share of the local match required to obtain funding under the Federal Transit Administration's Job Access and Reverse Commute ("JARC') program (JARC GRANTS No. FL-37-X065-00 and FL-37-X082-00).

E. **SFRTA** has agreed to fund 25% ($94,737.50) of the Opa-locka South Route as its share of the local match to obtain funding under the JARC program.

NOW, THEREFORE, in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, **SFRTA** and the **CITY** agree as follows:

ARTICLE 1- SHUTTLE BUS SERVICES

1.1 **SFRTA** shall operate the Opa-locka South Route based on the "Existing Service Alignment and Operating Hours" as identified on Exhibit "A" of this Agreement. The route may deviate up to ¼ mile from the current alignment based on the recommendations of the **CITY** provided it continues to serve the Opa-locka Tri-Rail Station and does not negatively impact the existing level of service developed by **SFRTA.**

ARTICLE 2 – TERM OF AGREEMENT

2.1 This Agreement shall become effective upon execution by both parties. The Agreement shall expire by June 30, 2016 or when the JARC funds expire, whichever occurs first.

ARTICLE 3 – FUNDING

3.1 Local Matching Share. The **CITY** shall pay **SFRTA** for Shuttle Bus Service in the amount of $94,737.50 as its share of the JARC program's required 25% local match. **SFRTA** shall contribute $94,737.50 from **SFRTA** funds as its share of the JARC program's required 25% local match.

3.2 **SFRTA** shall invoice **CITY** at the end of each monthly service period and **CITY** shall pay invoices within thirty (30) days of receipt.

3.3 Cost Increase. If the cost of the service increases due to a change in Contract Rate charged to SFRTA by its shuttle bus contractor, or because the parties agree to add service during the term of the Agreement, then the **SFRTA** and the **CITY** will share equally in the cost increase. **SFRTA** shall notify the **CITY** within thirty (30) days of a change in the Contract Rate.

3.4 **SFRTA**, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void and no money may be paid on such contract. Nothing herein contained shall prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, **SFRTA**'s performance and obligation to pay under this Agreement is contingent upon an annual appropriation by **SFRTA**'s Governing Board

ARTICLE 4 – PROJECT COORDINATION AND RESPONSIBILITIES

4.1 The **CITY**'s Project Manager for this Agreement shall be the _____for the CITY, or a designee. **SFRTA**'s Project Manager shall be the Operations Manager for **SFRTA,** or a designee.

4.2 **SFRTA** shall report Opa-locka South Route operating data to the National Transit Database (NTD). At a minimum, the monthly reports shall contain Daily Passenger Counts, Operator Manifests, Revenue Hours, Deadhead Hours, Monthly Revenue Miles, Deadhead Miles, Vehicles Operated, Fuel Gallons Consumed, Vehicle Maintenance Costs, and Number of Days Operated.

5.1 Insurance shall be provided by **SFRTA**'s shuttle bus contractor, and evidence of such insurance shall be included as Exhibit B, to this Agreement. **CITY** shall be named as an additional insured on the shuttle bus contractor's Commercial General Liability and Automobile insurance policies by endorsements.

ARTICLE 6 - TERMINATION

6.1 If through any cause within the reasonable control of **SFRTA, SFRTA** shall fail to fulfill in a timely and proper manner, or otherwise violate any of the covenants, agreements, or stipulations which are material to this Agreement, the **CITY** may thereupon give written notice to **SFRTA** of such default and specify what actions must be taken to cure said default to avoid termination hereunder. **SFRTA** shall have sixty (60) days to cure said default or such additional period authorized by the **CITY**. In the event that **SFRTA** shall not have cured said default to the satisfaction of the **CITY** by such deadline, then this Agreement may be terminated by the **CITY** upon notice of termination to **SFRTA**.

6.2 If through any cause within the reasonable control of the **CITY**, the **CITY** shall fail to fulfill in a timely and proper manner, or otherwise violate any of the covenants, agreements, or stipulations which are material to this Agreement, **SFRTA** may thereupon give written notice to the **CITY** of such default and specify what actions must be taken to cure said default and avoid termination hereunder. The **CITY** shall have sixty (60) days to cure or additional period authorized by **SFRTA**. In the event that the **CITY** shall not have cured said default by such deadline, then this Agreement may be terminated by **SFRTA** upon notice of termination to the **CITY**.

6.3 Termination for Convenience. Either party may terminate this Agreement any time by giving forty-five (45) days written notice to the other of its intent to terminate for convenience.

6.4 In the event this Agreement is terminated by either party for convenience, the **CITY** shall reimburse the **SFRTA** within thirty (30) days of termination for services provided, but not invoiced for by **SFRTA**, plus any direct and indirect costs arising out of or related to the termination.

ARTICLE 7 – CHANGES AND MODIFICATIONS

7.1 Upon the execution and delivery of this Agreement, it is understood and agreed that any and all previous agreements and understandings, both written and oral, between the parties are cancelled and have been superseded by this Agreement and that this Agreement embodies and sets forth all understandings between the parties.

7.2 Modifications to this Agreement must be made in the form of a written amendment signed by the **CITY** and **SFRTA.**

ARTICLE 8 - NOTICES

Whenever either party desires to give notice to the other, it must be given by written notice, sent by certified U.S. mail, with return receipt requested, facsimile transmission, express delivery service or hand delivery, addressed to the party for whom it is intended, at the place last specified, and the place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective places for giving of notice:

IN WITNESS WHEREOF, the parties have made and executed this Agreement on the respective date under each signature: **SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY,** signing by and through its Chairperson, duly authorized to execute same, and **CITY OF OPA-LOCKA,** signing by and through its Mayor, authorized to execute same by Commission action on the _____ day of _____, 2015.

ATTEST:

Joanna Flores
City Clerk

CITY OF OPA-LOCKA

Date: 03/13/2015

By: _____
Name:
Title: Mayor

Approved as to Form and Legal Sufficiency:

By: _____
City Attorney

ATTEST:

Jack L. Stephens, Executive Director

(Affirm Corporate Seal)

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Date: 03-27-15

By: _____
Bruno Barreiro, Chair

(Seal)

Approved as to Form and Legal Sufficiency:

By: _____
Teresa J. Moore, General Counsel

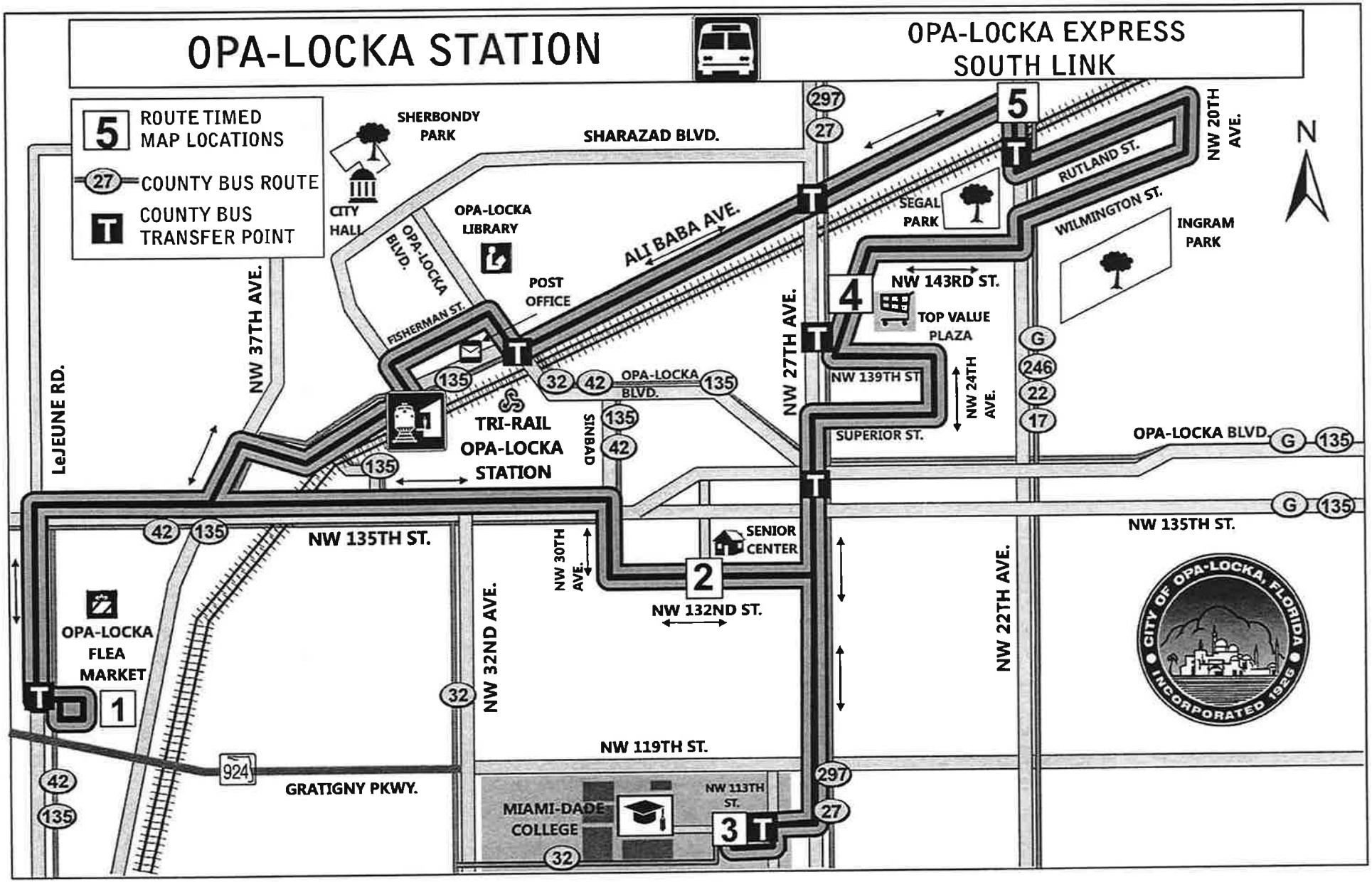
Approved by City Commission on ___, 20 , Item # ___

_____

EXHIBIT "A"
Existing Service Alignment and Operating Hours

OPA-LOCKA STATION

OPA-LOCKA EXPRESS SOUTH LINK



OPA-LOCKA EXPRESS SOUTH LINK SHUTTLE BUS SCHEDULE

WEEKDAY AM&PM

Clockwise Rotation

North Train Arrives	South Train Arrives	Bus Departs Tri-Rail	NW 22nd Ave / Alibaba Ave (5)	Top Value Plaza (4)	Miami Dade College Transit Hub (3)	Senior Center - NW 132nd St. / NW 28th Ave. (2)	Flea Market - North Entrance / Le Jeune Rd. (1)	Bus Arrives Tri-Rail	North Train Departs	South Train Departs
A.M.										
					5:30	5:36	+	5:45	5:55 / 6:15	6:16
5:25	5:31	5:45	5:50	5:58	6:06	6:12	+	6:20	6:35 / 7:15	6:56
5:55/6:15/6:35	6:16 / 6:56	6:58	7:02	7:09	7:18	7:20	7:25	7:32	7:55	7:36 / 7:56
7:15	7:36	7:37	7:42	7:49	7:58	8:00	8:05	8:12	8:36	8:16 / 8:36
7:55	7:56 / 8:16	8:17	8:22	8:29	8:38	8:40	8:45	8:52	+	9:06
8:36	8:36	8:57	9:00	9:07	9:16	9:18	9:22	9:28	9:36	9:36
+	9:06	9:28	9:32	9:39	9:48	9:50	9:55	10:02	10:36	+
9:36	9:36	10:02	10:06	10:13	10:22	10:24	10:28	10:36	+	10:41
10:36	10:41	10:42	10:46	10:53	11:02	11:04	11:08	11:14	11:36	11:41
+	+	11:20	11:28	11:36	11:46	11:54	12:05	12:12	12:36	12:41
P.M.										
11:36	11:41	12:20	12:28	12:36	12:46	12:54	1:05	1:12	1:36	1:41
12:36	12:41	1:12	1:20	1:28	1:38	1:46	1:58	2:05	2:36	2:41
1:36	1:41	2:05	2:13	2:21	2:31	2:40	2:50	2:56	3:26	3:41
2:36	2:41	2:56	3:04	3:12	3:24	3:32	3:42	3:50	4:15	4:41
3:26	3:41	3:50	3:58	4:08	4:20	4:28	4:40	4:48	5:05 / 5:35	5:11 / 5:41
4:15 / 4:45	4:41	4:48	4:56	5:05	5:16	5:25	5:38	5:46	6:03	6:06
5:05 / 5:35	5:11 / 5:41	5:46	5:54	6:02	6:14	6:20	+	6:30	6:35	6:41
6:03	6:06	6:30	6:36	6:44	6:52	7:00	+	+	+	+

Counter-Clockwise Rotation

North Train Arrives	South Train Arrives	Bus Departs Tri-Rail	Flea Market - North Entrance / Le Jeune Rd. (1)	Senior Center - NW 132nd St. / NW 28th Ave (2)	Miami Dade College Transit Hub (3)	Top Value Plaza (4)	NW 22nd Ave / Alibaba Ave (5)	Bus Arrives Tri-Rail	North Train Departs	South Train Departs
A.M.										
				6:25	6:33	6:44	6:52	7:00	7:15	7:36
6:35	6:56	7:00	+	7:08	7:16	7:26	7:34	7:42	7:55	7:56 / 8:16
7:15	7:36	7:42	7:50	7:58	8:06	8:16	8:24	8:32	8:36	8:36 / 9:06
7:55/8:36	7:56/8:16/8:36	8:39	8:48	8:56	9:04	9:14	9:22	9:30	9:36	9:36
9:36	9:06 / 9:36	9:39	9:52	10:00	10:10	10:22	10:30	10:38	+	10:41
10:36	+	10:38	10:47	10:55	11:03	11:13	11:21	11:30	11:36	11:41
+	10:41	11:30	11:39	11:47	11:55	12:05	12:13	12:20	12:36	12:41
P.M.										
11:36	11:41	12:20	12:32	12:40	12:48	1:00	1:08	1:16	1:36	1:41
12:36	12:41	1:16	1:26	1:34	1:42	1:52	2:00	2:08	2:36	2:41
1:36	1:41	2:08	2:18	2:26	2:34	2:44	2:52	3:00	3:26	3:41
2:36	2:41	3:00	3:09	3:17	3:24	3:34	3:42	3:50	4:15 / 4:45	4:41
3:26	3:41	3:50	4:00	4:08	4:16	4:26	4:34	4:42	5:05 / 5:35	5:11
4:15/4:45	4:41	4:48	4:57	5:05	5:13	5:23	5:31	5:39	6:03	5:41 / 6:06
5:05/5:35	5:11 / 5:41	5:45	+	5:53	6:01	6:11	6:19	6:27	6:35	6:41 / 7:06
6:03	6:06	6:27	+	6:35	6:43	6:53	7:01	7:10	7:05	7:51
6:35/ 7:05	6:41 / 7:06	7:10	+	7:15	7:20	7:25	+	+	+	+

Before 7:30AM and after 5:30PM buses will not access the Senior Center directly. Pick up/Drop off along NW 132nd St.
Buses operate as a "Wave & Ride" along the route at any existing local county fixed route stop location.
Where local fixed route stops do not exist, passengers can flag the operator at their preferred location along the route.
+ = No train conectivity

Sponsored by: City Manager

RESOLUTION NO. 15-8940

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF OPA-LOCKA, FLORIDA, AUTHORIZING THE CITY MANAGER TO RENEW AND EXECUTE THE AGREEMENT WITH SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA) IN COMPLIANCE UNDER THE FEDERAL JOB ACCESS REVERSE COMMUTE (JARC) FUNDING GRANT FOR THE SOUTH ROUTE SERVICE, PAYABLE FROM ACCOUNT NUMBER 44-541810, A BUDGETED ITEM; PROVIDING FOR INCORPORATION OF RECITALS; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, pursuant to Resolutions 13-8549 and 14-8764, the South Florida Regional Transportation Authority (SFRTA) will assist funding for the City by operating the Opa-locka South Route; and

WHEREAS, the City of Opa-locka has agreed to its 25% match of $94,737.50, required to obtain funding under the Federal Job Access and Reverse Commute (JARC) funding program; and

WHEREAS, the City Commission of the City of Opa-locka desires to authorize the City Manager to renew and execute the agreement with South Florida Regional Transportation Authority (SFRTA) in compliance under the Federal Job Access Reverse Commute (JARC) funding grant for the South Route service.

NOW, THEREFORE, BE IT DULY RESOLVED BY THE CITY COMMISSION OF THE CITY OF OPA-LOCKA, FLORIDA:

Section 1. The recitals to the preamble herein are incorporated by reference.

Resolution No.15-8940

Section 2. The City Commission of the City of Opa-locka hereby authorizes and directs the City Manager to enter into and execute the renewal agreement with South Florida Regional Transportation Authority (SFRTA) in compliance under the Federal Job Access Reverse Commute (JARC) funding grant for the South Route service, payable from Account Number 44-541810, a budgeted item, substantially in the form attached hereto as Exhibit "A".

Section 3. This resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this 11th day of March, 2015.

MYRA TAYLOR
MAYOR

Attest to:

Joanna Flores
City Clerk

Approved as to form and legal sufficiency:

Vincent T. Brown
City Attorney

Moved by:	COMMISSIONER KELLEY
Seconded by:	COMMISSIONER SANTIAGO
Commission Vote:	3-0
Commissioner Kelley:	YES
Commissioner Pinder:	RECUSED
Commissioner Santiago:	YES
Vice-Mayor Holmes:	YES
Mayor Taylor:	YES

EXHIBIT 2

South Florida Regional Transportation Authority

Service Equity Analysis

OPA-LOCKA SOUTH ROUTE COMMUTER BUS SERVICE

SEPTEMBER 2016

Prepared By:

Kimley»Horn

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Appendix A: Agency Coordination Documents

INTRODUCTION

Transit providers that operate 50 or more fixed route vehicles in peak service and are located in urbanized areas (UZA) of 200,000 or more people must conduct a Title VI equity analysis whenever they plan a fare change and/or a major service change. Equity analyses are required regardless of whether proposed changes would cause positive or negative impacts to riders if the changes meet the transit provider's Major Service Change threshold.

The South Florida Regional Transportation Authority (SFRTA) has committed to the Federal Transit Administration (FTA) Title VI objectives set forth in Circular 4702.1B ensuring that its services are made available and are equitably distributed without regard to race, color, or national origin.

Consistent with FTA requirements and guidelines, SFRTA Disparate Impact and Disproportionate Burden Policies adopted by the SFRTA Board on February 22, 2013 have established thresholds which identify when adverse effects of any Major Service Change are borne disproportionately by minority and/or low-income populations.

This service equity analysis evaluates the potential impacts associated with the discontinuation of the Opa-locka South Route (South Route) operated by SFRTA. Funding for the Opa-locka South Route was obtained through the JARC Grant program, which was awarded through a competitive selection process. The Opa-locka South Route was funded with JARC funds (50%), which was matched 25% by SFRTA and 25% by the City of Opa-locka.

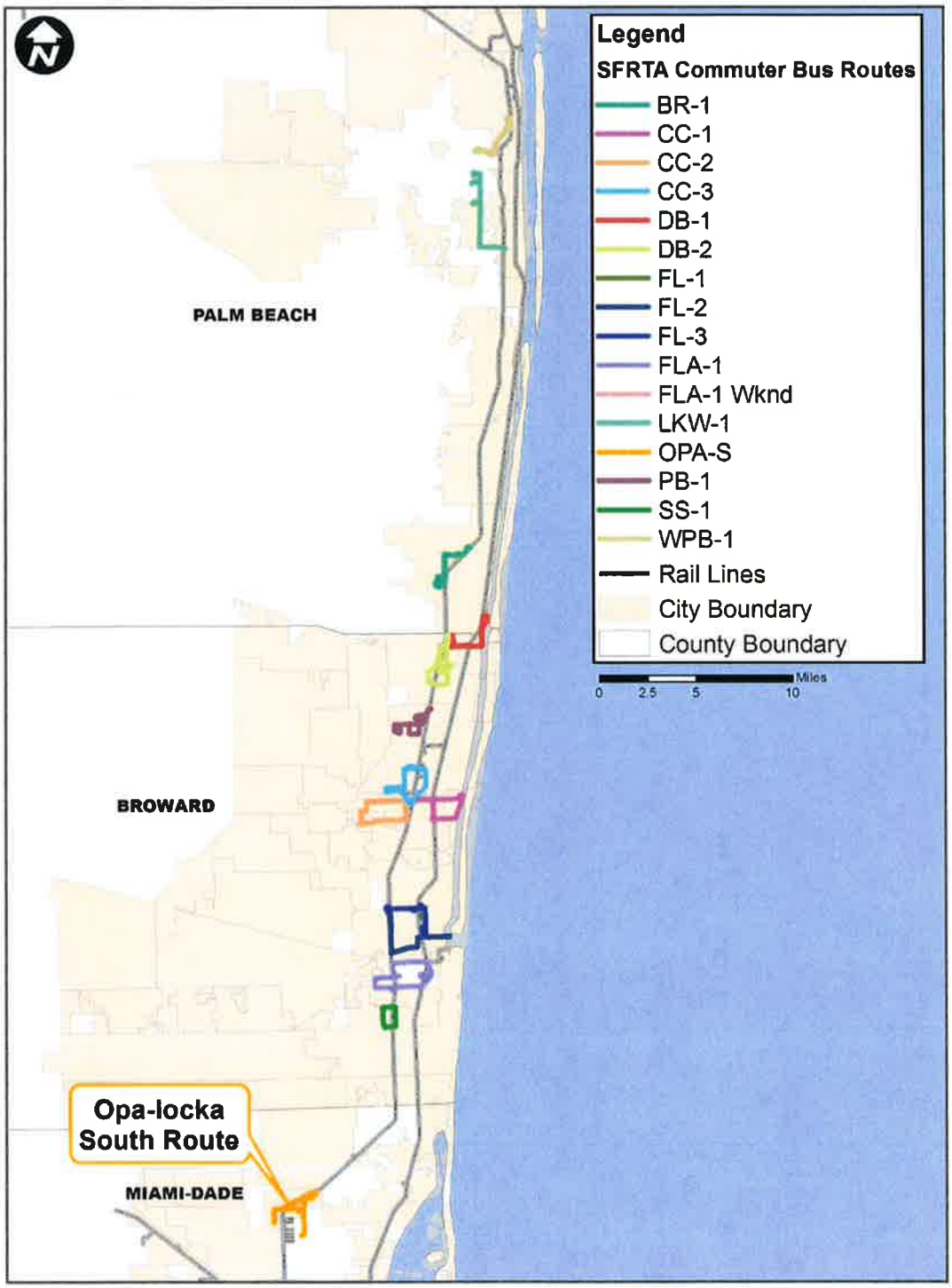
The JARC program was repealed under MAP-21 effective October 1, 2012 and funding is no longer available to support continued service. Also, the agreement between SFRTA and the City of Opa-locka to provide match funding for the JARC grant expired on June 30, 2016.

Additionally, SFRTA's Fiscal Year 2017-2021 Commuter Bus Service and Financial Plan (Commuter Bus Plan) approved at the April 22, 2016 SFRTA Governing Board meeting provided no future funding for the Opa-locka South Route.

The proposed major service change involves the discontinuation of the Opa-locka South Route effective November 1, 2016. This service equity analysis meets the requirements set forth in the FTA Title VI objectives in Circular 4702.1B.

The Opa-locka South Route is one of fifteen (15) SFRTA Commuter Bus Routes, as shown in Figure 1.

Figure 1: SFRTA Commuter Bus System Route Map



ADOPTED FARE AND SERVICE CHANGE POLICY

On February 22, 2013, the following Title VI Disparate Impact and Disproportionate Burden Policies consistent with FTA Circular 4702.1B were adopted by the SFRTA Governing Board and became effective July 1, 2013.

DEFINITIONS

Major Service Change: (1) Major Service Reduction, or (2) any change that results in headways, on any train under SFRTA's direct control, being increased or decreased by more than 25%.

Major Service Reduction: any change that results in: (1) SFRTA headways being increased by more than 25%; or (2) the discontinuance of a train or feeder bus, under SFRTA's direct control, for more than 180 days, or in its entirety. Major Service Reduction excludes Temporary Service Reductions, or those exceptions noted under Exclusions.

Disparate Impact: refers to a facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin (minority population)

Disproportionate Burden: refers to a neutral policy or practice that disproportionately affects low-income population more than non-low-income populations

Low-Income Person: means a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) Poverty guidelines

POLICIES

DISPARATE IMPACT POLICY

The disparate impact policy establishes a threshold identifying when adverse effects of any Major Service Change or any Fare Changes (as defined in SFRTA's Fare and Service Change Policy) are borne disproportionately by minority populations.

A disparate impact occurs when the impacts borne by the minority population adversely affected by the Fare Change or Major Service Change is 10 percent more than the effects borne by the non-minority population. For example, if minorities make up 30% of the overall population, but would bear 45% of the impacts, and the non-minority population (making up 70% of the overall population) would bear 55%, then there may be disparate impact insofar as the minority population bears 15% more than its expected share (from 45% of the burden to 30% of the population); while the non-minority population bears 15% less than its expected share of 55% compared with 70% of the population.

If SFRTA finds a potential disparate impact, the Agency will take steps to avoid, minimize or mitigate the impacts and then will reanalyze the modification to determine whether the impacts have been removed. If SFRTA chooses not to alter the proposed changes despite the potential disparate impact on minority population, or if SFRTA finds that even after the revisions, the

minority population will continue to bear a disproportionate share of the proposed changes, SFRTA may implement the Major Service Change or Fare Change if:

(1) there is substantial legitimate justification for the proposed changes, AND

(2) SFRTA can show that there are no alternatives that would have a less disparate impact on the minority population that would still accomplish SFRTA's legitimate program goals.

DISPROPORTIONATE BURDEN POLICY

The disproportionate burden policy establishes a threshold identifying when adverse effects of any Major Service Change or any Fare Changes are borne disproportionately by low-income populations.

A disproportionate burden occurs when the impacts borne by the low-income population adversely affected by the Fare Change or Major Service Change is 10 percent more than the affects borne by the non-low-income population.

If SFRTA finds that low-income populations will bear a disproportionate burden of the proposed changes, it will take steps to avoid, minimize or mitigate the impacts where practicable. SFRTA will also describe alternatives available to low-income passengers affected by the proposed changes.

If SFRTA chooses not to alter the proposed changes despite the potential disproportionate burden on low-income populations, or if SFRTA finds that even after revisions, the low-income populations will continue to bear a disproportionate share of the proposed changes, SFRTA may implement the Major Service Change or Fare Change if:

(1) there is substantial legitimate justification for the proposed changes, AND

(2) SFRTA can show that there is no alternatives that would have a less disproportionate burden on the low-income population that would still accomplish the Agency's legitimate program goals.

METHODOLOGY

The analysis of possible impacts from the proposed service change on minority populations and low-income populations within a quarter-mile transit service access area around the Opa-locka South route as well as the fourteen (14) system wide routes operated by SFRTA is based on block group-level U.S. Census demographic data and does not represent ridership directly.

Low-income households were determined following the Department of Health and Human Services 2016 Poverty Guidelines for the 48 Contiguous States and District of Columbia (updated January 25, 2016), shown in Table 1 below:

Table 1: 2016 Poverty Guidelines for the 48 Contiguous States and District of Columbia

PERSONS IN FAMILY/HOUSEHOLD	POVERTY GUIDELINE
For families/households with more than 8 persons, add $4,160 for each additional person.	
1	$11,880
2	**$16,020**
3	$20,160
4	**$24,300**
5	$28,440
6	**$32,580**
7	$36,730
8	**$40,890**

Households categorized as minority were any households who self-identified as any ethnicity other than "white" alone, which included; American Indian and Alaska Native; Asian; Black or African American; Hispanic or Latino; Native Hawaiian or other Pacific Islander.

Demographic data from the American Community Survey (ACS) 2014, 5-year estimates data at the block groups level within a quarter-mile of the Opa-locka South route and system-wide routes was assessed. This data included median income, average household size, and race data for block groups which intersected the transit access area. Figure 2 is a map of the minority population census blocks located along the South Route impacted by the Major Service Change. Figure 3 is a map of the low-income population census blocks located along the South Route impacted by the Major Service Change.

Figure 2: Impacted Minority Census Block Groups

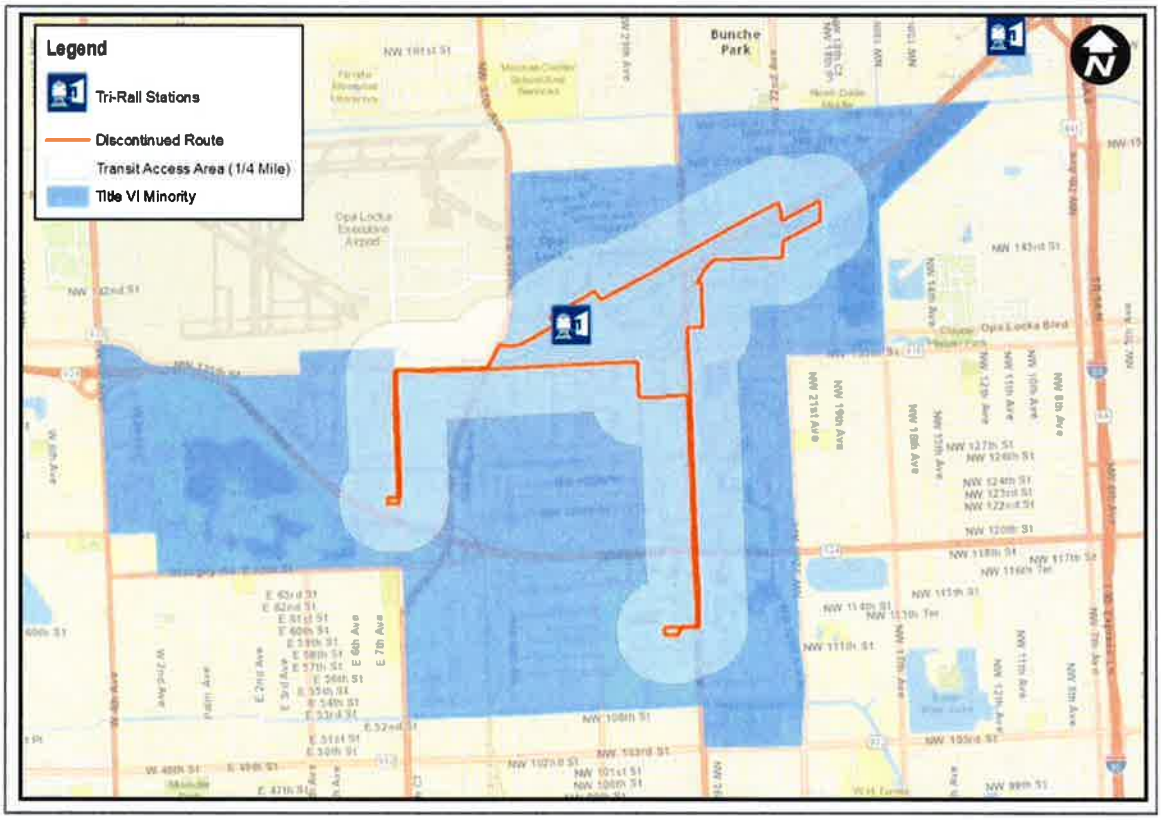
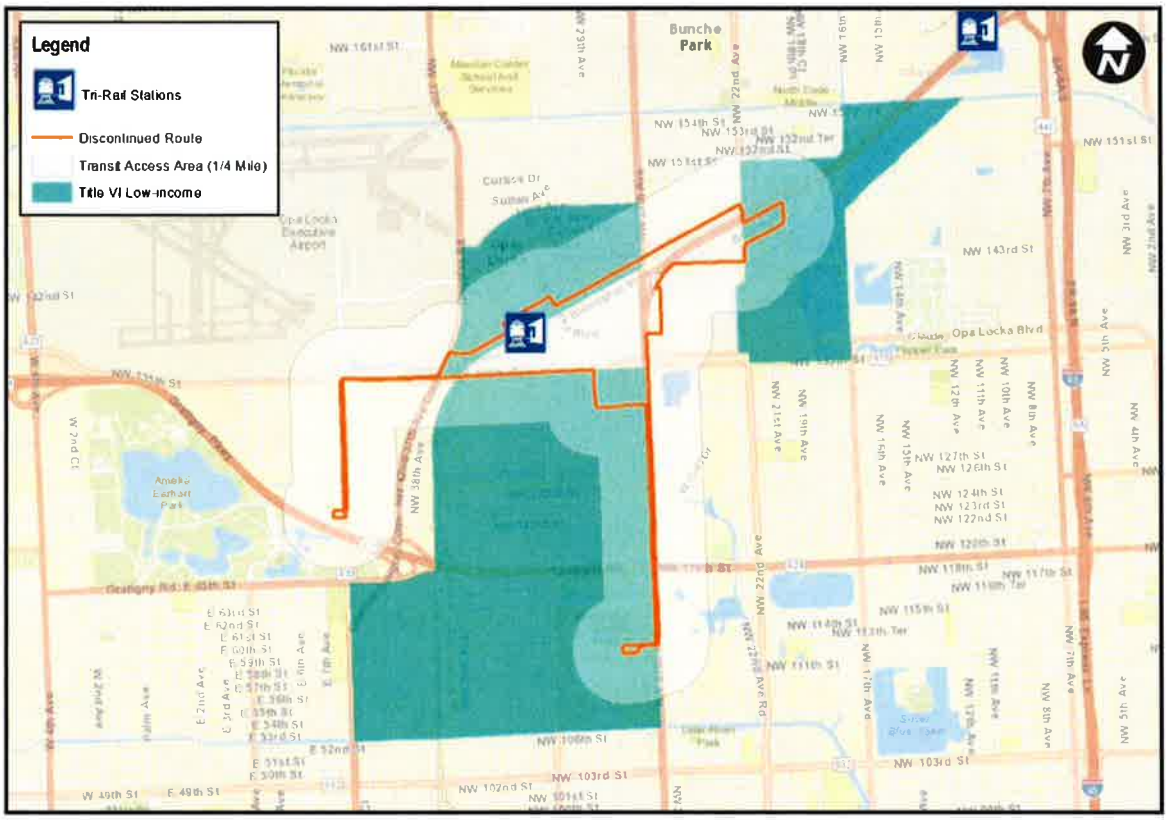


Figure 3: Impacted Low-Income Census Block Groups



ANALYSIS

The estimated impacts associated with the elimination of the South Route will adversely impact the minority populations and disproportionately burden the low-income populations currently serviced by the SFRTA Commuter Buses within a quarter mile of the Opa-locka South route. The proposed impacts exceed the thresholds for both Disparate Impact and Disproportionate Burden set through the adopted policies. Table 2 is a summary of the estimated impacts to the population within a quarter-mile of the route.

Table 2: Disparate Impact and Disproportionate Burden Summary

		System-wide		Route Impact		Impact
		Total	%	Total	%	
Disparate Impact	Minority Population (Only)	178,037	54%	26,134	**97%**	**Yes**
	Non-Minority (Only)	**148,698**	**46%**	**826**	**3%**	
Disparate Impact	Minority and Low-Income Population	18,521	6%	8,874	**33%**	**Yes**
	Non-Minority and Non-Low-Income	**144,849**	**44%**	**727**	**3%**	
Disproportionate Impact	Low-Income Population (Only)	20,001	6%	8,966	**33%**	**Yes**
	Non-Low-Income Population (Only)	**306,734**	**94%**	**17,994**	**67%**	

PUBLIC NOTIFICATION

SFRTA developed public notice posters and comment cards that were posted in the City of Opa-locka City Hall, on the City's website, and distributed on the South Route to riders. An email address (opasouth@sfrta.fl.gov) and call in number was also made available for the public to submit and obtain information. Over 800 Comment cards were distributed in English, Spanish and Creole on the route with over 30% returned with public feedback.

OTHER AGENCY COORDINATION

In advance of the expiration of the JARC program funding and the expiration of the agreement between SFRTA and the City of Opa-locka, SFRTA reached out to the City and other local agencies to discuss possible mitigation options to lessen the impact anticipated with the discontinuation of the South Route. The following summarizes the public engagement efforts completed. The agency coordination consisted of the documents listed below and are provided in Appendix A.

Agreements

- March 27, 2015 – Amended Agreement Between City of Opa-locka and South Florida Regional Transportation Authority for the Funding of Shuttle Bus Service (South Route)
- January 26, 2011 – Original Agreement Between City of Opa-locka and South Florida Regional Transportation Authority for the Funding of Shuttle Bus Service (South Route)

Correspondences (without attachments)

- July 15, 2016 - Letter to Ms. Alice Bravo (Director of Miami-Dade County Department of Transportation and Public Works)
- June 17, 2016 – Letter to Ms. Yvette Harrell (City of Opa-locka Interim City Manager)

JARC Grant Applications

- FY 2012 – FY 2013 Summary of JARC Application
- FY 2010 – FY 2011 Summary of JARC Application

ALTERNATIVE TRANSPORTATION OPTIONS

There are three (3) existing Miami-Dade County Metrobus routes that connect to the Opa-locka Tri-Rail station (Rt 32, Rt 42, Rt 135) that range in bus fares of $1.10-$2.25. These routes do not provide exact duplication of the existing South Route and do not provide access to all areas along the existing South Route.

CONCLUSION

The discontinuation of the Opa-locka South Route will affect minority populations more adversely than the population as a whole, and the changes in routing and route discontinuations appear to affect low-income populations more adversely than the population as a whole.

The JARC program, which represents the main funding source for this route, was repealed under MAP-21 effective October 1, 2012 and funding is no longer available to support continued service. Additionally, the agreement between SFRTA and the City of Opa-locka to provide match funding has expired and SFRTA operating costs for this route have not been budgeted in the FY2017-2021 Commuter Bus Plan.

Currently no alternatives have been identified that would have a less disparate impact on the minority population that would still accomplish SFRTA's legitimate program goals.

APPENDIX A

AGREEMENT
Between
CITY OF OPA-LOCKA
And
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
For
THE FUNDING OF SHUTTLE BUS SERVICE (SOUTH ROUTE)

THIS AGREEMENT is made and entered into this 27th day of MARCH, 2015, by and between the SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, (hereinafter referred to as "**SFRTA**"), and the CITY OF OPA-LOCKA (hereinafter referred to as "the **CITY**").

RECITALS

A. In 2011, **SFRTA** and the **CITY** previously entered into an Agreement (the "Original Agreement") for the establishment of bus service to connect with the Opa-locka Tri-Rail Station (the "Opa-locka South Route").

B. The term of the Original Agreement was for (2) years with two additional one (1) year option.

C. The SFRTA Governing Board previously approved the renewal of both one (1) year options, the second of which expired February 12, 2015.

D. **SFRTA** wishes to assist the **CITY** by operating the Opa-locka South Route, and the **CITY** has agreed to fund 25% ($94,737.50) of the route as its share of the local match required to obtain funding under the Federal Transit Administration's Job Access and Reverse Commute ("JARC') program (JARC GRANTS No. FL-37-X065-00 and FL-37-X082-00).

E. **SFRTA** has agreed to fund 25% ($94,737.50) of the Opa-locka South Route as its share of the local match to obtain funding under the JARC program.

NOW, THEREFORE, in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, **SFRTA** and the **CITY** agree as follows:

ARTICLE 1- SHUTTLE BUS SERVICES

1.1 **SFRTA** shall operate the Opa-locka South Route based on the "Existing Service Alignment and Operating Hours" as identified on Exhibit "A" of this Agreement. The route may deviate up to ¼ mile from the current alignment based on the recommendations of the **CITY** provided it continues to serve the Opa-locka Tri-Rail Station and does not negatively impact the existing level of service developed by **SFRTA.**

ARTICLE 2 – TERM OF AGREEMENT

2.1 This Agreement shall become effective upon execution by both parties. The Agreement shall expire by June 30, 2016 or when the JARC funds expire, whichever occurs first.

ARTICLE 3 – FUNDING

3.1 Local Matching Share. The **CITY** shall pay **SFRTA** for Shuttle Bus Service in the amount of $94,737.50 as its share of the JARC program's required 25% local match. **SFRTA** shall contribute $94,737.50 from **SFRTA** funds as its share of the JARC program's required 25% local match.

3.2 **SFRTA** shall invoice **CITY** at the end of each monthly service period and **CITY** shall pay invoices within thirty (30) days of receipt.

3.3 Cost Increase. If the cost of the service increases due to a change in Contract Rate charged to SFRTA by its shuttle bus contractor, or because the parties agree to add service during the term of the Agreement, then the **SFRTA** and the **CITY** will share equally in the cost increase. **SFRTA** shall notify the **CITY** within thirty (30) days of a change in the Contract Rate.

3.4 **SFRTA**, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void and no money may be paid on such contract. Nothing herein contained shall prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, **SFRTA**'s performance and obligation to pay under this Agreement is contingent upon an annual appropriation by **SFRTA**'s Governing Board

ARTICLE 4 – PROJECT COORDINATION AND RESPONSIBILITIES

4.1 The **CITY**'s Project Manager for this Agreement shall be the _____for the **CITY,** or a designee. **SFRTA**'s Project Manager shall be the Operations Manager for **SFRTA,** or a designee.

4.2 **SFRTA** shall report Opa-locka South Route operating data to the National Transit Database (NTD). At a minimum, the monthly reports shall contain Daily Passenger Counts, Operator Manifests, Revenue Hours, Deadhead Hours, Monthly Revenue Miles, Deadhead Miles, Vehicles Operated, Fuel Gallons Consumed, Vehicle Maintenance Costs, and Number of Days Operated.

5.1 Insurance shall be provided by **SFRTA**'s shuttle bus contractor, and evidence of such insurance shall be included as Exhibit B, to this Agreement. **CITY** shall be named as an additional insured on the shuttle bus contractor's Commercial General Liability and Automobile insurance policies by endorsements.

ARTICLE 6 - TERMINATION

6.1 If through any cause within the reasonable control of **SFRTA, SFRTA** shall fail to fulfill in a timely and proper manner, or otherwise violate any of the covenants, agreements, or stipulations which are material to this Agreement, the **CITY** may thereupon give written notice to **SFRTA** of such default and specify what actions must be taken to cure said default to avoid termination hereunder. **SFRTA** shall have sixty (60) days to cure said default or such additional period authorized by the **CITY**. In the event that **SFRTA** shall not have cured said default to the satisfaction of the **CITY** by such deadline, then this Agreement may be terminated by the **CITY** upon notice of termination to **SFRTA**.

6.2 If through any cause within the reasonable control of the **CITY**, the **CITY** shall fail to fulfill in a timely and proper manner, or otherwise violate any of the covenants, agreements, or stipulations which are material to this Agreement, **SFRTA** may thereupon give written notice to the **CITY** of such default and specify what actions must be taken to cure said default and avoid termination hereunder. The **CITY** shall have sixty (60) days to cure or additional period authorized by **SFRTA**. In the event that the **CITY** shall not have cured said default by such deadline, then this Agreement may be terminated by **SFRTA** upon notice of termination to the **CITY**.

6.3 Termination for Convenience. Either party may terminate this Agreement any time by giving forty-five (45) days written notice to the other of its intent to terminate for convenience.

6.4 In the event this Agreement is terminated by either party for convenience, the **CITY** shall reimburse the **SFRTA** within thirty (30) days of termination for services provided, but not invoiced for by **SFRTA**, plus any direct and indirect costs arising out of or related to the termination.

ARTICLE 7 – CHANGES AND MODIFICATIONS

7.1 Upon the execution and delivery of this Agreement, it is understood and agreed that any and all previous agreements and understandings, both written and oral, between the parties are cancelled and have been superseded by this Agreement and that this Agreement embodies and sets forth all understandings between the parties.

7.2 Modifications to this Agreement must be made in the form of a written amendment signed by the **CITY** and **SFRTA.**

ARTICLE 8 - NOTICES

Whenever either party desires to give notice to the other, it must be given by written notice, sent by certified U.S. mail, with return receipt requested, facsimile transmission, express delivery service or hand delivery, addressed to the party for whom it is intended, at the place last specified, and the place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective places for giving of notice:

IN WITNESS WHEREOF, the parties have made and executed this Agreement on the respective date under each signature: **SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY,** signing by and through its Chairperson, duly authorized to execute same, and **CITY OF OPA-LOCKA,** signing by and through its Mayor, authorized to execute same by Commission action on the _____ day of _____, 2015.

ATTEST:

Joanna Flores
City Clerk

CITY OF OPA-LOCKA

Date: 03/13/2015

By: _____
Name:
Title: Mayor

Approved as to Form and Legal Sufficiency:

By: _____
City Attorney

ATTEST:

_____
Jack L. Stephens, Executive Director

(Affirm Corporate Seal)

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Date: 03-27-15

By: _____
Bruno Barreiro, Chair

(Seal)

Approved as to Form and Legal Sufficiency:

By: _____
Teresa J. Moore, General Counsel

Approved by City Commission on ___, 20 , Item # ___

_____

Sponsored by: City Manager

RESOLUTION NO. 15-8940

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF OPA-LOCKA, FLORIDA, AUTHORIZING THE CITY MANAGER TO RENEW AND EXECUTE THE AGREEMENT WITH SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA) IN COMPLIANCE UNDER THE FEDERAL JOB ACCESS REVERSE COMMUTE (JARC) FUNDING GRANT FOR THE SOUTH ROUTE SERVICE, PAYABLE FROM ACCOUNT NUMBER 44-541810, A BUDGETED ITEM; PROVIDING FOR INCORPORATION OF RECITALS; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, pursuant to Resolutions 13-8549 and 14-8764, the South Florida Regional Transportation Authority (SFRTA) will assist funding for the City by operating the Opa-locka South Route; and

WHEREAS, the City of Opa-locka has agreed to its 25% match of $94,737.50, required to obtain funding under the Federal Job Access and Reverse Commute (JARC) funding program; and

WHEREAS, the City Commission of the City of Opa-locka desires to authorize the City Manager to renew and execute the agreement with South Florida Regional Transportation Authority (SFRTA) in compliance under the Federal Job Access Reverse Commute (JARC) funding grant for the South Route service.

NOW, THEREFORE, BE IT DULY RESOLVED BY THE CITY COMMISSION OF THE CITY OF OPA-LOCKA, FLORIDA:

Section 1. The recitals to the preamble herein are incorporated by reference.

Resolution No.15-8940

Section 2. The City Commission of the City of Opa-locka hereby authorizes and directs the City Manager to enter into and execute the renewal agreement with South Florida Regional Transportation Authority (SFRTA) in compliance under the Federal Job Access Reverse Commute (JARC) funding grant for the South Route service, payable from Account Number 44-541810, a budgeted item, substantially in the form attached hereto as Exhibit "A".

Section 3. This resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this 11th day of March, 2015.

MYRA TAYLOR
MAYOR

Attest to:

Joanna Flores
City Clerk

Approved as to form and legal sufficiency:

Vincent T. Brown
City Attorney

Moved by:	COMMISSIONER KELLEY
Seconded by:	COMMISSIONER SANTIAGO
Commission Vote:	3-0
Commissioner Kelley:	YES
Commissioner Pinder:	RECUSED
Commissioner Santiago:	YES
Vice-Mayor Holmes:	YES
Mayor Taylor:	YES

COPY

EXHIBIT 1

AGREEMENT
Between
CITY OF OPA-LOCKA
And
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
For
THE FUNDING OF SHUTTLE BUS SERVICE (SOUTH ROUTE)

This Agreement (the "Agreement") is being entered into this 26th day of January, 2011, by and between the SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, (hereinafter referred to as the "**SFRTA**"), and the CITY OF OPA-LOCKA (hereinafter referred to as "the **CITY**").

WITNESSETH:

WHEREAS, the **CITY** desires to obtain from **SFRTA** shuttle bus service to connect with SFRTA's Opa-Locka Tri-Rail Station; and

WHEREAS, SFRTA has been awarded a Job Access Reverse Commute ("JARC") grant from the Federal Transit Administration ("FTA") for Fiscal Years 2008 and 2009 to fund 50% of the net operating cost of a shuttle bus route in the City of Opa-Locka for two years, which Total Project Cost (net operating cost for two years) is estimated to be $743,600; and

WHEREAS, the **CITY** has agreed to fund 25% ($185,900) of the Total Project Cost as its share of the local match required to obtain funding under the JARC program;

NOW, THEREFORE, in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, **SFRTA** and the **CITY** agree as follows:

ARTICLE 1 – SERVICES TO BE PROVIDED

SFRTA shall provide weekday shuttle bus service ("Shuttle Bus Service") along the "South Route" as identified as alternative 3B in the **CITY**'s Shuttle Bus Study and as shown on Exhibit A. The service shall be provided through **SFRTA**'s existing Shuttle Bus contractor, or other contractor of **SFTRA**'s choosing, during the term of the agreement, and shall operate 13 hours per day from 6 a.m. to 7 p.m. Monday through Friday. The contractor will use two buses to provide the service.

ARTICLE 2 – TERM OF AGREEMENT

This Agreement shall become effective upon execution by the parties. The term of this Agreement shall be for a period of two (2) years commencing on February 14, 2011 and terminating on February 13, 2013. The Agreement may be extended for additional one-year

periods upon agreement of the parties.

ARTICLE 3 – FUNDING

3.1 Local Matching Share. The **CITY** shall pay SFRTA for the first year of the Shuttle Bus Service in the amount of $92,950 as its share of the JARC program's required 50% local match. The **CITY** shall pay an additional $92,950 as its share of the JARC program's required 50% local match to **SFRTA** for the second year of the Shuttle Bus Service. SFRTA shall contribute $92,950 from SFRTA funds as its share of the JARC program's required 50% local match in the first year of the agreement and $92,950 as its share of the JARC program's required 50% local match in the second year of the agreement.

3.2 JARC Fund Contribution. **SFRTA** shall contribute JARC funds in the amount of $185,900 toward the net operating costs of providing the Shuttle Bus Service in the first year of the agreement and JARC Funds in the amount of $185,900 in the second year of the agreement for a total of $371,800 in JARC Funds. **SFRTA** shall invoice **CITY** at the end of each monthly service period for 25% of the contractor's invoice amount. **CITY** shall pay invoices within thirty (30) days of receipt.

3.3 The parties agree to split the cost of shuttle bus branding with each party contributing 50% of the cost subject to Section 4.2 below.

ARTICLE 4 – PROJECT COORDINATION AND RESPONSIBILITIES

4.1 The **CITY**'s Project Manager for this Agreement shall be the _____for the CITY, or a designee. **SFRTA**'s Project Manager shall be the Director of Operations for **SFRTA,** or a designee.

4.2 The **CITY** and **SFRTA** will brand the buses with the logos of the two agencies and other designs to provide a unique appearance for the vehicles. Prior approval from the governing bodies of the **CITY** and **SFRTA** may be required for the designs.

4.3 **SFRTA** shall be the entity responsible for reporting and receiving credit for Shuttle Bus Service operating data to the National Transit Database ("NTD") for both the South Route and the North Route. The **CITY** shall cooperate with **SFRTA** in providing the required NTD data, including, but not limited to, Passenger Counts, Revenue Hours, Monthly Revenue Miles, Vehicles Operated and Number of Weekdays operated.

ARTICLE 5 - TERMINATION

5.1 If through any cause within the reasonable control of **SFRTA, SFRTA** shall fail to fulfill in a timely and proper manner, or otherwise violate any of the covenants, agreements, or stipulations which are material to this Agreement, the **CITY** may thereupon give written notice to **SFRTA** of such default and specify what actions must be taken to cure said default to avoid termination hereunder. **SFRTA** shall have sixty (60) days to cure said default or such additional

period authorized by the **CITY**. In the event that **SFRTA** shall not have cured said default to the satisfaction of the **CITY** by such deadline, then this Agreement may be terminated by the **CITY** upon notice of termination to **SFRTA**.

5.2 If through any cause within the reasonable control of the **CITY**, the **CITY** shall fail to fulfill in a timely and proper manner, or otherwise violate any of the covenants, agreements, or stipulations which are material to this Agreement, **SFRTA** may thereupon give written notice to the **CITY** of such default and specify what actions must be taken to cure said default and avoid termination hereunder. The **CITY** shall have sixty (60) days to cure or additional period authorized by **SFRTA**. In the event that the **CITY** shall not have cured said default by such deadline, then this Agreement may be terminated by **SFRTA** upon notice of termination to the **CITY**.

5.3 Termination for Convenience. Either party may terminate this Agreement any time by giving forty-five (45) days written notice to the other of its intent to terminate for convenience.

5.4 In the event this Agreement is terminated by either party for convenience, the **CITY** shall reimburse the **SFRTA** within thirty (30) days of termination for services provided, but not invoiced for by **SFRTA**, plus any direct and indirect costs arising out of or related to the termination.

ARTICLE 6 – CHANGES AND MODIFICATIONS

6.1 Upon the execution and delivery of this Agreement, it is understood and agreed that any and all previous agreements and understandings, both written and oral, between the parties are cancelled and have been superseded by this Agreement and that this Agreement embodies and sets forth all understandings between the parties.

6.2 Modifications to this Agreement must be made in the form of a written amendment signed by the **CITY** and **SFRTA.**

ARTICLE 7 - NOTICES

Whenever either party desires to give notice to the other, it must be given by written notice, sent by certified U.S. mail, with return receipt requested, facsimile transmission, express delivery service or hand delivery, addressed to the party for whom it is intended, at the place last specified, and the place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective places for giving of notice:

For CITY:

City of Opa-locka
Attn: City Manager
780 Fisherman St.
Opa-Locka, FL 33054

with a copy to:
City of Opa-locka
Attn: City Attorney
780 Fisherman St.
Opa-Locka, FL 33054

For SFRTA:

South Florida Regional Transportation Authority
Attn: Director of Operations
800 N.W. 33rd Street
Pompano Beach, FL 33064

ARTICLE 8 – STATE LAW AND VENUE

This Agreement shall be construed and interpreted according to the laws of the State of Florida and venue with respect to any litigation shall be Miami-Dade County, Florida, whether in state or federal court. The parties agree that each will submit to the jurisdiction of the Florida state or federal court in any action or proceeding arising out of or related to this Agreement and agree that all claims in respect to such action or proceeding may be heard and determined in Miami-Dade County, Florida, the venue situs.

ARTICLE 9 – FORCE MAJEURE

9.1 In the event the performance by **SFRTA** of any of its obligations or undertakings hereunder shall be interrupted or delayed by any occurrence, whether such occurrence be an act of God, common enemy or the result of war, labor unrest or dispute, riot, civil commotion or sovereign conduct, or any other act or event which **SFRTA** reasonably determines will interfere with its ability to perform, **SFRTA** shall be excused from performance for such period of time as is reasonably necessary after the occurrence to remedy the effects thereof.

9.2 In the event the performance by the **CITY** of any of its obligations or undertakings hereunder shall be interrupted or delayed by any occurrence, whether such occurrence be an act of God, common enemy or the result of war, labor unrest or dispute, riot, civil commotion or sovereign conduct, or any other act or event which the **CITY** reasonably determines will interfere with its ability to perform, the **CITY** shall be excused from performance for such period of time as is reasonably necessary after the occurrence to remedy the effects thereof.

ARTICLE 10 – SUCCESSORS AND ASSIGNS

Subject to other provisions hereof, this Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the parties to the Agreement.

ARTICLE 11 – JOINT PREPARATION

The preparation of this Agreement has been a joint effort of the parties, and the resulting document shall not be construed more severely against one of the parties than the other.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have made and executed this Agreement on the respective date under each signature: **SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY**, signing by and through its Chairperson, duly authorized to execute same, and **CITY OF OPA-LOCKA,** signing by and through its Mayor, authorized to execute same by Commission action on the _____ day of _____, 2011.

ATTEST:

_____
City Clerk

CITY OF OPA-LOCKA

Date: 1/26/11

By: Clarance Patterson
Name:
Title: ~~Mayor~~ City Manager

Approved as to Form and Legal Sufficiency:

By: _____
City Attorney

ATTEST:

_____
Executive Director

(Affirm Corporate Seal)

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Date: JANUARY 28, 2011

By: _____
Chairperson

(Seal)

Approved as to Form and Legal Sufficiency:

By: _____
General Counsel

Approved by City Commission on ___, 2011, Item # _

_____

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
800 NW 33rd Street | Pompano Beach, Florida 33064 | P 954/942-7245 | F 954/788-7878 | www.sfrta.fl.gov

July 15, 2016

Ms. Alice N. Bravo, P.E.
Director, Department of Transportation and Public Works
Miami-Dade County
701 NW 1st Court, Suite 1700
Miami, FL 33166

Subject: City of Opa-Locka South Route

Dear Ms. Bravo:

For the past five years, the South Florida Regional Transportation Authority (SFRTA) has supported the City of Opa-Locka (City) by operating the City's highly successful "South Route" (see enclosed map) shuttle between the City's Tri-Rail station and Miami-Dade College. SFRTA awarded the City a Federal Transit Administration (FTA) Job Access and Reverse Commute (JARC) Grant and was also providing the required 25% local match.

Funding through this JARC Grant is scheduled to expire by August 2016 as is SFRTA's commitment to fund 25%. SFRTA has communicated these financial constraints to the City on numerous occasions but unfortunately, the City is currently unable to continue funding (cost is about $500,000 per year) the South Route. The Opa-Locka South Route has been a great asset to the City of Opa-Locka by connecting residents to the Tri-Rail Opa-Locka Station, Miami-Dade College and numerous City services. On average, the route carries about 17 passengers per hour.

SFRTA's Commuter Bus Program now exceeds $5 million annually, which includes an annual payment to Miami-Dade Transit of $666,666. We had reached out to your staff to explore the possibility to redirecting some of these funds to support the Opa-Locka route, with either MDT or SFRTA operating the service, without success.

On April 22, 2016, the SFRTA Governing Board approved the Fiscal Year 2017-2021 Commuter Bus Service and Financial Plan (Commuter Bus Plan). Per the Commuter Bus Plan, there is no funding programmed for the City's South Route due to financial constraints in SFRTA's Commuter Bus Program. Upon completion of a Service Equity Analysis and Public Hearing (anticipated for the August 26, 2016 SFRTA Governing Board Meeting), SFRTA will discontinue service on the Opa-Locka South Route.

GOVERNING BOARD: Commissioner Steven L. Abrams | Commissioner Bruno A. Barreiro | Andrew Frey | Frank Frione | Nick A. Inamdar | Gerry O'Reilly | F. Martin Perry | Commissioner Tim Ryan | James A. Scott | Beth Talabisco | EXECUTIVE DIRECTOR: Jack L. Stephens

In closing, SFRTA would like to request that Miami-Dade Transit (MDT) consider providing substitute service to replace the SFRTA operated South Route shuttle bus or funding assistance to allow SFRTA to continue to operate this successful route by repurposing the $666,666 in annual shuttle bus funds currently transferred from SFRTA to MDT.

Your consideration of this request is greatly appreciated. If you have any questions, please do not hesitate to contact me at 954-788-7926.

Sincerely,

Jack L. Stephens
Executive Director

Enclosure : Opa-Locka Shuttle Bus Route Map

CC: Yvette Harrell, City of Opa-Locka Interim City Manager
C. Mikel Oglesby, Deputy Executive Director, SFRTA
William L. Cross, Director of Planning & Capital Development, SFRTA
Brad Barkman, Director of Operations, SFRTA
Richard D. Chess, Director of Finance, SFRTA

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
800 NW 33rd Street | Pompano Beach, Florida 33064 | P 954/942-7245 | F 954/788-7878 | www.sfrta.fl.gov

June 17, 2016

Ms. Yvette Harrell
Interim City Manager
780 Fisherman Street, 4th Floor
Opa-locka, FL 33054

Subject: City of Opa-locka and South Florida Regional Transportation Authority Funding Agreement for Commuter Bus Service (South Route)

Dear Ms. Harrell:

The South Florida Regional Transportation Authority (SFRTA) values its partnership with the City of Opa-Locka (City) and has assisted in the operation of the City's South Route over the last five (5) years. Additionally, SFRTA has provided the required 25% match (or $94,737.50) of its share of the local match required to obtain funding under the Federal Transit Administration (FTA) Job Access and Reverse Commute (JARC) grant for this route.

On March 27, 2015, SFRTA renewed its support to the City's South Route by providing funding for an additional year expiring on June 30, 2016 or when the JARC funds expire, whichever occurs first (Enclosure #1.) During that time, City staff was informed that no funding was programmed for this route in SFRTA's Commuter Bus Service and Financial Plan for Fiscal Year 2017 (Enclosure #2.)

The SFRTA currently receives State Block Grant funds in the amount of $3.5 million from the Florida Department of Transportation to support the agency's Commuter Bus Program. Over the last five years, SFRTA's Commuter Bus Program has exceeded cost of more than $5 million annually with expenses projected over the next five years of more than $6 million.

SFRTA has communicated its financial constraints to the City on numerous occasions over the last year and it was understood that the City would continue the funding of this route once the Agreement/JARC funds expired (Enclosure #3.) Upon completion of a Service Equity Analysis and Public Hearing over the next couple months, SFRTA will terminate service on the Opa-locka South Route.

In closing, the SFRTA acknowledges that this route has been instrumental in the success of the Opa-Locka Tri-Rail Station. Please be assured we will continue to seek additional funding for our Commuter Bus Program in the hopes of assisting the City in the future.

(Continued on Page 2)

GOVERNING BOARD Commissioner Steven L. Abrams | Commissioner Bruno A. Barreiro | Andrew Frey | Frank Frione | Nick A. Inamdar | Gerry O'Reilly | F. Martin Perry | Commissioner Tim Ryan | James A. Scott | Beth Talabisco | EXECUTIVE DIRECTOR Jack L. Stephens

If you have any questions, please do not hesitate to contact me at 954-788-7926.

Sincerely,

Jack L. Stephens
Executive Director

Enclosures: 1. City of Opa-locka and South Florida Regional Transportation Authority Funding Agreement
2. Approved SFRTA Five Year Commuter Bus Service and Financial Plan
3. Correspondence between SFRTA and City staff from March 2015 thru April 2016

CC: Owen Carney, Public Works and Utilities Project Coordinator, City of Opa-locka
Delia Kennedy, Grants Coordinator, City of Opa-locka
C. Mikel Oglesby, Deputy Director, SFRTA
William L. Cross, Director of Planning & Capital Development, SFRTA
Brad Barkman, Director of Operations, SFRTA
Richard D. Chess, Director of Finance, SFRTA

FISCAL YEAR 2012 & 2013

5317 JARC APPLICATION PACKAGE

FOR THE

Opa-Locka South Route

JANUARY 28, 2013

02-01-13 A08:34 IN

SECTION 1: SUMMARY OF APPLICATION

Application Type

Please indicate whether this is a JARC or New Freedom Application. CHECK ONLY ONE PROGRAM. If both Program boxes below are checked, the application may be deemed ineligible.

☒ Section 5316 – Job Access and Reverse Commute (JARC)
☐ Section 5317 – New Freedom

Applicant Name and Contact Information

Name of Applicant	South Florida Regional Transportation Authority
Contact Person	William L. Cross, P.E. Manager of Planning and Capital Development
Address	800 NW 33rd Street, Pompano Beach, FL 33064
Email	crossw@sfrta.fl.gov
Phone Number	954 788-7916

Organization Type

☐ Local Government Authority
☐ Private Non-Profit Organization *(please attach IRS 501(c)(3) documentation of non-profit status)*
☒ Public Operator of Public Transportation Services
☐ Private Operator of Public Transportation Services

Partnering Organization and Contact Information (Indicate N/A if not applicable)

Partnering Organization	City of Opa-Locka
Contact Person	Charmaine Parchment
Address	12950 NW 42nd Avenue Opa-Locka, Fl 33054
Email	Cparchement@Opalockafl.gov
Phone Number	(305) 953-2868

Project Type (Place an X in the appropriate box). For a detailed list of eligible projects, please refer to Appendix B: JARC and NF Eligible Projects.

Capital Only	
Operating Only	X
Capital & Operating	
Mobility Management/Coordinated Planning	

Project Information

Project Name	Opa-Locka South Route
Service Area	Opa-Locka, FL and surrounding areas
Start Date	10/1/2014
Total Project Cost	$757,900.00
JARC/NF Funding Requested	$378,950.00
Number of Years for Which Funding Requested	2
Total Local Match	$378,950.00

IMPORTANT: Cost information provided in the above table will be used when the projects are evaluated and funding is requested for successful projects from FTA.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

FISCAL YEAR 2010 & 2011

5317 JARC APPLICATION PACKAGE

FOR THE

Opa-Locka South Route

SEPTEMBER 2, 2011

09-07-11A10:54 RCVD

SECTION 1: SUMMARY OF APPLICATION

Application Type

Please indicate whether this is a JARC or New Freedom Application. CHECK ONLY ONE PROGRAM. If both Program boxes below are checked, the application may be deemed ineligible.

- ☒ **Section 5316 – Job Access and Reverse Commute (JARC)**
- ☐ **Section 5317 – New Freedom**

Applicant Name and Contact Information

Name of Applicant	South Florida Regional Transportation Authority
Contact Person	William L. Cross, P.E. Manager of Planning and Capital Development
Address	800 NW 33rd Street, Pompano Beach, FL 33064
Email	crossw@sfrta.fl.gov
Phone Number	954-788-7916

Organization Type

- ☐ **Local Government Authority**
- ☐ **Private Non-Profit Organization** ***(please attach IRS 501(c)(3) documentation of non-profit status)***
- ☒ **Public Operator of Public Transportation Services**
- ☐ **Private Operator of Public Transportation Services**

Partnering Organization and Contact Information (Indicate N/A if not applicable)

Partnering Organization	City of Opa-Locka
Contact Person	Charmaine Parchment
Address	12950 NW 42 Avenue Opa-locka, Fl 33054
Email	Cparchment@Opalockafl.gov
Phone Number	(305) 953-2828

Project Type (place an X in the appropriate box)

Capital Only	
Operating Only	X
Capital & Operating	
Mobility Management/Coordinated Planning	

Project Information

Project Name	Opa-Locka South Route
Service Area	Opa-Locka and surrounding areas
Start Date	N/A
Total Project Cost	**$757,900.00**
JARC/NF Funding Requested	**$378,950.00**
Number of Years for Which Funding Requested	**2**
Total Local Match	**$378,950**

IMPORTANT: **Cost information provided in the above table will be used when the projects are evaluated and funding is requested for successful projects from FTA.**

To the best of my knowledge, all information in this application is true and accurate. The document has been duly authorized by the governing body or authorized representative of the applicant and the applicant will comply with any certifications and assurances if the fund is awarded.

Signature of Authorized Representative	
Printed Name of Authorized Representative	Jack Stephens

EXHIBIT 3

Service Equity Analysis

Opa-locka South Route Commuter Bus Service

SEPTEMBER 23, 2016

Purpose

- Proposed Major Service Change involves the discontinuation of the Opa-locka South Route (South Route) by November 1, 2016.
- South Route is funded by a Job Access and Reverse Commute (JARC) grant (50%), which is matched 25% by SFRTA and 25% by the City of Opa-locka.
- JARC Program was repealed by Congress and funding is no longer available to support continued service.
- Agreement between SFRTA and the City of Opa-locka to provide match funding expired on June 30, 2016.

Requirements

- A recipient of FTA Federal funding, SFRTA has committed to FTA Title VI objectives in Circular 4702.1B ensuring that its services are made available and are equitably distributed without regard to race, color, or national origin.
- SFRTA's definition of a Major Service Change includes:
  - Major Service Reduction – any change that results in the discontinuance of a train or feeder bus, under SFRTA's direct control, for more than 180 days, or in its entirety.
- Equity analysis is required regardless of whether proposed changes would cause positive or negative impacts to riders if it meets the thresholds of a Major Service Change.

Approved Thresholds

Disparate Impact Policy:

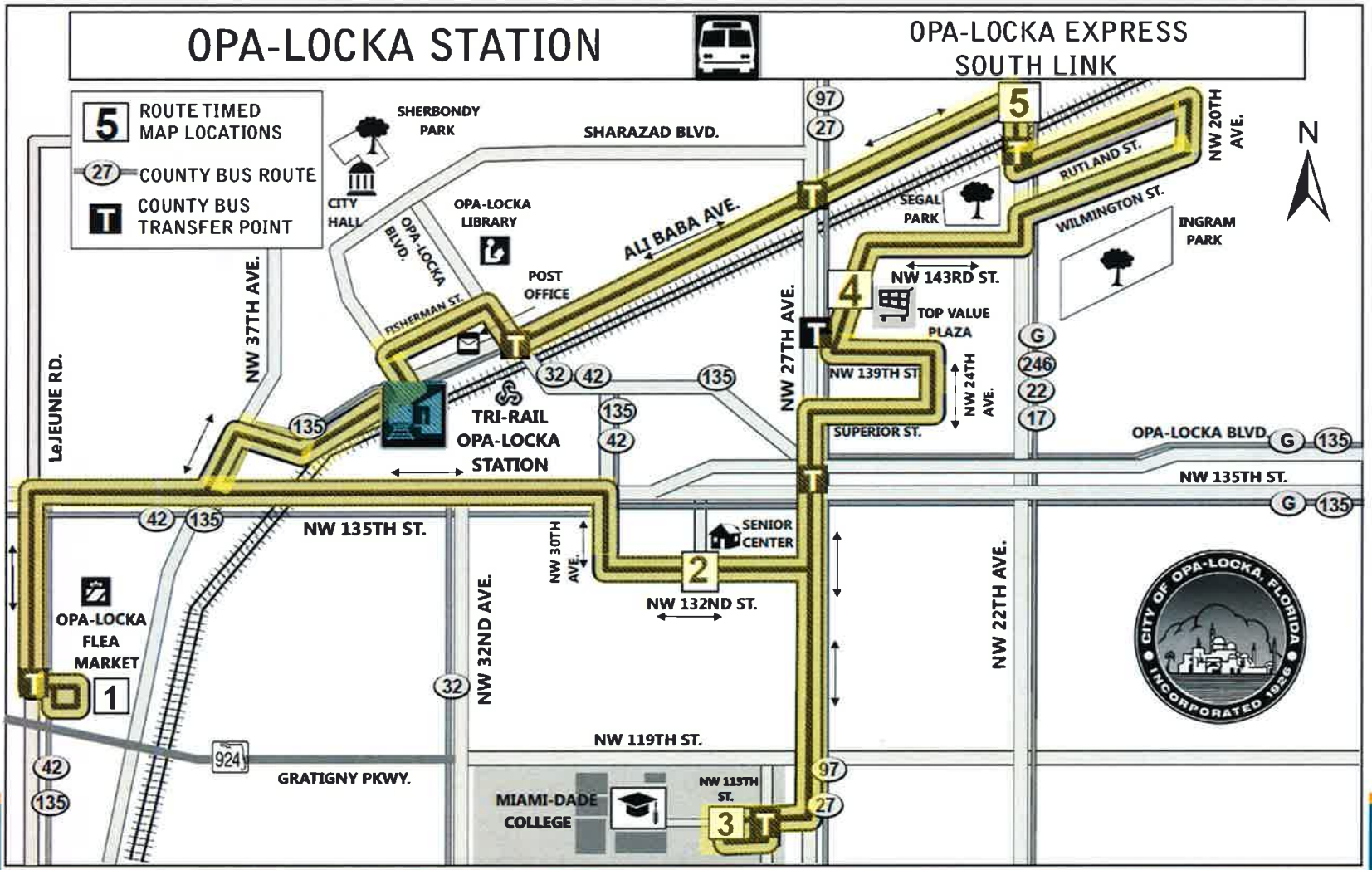
A disparate impact occurs when the impacts borne by the minority population adversely affected by the Fare Change or Major Service Change is **10 percent more** than the effects borne by the non-minority population. *[Adopted on February 22, 2013 by the SFRTA Governing Board.]*

Disproportionate Burden Policy:

A disproportionate burden occurs when the impacts borne by the low-income population adversely affected by the Fare Change or Major Service Change is **10 percent more** than the effects borne by the non-low-income population. *[Adopted on February 22, 2013 by the SFRTA Governing Board.]*

Existing Service - South Route

First Bus Departs - 5:45 AM **Last Bus Departs - 7:10 PM**



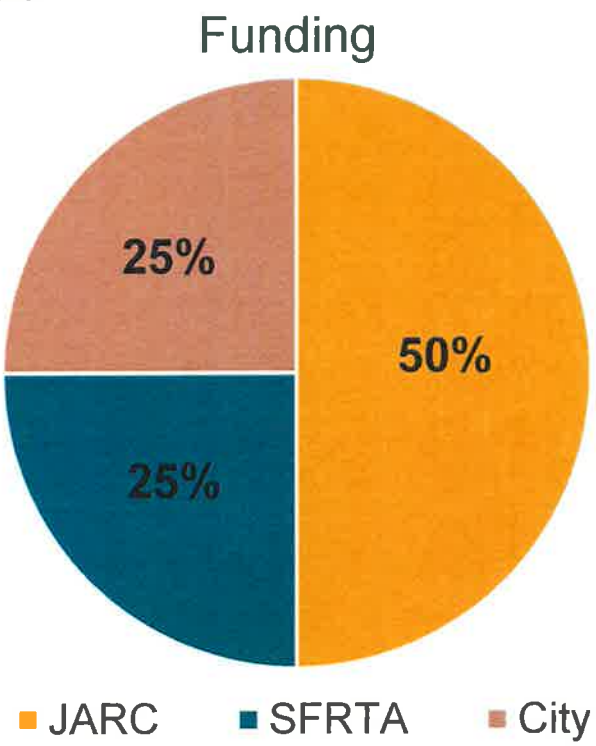
Existing Service - South Route

Opa-locka South Route Ridership and Service Information	
FY16 Total Passengers	**106,657**
FY16 Average Passengers/Hour	**15.7**
FY15 Total Passengers	123,982
FY15 Average Passengers/Hour	18.4
FY14 Total Passengers	122,829
FY14 Average Passengers/Hour	18.3
Total Buses on Route	**2**

- Note: Based on observation from service provider, approximately 50% of riders use the South Route to commute via Tri-Rail.

FY-2016 Operating Costs

- FY16 Operating Costs at $55/hour: $378,950
- Funding Breakdown
  - 50% - FTA JARC Grant: $189,475
  - 25% - City of Opa-locka : $94,737.50
  - 25% - SFRTA: $94,737.50



Projected Operating Costs – Next 3 Fiscal Years

Year	Cost
FY17	$521,332
FY18	$570,018
FY19	$585,720

- JARC grant and match funding agreement have expired.
- Future operating costs for this route have not been budgeted

Methodology

- Equity analysis evaluated the minority, low-income, and minorities that are also low-income populations within the transit access area.
- Transit access area is represented by a one-quarter mile buffer around each route.
- Minority and Low Income populations are defined as:
  - Minority – American Indian and Alaska Native; Asian; Black or African American; Hispanic or Latino; Native Hawaiian or other Pacific Islander.
  - Low Income – a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines.

Findings

		System-wide		Route Impact		Impact
		Total	%	Total	%	
Disparate Impact	Minority Population (Only)	178,037	**54%**	26,134	**97%**	Yes
	Non-Minority (Only)	148,698	46%	826	3%	
Disparate Impact	Minority and Low-Income Population	18,521	**6%**	8,874	**33%**	Yes
	Non-Minority and Non-Low-Income	144,849	44%	727	3%	
Disproportionate Impact	Low-Income Population (Only)	20,001	**6%**	8,966	**33%**	Yes
	Non-Low-Income Population (Only)	306,734	94%	17,994	67%	

Note: Threshold is 10% more than system-wide totals of non-minority and non-low-income population.

- Elimination of the South Route will adversely impact the population within the South Route transit access area, which exceeds the thresholds for both Disparate Impact and Disproportionate Burden approved by the SFRTA Board.

Public Notification

- Comment Cards Distributed
  - 800 cards distributed on buses in English, Spanish, & Creole
  - ~30% returned
- Email address – opasouth@sfrta.fl.gov
- Call-in number – 1-800-874-7245
- City of Opa-locka distribution/posting at City Hall and on City Website

Public Feedback

Need the route/keep route **80%**

Helpful/Beneficial to the community **32%**

Good service (friendly); On time **25%**

Free transportation **16%**

Other Destinations (shopping, doctor, DMV, etc..)

17%

Special Users (disabled, elderly, children)

16%

Work **15%**

School **11%**

Only form of transportation/no car **9%**

Convenient Service **9%**

Mitigation Efforts

Consistent with FTA Circular 4702.1B, if SFRTA finds that the minority population will bear a disproportionate share of the proposed changes, SFRTA may implement the Major Service Change or Fare Change if:

(1) there is substantial legitimate justification for the proposed changes, AND

(2) SFRTA can show that there are no alternatives that would have a less disparate impact on the minority population that would still accomplish SFRTA's legitimate program goals.

- **Agency Coordination - SFRTA has reached out to the following partners to discuss possible funding options**
  - City of Opa-locka
  - Miami-Dade County Transportation and Public Works
  - Citizens Independent Transportation Trust (CITT)
- **Alternative Transportation Options**
  - There are three (3) existing Miami-Dade County Metrobus routes that connect to the Opa-locka Tri-Rail station (Rt 32, Rt 42, Rt 135)
  - County bus fares range from $1.10-$2.25

Conclusion

- Elimination of the South Route will adversely impact the population within its transit access area, which includes minorities, low-income persons, and minorities that are also low-income.
- JARC Program was repealed and funding is no longer available to support continued service.
- SFRTA operating costs for this route have not been budgeted in the FY2017-2021 Commuter Bus Plan.
- Opa-locka South Route will cease operations by November 1, 2016.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

NOTICE OF PUBLIC HEARING FOR DISCONTINUATION OF THE OPA-LOCKA SOUTH ROUTE COMMUTER BUS SERVICE BEGINNING NOVEMBER 1, 2016

NOTICE IS HEREBY GIVEN THAT at the Governing Board Meeting of September 23, 2016, the South Florida Regional Transportation Authority (SFRTA) will hold a Public Hearing at 9:30 A.M. to receive public input on the SFRTA's intent to discontinue the Opa-locka South Route (South Route). All interested individuals and/or groups are invited to attend this meeting and will have an opportunity to present their views and comments, or by responding in writing to the South Florida Regional Transportation Authority at 800 NW 33rd Street, Suite 100, Pompano Beach, FL 33064.

The following is a description of the proposed service changes:

- Discontinuation of the Opa-locka South Route beginning November 1, 2016

Those wishing to review or obtain a copy of any materials pertaining to this public hearing may contact the Customer Service Department at telephone (800) 874-7245; if hearing impaired, telephone (800) 273-7545 (TTY) for assistance. All written comments will be entered into the official records of the public hearing. Persons wishing to address the Board are requested to complete an "Appearance Card" and will be limited to three (3) minutes.

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons with disabilities needing special accommodation to participate in this proceeding, must at least 48 hours prior to the meeting, provide a written request directed to the Executive Office at 800 NW 33rd Street, Suite 100, Pompano Beach, FL 33064, or telephone (954) 942-7245 for assistance; if hearing impaired, telephone (800) 273-7545 (TTY) for assistance.

Any person who decides to appeal any decision made by the Governing Board for the South Florida Regional Transportation Authority with respect to any matter considered at this meeting or hearing, will need a record of the proceedings, and that, for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Unless amended, the proposed South Route discontinuation will serve as final for the South Florida Regional Transportation Authority.

Tracking No. 09231643 AGENDA ITEM NO. PH 2

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Public Hearing ☐ Regular

TRI-RAIL DOWNTOWN MIAMI LINK PROJECT LOAN

REQUESTED ACTION:

MOTION TO APPROVE: Resolution No. 16-06, authorizing the attached Loan Agreement between the South Florida Regional Transportation Authority ("SFRTA") and BankUnited, N.A. ("BankUnited") pursuant to which SFRTA will obtain a loan in an aggregate principal amount not to exceed $22,000,000 as evidenced by a Taxable Promissory Note (the "Note") for the principal purpose of paying costs of the Trackage Improvements, Access Fee and PTC Costs (all as defined below).

SUMMARY EXPLANATION AND BACKGROUND:

Pursuant to the Access, Funding and Operating Agreement between SFRTA, AAF-Operations, LLC and FECR, dated August 8, 2016 (the "Operating Agreement"), SFRTA has committed to pay AAF $16.19 million for trackage improvements necessary for the Tri-Rail Downtown Miami Link Service (the "Trackage Improvements"). In addition, the Operating Agreement requires SFRTA to pay an access fee for access to both the Trackage Improvements and the Station Improvements (as defined in the Operating Agreement) (the "Access Fee") and to pay for any costs SFRTA may incur to equip its Rolling Stock with any necessary positive train control technology to operate on the FECR/AAF corridors ("PTC Costs"). The amount for the Trackage Improvements, Access Fee and PTC Costs (the "Project") is approximately $20.3 million.

In order to fund the Project costs, SFRTA sought a favorable financing plan from local banking institutions with the most advantageous presented by BankUnited. The loan is for a principal amount not to exceed $22,000,000, at an initial interest rate of 2.25% through December 31, 2017 and an interest rate of 3.25% from January 1, 2018 through January 1, 2023 (the "Loan"). The collateral pledged for the Loan is the annual $2.67 million that SFRTA receives from each of the 3 counties (Miami-Dade, Broward and Palm Beach) for a total of $8.01 million per year ("Pledged Revenues").

(Continued on Page 2)

Department: Executive- Jack L. Stephens
Project Manager: Richard D. Chess

Department: Legal - Teresa J. Moore
Procurement Director: N/A

FISCAL IMPACT: Debt service for the loan payments will be added to the SFRTA FY 2016-2017 Capital Budget

EXHIBITS ATTACHED: Exhibit 1-Resolution 16-06, including the Loan Agreement and Note

TRI-RAIL DOWNTOWN MIAMI LINK PROJECT LOAN

SUMMARY EXPLANATION AND BACKGROUND: (Continued from Page 1)

SFRTA's current State Infrastructure Bank Loan with FDOT in the amount of $19.3 million (the "SIB Loan") also uses the Pledged Revenues as collateral. The SIB Loan requires that if the Pledged Revenues are used as collateral on a future loan (such as is the case here), they be subordinated to FDOT's interest and SFRTA shall obtain FDOT's approval for any such subordination. As such, the Loan documents have been sent to the FDOT SIB Loan Manager for FDOT's review, which is anticipated prior to the Board meeting.

Staff is recommending approval of the Resolution, along with the attached Loan Agreement and Note (Exhibit 1).

TRI-RAIL DOWNTOWN MIAMI LINK PROJECT LOAN

Recommended by: _____ Approved by: _____
Department Director Date Procurement Director Date

Authorized by: _____ 9/16/16 Approved as to Form by: _____ 9/16/16
Executive Director Date General Counsel Date

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	_____ Yes ____ No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	_____Yes _____No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	_____Yes _____No
Frank Frione	____ Yes ____ No	James A. Scott	_____Yes _____No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	_____Yes _____No

RESOLUTION NO. 16-06

A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, AUTHORIZING A LOAN IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $22,000,000 FROM BANKUNITED, N.A. FOR THE PRINCIPAL PURPOSE OF PAYING COSTS OF THE PROJECT; AUTHORIZING THE EXECUTION AND DELIVERY OF A LOAN AGREEMENT AND A TAXABLE PROMISSORY NOTE TO EVIDENCE THE OBLIGATION OF THE AUTHORITY TO REPAY SUCH LOAN; PROVIDING SECURITY FOR THE REPAYMENT OF THE LOAN; AUTHORIZING OTHER ACTIONS IN CONNECTION WITH THE LOAN AND THE PROJECT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the South Florida Regional Transportation Authority (the "Authority") is a body politic and corporate, and an agency of the State of Florida established by Part II of Chapter 343, Florida Statutes, as amended (the "Act"), and is duly authorized, pursuant to the Act, to borrow money to finance capital projects; and

WHEREAS, the Authority is in need of funds to pay the costs of the rail improvements and positive train control equipment necessary to facilitate Tri-Rail operations to the Miami Central Station, and an access payment for Tri-Rail access on the Florida East Coast Corridor and into the Miami Central Station (the "Project"); and

WHEREAS, in connection with the Project, BankUnited, N.A. (the "Bank"), has offered to the Authority a loan through a taxable non-revolving line of credit in an aggregate principal amount not to exceed $22,000,000, as more specifically set forth in the hereinafter defined Loan Agreement; and

WHEREAS, the Authority has determined that it is in the best interests of the Authority to finance the Project through the taxable non-revolving line of credit offered by the Bank in an aggregate principal amount not to exceed $22,000,000 (the "Loan"); and

WHEREAS, to evidence its obligation to repay the Loan, the Authority will execute and deliver to the Bank a Loan Agreement (the "Loan Agreement") and a Taxable Promissory Note (the "Note"); and

WHEREAS, pursuant to a State Infrastructure Bank Loan Agreement dated July 29, 2015 (the "SIB Loan Agreement"), by and between the Authority and the State of Florida, Department of Transportation ("FDOT"), the Authority obtained a loan from FDOT in a principal amount not to exceed $19,300,000 (the "SIB Loan") for the purpose of financing the costs of a new operations center; and

WHEREAS, to repay the Loan, the Authority wishes to provide a pledge of the dedicated funds made available to the Authority pursuant to Section 343.58(1), Florida Statutes, as amended, on a basis subordinate to the pledge of such dedicated funds to repay the SIB Loan and any other indebtedness secured on a parity with the SIB Loan (the "Pledged Revenues"), in accordance with the Loan Agreement and the Note; and

WHEREAS, the Authority has obtained the consent of FDOT required under the SIB Loan Agreement to enter into the Loan; and

WHEREAS, the Act requires that the Note be sold by the Authority at public sale by competitive bid, unless, the Authority, after receipt of a written recommendation from a financial advisor, shall determine by official action after public hearing and by a two-thirds vote of all voting members of the Authority that a negotiated sale of the Note is in the best interest of the Authority, in which event the Note may be sold by the Authority pursuant to a negotiated sale; and

WHEREAS, the Authority has received a written recommendation from Clary Consulting, LLC, as financial advisor to the Authority (the "Financial Advisor Recommendation"), a copy of which is attached as Exhibit A to this Resolution, that a sale of the Note in the manner contemplated by this Resolution and the Loan Agreement is in the best interest of the Authority and is preferred to a competitive sale of the Note; and

WHEREAS, the Authority has held on this date a public hearing in connection with the issuance of the Note and the negotiated sale of the Note in the manner contemplated by this Resolution and the Loan Agreement.

NOW, THEREFORE, BE IT DULY RESOLVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY:

Section 1. Definitions. Terms defined in the preambles shall have the meanings set forth in such preambles. All capitalized terms used in this Resolution which are defined in the Loan Agreement shall have the meanings assigned in the Loan Agreement, unless the context affirmatively requires otherwise.

Section 2. Findings. The preambles are incorporated as findings. In addition, it is found, determined and declared that:

(A) The issuance of the Note in an aggregate principal amount not to exceed $22,000,000 for the purpose of financing the cost of the Project is necessary to enable the Authority to achieve its corporate purposes.

(B) Having reviewed the Financial Advisor Recommendation, the Authority hereby determines that a negotiated sale of the Note in the manner contemplated by this Resolution and the Loan Agreement is in the best interest of the Authority and is preferred to a competitive sale of the Note because it offers (i) borrowing at competitive rates obtained through market quotes in a negotiated process due to the complexity of the credit structure, and (ii) flexibility of financing which could not be obtained in a sale through competitive bidding.

Section 3. Loan Authorized. The Loan in an aggregate principal amount not to exceed $22,000,000 outstanding at any time to (i) finance the Project, (ii) fund a deposit to the Reserve Fund, and (iii) pay closing costs of the Loan, including, but not limited to, the commitment fee of the Bank and fees of counsel to the Bank, as described in this Resolution and in the manner provided in the Loan Agreement, is authorized and approved.

Section 4. Authorization of Execution and Delivery of Loan Agreement. The Loan Agreement, in substantially the form attached as Exhibit B to this Resolution, with such changes, alterations and corrections as may be approved by the Vice Chair of the Authority (the "Vice Chair"), after consultation with the Executive Director of the Authority (the "Executive Director") and the General Counsel of the Authority (the "General Counsel"), such approval to be presumed by the execution by the Vice Chair of the Loan Agreement, is approved by the Authority. The Authority authorizes and directs the Vice Chair to execute and the Secretary of the Authority (the "Secretary") to attest under the seal of the Authority the Loan Agreement and to deliver the same to the Bank.

Section 5. Issuance of Note. The Loan shall be evidenced by the Note. The Note, in substantially the form attached to the Loan Agreement, with such changes, alterations and corrections as may be approved by the Vice Chair, after consultation with the Executive Director and the General Counsel, such approval to be presumed by the execution by the Vice Chair of the Note, is approved by the Authority. The Authority authorizes and directs the Vice Chair to make and execute the Note and the Secretary to attest under the seal of the Authority the Note and to issue and deliver the Note to the Bank.

Section 6. Security for the Loan. The Loan shall be payable solely from Pledged Revenues, in accordance with the Loan Agreement and the Note, and no funds of the State of Florida shall be used or pledged to pay the Loan. Neither the Loan nor the Note shall constitute a general obligation of the Authority or the State of Florida or any political subdivision thereof, or a pledge of the faith and credit of the Authority or the State of Florida or any political subdivision thereof within the meaning of any constitutional or statutory provisions or limitations, but shall be payable solely from the Pledged Revenues as provided in the Loan Agreement and Note. The State of Florida is not obligated to pay Loan. The Authority has no taxing power.

Section 7. Designation of Bank as Qualified Public Depository. The Authority hereby designates the Bank as a "qualified public depository", as defined in Chapter 280, Florida Statutes, for purposes of establishing the Bank as an eligible depository of Authority funds.

Section 8. General Authority. The Authority's members, officers, attorneys, agents and employees are authorized to do all acts and things and execute and deliver any and all documents necessary by this Resolution, the Loan Agreement or the Note, or desirable or consistent with the requirements of this Resolution, the Loan Agreement or the Note, in order to obtain the Loan, accomplish the Project and provide for the full, punctual and complete performance of all the terms, covenants and agreements contained in the Loan Agreement, the Note and this Resolution.

Section 9. Severability of Invalid Provisions. If any one or more of the provisions contained in this Resolution shall be held contrary to any express provisions of law or contrary to the policy of express law, though not expressly prohibited, or against public policy, or shall for any reason whatsoever be held invalid, then such covenants, agreements or provisions shall be null and void and shall be deemed separable from the remaining covenants, agreements or provisions and shall in no way affect the validity of any of the other provisions of this Resolution or of the Loan Agreement or the Note.

Section 10. Repealing Clause. All resolutions or parts of such resolutions of the Authority in conflict with the provisions contained in this Resolution are, to the extent of such conflict, superseded and repealed.

Section 11. Effective Date. This Resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED BY THE SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY THIS ____ DAY OF _____, 2016.

SOUTH FLORIDA REGIONAL
TRANSPORTATION AUTHORITY

By: _____
Chair

Approved as to form:

By: _____
General Counsel

EXHIBIT A

FINANCIAL ADVISOR RECOMMENDATION

Clary Consulting, LLC
2910 Kerry Forrest Pkwy D4, Suite 413
Tallahassee, Florida 32309

September 14, 2016

South Florida Regional Transportation Authority
800 NW 33rd Street
Pompano Beach, Florida, 33064

Financial Advisor Recommendation Letter

The South Florida Regional Transportation Authority (SFRTA) desires to secure a loan (also considered a "bond") to provide funds to SFRTA for the Rail and Train System Improvements Project composed of: (i) rail improvements and positive train control equipment necessary to facilitate Tri-Rail operations to the Miami Downtown Station and (ii) an access payment to the owner of the rail line for Tri-Rail access on the FEC corridor; to fund a debt service reserve fund and to pay issuance costs, including but not limited to commitment fees of the Bank and fees of counsel representing the Bank. The approach being pursued is a negotiated private bank loan with a commercial bank after consideration of other options including a competitive bid. Please note that other banks were contacted and one other bank did provide a quote for consideration prior to the SFRTA entering negotiations with the proposed lender.

The Project has critical deadlines related to funding grants from Project partners such as Miami-Dade County and the City of Miami. Funding must be secured in an expedited manner to ensure the Project will move ahead timely so the new Tri-Rail connection to the Downtown Miami Station opens to revenue service as required in the partner funding agreements.

The South Florida Regional Transportation Authority ("SFRTA"), is governed by Part II, of Chapter 343, Florida Statutes, which includes in part Section 343.55(c) Florida Statutes, which reads:

> "The authority shall sell the bonds at public sale by competitive bid. However, if the authority receives a written recommendation from a financial advisor and the authority determines, by official action, that a negotiated sale of the bonds is in the best interest of the authority, the authority may negotiate sale of the bonds with the underwriter designated by the authority, after a public hearing and by a two-thirds vote of all voting members of the authority. The authority shall provide specific findings in a resolution as to the reasons requiring the negotiated sale. This resolution shall incorporate and have

attached the written recommendation of the financial adviser required by this subsection."

As such, Clary Consulting, as a registered Municipal Advisor (also termed "Financial Advisor") with the U.S. Securities and Exchange Commission and the Municipal Securities Rulemaking Board herby recommends the SFRTA use a negotiated approach for the proposed loan (bonds) to provide funds for the Project. This recommendation is based on the following items:

- The SFRTA is new to the commercial loan market and does not have a past history of direct loans other than two public Florida State Infrastructure Bank loans received from the Florida Department of Transportation, with one loan retired and the second currently active for the SFRTA Operations Center.

- The SFRTA being new to the commercial loan market does not have a "credit rating" from an established credit rating agency, which could potentially lead to higher borrowing cost under a competitive bid approach.

- The SFRTA has a complex funding structure. SFRTA does not have general taxing authority. The main revenue source for SFRTA is ridership and associated revenues, which fund under 25% of annual operations costs. SFRTA relies upon funding partners for the majority of their annual revenues for operations and capital.

- The pledged revenues for the Project will be subordinate to a primary and senior pledge for the current Florida State Infrastructure Bank SIB Loan. The pledged revenues include specific funding from Broward, Miami-Dade and Palm Beach Counties that are dedicated to SFRTA by law in Section 343.58(1), Florida Statutes, subordinate to the current Florida State Infrastructure Bank Loan.

- The Project will be part of the SFRTA Capital Budget, which is a multi-year budget, unique to the SFRTA.

- The proposed loan includes a line of credit approach for up to $22 million that is interest only for eighteen months, with principal and interest payments thereafter for five years. The loan will include the ability for SFRTA to prepay the loan with no penalty after July 1, 2017.

Due to the above factors, it required orientation and education sessions with the lenders, including their credit officers, and negotiation of key credit provisions to secure a proposed loan that is acceptable to both the lender and the SFRTA.

In summary, it is in the best interest of the SFRTA and the members of the general public the SFRTA serves for the SFRTA to use a negotiated approach to secure a bank loan to provide funds for the Project to ensure timely project delivery within the deadlines agreed to in funding partner agreements, competitive borrowing cost, avoid unnecessary delays and complications due to the nature of the Project.

Sincerely,

Lowell R. Clary, President
Clary Consulting, LLC
2910 Kerry Forrest Pkwy D4, Suite 413
Tallahassee, Florida 32309

Disclosure Notice: Clary Consulting, LLC is serving as municipal advisor to the South Florida Regional Transportation Authority for the Rail and Train System Improvements Project proposed Bank Loan. Clary Consulting, LLC is a registered municipal advisory with the U.S. Securities and Exchange Commission (866-01104-00) and the Municipal Securities Rulemaking Board (K0635).

EXHIBIT B

LOAN AGREEMENT
(including Note)

LOAN AGREEMENT

This LOAN AGREEMENT (the "Agreement") is made and entered into as of _____, 2016 (the "Closing Date"), and is by and between the South Florida Regional Transportation Authority, a body politic and corporate, and an agency of the State of Florida, and its successors and assigns (the "Borrower"), and BankUnited, N.A., and its authorized successors and assigns, as holder(s) of the hereinafter defined Note (the "Bank").

The parties hereto, intending to be legally bound hereby and in consideration of the mutual covenants hereinafter contained, DO HEREBY AGREE as follows:

ARTICLE I

DEFINITION OF TERMS

Section 1.01. Definitions. The words and terms used in this Agreement shall have the meanings as set forth in the recitals above and the following words and terms as used in this Agreement shall have the following meanings:

"Act" means Part II of Chapter 343, Florida Statutes, as amended.

"Advance" means a borrowing of money under the Note, pursuant to Section 5.03 hereof.

"Agreement" means this Loan Agreement and any and all modifications, alterations, amendments and supplements hereto made in accordance with the provisions hereof.

"Anti-Terrorism Laws" means all laws, rules, and regulations of any jurisdiction applicable to the Borrower from time to time concerning or relating to terrorism or money laundering, including Executive Order No. 13224 on Terrorist Financing, effective September 24, 2001 (the "Executive Order No. 13224"), and the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)).

"Authorized Individual" means any one of the individuals identified on Attachment B.

"Business Day" means any day except any Saturday or Sunday or day on which the Principal Office of the Bank is lawfully closed.

"Costs" means, with respect to the Project, any lawful expenditure of the Borrower which meets the further requirements of this Agreement, including, reimbursement to the Borrower of any moneys previously advanced by the Borrower for the Project.

"Default Rate" means, during the continuance of an Event of Default, the interest rate per annum then borne by the Loan, plus three percent (3.00%) per annum.

"Event of Default" means an Event of Default specified in Article VI of this Agreement.

"FDOT" means the State of Florida, Department of Transportation.

"Loan" means the loan by the Bank to the Borrower contemplated hereby.

"Loan Amount" means, in the aggregate, not to exceed $22,000,000 principal amount.

"Maturity Date" means January 1, 2023.

"Note" means the Borrower's Taxable Promissory Note in the form attached hereto as Attachment A.

"Notice Address" means,

As to the Borrower:	As set forth on Attachment B
As to the Bank:	As set forth on Attachment B

or to such other address as either party may have specified in writing to the other using the procedures specified in Section 7.06.

"Person" means an individual, partnership, corporation, limited liability company, trust, unincorporated organization, association, joint venture or a government or agency or political subdivision or instrumentality thereof.

"Pledged Revenues" means the dedicated funds made available to the Borrower annually pursuant to Section 343.58(1), Florida Statutes, as amended, or any successor provision, which shall be subordinate to the pledge of such dedicated funds to repay any Senior Debt.

"Principal Office" means, with respect to the Bank, the Notice Address, or such other office as the Bank may designate to the Borrower in writing.

"Project" means the rail improvements and positive train control equipment necessary to facilitate Tri-Rail operations to the Miami Central Station, and an access payment for Tri-Rail access on the Florida East Coast Corridor and into the Miami Central Station.

"Reserve Fund" means the Reserve Fund established with the Bank pursuant to Section 3.10 of this Agreement.

"Reserve Fund Requirement" means the amount of $1,000,000.00 to be maintained in the Reserve Fund pursuant to the terms of this Agreement.

"Senior Debt" means the SIB Loan and any other indebtedness incurred by the Borrower from time to time secured on parity with or senior to the SIB Loan.

"SIB Loan" means the loan obtained by the Borrower from FDOT in a principal amount not to exceed $19,300,000 pursuant to the SIB Loan Agreement.

"SIB Loan Agreement" means the State Infrastructure Bank Loan Agreement dated July 29, 2015, by and between the Borrower and FDOT.

"State" means the State of Florida.

Section 1.02. Titles and Headings. The titles and headings of the articles and sections of this Agreement have been inserted for convenience of reference only and are not to be considered a part hereof, shall not in any way modify or restrict any of the terms and provisions hereof, and shall not be considered or given any effect in construing this Agreement or any provision hereof or in ascertaining intent, if any question of intent should arise.

ARTICLE II

REPRESENTATIONS OF BORROWER

The Borrower represents and warrants to the Bank that:

Section 2.01. Powers of Borrower. The Borrower is a body politic and corporate, and an agency of the State, duly organized and validly existing under the laws of the State. The Borrower has the power to borrow the amount provided for in this Agreement, to execute and deliver the Note and this Agreement, to secure the Note in the manner contemplated hereby and to perform and observe all the terms and conditions of the Note and this Agreement on its part to be performed and observed. The Borrower may lawfully borrow funds hereunder in order to pay Costs of the Project, fund a deposit to the Reserve Fund and pay closing costs of the Loan, including, but not limited to, the commitment fee of the Bank and fees of counsel to the Bank.

Section 2.02. Authorization of Loan. The Borrower had, has, or will have, as the case may be, at all relevant times, full legal right, power, and authority to execute this Agreement, to make and deliver the Note, and to carry out and consummate all other transactions contemplated hereby, and the Borrower has complied and will comply with all provisions of applicable law in all material matters relating to such transactions. The Borrower has duly authorized the borrowing of the amount provided for in this Agreement, the execution and delivery of this Agreement, and the making and delivery of the Note to the Bank and to that end the Borrower warrants that it will take all action and will do all things which it is authorized by law to take and to do in order to fulfill all covenants on its part to be performed under this Agreement and the Note. The Note has been duly authorized, executed, issued and delivered to the Bank and constitutes a legal, valid and binding obligation of the Borrower enforceable in accordance with the terms thereof and the terms hereof, and is entitled to the benefits and security of this Agreement. All approvals, consents, and orders of and filings with any governmental authority or agency which would constitute a condition precedent to the issuance of the Note or the execution and delivery of or the performance by the Borrower of its obligations under this Agreement and the Note have been obtained or made and any consents, approvals, and orders to be received or filings so made are in full force and effect.

Section 2.03. No Violation of Law or Contract. The Borrower is not in default in any material respect under any agreement or other instrument to which it is a party or by which it may be bound, the breach of which could result in a material and adverse impact on the financial condition of the Borrower or the ability of the Borrower to perform its obligations hereunder and under the Note. The making and performing by the Borrower of this Agreement and the Note will not violate any applicable provision of law, and will not result in a material breach of any of the terms of any agreement or instrument to which the Borrower is a party or by which the Borrower is bound, the breach of which could result in a material and adverse impact on the

financial condition of the Borrower or the ability of the Borrower to perform its obligations hereunder and under the Note.

Section 2.04. Pending or Threatened Litigation. There are no actions or proceedings pending against the Borrower or affecting the Borrower or, to the knowledge of the Borrower, threatened, which, either in any case or in the aggregate, might result in any material adverse change in the financial condition of the Borrower, or which question the validity of this Agreement or the Note or of any action taken or to be taken in connection with the transactions contemplated hereby or thereby.

Section 2.05. Financial Information. The financial information regarding the Borrower furnished to the Bank by the Borrower in connection with the Loan is accurate, and there has been no material and adverse change in the financial condition of the Borrower from that presented in such information.

Section 2.06. Anti-Terrorism Laws.

(a) General. Neither Borrower nor any affiliate of Borrower is in violation of any Anti-Terrorism Law or engages in or conspires to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in any Anti-Terrorism Law.

(b) Executive Order No. 13224. Neither Borrower nor any affiliate of Borrower, or to Borrower's knowledge, any of its respective agents acting or benefiting in any capacity in connection with the Loan or other transactions hereunder, is any of the following (each a "Blocked Person"):

(i) a Person that is listed in the annex to, or is otherwise subject to the provisions of, the Executive Order No. 13224;

(ii) a Person owned or controlled by, or acting for or on behalf of, any Person that is listed in the annex to, or is otherwise subject to the provisions of, the Executive Order No. 13224;

(iii) a Person with which the holder of the Note is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law;

(iv) a Person that commits, threatens or conspires to commit or supports "terrorism" as defined in the Executive Order No. 13224;

(v) a Person that is named as a "specially designated national" on the most current list published by the U.S. Treasury Department Office of Foreign Asset Control at its official website or any replacement website or other replacement official publication of such list; or

(vi) a Person who is affiliated with a Person listed above.

ARTICLE III

COVENANTS

Section 3.01. Affirmative Covenants. For so long as any of the principal amount of or interest on the Note is outstanding or is available to be advanced hereunder, the Borrower covenants to the Bank as follows:

(a) Payment. The Borrower shall pay the principal of and the interest on the Note at the time and place, and in the manner and from the sources provided herein and in the Note.

(b) Use of Proceeds. Proceeds from the Note will be used only to (i) pay Costs of the Project, (ii) fund a deposit to the Reserve Fund, and (iii) pay closing costs of the Loan, including, but not limited to, the commitment fee of the Bank and fees of counsel to the Bank.

(c) Notice of Defaults. The Borrower shall within ten (10) days after it acquires knowledge thereof, notify the Bank in writing at its Notice Address upon the happening, occurrence, or existence of any Event of Default, and any event or condition which with the passage of time or giving of notice, or both, would constitute an Event of Default, and shall provide the Bank with such written notice a detailed statement by a responsible officer of the Borrower of all relevant facts and the action being taken or proposed to be taken by the Borrower with respect thereto.

(d) Maintenance of Existence. The Borrower shall take all legal action necessary to maintain its existence until all amounts due and owing from the Borrower to the Bank under this Agreement and the Note have been paid in full.

(e) Records. The Borrower agrees that any and all records of the Borrower with respect to the Loan and the Project shall be open to inspection by the Bank or its representatives at all reasonable times at the offices the Borrower.

(f) Notice of Liabilities. The Borrower shall promptly inform the Bank in writing of any actual or potential contingent liabilities or pending or threatened litigation that could reasonably be expected to have a material and adverse effect upon the financial condition of the Borrower or upon the ability of the Borrower to perform its obligation hereunder and under the Note.

(g) Insurance. The Borrower shall maintain such liability, casualty and other insurance as is reasonable and prudent for similarly situated governmental entities of the State of Florida.

(h) Compliance with Laws. The Borrower shall comply with all applicable federal, state and local laws and regulatory requirements, the violation of which could reasonably be expected to have a material and adverse effect upon the financial condition of the Borrower or upon the ability of the Borrower to perform its obligations hereunder and under the Note.

(i) Payment of Document Taxes. In the event the Note or this Agreement should be subject to the excise tax on documents or the intangible personal property tax of the State, the Borrower shall pay such taxes or reimburse the Bank for any such taxes paid by it.

(j) Financial Information. The Borrower will cause an audit to be completed of its books and accounts and shall furnish to the Bank audited year-end financial statements of the Borrower together with a report by an independent certified public accountant stating that the audit was conducted in accordance with generally accepted auditing standards and stating that such financial statements present fairly in all material respects the financial position of the Borrower and the results of its operations and cash flows for the periods covered by the audit report, all in conformity with generally accepted accounting principles applied on a consistent basis. The Borrower shall adopt an annual budget as required by law. The Borrower shall provide the Bank with the following:

(1) via electronic mail, a copy of its annual operating budget for each fiscal year ending after June 30, 2017 within sixty (60) days of its adoption;

(2) via electronic mail, a copy of its annual capital budget for each fiscal year ending after June 30, 2017 within sixty (60) days of its adoption;

(3) via mail or electronic mail, consistent with the "program and financial activities" that are reported on a semi-annual basis to FDOT on other projects, a copy of its semi-annual report of the progress of the Project, detailing program information and financial information that occur each year; provided, however, that the Borrower shall not be required to provide such semi-annual progress reports following the date in which passenger service commences on the Tri-Rail Downtown Miami Link; and

(4) via mail or electronic mail, a copy of its audited financial statements described above and its comprehensive annual financial report (if one is prepared by the Borrower) for each fiscal year ending on and after June 30, 2016 by no later than December 31 of the succeeding fiscal year, together with a certification of an Authorized Individual that he or she has reviewed the terms of this Agreement and the books and records of the Borrower during the fiscal year most recently ended, that such review did not disclose the existence of any condition or event which constitutes an Event of Default (or if such conditions or events existed, describing them), and that, on the basis of such review, the Borrower is in compliance with its covenants and obligations under this Agreement.

(k) Covenant to Budget and Appropriate Pledged Revenues. The Borrower covenants to budget and appropriate from the Pledged Revenues as needed in order to pay the principal of and interest on the Note when due.

(l) Capital Budget. The Borrower shall include in its adopted annual capital budget the annual amounts of principal and interest due on the Note payable from Pledged Revenues. The Borrower shall not undertake any new capital projects in any year unless the annual payment obligations with respect to such projects are included in the capital budget and all payment obligations for any outstanding indebtedness of the Borrower relating to existing projects are not in default.

(m) Designation of Bank as Qualified Public Depository. The Borrower shall designate the Bank as a "qualified public depository", as defined in Chapter 280, Florida Statutes, for purposes of establishing the Bank as an eligible depository of Borrower funds. The Bank shall provide certification of the Bank as a qualified public depository received from the State Chief Financial Officer pursuant to Chapter 280, Florida Statutes.

(n) Minimum Unrestricted Net Position. The Borrower shall maintain a minimum unrestricted net position calculated as of the end of each fiscal year as follows: (i) $3,000,000 for fiscal year ending June 30, 2017, and (ii) $4,000,000 for each fiscal year thereafter.

(o) Notice of Failure to Dedicate Funds. In the event Miami-Dade County, Broward County or Palm Beach County shall fail to dedicate funds pursuant to Section 343.58(1), Florida Statutes, by October 31 of any year, the Borrower shall provide notice of such failure to dedicate to the Bank by no later than December 1 of such year.

Section 3.02. Negative Covenants. For so long as any of the principal amount of or interest on the Note is outstanding, the Borrower covenants to the Bank that the Borrower shall not (a) take any action to materially reduce or eliminate the Pledged Revenues or to impair the collection thereof, and (b) consent to any amendments to Section 343.58(1), Florida Statutes, that would materially reduce or eliminate the Pledged Revenues or impair the collection thereof, unless within one hundred twenty (120) days of the effective date of any such amendment the Borrower provides the Bank with an alternative source of pledged revenues acceptable to the Bank.

Section 3.03. Additional Debt Payable from Pledged Revenues. For so long as any of the principal amount of or interest on the Note is outstanding, the Borrower covenants to the Bank that, without the prior written consent of the Bank, the Borrower shall not incur any additional Senior Debt or any indebtedness secured by Pledged Revenues on parity with or senior to the Loan; provided, however, that the Borrower may, without the consent of the Bank, incur additional indebtedness secured by the Pledged Revenues on a basis subordinate to the Loan. Except as provided in this Section 3.03, the Borrower will not create or permit to be created any other charge or lien on the Pledged Revenues without the prior written consent of the Bank.

Section 3.04. Bank Fees and Expenses. The Borrower hereby agrees to pay (i) the commitment fee of the Bank in the amount of $55,000.00, and (ii) the fee and expenses of counsel to the Bank in connection with the issuance of the Note in the amount of $27,500.00, said amounts to be due and payable upon the execution and delivery of this Agreement.

Section 3.05. Registration and Exchange of Note; Participations. The Note is owned by the Bank. Subject to the written consent of the Borrower, the ownership of the Note may only be transferred by the Bank, in whole, upon written request of the Bank specifying the name, address and taxpayer identification number of the transferee; provided, however, that the Bank may transfer ownership of the Note to an affiliate of the Bank without the consent of the Borrower. The Borrower will keep a record setting forth the identification of the owner of the Note. The Bank will not transfer the Note except in compliance with all applicable laws.

The Bank may also sell participations in the Note to other financial institutions; provided, however, that (i) the Bank's obligations under this Agreement shall remain unchanged, (ii) the Bank shall remain solely responsible to the Borrower for performance of such obligations, and (iii) the Borrower shall continue to deal solely and directly with the Bank in connection with the Bank's rights and obligations under this Agreement.

Section 3.06. Note Mutilated, Destroyed, Stolen or Lost. In case the Note shall become mutilated, or be destroyed, stolen or lost, the Borrower shall issue and deliver a new Note having the same terms as the Note, in exchange and in substitution for such mutilated Note, or in lieu of and in substitution for the Note destroyed, stolen or lost and upon the Bank furnishing the Borrower proof of ownership thereof and indemnity reasonably satisfactory to the Borrower and paying such expenses as the Borrower may incur.

Section 3.07. Payment of Principal and Interest; Limited Obligation. The Borrower promises that it will promptly pay the principal of and interest on the Note at the place, on the dates and in the manner provided therein, provided that the Borrower may be compelled to pay the principal of and interest on the Note solely from the Pledged Revenues, and nothing in the Note or this Agreement shall be construed as pledging any other funds or assets of the Borrower to such payment. Nothing herein shall, however, prevent the Borrower from using any lawfully available funds to pay its obligations hereunder and under the Note. The Borrower pledges and grants a lien on the Pledged Revenues to secure the Borrower's payment obligations hereunder and under the Note. The Borrower is not and shall not be liable for the payment of the principal of and interest on the Note or for the performance of any pledge, obligation or agreement for payment undertaken by the Borrower hereunder or under the Note from any property other than the Pledged Revenues. The Bank shall not have any right to resort to legal or equitable action to require or compel the Borrower to make any payment required by the Note or this Loan Agreement from any source other than the Pledged Revenues.

Section 3.08. Officers and Employees of the Borrower Exempt from Personal Liability. No recourse under or upon any obligation, covenant or agreement of this Loan Agreement or the Note or for any claim based hereon or thereon or otherwise in respect thereof, shall be had against any officer (which includes elected and appointed officials), agent or employee, as such, of the Borrower past, present or future, it being expressly understood (a) that the obligation of the Borrower under this Agreement and under the Note is solely a corporate one, limited as provided in the preceding Section 3.07, (b) that no personal liability whatsoever shall attach to, or is or shall be incurred by, the officers, agents, or employees, as such, of the Borrower, or any of them, under or by reason of the obligations, covenants or agreements contained in this Agreement or implied therefrom, and (c) that any and all such personal liability of, and any and all such rights and claims against, every such officer, agent, or employee, as such, of the Borrower under or by reason of the obligations, covenants or agreements contained in this Agreement and under the Note, or implied therefrom, are waived and released as a condition of, and as a consideration for, the execution of this Agreement and the issuance of the Note on the part of the Borrower.

Section 3.09. Business Days. In any case where the due date of interest on or principal of the Note or the date fixed for prepayment of the Note is not a Business Day, then payment of such principal, interest or prepayment price, as applicable, need not be made on such date but

may be made on the next succeeding Business Day with the same force and effect as if made on such date.

Section 3.10. Reserve Fund. (a) The Borrower hereby establishes the "South Florida Regional Transportation Authority Taxable Promissory Note Reserve Fund" (the "Reserve Fund"). The Reserve Fund shall be held by the Bank in an interest bearing account and shall be subject to a lien in favor of the Bank in order to secure the obligations of the Borrower under this Agreement and the Note.

(b) Note proceeds in an amount equal to the Reserve Fund Requirement shall be deposited on the date hereof into the Reserve Fund and, until withdrawn as permitted under this Section 3.10, shall remain credited to the Reserve Fund until payment in full of the principal of and interest on the Note. Except as provided below, funds on deposit in the Reserve Fund shall be used solely to pay the principal of and interest on the Note if the Pledged Revenues are insufficient to pay the principal of or interest on the Note as they become due.

(c) In the event of any withdrawal from the Reserve Fund pursuant to this Agreement, the Borrower covenants to replenish the Reserve Fund solely from Pledged Revenues within twelve (12) months from the date of such withdrawal to an amount equal to the Reserve Fund Requirement.

(d) While the Reserve Fund is funded at the Reserve Fund Requirement, interest earnings thereon shall be paid to the Borrower, but otherwise shall be credited to the Reserve Fund.

(e) If at any time funds on deposit in the Reserve Fund exceed the Reserve Fund Requirement, such excess shall be transferred to the Borrower to be used for any lawful purpose.

(f) The Bank shall transfer amounts on deposit in the Reserve Fund to pay the outstanding principal of and interest on the Loan once the outstanding principal amount of the Loan is $1,000,000 or below. Any remaining amounts in the Reserve Fund after payment of the Loan shall be paid to the Borrower to be used for any lawful purpose.

Section 3.11. Federally Tax-Exempt Interest Rate on Note. Upon notice from the Borrower to the Bank and subject to an opinion of bond counsel acceptable to the Bank to the effect that the interest on all or a portion of the Note is excluded from gross income for federal income tax purposes, the Bank agrees that such amount of the Note may be reissued or refunded with a new note at a fixed rate of interest equal to (a) 1.65% per annum during the Initial Draw Period (as defined in the Note), and (b) 2.25% per annum during the Term Loan Period (as defined in the Note).

Section 3.12. Bank Invoices to Borrower. The Bank shall provide the Borrower the invoices for the payments due on the Note at the times and in the manner set forth in the Note.

ARTICLE IV

CONDITIONS OF LENDING

The obligations of the Bank to lend hereunder are subject to the following conditions precedent:

Section 4.01. Representations and Warranties. The representations and warranties set forth in this Agreement and the Note are and shall be true and correct on and as of the date hereof.

Section 4.02. No Default. On the date hereof the Borrower shall be in compliance with all the terms and provisions set forth in this Agreement and the Note on its part to be observed or performed, and no Event of Default nor any event that, upon notice or lapse of time or both, would constitute such an Event of Default, shall have occurred and be continuing at such time.

Section 4.03. Supporting Documents. On or prior to the date hereof, the Bank shall have received the following supporting documents, all of which shall be satisfactory in form and substance to the Bank (such satisfaction to be evidenced by the purchase of the Note by the Bank):

(a) The opinion of the General Counsel of the Borrower regarding the due authorization, execution, delivery, validity and enforceability of this Agreement and the Note;

(b) The opinion of Squire Patton Boggs (US) LLP regarding the validity and enforceability of this Agreement and the Note;

(c) A copy of the Act, certified by the Secretary or an Assistant Secretary of the Borrower; and

(d) Such additional supporting documents as the Bank may reasonably request.

ARTICLE V

FUNDING THE LOAN

Section 5.01. The Loan. The Bank hereby agrees to loan to the Borrower the amount of up to the Loan Amount to be evidenced by the Note to provide funds to finance the Costs of the Project, fund a deposit to the Reserve Fund and pay closing costs of the Loan, including, but not limited to, the commitment fee of the Bank and fees of counsel to the Bank, upon the terms and conditions set forth in this Agreement and the Note. The Note sets forth the maximum principal amount which may be outstanding at any time thereunder. The Borrower agrees to repay the principal amount borrowed plus interest thereon, upon the terms and conditions set forth in this Agreement and the Note.

Section 5.02. Description and Payment Terms of the Note. To evidence the Loan, the Borrower shall issue and deliver to the Bank the Note in the form attached hereto as Attachment A.

Section 5.03. Advances on Note.

(a) During the Initial Draw Period, the Borrower may borrow from time to time up to the Loan Amount by requesting Advances hereunder. Amounts advanced and repaid on the Note may not be re-advanced.

(b) The Bank shall not be obligated to Advance any funds unless (i) no Event of Default has occurred and is continuing, and (ii) the Borrower delivers to the Bank a written request for such Advance in the form of Attachment C, executed by an Authorized Individual, indicating the amount of the Advance requested, the date on which such Advance is to be made (which, except for any Advance on the date hereof, shall be not less than two Business Days after the date such request is received by the Bank) and stating that the representations and warranties of the Borrower contained herein are true and correct as of such date. The Bank will not be obligated to fund any Advance unless the conditions set forth in (i) and (ii) above are satisfied, provided that the Bank may in its sole discretion waive any or all such conditions.

ARTICLE VI

EVENTS OF DEFAULT

Section 6.01. General. An "Event of Default" shall be deemed to have occurred under this Agreement if:

(a) The Borrower shall fail to make any payment of the principal of or interest on the Loan when the same shall become due and payable; or

(b) The Borrower does not comply with Section 3.01(c) or (d), Section 3.02 or Section 3.03; or

(c) The Borrower shall default in the performance of or compliance with any other term or covenant contained in this Agreement and the Note, other than a term or covenant a default in the performance of which or noncompliance with which is elsewhere specifically dealt with, which default or non-compliance shall continue and not be cured within thirty (30) days after written notice thereof to the Borrower by the Bank; provided, however, that such continued breach shall not be an Event of Default at the end of such thirty (30) day period, so long as (i) such breach is, in the sole judgment of the Bank, capable of cure; (ii) the Borrower is proceeding diligently to cure such breach; and (iii) such breach, in any event, is cured within one hundred twenty (120) days of such written notification by the Bank; or

(d) Any representation or warranty made in writing by or on behalf of the Borrower in this Agreement or the Note shall prove to have been false or incorrect in any material respect on the date made or reaffirmed; or

(e) The Borrower admits in writing its inability to pay its debts generally as they become due or files a petition in bankruptcy or makes an assignment for the benefit of its creditors or consents to the appointment of a receiver or trustee for itself; or

(f) The Borrower is adjudged insolvent by a court of competent jurisdiction, or it is adjudged a bankrupt on a petition in bankruptcy filed by or against the Borrower, or an order, judgment or decree is entered by any court of competent jurisdiction appointing, without the consent of the Borrower, a receiver or trustee of the Borrower or of the whole or any part of its property, and if the aforesaid adjudications, orders, judgments or decrees shall not be vacated or set aside or stayed within ninety (90) days from the date of entry thereof; or

(g) The Borrower shall file a petition or answer seeking reorganization or any arrangement under the federal bankruptcy laws or any other applicable law or statute of the United States of America or the State; or

(h) Any amendment to Section 343.58(1), Florida Statutes, takes effect that would materially reduce or eliminate the Pledged Revenues or impair the collection thereof, unless within one hundred twenty (120) days of the effective date of any such amendment the Borrower has provided the Bank with an alternative source of pledged revenues acceptable to the Bank.

Section 6.02. Effect of Event of Default; No Acceleration.

During the continuance of an Event of Default, the Bank may seek enforcement of and exercise all remedies available to it under any applicable law and/or in equity, including, without limitation, the appointment of a receiver and an order to enforce and compel the performance of all duties required of the Borrower under this Agreement; provided that the Note and any obligations hereunder may not be accelerated upon the occurrence of an Event of Default; and the interest rate borne by the Note shall increase to the Default Rate.

ARTICLE VII

MISCELLANEOUS

Section 7.01. No Waiver; Cumulative Remedies. No failure or delay on the part of the Bank in exercising any right, power, remedy hereunder or under the Note shall operate as a waiver of the Bank's rights, powers and remedies hereunder, nor shall any single or partial exercise of any such right, power or remedy preclude any other or further exercise thereof, or the exercise of any other right, power or remedy hereunder or thereunder. The remedies herein and therein provided are cumulative and not exclusive of any remedies provided by law or in equity.

Section 7.02. Amendments, Changes or Modifications to this Agreement. This Agreement shall not be amended, changed or modified except in writing signed by the Bank and the Borrower. The Borrower agrees to pay all of the Bank's costs and reasonable attorneys' fees incurred in modifying and/or amending this Agreement at the Borrower's request or behest.

Section 7.03. Counterparts. This Agreement may be executed in any number of counterparts, each of which, when so executed and delivered, shall be an original; but such counterparts shall together constitute but one and the same Agreement, and, in making proof of this Agreement, it shall not be necessary to produce or account for more than one such counterpart.

Section 7.04. Severability. If any clause, provision or section of this Agreement shall be held illegal or invalid by any court, the invalidity of such clause, provision or section shall not affect any other provisions or sections hereof, and this Agreement shall be construed and enforced to the end that the transactions contemplated hereby be effected and the obligations contemplated hereby be enforced, as if such illegal or invalid clause, provision or section had not been contained herein.

Section 7.05. Term of Agreement. Except as otherwise specified in this Agreement, this Agreement and all representations, warranties, covenants and agreements contained herein or made in writing by the Borrower in connection herewith shall be in full force and effect from the date hereof and shall continue in effect as long as the Note is outstanding.

Section 7.06. Notices. All notices, requests, demands and other communications which are required or may be given under this Agreement shall be in writing and shall be deemed to have been duly given when received if personally delivered; when transmitted if transmitted by telecopy, electronic telephone line facsimile transmission or other similar electronic or digital transmission method (provided customary evidence of receipt is obtained); the day after it is sent, if sent by overnight common carrier service; and five days after it is sent, if mailed, certified mail, return receipt requested, postage prepaid. In each case notice shall be sent to the Notice Address.

Section 7.07. Applicable Law; Venue. This Agreement shall be construed pursuant to and governed by the substantive laws of the State. The parties waive any objection to venue in any judicial proceeding brought in connection herewith lying in Broward County or Miami-Dade County, Florida.

Section 7.08. Binding Effect; Assignment. This Agreement shall be binding upon and inure to the benefit of the successors in interest and permitted assigns of the parties. The Borrower and the Bank shall have no rights to assign any of their respective rights or obligations hereunder without the prior written consent of the other party.

Section 7.09. No Third Party Beneficiaries. It is the intent and agreement of the parties hereto that this Agreement is solely for the benefit of the parties hereto and no person not a party hereto shall have any rights or privileges hereunder.

Section 7.10. Attorneys Fees. To the extent legally permissible, the Borrower and the Bank agree that in any suit, action or proceeding brought in connection with this Agreement or the Note (including any appeal(s)), the prevailing party shall be entitled to recover costs and attorneys' fees from the other party.

Section 7.11. Entire Agreement. Except as otherwise expressly provided, this Agreement and the Note embody the entire agreement and understanding between the parties hereto and supersede all prior agreements and understandings relating to the subject matter hereof. Attachments A, B and C hereto are a part hereof.

Section 7.12. Further Assurances. The parties to this Agreement will execute and deliver, or cause to be executed and delivered, such additional or further documents, agreements

or instruments and shall cooperate with one another in all respects for the purpose of carrying out the transactions contemplated by this Agreement.

Section 7.13. Waiver of Jury Trial. This Section 7.13 concerns the resolution of any controversies or claims between the Borrower and the Bank, whether arising in contract, tort or by statute, that arise out of or relate to this Agreement or the Note (collectively a "Claim"). The parties irrevocably and voluntarily waive any right they may have to a trial by jury in respect of any Claim. This provision is a material inducement for the parties entering into this Agreement.

Section 7.14. Patriot Act. The Bank hereby notifies the Borrower that pursuant to the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), it is required to obtain, verify and record information that identifies the Borrower, which information includes the name and address of the Borrower and other information that will allow the Bank to identify the Borrower in accordance with such Act.

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective between them as of the date of first set forth above.

SOUTH FLORIDA REGIONAL
TRANSPORTATION AUTHORITY

By: _____
Name: Steven L. Abrams
Title: Vice Chair

Attest:

By: _____
Name: Jack L. Stephens
Title: Secretary

Approved as to form:

By: _____
General Counsel

BANKUNITED, N.A.

By: _____
Name: Percy R. Aguila, Jr.
Title: Senior Vice President

ATTACHMENT A

TAXABLE PROMISSORY NOTE

KNOW ALL MEN BY THESE PRESENTS that the undersigned maker (the "Borrower"), a body politic and corporate, and agency of the State of Florida, duly organized and validly existing under the laws of the State of Florida, for value received, promises to pay from the sources hereinafter provided, to the order of BankUnited, N.A., or registered assigns (hereinafter, the "Bank"), the principal sum of $22,000,000 or such lesser amount as shall be outstanding hereunder, together with interest on the principal balance outstanding at the rate per annum equal to the Applicable Rate (hereinafter defined) based upon a 360-day year of twelve 30-day months.

Principal of and interest on this Note are payable in immediately available funds constituting lawful money of the United States of America at such place as the Bank may designate to the Borrower.

This Note is issued in conjunction with a Loan Agreement, dated of even date herewith between the Borrower and the Bank (the "Loan Agreement") and is subject to all the terms and conditions of the Loan Agreement. Pursuant to the Loan Agreement, the Borrower may request Advances from time to time from the Bank hereunder, provided that the outstanding principal amount under this Note shall not exceed the principal sum set forth in the first paragraph hereof.

All terms, conditions and provisions of Resolution No. ___ adopted by the governing board of the Borrower on September __, 2016 and the Loan Agreement are by this reference thereto incorporated herein as a part of this Note. Terms used herein in capitalized form and not otherwise defined herein shall have the meanings ascribed thereto in the Loan Agreement.

THIS NOTE AND THE INTEREST HEREON SHALL BE PAYABLE SOLELY FROM PLEDGED REVENUES, IN ACCORDANCE WITH THE LOAN AGREEMENT AND THIS NOTE, AND NO FUNDS OF THE STATE OF FLORIDA SHALL BE USED OR PLEDGED TO PAY THE PRINCIPAL OF AND INTEREST ON THIS NOTE. THE PRINCIPAL OF AND INTEREST ON THIS NOTE SHALL NOT CONSTITUTE A GENERAL OBLIGATION OF THE BORROWER OR THE STATE OF FLORIDA OR ANY POLITICAL SUBDIVISION THEREOF, OR A PLEDGE OF THE FAITH AND CREDIT OF THE BORROWER OR THE STATE OF FLORIDA OR ANY POLITICAL SUBDIVISION THEREOF WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY PROVISIONS OR LIMITATIONS, BUT SHALL BE PAYABLE SOLELY FROM THE PLEDGED REVENUES AS PROVIDED IN THE LOAN AGREEMENT AND THIS NOTE. THE STATE OF FLORIDA IS NOT OBLIGATED TO PAY THIS NOTE OR THE INTEREST HEREON. THE BORROWER HAS NO TAXING POWER.

The Applicable Rate is (i) for the period commencing on the date of original issuance of this Note and ending on **[**December 31, 2018**]** (the "Initial Draw Period"), a fixed rate of interest equal to 2.25% per annum; and (ii) for the period commencing on **[**January 1, 2018**]** and ending on January 1, 2023 (the "Term Loan Period"), a fixed rate of interest equal to 3.25% per annum.

During the Initial Draw Period, the Borrower shall pay the Bank interest hereon in arrears as of January 1, April 1, July 1 and October 1 of each year (each, a "Quarterly Date"), such payments to be made no later than the 25th of the month following the end of each such quarter commencing no later than January 25, 2017. The Bank will provide the Borrower an invoice that includes the calculation of interest due and owing for each quarterly period no later than the 10th of the month following the end of each quarter.

During the Term Loan Period, the Borrower shall pay the Bank principal and interest hereon, such principal to be computed based on the principal balance outstanding on the first day of the Term Loan Period, in equal quarterly installments on each Quarterly Date, commencing on April 1, 2018. At the end of the Initial Draw Period, the Bank will calculate the installments due and owing for each quarterly period and provide invoices for all such quarterly installments due through the end of the Term Loan Period no later than March 10, 2018.

All payments by the Borrower pursuant to this Note shall apply first to accrued interest and the balance thereof shall apply to the principal sum due.

Subject to 45-day's written notice to the Bank, the principal of and interest on this Note may be prepaid at the option of the Borrower, in whole or in part, on a Quarterly Payment Date on or after July 1, 2017, without prepayment premium or penalty.

Any amount payable to the Bank hereunder which is not paid when due shall bear interest at the Default Rate. For purposes of this Note, "Default Rate" means the sum of the Applicable Rate and 3.00%. The Default Rate shall be determined as of the day immediately following the date on which any amount payable to the Bank hereunder is not paid when due.

Notwithstanding any other provision of this Note, the Borrower is not and shall not be liable for the payment of the principal of and interest on this Note or otherwise monetarily liable in connection herewith from any property other than the Pledged Revenues.

This Note may be exchanged or transferred but only as provided in the Loan Agreement.

It is hereby certified, recited and declared that all acts, conditions and prerequisites required to exist, happen and be performed precedent to and in the execution, delivery and the issuance of this Note do exist, have happened and have been performed in due time, form and manner as required by law, and that the issuance of this Note is in full compliance with and does not exceed or violate any constitutional or statutory limitation.

IN WITNESS WHEREOF, the Borrower has caused this Note to be executed and attested and its seal to be affixed hereon, all as of the date hereinafter set forth.

The date of this Taxable Promissory Note is _____, 2016.

SOUTH FLORIDA REGIONAL
TRANSPORTATION AUTHORITY

(SEAL)

By: _____
Name: Steven L. Abrams
Title: Vice Chair

Attest:

By: _____
Name: Jack L. Stephens
Title: Secretary

ATTACHMENT B

1.	Authorized Individual(s):	Jack L. Stephens, Executive Director C. Mikel Oglesby, Deputy Executive Director Richard D. Chess, Director of Finance
2.	Notice Address of Borrower:	South Florida Regional Transportation Authority 800 N.W. 33rd Street Pompano Beach, Florida 33064 Attention: Director of Finance
3.	Notice Address of Bank:	BankUnited, N.A. 7765 N.W. 148 Street Miami Lakes, Florida 33016 Attention: Percy R. Aguila, Jr., Senior Vice President

ATTACHMENT C

REQUEST FOR ADVANCE

Date: _____

To: BankUnited, N.A.

From: South Florida Regional Transportation Authority

Amount of Advance: $_____

Date of Advance: _____

Purpose of Advance (description and amount):

_____ - $_____

_____ - $_____

_____ - $_____

The above-named Borrower requests an Advance under the Loan Agreement dated as of _____, 2016 (the "Loan Agreement") and the related Taxable Promissory Note in the amount set forth above. The representations and warranties of the Borrower contained in the Loan Agreement are true and correct as of the date hereof.

Proceeds of the Advance should be wired as follows:

SOUTH FLORIDA REGIONAL
TRANSPORTATION AUTHORITY

By: _____
Name: _____
Title: _____

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
NOTICE OF A PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a public hearing will be held by the governing board (the "Board") of the South Florida Regional Transportation Authority (the "Authority") on **September 23, 2016 at 9:30 a.m. at the SFRTA Boardroom, located at 800 Northwest 33rd Street, Pompano Beach, Florida 33064**, in order to obtain input into the proposed issuance by the Authority of a taxable promissory note in an aggregate principal amount not to exceed $22,000,000 (the "Note") and the negotiated sale of the Note, as identified in the following Authority Resolution:

A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, AUTHORIZING A LOAN IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $22,000,000 FROM BANKUNITED, N.A. FOR THE PRINCIPAL PURPOSE OF PAYING COSTS OF THE PROJECT; AUTHORIZING THE EXECUTION AND DELIVERY OF A LOAN AGREEMENT AND A TAXABLE PROMISSORY NOTE TO EVIDENCE THE OBLIGATION OF THE AUTHORITY TO REPAY SUCH LOAN; PROVIDING SECURITY FOR THE REPAYMENT OF THE LOAN; AUTHORIZING OTHER ACTIONS IN CONNECTION WITH THE LOAN AND THE PROJECT; AND PROVIDING AN EFFECTIVE DATE.

Inquiries may be directed to the office of the Executive Director at (954) 788-7926.

INTERESTED PARTIES are invited to appear at this meeting or be represented by an agent or to express their views in writing addressed to the Board c/o Secretary, 800 Northwest 33rd Street, Pompano Beach, Florida 33064. These items are available for public inspection during normal business hours in the office of the Secretary of the Board, 800 Northwest 33rd Street, Pompano Beach, Florida 33064. This meeting, or any items considered herein, may be continued and, under certain circumstances, additional legal notice would not be provided.

Pursuant to Section 286.0105, Florida Statutes, the Authority hereby advises the public that: if a person decides to appeal any decision made by the Board with respect to any matter considered at its meeting or its hearing, such person must ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the Authority for the introduction or admission of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals not otherwise allowed by law.

In accordance with the Americans with Disabilities Act of 1990, persons needing special accommodation to participate in this proceeding, or to request information on access for persons with disabilities, or to request this publication in accessible format, or to request sign language interpreters, should contact the Executive Director's office at (954) 788-7926, no later than four days prior to the proceeding. If hearing impaired, contact the Executive Director's office via the Florida Relay Service numbers, (800) 955-8771 (TTY) or (800) 955-8770 (VOICE).

Tracking No. 09231644 AGENDA ITEM NO. R1

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

AGREEMENT NO. 15-011
WITH SOLARES ELECTRICAL SERVICES, INC.
FOR HIALEAH YARD ELECTRICAL UPGRADES

REQUESTED ACTION:

MOTION TO APPROVE: Agreement No. 15-011, between South Florida Regional Transportation Authority (SFRTA) and Solares Electrical Services, Inc. for services needed to upgrade existing electrical and mechanical systems at the Hialeah Yard in the amount of $1,099,000.00.

SUMMARY EXPLANATION AND BACKGROUND:

SFRTA requires the services of a Contractor to perform and complete various electrical and mechanical system upgrades, along with repairs to the Hialeah Yard facility. This work includes conversion of the existing electrical feed from 240V to 480V, modifying and upgrading the existing electrical substation area and the maintenance building to use the converted electrical feed, , and the installation of energy efficient LED lighting, new automated exhaust fans and a new high volume air compressor.

On July 1, 2016, SFRTA began advertising an Invitation to Bid (ITB) for the Hialeah Yard Electrical Upgrades. Advertisements were placed in three (3) local newspapers and Advance Notice was sent to 22 firms from SFRTA's vendor database/referral list. Solicitation documents were made available on July 5, 2016. On August 30, 2016, SFRTA received three (3) bids. The lowest bid was determined to be non-responsive upon verification of the price submittal. Staff then performed a verification of the bid submittal by Solares Electrical Services, Inc. and determined the bid to be the lowest responsive and responsible bid. Staff is recommending approval of the above referenced agreement with Solares Electrical Services, Inc.

Department: Operations
Project Manager: Wayne Ramnarine

Department Director: Bradley Barkman
Procurement Director: Christopher Bross

FISCAL IMPACT: Funding for this Agreement is available in the FY 16/17 Capital Budget.

EXHIBITS ATTACHED: Exhibit 1 – Agreement No. 15-011

AGREEMENT NO. 15-011
WITH SOLARES ELECTRICAL SERVICES, INC.
FOR HIALEAH YARD ELECTRICAL UPGRADES

Recommended by: _____ 9/16/16 Approved by: _____ 9/16/16
Department Director Date Procurement Director Date

Authorized by: _____ 9/16/16 Approved as to Form by: _____
Executive Director Date General Counsel Date

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	_____ Yes ____ No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	_____Yes _____No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	_____Yes _____No
Frank Frione	____ Yes ____ No	James A. Scott	_____Yes _____No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	_____Yes _____No

EXHIBIT 1

AGREEMENT NO. 15-011

BETWEEN

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

AND

SOLARES ELECTRICAL SERVICES, INC.

FOR

HIALEAH YARD ELECTRICAL UPGRADES

AGREEMENT NO. 15-011

BETWEEN

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

AND

SOLARES ELECTRICAL SERVICES, INC.

FOR

HIALEAH YARD ELECTRICAL UPGRADES

This is an Agreement, by and between SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, hereinafter referred to as "SFRTA",

AND

SOLARES ELECTRICAL SERVICES, INC., a Florida corporation, authorized to and doing business in the State of Florida, hereinafter referred to as "CONTRACTOR".

RECITALS

An Invitation to Bid was advertised by SFRTA as ITB No. 15-011 for HIALEAH YARD ELECTRICAL UPGRADES and CONTRACTOR was determined to be the lowest responsive and responsible bidder;

NOW, THEREFORE, IN CONSIDERATION of the promises, mutual covenants and obligations herein contained, and subject to the terms and conditions hereinafter stated, the parties hereto agree to the Agreement as follows:

ARTICLE I
SERVICES

CONTRACTOR covenants and agrees to perform all services and other obligations of CONTRACTOR set forth in the Contract documents, as defined in the ITB. The Contract Documents are hereby incorporated and made a part of this Agreement by reference.

ARTICLE II
TERM

The term of the Agreement shall be Two Hundred Seventy (270) Calendar Days (the "Contract Time") from the date as stated in the Notice to Proceed (the "Commencement Date") through Project completion, which shall be the date the Contractor obtains a Certificate of Substantial Completion (the "Completion Date").

ARTICLE III
COMPENSATION

1. SFRTA agrees to pay the CONTRACTOR compensation as specified in the CONTRACT DOCUMENTS the total amount of One Million Ninety-Nine Thousand Dollars ($1,099,000.00).

2. SFRTA, during any fiscal year, shall not expend money, incur any liability or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void and no money may be paid on such contract.

ARTICLE IV
LIQUIDATED DAMAGES

1. In the event the Contractor causes the Work to be delayed beyond the Completion Date, the Contractor shall pay SFRTA the sum of One Thousand Five Hundred Thirty Dollars ($1,530.00) for each calendar day of delay.

2. SFRTA is authorized to deduct liquidated damages from payments due the Contractor for Work performed under this Agreement.

ARTICLE V
NOTICES

Whenever either party desires to give notice to the other, it must be given by written notice, sent by certified U.S. mail, with return receipt requested, facsimile transmission, express delivery service or hand delivery, addressed to the party for whom it is intended, at the place last specified, and the place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective place for giving of notice:

CONTRACTOR:

Solares Electrical Services, Inc.
10421 N.W. 28 Street
D105
Doral, FL 33172

Attn: Andres Solares

SFRTA:

South Florida Regional Transportation Authority
800 N.W. 33 Street
Pompano Beach, FL 33064

Attn: Wayne Ramnarine

WITH COPY TO:

South Florida Regional Transportation Authority
Teresa Moore, General Counsel
800 N.W. 33 Street
Pompano Beach, FL 33064

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have made and executed this Agreement on the respective date under each signature:

ATTEST:

SOUTH FLORIDA REGIONAL
TRANSPORTATION AUTHORITY

_____
JACK L. STEPHENS
EXECUTIVE DIRECTOR

By_____
COMMISSIONER TIM RYAN, CHAIR

_____ DAY OF _____, 2016

(SFRTA SEAL)

Approved as to form by:

_____
CHRIS BROSS, Director
Procurement

_____
TERESA MOORE, General Counsel

ATTEST:

SOLARES ELECTRICAL SERVICES, INC.

_____
WITNESS

_____
PRESIDENT OR VICE-PRESIDENT

_____ DAY OF _____, 2016

INVITATION TO BID

FOR

HIALEAH YARD ELECTRICAL UPGRADES

ITB NO. 15-011

ADDRESS FOR SUBMITTAL:
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA) HEADQUARTERS
800 N.W. 33RD STREET
POMPANO BEACH, FLORIDA 33064

BID DUE DATE:
August 30, 2016 ~~August 12, 2016~~ by 4:00 P.M.
(EASTERN TIME)

THE RESPONSIBILITY FOR SUBMITTING A BID FOR THIS ITB AT THE SFRTA HEADQUARTERS ON OR BEFORE THE STATED DATE AND TIME WILL BE SOLELY AND STRICTLY THE RESPONSIBILITY OF THE BIDDER.

INVITATION TO BID NO. 15-011
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DEFINITION OF TERMS

Whenever in this Invitation to Bid (ITB) or other Contract Documents the following terms (or pronouns which replace these terms) are used, their intent and meaning shall be interpreted as follows:

ADDENDUM or ADDENDA: This term shall mean written changes made to the ITB by SFRTA's Procurement Department prior to the Bid Due Date and Time as stated on the first page of this ITB or as may be extended in an Addendum by the Procurement Department.

AGREEMENT or CONTRACT: This term shall mean the document entitled "Agreement between SFRTA and Contractor".

AUTHORITY: This term shall mean the South Florida Regional Transportation Authority (SFRTA).

BID: This term shall mean the written information that the Bidder submits in response to the ITB.

BIDDER: This term shall mean the business entity or team of entities that submits a Bid for this ITB. and the Successful Bidder as approved by the SFRTA Board, which has entered into a bilateral fully-executed Agreement with SFRTA.

CM&I CONSULTANT: This term shall mean SFRTA's Construction Management and Inspection Consultant.

COMMENCEMENT DATE: This term shall mean the date as stated in the Notice to Proceed.

COMMERCIAL TERMS: The General Terms and Conditions and Special Terms and Conditions that are made part of the Contract.

COMPLETION DATE: This term shall mean the date which the Contractor obtains a Certificate of Substantial Completion.

CONSTRUCTION DOCUMENTS: This term shall mean the Drawings and Specifications.

CONTRACT AMOUNT: This term shall mean the total amount of the Agreement between the Successful Bidder and SFRTA.

CONTRACT DOCUMENTS: This term shall mean the ITB, Contract, General Terms and Conditions, Special Terms and Conditions, Drawing and Specifications or Scope of Services, Exhibits/Attachments, Submittal Documents, as defined below, and any duly executed and issued Addenda, or Modifications. All of the foregoing Contract Documents are sometimes referred to herein as the "Contract" or "Agreement".

CONTRACTING OFFICER: This term shall mean the Director of Procurement serving as the Contracting Officer for SFRTA, who shall supervise the procurement for the Board. All rights, powers, duties and authorities relating to the procurement of supplies, services and construction vested in the Executive Director of SFRTA have been delegated to the Director of Procurement. The term includes, except as otherwise provided in this Contract, the authorized representative of the Contracting Officer acting within the limits of his or her authority.

CONTRACTOR: This term shall mean the Successful Bidder as approved by the SFRTA Board, which has entered into a bilateral fully-executed Agreement with SFRTA.

DESIGN CONSULTANT: This term shall mean the architect or engineer of record for the Project.

DRAWINGS: This term shall mean the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elections, sections, details, schedules and diagrams.

INCLUDING: This term shall mean "including but not limited to."

LUMP SUM PRICE: This term shall mean the total lump sum amount of the Agreement between the Successful Bidder and SFRTA.

MODIFICATIONS: This term shall have the meaning set forth in SFRTA's Procurement Policy.

PROJECT: This term shall mean the services to be provided by the Contractor during the Contract Term as described in the ITB.

PROJECT MANAGER: This term shall mean the SFRTA authorized representative having the responsibility to oversee and manage the day-to-day activities of the Contract.

SFRTA BOARD: This term shall mean the Governing Board of SFRTA.

SOLICITATION DOCUMENTS: This term shall mean all of the documents used to solicit bids or proposals, including, but not limited to, the Commercial Terms, Drawings and Specifications or Scope of Services and all addenda.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY: This term shall mean "SFRTA", "TRI-RAIL", or the "Authority", which will serve as the contracting agency.

SPECIFICATIONS OR SCOPE OF SERVICES: These terms shall mean that portion of the Contract Documents consisting of the written requirements for material, equipment, systems, standards and workmanship for the Work and performance of related services.

SUBCONTRACTOR: This term shall mean an individual, firm, or corporation having a direct contract with the Contractor or with any other Subcontractor for performance of a part of the Scope of Services.

SUBMITTAL DOCUMENTS: This term shall mean all documents prepared by a Bidder in response to an ITB.

SUCCESSFUL BIDDER: This term shall mean the Bidder that, after Bid opening, has been deemed the lowest responsive and responsible Bidder, as approved by SFRTA.

WORK: This term shall mean the services to be performed by the Contractor for the Project, as described in the Contract Documents.

SECTION 1.0 - INSTRUCTIONS TO BIDDERS

1.1 CONTRACTING AGENCY

The Contracting Agency is the South Florida Regional Transportation Authority ("SFRTA"), a body politic and corporate, a public instrumentality and an agency of the State of Florida, established pursuant to Chapter 343, Florida Statutes. Pursuant to the authority granted to it by Chapter 343, SFRTA operates a commuter rail system under the name "Tri-Rail" in Miami-Dade, Broward, and Palm Beach counties. SFRTA is governed by a 10-member appointed Governing Board. All SFRTA procurement activities are governed by the SFRTA Procurement Policy.

1.2 INTRODUCTION

SFRTA is converting the primary electrical feed that provides electrical power to the SFRTA Hialeah Maintenance Yard[1] (the "Yard") located at 9400 N.W. 37th Avenue, Miami, Florida, 33147 (the "Project"). The Project work elements are as shown in the attached Bid Set of Plans for the SFRTA Hialeah Yard – Electrical Upgrade (the "Electrical Upgrades"). The fenced electrical substation, and the SFRTA Maintenance Building's major electrical equipment and internal electrical wiring will be modified and upgraded to utilize the converted electrical feed. Certain mechanical equipment will be completely replaced or upgraded, and other maintenance equipment critical to the operation of the facility will be placed on the emergency generator which will be converted from 240V to 480V.

Electrical Upgrades include testing, demolition, relocation, re-wiring and installation of electrical equipment, conduits, lighting and mechanical equipment associated with the conversion of the primary electrical source to the Yard from 240V, 3-phase, Delta service to 480V, 3-phase, Wye service.

The selected Contractor will be responsible for all work associated with the Project as set forth in the Scope of Work/Specifications, including any special permitting required by local and regional authorities.

1.3 PURPOSE

The purpose of this Invitation to Bid (ITB) is to obtain the services of a Contractor for Electrical Upgrades to the Yard.

This document shall outline the procedures for Bid submittal. SFRTA intends to execute a Contract with the lowest responsive and responsible Bidder.

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[1] The Hialeah Maintenance Yard is owned by the Florida Department of Transportation and used by SFRTA, CSX Transportation, Inc., and Amtrak for storage and maintenance of rolling stock (railcars) used in their respective operations on the South Florida Rail Corridor. The SFRTA Hialeah Maintenance Yard is that portion of the facility used exclusively by SFRTA for its operations. The Electrical Upgrades detailed in the drawings prepared by Jacobs that are included in ITB 15-011 is to SFRTA's facilities as shown on the Electrical Site Plan (E-03) of the drawings, which consist mainly of the SFRTA Maintenance Building and electrical equipment located on the north side of the Maintenance Building.

1.4 SCHEDULE OF EVENTS

Key milestone dates for this ITB are listed below:

ACTIVITY	DATE	TIME (EDT)
ITB Advertised	7/1/16	N/A
ITB Availability	7/5/16	9:00 a.m.
Pre-Bid Conference	7/14/16	10:00 a.m.
Last Day for Questions	~~7/27/16~~ 8/12/16	5:00 p.m.
Due Date/Bid Opening	~~8/12/16~~ 8/30/16	4:00 p.m.

1.5 PRE-BID CONFERENCE

SFRTA will conduct a Pre-Bid Conference at the date and time shown under Section 1.4. The conference will be held at the SFRTA Hialeah Maintenance Yard located at 9400 N.W. 37th Avenue, Miami, Florida, 33147. **ATTENDANCE AT THIS MEETING IS NOT MANDATORY, BUT IS RECOMMENDED**.

The purpose of the Pre-Bid Conference is to provide an open forum for SFRTA to review the ITB and the Project with the prospective Bidders and to respond to any questions on the ITB and/or the Project.

Bidders should pay particular attention to identifying any improvements, corrective measures, or other changes that should be incorporated in the ITB or the Contract Documents. Failure to submit written questions will not preclude Bidders from orally asking questions at the Pre-Bid Conference. Questions arising after the Pre-Bid Conference should be addressed in compliance with Section 1.6 of the ITB.

1.6 ORAL INSTRUCTIONS AND COMMUNICATIONS

1.6.1 Oral Instructions. No negotiations, decisions or actions shall be initiated or executed by a Bidder as a result of any oral discussions with any SFRTA Board member, employee, or consultant. No interpretation of the meaning of the Project, the Scope of Services or the Contract Documents and no correction of any apparent ambiguity, inconsistency or error therein will be made to any Bidder orally. All such interpretations and supplemental instructions will be issued to all Bidders in the form of written Addenda/Addendum. Only those communications that are in writing from the designated SFRTA Procurement staff member identified below shall be considered as a duly authorized expression on behalf of SFRTA. SFRTA will forward to all Bidders in receipt of the ITB, written responses of SFRTA to a Bidder's question in the form of Addenda, as indicated in Section 1.7.

Also, only written communications from Bidders will be recognized by SFRTA as duly authorized expressions on behalf of the Bidders.

Any questions or requests for interpretations or supplemental instructions arising from this ITB must be submitted in writing to SFRTA's Contract Specialist, Mr. Robert Becker, by e-mail at itb15011@sfrta.fl.gov . Mr. Becker shall be the sole point of contact for this procurement and can be reached at (954) 788-7909. In order for questions to be answered in a timely manner, they must be received no later than the date and time specified in Section 1.4 above. Written questions received after the date specified in Section 1.4 may not be answered. Bidders are responsible for ensuring that their questions, etc. have been received by SFRTA.

1.6.2 ANY COMMUNICATIONS BETWEEN ANY POTENTIAL VENDOR, SERVICE PROVIDER, BIDDER, LOBBYIST OR CONSULTANT AND ANY BOARD MEMBER, STAFF MEMBER, COMMITTEE MEMBER, OR CONSULTANT OF SFRTA REGARDING THIS PROCUREMENT ARE STRICTLY PROHIBITED FROM THE DATE ON WHICH THE SOLICITATION ADVERTISEMENT APPEARS ON SFRTA'S WEBSITE OR IN A NEWSPAPER THROUGH THE DATE OF CONTRACT AWARD AND FROM THE DATE OF THE FILING OF ANY NOTICE OF PROTEST OF AWARD THROUGH RESOLUTION FOR THE PARTIES INVOLVED IN THE PROTEST OR CONTRACT AWARD, WHICHEVER IS LONGER.

The only exceptions to this are: (i) any communications with the Procurement Director or SFRTA's designated point of contact; (ii) site visits to the apparent low bidder's or apparent successful Bidder's facilities; (iii) any communications made on the record at a publicly noticed meeting of SFRTA, or (iv) negotiation meetings held by the Procurement Director.

1.7 ADDENDA AND CLARIFICATION

In the event that SFRTA finds it necessary to supplement or modify any portion of the ITB during the Bid preparation period, such procedure(s) shall be accomplished by issuance of written addenda.

All addenda will be in writing from SFRTA with content and number of pages described to all Bidders. Each Bidder must acknowledge receipt of all addenda by signing the acknowledgment in the Addendum Acknowledgment on the Bid Form. In the event of conflicts in the Addenda, the most recent Addendum will govern.

1.8 SEALED BIDS

1.8.1 Bids shall be received only from those firms obtaining Bid documents from SFRTA.

1.8.2 Sealed Bids shall be opened publicly on the date, time and location specified in the Bid. Offers by e-mail or telephone are not acceptable. Bids received after that time and date will not be considered.

1.8.3 All Bids must be submitted on the provided forms, and are subject to the conditions specified herein. Bids that do not comply with these conditions are subject to rejection.

1.8.4 The Bid must contain a manual signature of the authorized representative in the space provided on the Bid Form. The Bid must be typed or printed in ink. Use of erasable ink is not permitted. All corrections to prices made by the Bidder must be initialed.

1.8.5 SFRTA reserves the right to make an award within one hundred eighty (180) calendar days from the date Bids from responsive Bidders are opened. During this period, Bids shall not be withdrawn. Should award be delayed beyond a period of one hundred eighty (180) calendar days, such award shall be conditioned upon Bidder's acceptance.

1.9 BID SUBMITTAL

1.9.1 Bidders shall submit one (1) printed original document of their bid consisting of the required documents listed below and acknowledgement of all Addenda received from SFRTA. Bidders shall also provide an exact copy of their Bid on CD-ROM or FLASHDRIVE in Adobe Acrobat PDF. In the event of a conflict, the original document submittal will take precedence.

1.9.2 Required Forms. Bidder shall complete and notarize where applicable the Required Documents listed below:

- Bid Form ..... Exhibit 1
- Bid Bond ..... Exhibit 2
- Contractor's Qualification Certification ..... Exhibit 3
- Disadvantaged Business Enterprise (DBE) Participation Schedule ..... Exhibit 4
- Drug Free Workplace Certification ..... Exhibit 5
- Debarment & Suspension Certification ..... Exhibit 6
- Certification of Restriction on Lobbying ..... Exhibit 7
- Truth in Negotiation Certificate ..... Exhibit 8
- Declaration of Non-Collusion Certificate ..... Exhibit 9
- Buy America Certification ..... Exhibit 10
- Schedule of Subcontractors ..... Exhibit 11
- Intent to Perform as a Subcontractor ..... Exhibit 12
- E-Verify Certification ..... Exhibit 13
- Certification Regarding Scrutinized Companies ..... Exhibit 14

1.9.3 Bid Bond. A Bid Bond in an amount of five percent (5%) of the total Bid Price shall be submitted with the Bid in the form of a cashier's check, money order, or a properly executed Bid Bond in the form provided in the Submittal Documents. Upon award of the Project, SFRTA shall return the Bid Bonds of all unsuccessful Bidders. The Bid Bond of the Successful Bidder shall be returned when a Performance and Payment Bond is received and approved by SFRTA.

1.9.4 Financial Information. This part of the required information shall include relevant information regarding the financial stability and strength of the Bidder. Each Bidder shall provide a copy of the most recent audited financial statements (including balance sheet, income

statements, description of assets and liabilities). A copy of the most recent business income tax return and Pro-Forma (un-audited) Financial Statement for the last three (3) years will be accepted if audited financial statements are unavailable. The Bidder's financial information will be reviewed by SFRTA as a factor to determine responsibility of the Bidder.

1.9.5 The Bid shall be placed in one or more sealed envelopes which shall be clearly marked with the following information included on the label provided by SFRTA, which must be affixed to the outside of the package.

BIDDER'S NAME
ITB No. 15-011
HIALEAH YARD ELECTRICAL UPGRADES
OPENING DATE:

1.9.6 Hand-carried Bids may be delivered to the address in Section 1.10 between the hours of 9 a.m. and 5 p.m., only, Monday through Friday, excluding holidays observed by SFRTA.

1.9.7 Bidders are responsible for informing any commercial delivery service, if used, of all delivery requirements and for ensuring that the required address information appears on the outer wrapper or envelope used by such service and that the envelopes containing the Bid are clearly marked.

1.10 ADDRESS FOR THIS ITB

Mail or deliver all Bids, and written inquiries to:

Mr. Robert Becker, Contract Specialist
South Florida Regional Transportation Authority
800 N.W. 33rd Street
Pompano Beach, FL 33064
Phone: 954-788-7909
Fax: 954-788-7963
Email: itb15011@sfrta.fl.gov (Do not send Bids via email)

If no Bid is submitted, the No Submittal Notice (Exhibit 15) must be completed and returned in order for the Bidder to be retained on the SFRTA mailing list for future procurements.

1.11 MODIFICATION, RE-SUBMITTAL AND WITHDRAWAL OF BIDS

A Bidder may submit a modified Bid to replace all or any portion of a previously submitted Bid up until the Bid Due Date; only the latest version of the Bid will be considered.

Bids may be withdrawn prior to the time and date set for opening. Such requests for withdrawal must be made in writing on company letterhead, and the envelopes must have the following information in bold type:

BID WITHDRAWAL
ITB No. 15-011
HIALEAH YARD ELECTRICAL UPGRADES
OPENING DATE:

1.12 SUCCESSFUL BIDDERS REQUIRED DOCUMENTS

The SUCCESSFUL BIDDER shall execute and return the following documents:

Contract/Agreement
Required Insurance Documents
Performance Bond
Payment Bond

1.13 SINGLE BID RECEIVED

If only a single responsive and responsible Bid is received, SFRTA, at its sole discretion, may conduct a price or cost analysis as required. If a price and or cost analysis is conducted by SFRTA, the Bidder shall furnish such information, data, and assistance as SFRTA deems necessary. The analysis may take place, in part, at the Bidder's principal place of business or other facility, as necessary.

1.14 CONFLICT OF INTEREST PROHIBITION

Any consultant or contractor or their respective employees, who participated in the development of any part of the Solicitation Documents, whether for SFRTA or another party, shall be precluded from bidding or participating in any Bidder's team for this procurement.

1.15 COSTS INCURRED IN RESPONDING

An Invitation to Bid does not commit SFRTA or any other public agency to pay any costs whatsoever incurred by any individual, firm, partnership, or corporation in the submission of the Bids or to make necessary studies for their preparation; nor to procure or contract for any articles or services in connection with their submission.

1.16 DEFAULT

Failure to perform according to this Bid and/or resulting contract shall be cause for the Bidder to be found in default in which event any and all re-procurement costs may be charged against the Bidder.

1.17 LEGAL REQUIREMENTS IN BIDS

Bidders shall comply with all applicable provisions of Federal, State, County and Local laws, ordinances, rules, and regulations in the development and submittal of all Bids received. Lack of knowledge by any Bidder shall not constitute a cognizable defense against the legal effect of noncompliance.

1.18 RIGHT TO REJECT

1.18.1 General. SFRTA, at its sole and absolute discretion, reserves the right to reject any or all Bids.

1.18.2 Responsiveness of Bids and Disqualification. All Bids must be in writing. A responsive Bid is an offer which complies with and conforms to the requirements of the ITB. Bids which, in the opinion of SFRTA, are non-responsive will be rejected. Bids may be rejected if found to be conditional, irregular or not in conformance with the requirements and instructions contained herein. A Bid may be found to be irregular or non-responsive for reasons including, but not limited to, failure to use or complete forms, conditional submittals, incomplete submittals, indefinite or ambiguous submittals and improper and/or undated signatures. All Bids must be typed.

1.18.3 Conditions Causing Disqualification of Bidders. Other conditions, which will cause rejection of Bids, include, but are not limited to, a Bidder submitting more than one submittal, qualified or contingent submittals, evidence of collusion among Bidders, obvious lack of experience or expertise to perform the Work, failure to perform or meet financial obligations for previous contracts, or evidence that a Bidder has a financial interest in another Bidder for the Work under this ITB. Failure to acknowledge all Addenda on the Bid Form issued by SFRTA may be cause for rejection. In the event that an individual, firm, partnership or corporation is on the United States Comptroller General's List of Ineligible Bidders for Federally Financed or Assisted Projects shall be cause for rejection. In the event the Bidder to whom the Contract is awarded does not execute the Contract within fifteen (15) calendar days of presentation for execution shall be cause for rejection.

Submittals may be rejected if more than one Bid is received from an individual, firm, partnership, or corporation, or combination thereof, under the same or different names. Such duplicate interest may cause the rejection of all submittals in which such Bidder has participated.

1.18.4 Waivers. SFRTA, at its sole and absolute discretion, reserves the right to waive minor informalities or irregularities in this ITB or in the responses received as part of this ITB where the informality or irregularity is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Bidders. Minor irregularities are defined as those that will not have an adverse effect on SFRTA's interest and will not materially affect the submittal by giving a Bidder an advantage or benefit not enjoyed by other Bidders.

1.18.5 Prior to Notice To Proceed (NTP), the successful Bidder shall obtain all necessary local, state and federal permits, certifications and/or licenses necessary to perform the Work.

1.19 PROTEST PROCEDURES

The following are SFRTA's procedures for protesting solicitations and contract awards.

Definitions

Interested Party means any bidder or Bidder with legal standing that is affected adversely by SFRTA's decision concerning a solicitation or contract award.

Protest means a written objection to the commercial terms or technical specifications in the solicitation or the contract award.

Protest Period means the three (3) business days following the date of the posting of the Intent of Contract Award on SFRTA's website or the date of the issuance of an addendum as to the content of such addendum or the date of issuance of the Solicitation. A "business day" means normal business hours of 9 a.m. to 5 p.m. local time.

Solicitation Documents mean all of the documents used to solicit bids or proposals, including, but not limited to, the commercial terms, technical specifications of a Procurement and all addenda.

(1) Protest Policy: SFRTA provides Interested Parties with the opportunity for an administrative review of written Protests and strives to resolve any Protest expeditiously at the Procurement Director's level to the maximum extent possible.

(2) Filing a Protest: Only an Interested Party may file a Protest regarding the Solicitation Documents issued by SFRTA by filing a written Notice of Protest with SFRTA within seventy-two (72) hours from the availability date of the Solicitation Documents set forth in the advertisement posted on SFRTA's website, excluding Saturdays, Sundays and legal holidays observed by SFRTA or from the date of the issuance of any addenda if specifically relating to the content of the addendum. Failure to file a Notice of Protest within the provided timeframes, for any reason whatsoever, shall constitute a complete and absolute waiver of Protest rights.

With respect to any Protest of Contract award, the Notice of Protest shall be filed within the Protest Period. For Procurements not involving federal funds, SFRTA, at its sole discretion, may require in its Solicitation Documents that an Interested Party post with its formal Protest a Protest bond in the amount of 1% of the Contract amount or $25,000, whichever is less. In the event the Interested Party receives an adverse determination on its Protest, the bond shall be forfeited to SFRTA.

An Interested Party shall file a formal written Protest within ten (10) business days of filing a Notice of Protest. In order to be considered, the Protest must contain: (i) the Interested Party's name, address, telephone number, email address, facsimile number, and taxpayer identification number; (ii) identification of the Procurement or Contract at issue; (iii) a complete and concise statement of the grounds for the Protest, supported by

relevant documents; (iv) identification of all Persons with information germane to the Protest; (v) a chronology of efforts made to resolve the matter prior to filing the Protest; and (vi) a statement of the relief requested.

(3) Protest Decision: The Procurement Director shall reduce his or her decision to writing and shall transmit or otherwise furnish a copy of the decision to the Interested Party. The decision of the Procurement Director shall be final and conclusive unless, within seven (7) business days from the date of such decision, SFRTA receives from the Interested Party a written request for review of the decision addressed to the Executive Director. The decision of the Executive Director shall be final and conclusive.

(4) Continuation of Performance: The Procurement Director shall determine whether SFRTA will proceed with Contract award or, if the Contract has been awarded, whether to suspend performance of the Contract, pending a decision on the Protest. SFRTA has no obligation, however, to suspend award or performance of the Contract in the event of a Protest.

(5) Remedies: If SFRTA determines that a Protest is valid, the Executive Director, at his or her sole discretion, may: (i) Direct the Procurement Director to issue a new or amended Solicitation; (ii) award the Contract or recommend that the Board award the Contract, if the Contract amount exceeds the Executive Director's approval authority; (iii) terminate or suspend performance of the Contract that is the subject of the Protest; or (iv) take any other action permitted by law to promote compliance with SFRTA policies and applicable law.

(6) Filing of a Written Notice of Protest or Formal Protest: All Written Notices of Protests or Formal Protests must be filed with the Procurement Director. All Protests must be received at the address shown on the Solicitation Documents during normal office hours of 9:00 am to 5:00 pm, local time. Failure to file a Notice of Protest or a Protest as discussed herein shall constitute a complete and absolute waiver of any such rights.

(7) Informal Resolution: The Procurement Director may, at his or her sole discretion, agree to meet with the Interested Party within seven (7) calendar days, excluding Saturdays, Sundays and legal holidays observed by SFRTA, after the filing of a Protest to attempt to resolve the matter.

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SECTION 2.0 - GENERAL TERMS AND CONDITIONS

2.01 ADVERTISEMENTS

In submitting a response, the Contractor agrees not to use the results of the ITB as a part of any commercial advertising, without the prior express written consent of SFRTA.

2.02 PUBLIC RECORDS

The Contractor's response to this ITB will be available for public inspection after opening of the responses in compliance with Chapter 119, Florida Statutes, popularly known as the "Public Records Act." SFRTA shall not be liable to a Contractor for disclosure of all or any portion of a submittal. This includes material which the responding Bidder might consider to be confidential or a trade secret. Any claim of confidentiality is waived upon submission.

The Contractor shall allow public access to all documents, papers, letters, or other material, subject to the applicable provisions of Chapter 119, and made or received by the Contractor in conjunction with the Agreement. Failure by the Contractor to grant such public access shall be grounds for immediate unilateral cancellation of the Agreement by SFRTA.

As required by law, the Contractor must comply with the following provisions:

2.02.1 Keep and maintain all public records that are created or received by the Contractor in performing the Work.

2.02.2 Provide the public with access to public records on the same terms and conditions that a public agency would provide the records and at a cost that does not exceed the cost that SFRTA would charge the public for similar records.

2.02.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.

2.02.4 Meet all State law requirements for retaining public records.

2.02.5 Transfer, at no cost, to SFRTA all public records created or received by the Contractor in performing the Work. All records stored electronically must be provided to SFRTA in a format that is compatible with the information technology systems of SFRTA.

2.03 AMERICANS WITH DISABILITIES ACCESSIBILITY IMPLEMENTATION ACT

Contractor shall comply with Sections 553.01-553.14, Florida Statutes, cited as the "Florida Americans with Disabilities Accessibility Implementation Act."

2.04 PRIORITY ORDER OF CONTRACT DOCUMENTS

Coordination of Contract Documents

Should there appear to be a conflict within the Contract Documents, the Bidder or Contractor shall immediately make a written request for clarification to SFRTA or, in the absence of a request, the more stringent provision shall apply.

All parts of the Contract Documents are integral to the Project; a requirement occurring in one part of the Contract Documents is as binding as though incurring in all. All parts of the Contract Documents are complementary and describe and provide for the Project in its entirety. The Work and Materials specified in the Drawings and Specifications or Scope of Services include additional, incidental Work, not specifically mentioned, when obvious or apparent, as being necessary for the proper completion of the Work.

In case of discrepancy, the governing order of the Contract Documents is as follows:

1) Addenda
2) Special Terms and Conditions
3) General Terms and Conditions
4) Drawings and Specifications or Scope of Services
5) Invitation to Bid/Exhibits/Attachments
6) Bidder's Submittal Documents

2.05 CONTRACT DOCUMENTS

2.05.1 For the definition of Contract Documents see the Definition of Terms in the ITB.

2.05.2 SFRTA shall furnish Contractor with one (1) copy and one (1) reproducible set of the Construction Documents. Any additional copies of the Construction Documents required by Contractor for execution of the Work shall be made by Contractor from its reproducible set at Contractor's sole cost and expense. The reproducible set of the Construction Documents shall be returned to SFRTA upon final acceptance of the Work or termination of the Contract, whichever occurs first. Provided, however, SFRTA is furnishing Contractor a reproducible set of Construction Documents for Contractor's convenience and such furnishing by SFRTA shall not be deemed to be a waiver by SFRTA or Design Consultant of any copyright, patent or license they may have with respect to the Construction Documents. All such copyrights, patents and licenses hereby being expressly reserved by SFRTA and Design Consultant.

2.06 INTENT OF CONTRACT DOCUMENTS

2.06.1 It is the intent of the Contract Documents to describe a functionally complete project (or portion of a project) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for in the Contract Documents. When words that have

a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Capitalized terms not included in the Definition of Terms, or for which no definition has been provided elsewhere in the Contract Documents, shall have the meanings given to such terms by the construction industry in South Florida unless a different meaning is clearly intended based on usage and context. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in affect at the time the Work is performed, except as may be otherwise specifically stated herein.

2.06.2 If, during the performance of the Work, Contractor discovers a conflict, error or discrepancy in the Contract Documents, Contractor immediately shall submit a Request for Information ("RFI") to the Design Consultant through the Construction Management & Inspection (CM&I) Consultant in writing, and before proceeding with the Work affected thereby, shall obtain a written interpretation or clarification from the Design Consultant. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.

2.06.3 Drawings are intended to show general arrangements, design and extent of Work and are not intended to serve as shop drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts or extent of any part of the Work. In the event of a discrepancy between or among the Drawings, Specifications or other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon Contractor, as determined by SFRTA. Unless otherwise specifically mentioned, all anchors, bolts, screws, fittings, fillers, hardware, accessories, trim and other parts required in connection with any portion of the Work to make a complete, serviceable, finished and first quality installation shall be furnished and installed as part of the Work, whether or not called for by the Contract Documents.

2.07 SCOPE OF WORK

Contractor shall furnish and pay for all management, supervision, financing, labor, materials, tools, fuel, supplies, utilities, equipment and services of every kind and type necessary to diligently, timely and fully perform and complete in a good manner the Work in accordance with all of the terms and conditions of the Contract Documents.

2.08 RELATIONSHIP OF PARTIES

2.08.1 Contractor accepts the relationship of trust and confidence established by this Contract. Contractor covenants with SFRTA to cooperate with the Design Consultant and CM&I Consultant; to utilize Contractor's best skill, efforts and judgment in furthering the interest of the SFRTA; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the

Work in the best way and the most expeditious and economical manner, consistent with the interests of SFRTA. Further, Contractor acknowledges that (i) it has represented to SFRTA that it has specific expertise in the planning, management and construction of similar Work and (ii) that such representation is a material inducement to SFRTA to enter into this Contract.

2.08.2 Wherever the terms of this Contract refer to some action, consent, or approval (excluding approvals of Modifications) to be provided by SFRTA or some notice, report or document is to be provided to SFRTA, such reference to "SFRTA" shall mean SFRTA, SFRTA's staff, or SFRTA's designee (to the extent such designee has been expressly authorized by SFRTA in writing), unless otherwise stated in the Contract Documents.

2.09 NOTICES

2.09.1 All notices required or made pursuant to this Contract by Contractor to SFRTA shall be in writing and may be given either (i) by mailing same by United States mail with proper postage affixed to the delivery package, certified, return receipt requested, or (ii) by sending the notice by Federal Express, Express Mail, Airborne, Emery, Purolator or other expedited mail or package delivery, (iii) by hand delivery to the appropriate address, or (iv) by facsimile with confirmation copy to be mailed. Notices required shall be directed to the Contractor at the address stated on the Contract. Notices from Contractor should be sent to the Attention of SFRTA's Project Manager.

2.09.2 Either party may change its address by giving written notice to the other party in accordance with the requirements of this Section.

2.10 INVESTIGATION AND UTILITIES

2.10.1 Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work and the general and local conditions, and particularly, but without limitation, with respect to the following: those affecting transportation, access, legal disposal, handling and storage of materials; availability and quality of labor; water and electric power; availability and condition of roads; work area; living facilities; climatic conditions and seasons; physical conditions at the work-site and the Project area as a whole; topography and ground surface conditions; nature and quantity of the surface materials to be encountered; subsurface conditions; equipment and facilities needed preliminary to and during performance of the Work; and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation.

2. 10.2 Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project site, said roadways, railways, drainage facilities and utilities being referred to in this Section as the "Utilities." Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the construction of the Project. Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption.

Contractor shall be responsible for properly shoring, supporting and protecting all Utilities at all times during the course of the Work.

2.10.3 If during the performance of the Work, Contractor or any subcontractor, sub-subcontractor, agent, employee or anyone else engaged in the Work, causes a disruption to any Utilities service to other facilities or customers within the Project area, Contractor shall take all actions necessary and required to immediately restore such Utilities service. If Contractor fails to take such immediate actions, SFRTA shall have the right to take whatever actions it deems necessary and required to immediately restore the disrupted services, and all costs incurred by SFRTA as a result of it shall be reimbursed to SFRTA by Contractor within five (5) business days of written demand for same from SFRTA.

2.11 SCHEDULE

2.11.1 The Contractor shall prepare and provide a Construction Schedule that meets the requirements of the Special Terms and Conditions. The Contractor shall be instructed to commence the Project by written instructions in the form of a Notice to Proceed ("NTP") issued by the Contract Administrator. The NTP shall set forth the Project Commencement Date.

2.11.2 The Construction Schedule and all other required schedules shall be updated by Contractor as often as is specified in the Special Terms and Conditions. The Construction Schedule and all updates to it shall be subject to SFRTA's and CM&I Consultant's review and comment. Contractor's submittal of a satisfactory Construction Schedule and any updates and SFRTA's acceptance of same shall be a condition precedent to SFRTA's obligation to pay Contractor.

2.12 PROGRESS PAYMENTS

2.12.1 Prior to submitting its first monthly Application for Payment, Contractor shall submit to SFRTA and CM&I Consultant, for their review and approval, a Schedule of Values based upon the Contract Amount. After its approval by SFRTA, that Schedule of Values shall be used as the basis for Contractor's monthly Applications for Payment with respect to the Work. The first Application for Payment shall be submitted no earlier than thirty (30) days after the Commencement Date. The approved Schedule of Values shall be updated to reflect current Modifications and submitted each month to CM&I Consultant along with a completed and notarized copy of the Application for Payment form. Contractor shall receive payment only for completed Work in accordance with the approved Schedule of Values.

2.12.2 If payment is requested on the basis of materials and equipment not incorporated into the Project, but delivered and suitably stored at the site, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that SFRTA has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances, together with evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect SFRTA's interest, all of which shall be subject to SFRTA's satisfaction. SFRTA has the discretion whether or not to pay for such unincorporated materials.

2.12.3 Contractor shall submit two (2) notarized original copies of its monthly Application for Payment to CM&I Consultant on or before the 25th day of each month for Work performed during the previous month. Invoices received after the 25th day of each month shall be considered for payment as part of the next month's application. Within five (5) calendar days after receipt of each Application for Payment, CM&I Consultant shall submit to SFRTA a Certificate for Payment in the amount recommended by CM&I Consultant as being due and owing Contractor. Each Application for Payment after the initial application shall be accompanied by a Release and Affidavit, in the form designated by SFRTA. SFRTA shall pay Contractor that portion of CM&I Consultant's Certificate for Payment that SFRTA approves as being due and owing Contractor in accordance with the Local Government Prompt Payment Act, Sections 255.0705-255.078, Florida Statutes.

2.12.4 SFRTA shall retain ten percent (10%) of the gross amount of each monthly payment request or ten percent (10%) of the portion certified by CM&I Consultant and approved by SFRTA for payment, whichever is less. Such sum shall be accumulated and not released to Contractor until Final Payment is due.

2.12.5 Monthly payments to Contractor shall in no way imply approval or acceptance of Contractor's work.

2.12.6 Certification of Payment to Subcontractors

Prior to receipt of any progress (partial) payment, the Contractor shall certify that all Subcontractors having an interest in the Contract have received their pro rata share of previous progress payments made to the Contractor for all Work completed and materials furnished in the previous period. Contractor shall provide this certification in the form designated by SFRTA, and shall include the Disadvantaged Business Enterprise (DBE) utilization percentage to date and the percentage of the total Contract price that will be performed by DBE subcontractors. SFRTA will not make any progress payments after the initial partial payment until the Contractor certifies that it has disbursed to all Subcontractors having an interest in the Contract their pro rata shares of the payment it has previously received. If the Contractor demonstrates good cause for not making any required payment and furnishes written notification of any such good cause to both SFRTA and the affected Subcontractors, SFRTA will then, upon its sole discretion, decide what the appropriate payment will be at that time. Contractor shall obtain from the Subcontractor an executed sworn Payment Certification Form and shall submit the form to SFRTA with each of the Contractor's requests for payment, with the exception of the first request for payment. The Subcontractor's failure to sign the Payment Certification Form and forward the form to the Contractor immediately upon receipt of payment is sufficient grounds for SFRTA to suspend any further payments until certification is submitted. The Contractor's failure to submit the Payment Certification Forms covering all payments made to Subcontractors, within thirty (30) days after receiving progress payments, is sufficient grounds for SFRTA to suspend further payment until certifications are received. Within ten (10) days of the Contractor's receipt of the progress payment or any other subsequent payments, except the Final Payment, the Contractor shall pay all Subcontractors having an interest in the Contract their pro rata shares of the payment for all Work performed and materials furnished. The Contractor shall return to Subcontractors, all Subcontractor's retainage within thirty (30) days from the time Subcontractor's Work has been satisfactorily completed. SFRTA will consider an

exception to the above when the Contractor demonstrates good cause for not making any required payment and furnishes written notification of any such good cause to both SFRTA and the affected Subcontractors within said 30-day period. The Certificate for Payment forms are attached in the ITB package.

2.13 PAYMENTS WITHHELD

CM&I Consultant may decline to certify for payment or SFRTA may decline to approve any Certificate for Payment, or portions of a Payment, issued by CM&I Consultant, because of subsequently discovered evidence or subsequent inspections. SFRTA may nullify the whole or any part of any Certificate for Payment previously issued and SFRTA may withhold any payments otherwise due Contractor under this Contract or any other agreement between SFRTA and Contractor, to such extent as may be necessary in SFRTA's opinion to protect it from loss because of: (a) defective Work not remedied; (b) third party claims filed or reasonable evidence indicating probable filing of such claims; (c) failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment; (d) reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount; (e) reasonable indication that the Work will not be completed within the Contract Time; (f) unsatisfactory prosecution of the Work by Contractor; or (g) any other material breach of the Contract Documents. If these conditions are not remedied or removed, SFRTA may, after three (3) days written notice, rectify the same at Contractor's expense. SFRTA also may offset against any sums due Contractor the amount of any liquidated or unliquidated obligations of Contractor to SFRTA, whether relating to or arising out of this Contract or any other agreement between Contractor and SFRTA.

2.14 FINAL PAYMENT

2.14.1 SFRTA shall make Final Payment to Contractor after the Work is finally accepted by SFRTA, provided that Contractor first, and as an explicit condition precedent to the accrual of Contractor's right to Final Payment, shall have furnished SFRTA with a properly executed and notarized final release (conditioned only upon receipt of Final Payment) in the form of the Release and Affidavit, as well as, a duly executed copy of the surety's consent to Final Payment and such other documentation that may be required by the Contract Documents or SFRTA.

2.14.2 Contractor's acceptance of Final Payment shall constitute a full waiver of any and all claims by Contractor against SFRTA arising out of this Contract or otherwise relating to the Project, except those identified in writing by Contractor as unsettled in the final Application for Payment. Neither the acceptance of the Work nor payment by SFRTA shall be deemed to be a waiver of SFRTA's right to enforce any obligations of Contractor hereunder or to the recovery of damages for defective Work not discovered by SFRTA or CM&I Consultant at the time of final inspection.

2.15 SUBMITTALS AND SUBSTITUTIONS

2.15.1 Contractor shall carefully examine the Contract Documents for all requirements for approval of materials to be submitted such as shop drawings, data, test results, schedules and samples. Contractor shall submit all such materials at its own expense and

in such form and manner as required by the Contract Documents in sufficient time to prevent any delay in the delivery of such materials and its installation. The Contractor shall also carefully review and certify for accuracy and completeness all shop drawings and other submittals and then forward the same to the Design Consultant through the CM&I Consultant for review and action. The Design Consultant will transmit them back through the CM&I Consultant to the Contractor, who will then issue the submittals to the affected subcontractor for fabrication or revision. The Contractor shall maintain a suspense control system to promote the expeditious handling of shop drawings and all other submittals. The Contractor shall request the Design Consultant, through the CM&I Consultant, to make interpretations of the drawings or specifications requested of it by the subcontractors. The Contractor shall advise the CM&I Consultant in writing which submittals or requests for clarification have the greatest urgency; the purpose being to enable the CM&I Consultant to prioritize requests coming from the Contractor. The Contractor shall advise the SFRTA and CM&I Consultant in writing when timely response is not occurring on any of the above.

2.15.2 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other suppliers may be accepted by SFRTA and Design Consultant if sufficient information is submitted by Contractor to allow SFRTA and Design Consultant to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of substitute items of material and equipment will not be accepted by SFRTA from anyone other than Contractor.

2.15.3 If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make application to Design Consultant, through the CM&I Consultant, for acceptance, certifying that the proposed substitute shall perform adequately the functions and achieve the results called for by the general design, shall be similar and of equal substance to that specified and shall be suited to the same use as that specified. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with SFRTA for the Project) to adapt the design to the proposed substitute and whether or not incorporation or use by the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service shall be indicated. The application also shall contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs for redesign and claims of other Contractors affected by the resulting change, all of which shall be considered by Design Consultant in evaluating the proposed substitute. Design Consultant may require Contractor to furnish at Contractor's expense additional data about the proposed substitute.

2.15.4 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or use a substitute means, method, technique, sequence or procedure of construction acceptable to

Design Consultant, if Contractor submits sufficient information to allow Design Consultant to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedures for submission to and review by Design Consultant shall be the same as those provided herein for substitute materials and equipment.

2.15.5 Design Consultant shall be allowed a reasonable time within which to evaluate each proposed substitute. Design Consultant and SFRTA shall be the sole judges of the acceptability of any substitute. Acceptance of a substitute shall be at SFRTA's sole discretion. No substitute shall be ordered, installed or used without SFRTA's and Design Consultant's prior written acceptance which shall be evidenced by either a Contract Modification or an approved submittal. SFRTA may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute. CM&I Consultant will record time required by Design Consultant in evaluating substitutions proposed by Contractor and making changes in the Contract Documents occasioned thereby. Whether or not SFRTA accepts a proposed substitute, Contractor shall reimburse SFRTA for the charges of Design Consultant for evaluating each proposed substitute.

2.16 LONG LEAD PROCUREMENT

2.16.1 REVIEW. The Contractor shall review the Project design for the purpose of identifying long lead procurement items (machinery, equipment, materials and supplies) and consult with CM&I Consultant concerning same. When each item is identified, the Contractor shall notify the subcontractors, SFRTA and the CM&I Consultant of the required procurement and schedule. Such information shall be made a part of all affected subcontracts. The Contractor shall keep itself informed of the progress of the respective subcontractors or suppliers, manufacturing or fabricating such items, and advise SFRTA and CM&I Consultant of any problems or possible delays in delivery.

2.16.2 INTERFACING. The Contractor shall take such measures as are appropriate to provide that all construction requirements will be covered in the separate procurement of long lead items, the separate construction subcontracts and the general conditions items without duplication or overlap, and sequenced to maintain completion of all Work on schedule.

2.17 CONSTRUCTION SERVICES

Contractor shall provide the following services in addition to any other construction services required by the terms of this Contract:

2.17.1 The Contractor shall arrange for all job-site facilities as required by the SFRTA and necessary to enable the Contractor and CM&I Consultant to perform their respective duties and to accommodate any representatives of the SFRTA which SFRTA may choose to have present on the job.

2.17.2 The Contractor's administration of the Work shall include the following:

A. Maintain a log of daily activities, including manpower records, weather, delays, major decisions, etc.

B. Maintain a roster of companies on the Project with names and telephone numbers of key personnel.

C. Establish and enforce job rules governing parking, clean-up, use of facilities and worker discipline.

D. Provide labor relations management for a harmonious, productive Project.

E. Enforcement of all on-site safety requirements as outlined in Paragraph 2.36, "Safety".

2.17.3 The Contractor also shall provide job site administration functions during construction to assure proper documentation, including, but not limited to, the following:

A. JOB MEETINGS. Conduct a pre-construction conference with each subcontractor after award of the subcontract and prior to the start of its portion of the Work. Hold weekly progress and coordination meetings, or more frequently if required by Work progress, to provide for the timely completion of the Work. In addition, Contractor shall arrange and conduct regular weekly Project status meetings with the CM&I Consultant, Design Consultant, and SFRTA. Contractor shall use the job site meetings as a tool for the preplanning of Work and enforcing schedules, and for establishing procedures, responsibilities, and identification of authority for all parties to clearly understand. During these meetings, Contractor shall identify the party or parties responsible for following up on any problems, delay items or questions, and Contractor shall note the action to be taken by such party or parties. Contractor shall revisit each pending item at each subsequent meeting until resolution is achieved. Contractor shall attempt to obtain from all present any problems or delaying event known to them for appropriate attention and resolution.

B. SHOP DRAWING SUBMITTALS/APPROVALS. Provide staff to review and approve shop drawings and other submittals and to implement procedures for transmittal to the Design Consultant of such submittals for action, and closely monitor their review process.

C. MATERIAL AND EQUIPMENT EXPEDITING. Provide staff to closely monitor material and equipment deliveries, check and follow-up on supplier commitments for all subcontractors and maintain a material and equipment expediting log.

D. PAYMENTS TO SUBCONTRACTORS. Develop and implement a procedure for the review, processing and payment of applications by subcontractors for progress and final payments.

E. DOCUMENT INTERPRETATION. Refer all requests for information for interpretation of the Contract Documents to the CM&I Consultant in writing. Monitor all such requests and implement procedures for timely follow-up on all such requests.

F. REPORTS AND PROJECT SITE DOCUMENTS. Record the progress of the Work. Submit written progress reports to SFRTA and the CM&I Consultant, including information on subcontractors' Work, and the percentage of completion. Keep a daily log available to the SFRTA, the CM&I Consultant, and any permitting authority inspectors.

G. SUBCONTRACTORS PROGRESS. Prepare periodic punch lists for subcontractors' work, including unsatisfactory or incomplete items and schedules for their completion.

H. SUBSTANTIAL COMPLETION. Pursuant to the provisions of Paragraph 2.19.3, "Contract Time and Completion" of these General Terms and Conditions, ascertain when the Work or designated portions are ready for the CM&I Consultant's Substantial Completion inspections. From the punch lists of incomplete or unsatisfactory items prepared by Contractor and reviewed and supplemented by CM&I Consultant, prepare a schedule for their completion indicating completion dates for SFRTA's review.

I. FINAL COMPLETION. Monitor the subcontractors' performance on the completion of the Work and provide notice to SFRTA and CM&I Consultant when the Work is ready for final inspection. Secure, review and certify compliance with the Contract Documents, then transmit to SFRTA, through the CM&I Consultant, all required guarantees, warranties, affidavits, releases, bonds, waivers, manuals, record drawings, and maintenance books.

J. TESTING AND START-UP. With SFRTA's personnel, direct the inspection of Utilities, operations, systems and equipment for readiness and assist in their initial start-up and testing by the subcontractors.

K. RECORD DRAWINGS. Pursuant to the terms of Paragraph 2.18.2, "Daily Reports, Record Contract Documents and Meetings" hereafter, the Contractor shall monitor the progress of its own forces and its subcontractors on marked up field prints which shall be developed by Contractor into the final record drawings.

2.17.4 The Contractor shall maintain at the Project site, originals or copies of, on a current basis, all Project files and records, including, but not limited to, the following administrative records:

1. Subcontracts and Purchase Orders
2. Shop Drawing Submittal/Approval Logs
3. Equipment Purchase/Delivery Logs
4. Contract Drawings and Specifications with Addenda
5. Warranties and Guarantees

6. Cost Accounting Records
7. Labor Costs
8. Material Costs
9. Equipment Costs
10. Cost Proposal Request
11. Payment Request Records
12. Meeting Minutes
13. Cost-Estimates
14. Bulletin Quotations
15. Lab Test Reports
16. Insurance Certificates and Bonds
17. Contract Modifications
18. Permits
19. Material Purchase Delivery Logs
20. Technical Standards
21. Design Handbooks
22. "As-Built" Marked Prints
23. Operating & Maintenance Instruction
24. Daily Progress Reports
25. Monthly Progress Reports
26. Correspondence Files
27. Transmittal Records
28. Inspection Reports
29. Punch Lists
30. PMIS Schedule and Updates
31. Suspense (Tickler) Files of Outstanding Requirements
32. Quality Assurance (QA) Policy and Procedure Manual
33. Safety Plan

The Project files and records shall be available at all times to SFRTA and CM&I Consultant or their designees for reference, review or copying.

2.17.5 The Contractor shall provide the following services with respect to the Work, to facilitate the efficient, successful and timely occupancy of the Project:

A. The Contractor shall provide consultation and Project management to facilitate SFRTA's occupancy of the Project and provide transitional services to place the Work "on line" in such conditions as will satisfy SFRTA's operations requirements. The services include the Contractor's coordination of the delivery of SFRTA supplied furniture, fixtures and equipment for the Project.

B. The Contractor shall catalog operational and maintenance requirements of equipment to be operated by maintenance personnel and convey these to SFRTA in such a manner as to promote their usability. The Contractor shall provide SFRTA's operations and maintenance personnel with operations and maintenance training with respect to the equipment and systems being provided as part of the Work. This training may be videotaped by SFRTA

for subsequent presentation to SFRTA's operations and maintenance personnel.

C. The Contractor shall secure required guarantees and warranties, and shall assemble and deliver same to SFRTA in the manner required by SFRTA.

2.18 DAILY REPORTS, RECORD CONTRACT DOCUMENTS AND MEETINGS

2.18.1 Contractor shall prepare, maintain and submit to CM&I Consultant and SFRTA, for their review and approval, the various logs, reports, and schedules set forth in the Special Terms and Conditions. The Contractor's complete performance of its obligation to prepare, maintain and submit those logs, reports, and schedules is a condition precedent to SFRTA's obligation hereunder to make any payments to Contractor. These logs, reports and schedules shall not constitute nor take the place of any notice required to be given by Contractor to SFRTA or CM&I Consultant pursuant to the Contract Documents.

2.18.2 Contractor shall maintain in a safe place at the Project site one record copy and one permit set of the Contract Documents, including, but not limited to, all drawings, specifications, addenda, Modifications[1], and Field Orders, as well as all written interpretations and clarifications issued by Design Consultant, in good order and annotated to show all changes made during construction. The record Contract Documents shall be continuously updated by Contractor throughout the prosecution of the Work to accurately reflect all field changes that are made to adapt the Work to field conditions, changes resulting from Modifications, and Field Orders, and all concealed and buried installations of piping, conduit and Utilities. Contractor shall certify the accuracy of the updated record Contract Documents. As a condition precedent to SFRTA's obligation to pay Contractor, Contractor shall provide evidence, satisfactory to SFRTA and CM&I Consultant, that Contractor is fulfilling its obligation to continuously update the record Contract Documents. All buried and concealed items, both inside and outside the Project site, shall be accurately located on the record Contract Documents as to depth and in relationship to not less than two (2) permanent features (e.g. interior or exterior wall faces). The record Contract Documents shall be clean and all changes, corrections and dimensions shall be produced on Mylar. The record Contract Documents, together with all approved samples and a counterpart of all approved shop drawings shall be available to SFRTA and CM&I Consultant for reference. Upon completion of the Work and as a condition precedent to Contractor's entitlement to final payment, the record Contract Documents, samples and shop drawings shall be delivered to CM&I Consultant by Contractor for SFRTA.

2.18.3 Contractor shall keep all records and supporting documentation which concern or relate to the Work for a minimum of three (3) years from the date of termination of this Contract or the date the Project is completed, whichever is later. SFRTA, or any duly authorized agents or representatives of SFRTA, shall have the right to audit, inspect and copy all such records and documentation as often as they deem necessary during any such

[1] As defined in SFRTA's Procurement Policy, a Modification "means all Contract amendments and Change Directives associated with a Contract."

period of time; provided, however, such activity shall be conducted only during normal business hours.

2.18.4 The Contractor shall advise the SFRTA, its representatives and the CM&I Consultant of their requested or required participation in any meeting or inspection giving each at least one week notice unless such notice is made impossible by conditions beyond Contractor's fault and control, in which case at least forty-eight (48) hours prior written notice must be given.

2.19 CONTRACT TIME AND TIME EXTENSION

2.19.1 Contractor shall diligently pursue the completion of the Work and coordinate the Work being done on the Project by its subcontractors and material suppliers, as well as coordinating its Work with all work of others at the Project site, so that its Work or the work of others shall not be delayed or impaired by any act or omission by Contractor or anyone for whom Contractor is liable. Unless expressly noted otherwise in the Contract Documents, Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, as well as coordination of all portions of the Work under the Contract Documents, and the coordination of SFRTA's suppliers and Contractors.

2.19.2 Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of Contractor, and not due to its fault or neglect, including, but not restricted to, acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulation, strikes, lockouts, unusually severe weather conditions not reasonably anticipated, Contractor shall notify SFRTA and CM&I Consultant in writing within forty-eight (48) hours after the commencement of such delay, stating the cause or causes, or be deemed to have waived any right which Contractor may have had to request a time extension.

2.19.3 If Contractor encounters on the Project site any materials reasonably believed by Contractor to be petroleum or petroleum related products or other hazardous or toxic substances which have not been rendered harmless, Contractor immediately shall (i) stop Work in the area affected and (ii) report the condition to SFRTA in writing. If the Work is so stopped and hazardous material is found, the Work in the affected area shall not be resumed except by Modification. Any such Modification shall include, but not be limited to, an adjustment to the Contract Time as appropriate. If no hazardous material is found after the Work is stopped, no Modification is required to resume the Work in the affected area. Further, if the hazardous material was generated or caused by the Contractor or any of its employees, agents, subcontractors, or material suppliers, no Modification will be required for an adjustment in the Contract Time and Contractor shall indemnify SFRTA for any costs incurred by SFRTA with respect to such hazardous material.

2.19.4 No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatsoever, including those for which SFRTA and CM&I Consultant may be responsible, in whole or in part, shall relieve Contractor of its duty to perform or give rise to any right to damages or additional compensation from SFRTA. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against SFRTA will be

the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "no damage for delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion. Notwithstanding the foregoing, if the Work is delayed due to the fault or neglect of SFRTA or anyone for whom the SFRTA is liable ("SFRTA Delay"), and such SFRTA Delay exceeds a cumulative total of one hundred and twenty (120) calendar days, Contractor may make a claim in accordance with the procedures set forth in this Contract, for the actual and direct delay damages it incurs as a result of such SFRTA Delay accruing after said one hundred and fifty (150) calendar days. Provided, however, Contractor expressly acknowledges and agrees that it's actual and direct delay damages shall not exceed three hundred dollars ($300.00) per calendar day.

2.20 CHANGES IN THE WORK

2.20.1 SFRTA shall have the right at any time during the progress of the Work to increase or decrease the Work. Promptly after being notified of a change, Contractor shall submit an itemized estimate of any cost or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, or for minor changes ordered by the CM&I Consultant, no addition or changes to the Work shall be made except upon written order of SFRTA, and SFRTA shall not be liable to Contractor for any increased compensation or adjustment to the Contract Time without such written order. NO OFFICER, EMPLOYEE OR AGENT OF SFRTA IS AUTHORIZED TO DIRECT THE CONTRACTOR TO PERFORM ANY ADDITIONS OR CHANGES TO THE WORK ORALLY AND SFRTA SHALL NOT PAY CONTRACTOR FOR ANY WORK WHICH IT CLAIMS WAS AUTHORIZED BY VERBAL DIRECTION OF SFRTA'S REPRESENTATIVE. CONTRACTOR SHALL IMMEDIATELY REPORT ANY ATTEMPT TO AUTHORIZE ANY ADDITION OR CHANGE TO THE WORK BY VERBAL DIRECTION TO SFRTA'S DIRECTOR OF PROCUREMENT.

2.20.2 Requested changes by the Contractor shall be prepared and submitted by the Contractor in the form of either a Design Change Notice (DCN) for requested design changes or Field Change Notice (FCN) for requested field changes, both forms which are attached, and reviewed by Design Consultant, CM&I Consultant, and SFRTA. Upon issuance of an approved DCN or FCN from the CM&I Consultant, Contractor shall prepare and submit to the CM&I Consultant a proposal for each change.

2.20.3 A Contract Amendment, in the form attached, shall be promptly executed by Contractor and SFRTA after an agreement is reached between the parties concerning the requested changes. Contractor shall promptly perform changes authorized by duly executed Amendments. The Contract Amount and Contract Time shall be adjusted in the Amendment in the manner as SFRTA and Contractor shall mutually agree.

2.20.4 If SFRTA and Contractor are unable to agree on an Amendment for the requested change, Contractor shall, nevertheless, promptly perform the change as directed by SFRTA in a Change Directive. In that event, the Contract Amount and Contract Time shall be adjusted as directed by SFRTA. If Contractor disagrees with SFRTA's adjustment determination, Contractor must make a claim pursuant to Paragraph 2.21,

"Claims and Disputes" of these General Terms and Conditions or else to be deemed to have waived any claim it might otherwise have had on that matter.

2.20.5 In the event SFRTA and Contractor are unable to mutually agree on a change to the Contract Amount, resulting from a change made pursuant to this Section, the amount of the increase or decrease shall be limited to Contractor's actual and direct (i) personnel and labor expenses, (ii) material and equipment costs, and (iii) extended general conditions expenses (including bond premiums), reasonably incurred as a result of the change, plus a maximum ten percent (10%) markup for overhead and profit. In the event such change Work is performed by a subcontractor, a maximum five percent (5%) markup for overhead and profit for all subcontractors' and sub-subcontractors' direct labor and material costs shall be permitted, with a maximum five percent (5%) markup thereon by Contractor for its overhead and profit, for a total maximum markup of ten percent (10%).

2.20.6 SFRTA shall have the right to conduct an audit of Contractor's books and records, as well as those of its subcontractors and suppliers, to verify the accuracy of Contractor's claim with respect to Contractor's costs associated with any modification.

2.20.7 CM&I Consultant shall have authority to order minor changes in the Work that do not impact the Contract Amount, Contract Time or Project quality, and that are otherwise not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order issued by CM&I Consultant. Such changes shall be binding on Contractor.

2.21 CLAIMS AND DISPUTES

2.21.1 A Claim is a demand or assertion by one of the parties seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes other disputes and matters in question between SFRTA and Contractor arising out of or relating to the Contract Documents. The responsibility to substantiate a Claim shall rest with the party making the Claim.

2.21.2 Initial notice of Claims by Contractor shall be made in writing to SFRTA and CM&I Consultant within forty-eight (48) hours after the first day of the event giving rise to such Claim or else Contractor shall be deemed to have waived the Claim. Written supporting data shall be submitted to SFRTA and CM&I Consultant within fifteen (15) calendar days after the occurrence of the event, unless SFRTA grants additional time in writing, or else Contractor shall be deemed to have waived the Claim. All Claims shall be priced so as to compensate Contractor for its actual and direct labor, material and equipment costs and extended general conditions expenses, together with markup, as set forth in Paragraph above.

2.21.3 Contractor shall proceed diligently with its performance as directed by SFRTA, regardless of any pending Claim, unless otherwise agreed to by SFRTA in writing. SFRTA shall continue to make payments in accordance with the Contract Documents during the pendency of any Claim.

2.21.4 At all times during the term, including during the course of, and notwithstanding the existence of, any dispute, the Contractor shall perform as directed by SFRTA, in a diligent manner and without delay, and shall abide by SFRTA's decision or order, and shall comply with all applicable provisions of the Contract Documents.

2.22 OTHER WORK

2.22.1 SFRTA may perform other work related to the Project by SFRTA's own forces, have other work performed by the owners of Utilities or let other direct contracts. If the fact that such other work is to be performed is not noted in the Contract Documents, written notice will be given to Contractor prior to starting any such other work. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact to SFRTA and CM&I Consultant within forty-eight (48) hours of being notified of the other work. If Contractor fails to send the above required forty-eight (48) hour notice, Contractor will be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Amount.

2.22.2 Contractor shall afford each utility and other Contractor who is a party to such a direct contract (or SFRTA, if SFRTA is performing the additional work with SFRTA's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their Work and will only cut or alter their Work with the written consent of CM&I Consultant and the others whose work will be affected.

2.22.3 If any part of Contractor's Work depends for proper execution or results upon the work of any other Contractor, utility, or SFRTA, Contractor shall inspect and promptly report to CM&I Consultant in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Such report must be made within forty-eight (48) hours of the time Contractor first became aware of the delay, defect or deficiency or by the scheduled commencement of Contractor's dependent Work, whichever occurs first. Contractor's failure to report within the allotted time will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

2.23 CLEANUP AND PROTECTIONS

2.23.1 Contractor agrees to keep the Project site(s) clean at all times of debris, rubbish and waste materials arising out of the Work. If Contractor fails to keep the Project site(s) clean, SFRTA has the right, after providing a twenty-four (24) hour written notice, to perform any required clean up and to back charge the Contractor for the costs of such clean up. At the completion of the Work, Contractor shall remove all debris, rubbish and waste materials from and about the Project site(s), as well as all tools, appliances, construction equipment and machinery and surface materials, and shall leave the Project site clean and ready for occupancy by SFRTA.

2.23.2 Any existing surface or subsurface improvements, including, but not limited to, pavements, curbs, sidewalks, pipes, utilities, footings, structures, trees and shrubbery, not indicated in the Contract Documents to be removed or altered, shall be protected by Contractor from damage during the prosecution of the Work. Any such improvements so damaged shall be restored by Contractor to a condition at least equal to that existing at the time of Contractor's commencement of the Work.

2.24 ASSIGNMENT

The Contractor shall not assign, transfer, convey, sublet or otherwise dispose of any resultant Agreement, including any or all of its right, title or interest therein, or its power to execute such Agreement to any person, company or corporation without the prior written consent of SFRTA.

SFRTA may assign its rights and obligations under any resultant Agreement to any successor to the rights and functions of SFRTA or to any governmental agency to the extent required by applicable laws or governmental regulations all or part of the specified deliverable items as originally competed and evaluated to one or more third parties.

2.25. PERMITS, LICENSES AND TAXES

2.25.1 Contractor shall be responsible for procuring and paying for all local permits and licenses necessary for the prosecution of the Work. Permits and licenses to be acquired by Contractor with the assistance of Design Consultant include, but are not limited to, storm water, building, site, utility, and FDOT Right of Way Permits. SFRTA shall directly procure and pay for State and County permits and licenses. If Contractor performs any Work without obtaining, or contrary to, such permits or licenses, Contractor shall bear all costs arising from such circumstance. SFRTA shall fully cooperate with the Contractor where necessary. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work. Contractor shall use every effort to claim all exemptions available to SFRTA for permit, impact or any other fees.

2.25.2 Contractor shall pay all applicable sales, consumer, use and other similar taxes associated with the Work or portions of the Work.

2.25.3 LICENSING REQUIREMENTS. Contractor shall have all licenses required by law to work in the State of Florida and for its performance of this Project. Contractor shall not be disqualified from performing work for the Florida Department of Transportation. Contractor shall provide a notarized affidavit to the SFRTA that all motor vehicles that will be operated in Florida are registered pursuant to Chapter 320, Florida Statutes.

2.26 TERMINATION FOR DEFAULT

2.26.1 Contractor shall be considered in material default of the Contract and such default shall be considered cause for SFRTA to terminate the Contract, in whole or in part, if Contractor: (1) fails to begin the Work under the Contract Documents within the time specified; or (2) fails to properly and timely perform the Work as directed by SFRTA or CM&I Consultant or as provided for in the approved Construction Schedule; or (3)

performs the Work unsuitably or neglects or refuses to remove materials or to correct or replace such Work as may be rejected as unacceptable or unsuitable; or (4) discontinues the prosecution of the Work contrary to the requirements of the Contract; or (5) fails to resume Work which has been suspended within a reasonable time after being notified to do so; or (6) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy; or (7) allows any final judgment to stand against it unsatisfied for more than ten (10) days; or (8) makes an assignment for the benefit of creditors; or (9) fails to obey any applicable codes, laws, ordinances, rules or regulations with respect to the Work; or (10) materially breaches any other provision of the Contract Documents.

2.26.2 If SFRTA determines that Contractor is in default under this Contract, SFRTA shall notify Contractor in writing of Contractor's default(s). If SFRTA determines that Contractor has not remedied and cured the default(s) within seven (7) calendar days (cure period) following receipt by Contractor of said written notice, then SFRTA, at its option, without releasing or waiving its rights and remedies against Contractor's sureties and without prejudice to any other right or remedy it may be entitled to by Contract or by law, may terminate Contractor's right to proceed under the Contract, in whole or in part, and take possession of all or any portion of the Work and any materials, tools, equipment, and appliances of Contractor, take assignments of any of Contractor's subcontracts and purchase orders that SFRTA may designate, and complete all or any portion of Contractor's Work by whatever means, method or agency which SFRTA, in its sole discretion, may choose. SFRTA may elect, at its sole discretion, to issue an immediate written default termination to the Contractor when it is clear that the default could not be cured before the end of the cure period. In making either the initial determination that Contractor is in default under this Contract or the subsequent determination that Contractor has failed to satisfactorily cure its default, SFRTA may rely solely upon the CM&I Consultant's certification to SFRTA that in the CM&I Consultant's opinion the Contractor is in default or has failed to satisfactorily cure its default.

2.26.3 If SFRTA deems any of the foregoing remedies necessary, Contractor agrees that it shall not be entitled to receive any further payments until after the Work is completed. All monies expended and all of the costs, losses, damages and extra expenses, including all management, administrative and other overhead and other direct and indirect expenses (including CM&I Consultant and attorneys' fees) or damages incurred by SFRTA incident to such completion, shall be deducted from the unpaid balance of the Contract Amount, and if such expenditures exceed the unpaid balance of the Contract Amount, Contractor agrees to pay promptly to SFRTA on demand the full amount of such excess, including costs of collection, attorney's fees (including appeals) and interest thereon at the maximum legal rate of interest until paid. If the unpaid balance of the Contract Amount exceeds all such costs, expenditures and damages incurred by SFRTA to complete the Work, Contractor shall be entitled to such unpaid excess portion. Any amounts to be paid to SFRTA by Contractor pursuant to this Paragraph shall be certified by CM&I Consultant, upon application, and this obligation for payment shall survive termination of the Contract.

2.26.4 The liability of Contractor shall extend to and include the full amount of any and all sums paid, expenses and losses incurred, damages sustained, and obligations assumed by SFRTA in good faith under the belief that such payments or assumptions were necessary or required, in completing the Work and providing labor, materials, equipment,

supplies, and other items therefore or re-letting the Work, and in settlement, discharge or compromise of any claims, demands, suits, and judgments pertaining to or arising out of the Work hereunder.

2.26.5 If, after notice of termination is given, it is determined for any reason that Contractor was not in default, or that its default was excusable, or that SFRTA is not entitled to remedies against Contractor, then such termination shall be deemed a termination for SFRTA's convenience and Contractor's remedies against SFRTA shall be the same as and limited to those afforded Contractor under the Subsection 2.27.1, "Termination for Convenience and Right of Suspension".

2.27 TERMINATION FOR CONVENIENCE AND RIGHT OF SUSPENSION

2.27.1 SFRTA shall have the right to terminate this Contract without cause upon seven (7) calendar day's written notice to Contractor. In the event of such termination for convenience, Contractor's recovery against SFRTA shall be limited to that portion of the Contract Amount earned through the date of termination, together with any retainage withheld and reasonable termination expenses incurred, but Contractor shall not be entitled to any other or further recovery against SFRTA, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.

2.27.2 SFRTA shall have the right to suspend all or any portions of the Work upon giving Contractor two (2) calendar day's prior written notice of such suspension. If all or any portion of the Work is so suspended, Contractor's sole and exclusive remedy shall be to seek an extension to the Contract Time in accordance with the procedures set forth in the Contract Documents. In no event shall Contractor be entitled to any additional compensation or damages. Provided, however, if the ordered suspension exceeds two hundred (200) calendar days, Contractor shall have the right to terminate the Contract with respect to that portion of the Work which is subject to the ordered suspension.

2.28 CONTRACT TIME AND COMPLETION

2.28.1 Time is of the essence in the performance of the Work under this Contract. No portion of the Work shall be performed prior to the Commencement Date, unless expressly approved in advance by SFRTA in writing. The total period of time beginning with the Commencement Date and ending on the date of Substantial Completion of the Work is referred to hereafter as "Contract Time." The Contract Time shall begin on the Commencement Date specified in the NTP to be issued by SFRTA. The Contract Time shall include any extension granted by SFRTA as provided for in the Contract.

2.28.2 When any period of time is referenced by days, it shall be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the laws of Florida, such day shall be omitted from the computation, and the last day shall become the next succeeding day which is not a Saturday, Sunday or legal holiday.

2.28.3 When the entire Work (or any portion of the Work designated in writing by SFRTA) is ready for its intended use, Contractor shall notify SFRTA and CM&I Consultant in writing that the entire Work (or such designated portion) is substantially

complete and request that CM&I Consultant issue a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion). The written notice from Contractor shall include a proposed punch-list of all items of Work to be completed or corrected by Contractor. Within a reasonable time, SFRTA, Contractor and CM&I Consultant shall make an inspection of the Work (or designated portion of the Work) to determine the status of completion. If SFRTA and CM&I Consultant do not consider the Work (or designated portion) substantially complete, CM&I Consultant shall notify Contractor in writing stating the basis for its determination. In such case, Contractor shall pay the costs of all additional Substantial Completion inspections. If SFRTA and CM&I Consultant consider the Work (or designated portion) substantially complete, CM&I Consultant shall prepare and deliver to Contractor a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion) which shall fix the date of Substantial Completion for the entire Work (or designated portion of the Work) is actually achieved by Contractor and include a final punch-list of items to be completed or corrected by Contractor within thirty (30) days before final payment. Failure to include an item on the final punch-list does not waive SFRTA's right to demand completion of the item pursuant to the Contract Documents prior to final payment. SFRTA shall have the right to exclude Contractor from the Work and Project site(s) (or designated portion of the Work and Project site(s)) after the date of Substantial Completion (or Partial Substantial Completion), but SFRTA shall allow Contractor reasonable access to complete or correct items on the final punch-list.

2.28.4 Upon receipt of written certification by Contractor that the Work is completed in accordance with the Contract Documents and is ready for final inspection and acceptance and upon receipt of a final Application for Payment, CM&I Consultant shall promptly make such inspection and, if it finds the Work acceptable and fully performed under the Contract Documents, it shall promptly issue a final Certificate for Payment, stating that, to the best of its knowledge, information and belief, and on the basis of its observations and inspections: (i) the Work has been completed in accordance with the terms and conditions of the Contract Documents; (ii) the entire balance found to be due Contractor, and noted in the final Certificate for Payment, is due and payable; and (iii) all conditions precedent to Contractor's entitlement to Final Payment have been satisfied. Neither the Final Payment nor the retainage shall become due and payable until Contractor submits: (1) the final Release and Affidavit, (2) consent of surety to Final Payment, (3) if required by SFRTA, other data establishing payment or satisfaction of all obligations, such as receipts, releases and waivers of liens, arising out of the Contract Documents, to the extent and in such form as may be designated by SFRTA, (4) as-built drawings, and (5) close out books. SFRTA reserves the right to inspect the Work and make an independent determination as to the Work's acceptability, even though CM&I Consultant may have issued its recommendations. Unless and until SFRTA is completely satisfied, neither the Final Payment nor the retainage shall become due and payable.

2.29 WARRANTY

Contractor shall obtain and assign to SFRTA all express warranties given to Contractor by any subcontractors or by any suppliers of materials, equipment or fixtures to incorporate into the Project. Contractor warrants to SFRTA that any materials, fixtures and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents.

Contractor further warrants to SFRTA that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, suppliers or processors except as otherwise provided for in the Contract Documents. If, within one (1) year after Substantial Completion or such longer periods of time as may be provided in the Contract Documents, any Work is found to be defective or not in conformance with the Contract Documents, Contractor shall correct it promptly after receipt of written notice from SFRTA. The aforementioned one-year (or longer) period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work. Contractor shall also be responsible for and pay for replacement or repair of adjacent materials or Work which may be damaged as a result of such replacement or repair. These warranties are in addition to those implied warranties to which SFRTA is entitled as a matter of law. Contractor shall conduct, jointly with SFRTA and Design Consultant, a warranty inspection at one (1) year after issuance of the Certificate of Substantial Completion. The Contractor's warranty excludes remedy for damage or defect caused by SFRTA's abuse, modifications not performed by Contractor, improper or insufficient maintenance by SFRTA, improper operation by SFRTA, or normal wear and tear under normal usage.

2.30 TESTS AND INSPECTIONS

2.30.1 SFRTA, CM&I Consultant, their respective representatives, agents and employees, and governmental agencies with jurisdiction over the Project shall have access at all times to the Work, whether the Work is being performed on or off of the Project site(s), for their observation, inspection and testing. Contractor shall provide proper, safe conditions for such access. Contractor shall provide Design Consultant and CM&I Consultant, with timely prior written notice (at least 48 hours) of the readiness of the Work for all required inspections, tests or approvals.

2.30.2 If the Contract Documents or any codes, laws, ordinances, rules or regulations of any local public authority having jurisdiction over the Project requires any portion of the Work to be specifically inspected, tested or approved, Contractor shall assume full responsibility, and pay all costs in connection with the inspections, tests and approvals and furnish CM&I Consultant the required certificates of inspection, testing or approval. All inspections, tests or approvals shall be performed in a manner and by organizations acceptable to SFRTA and CM&I Consultant. SFRTA shall acquire and pay for the necessary State and County inspections.

2.30.3 If any Work that is to be inspected, tested or approved pursuant to the Contract Documents is covered without such inspection, testing or approval having been satisfactorily obtained by Contractor and without obtaining the written concurrence from CM&I Consultant, such Work must, if requested by CM&I Consultant, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given CM&I Consultant forty-eight (48) hours written notice of Contractor's intention to cover the same and has requested written concurrence by CM&I Consultant and CM&I Consultant has not acted with reasonable promptness to respond to such notice and request. If any Work is covered contrary to written directions from CM&I Consultant, such Work must, if requested by CM&I Consultant, be uncovered for CM&I Consultant's observation and be replaced at Contractor's sole expense.

2.30.4 SFRTA shall charge to Contractor and may deduct from any payments due Contractor all engineering and inspection expenses incurred by SFRTA in connection with any overtime work unless such overtime work was expressly requested by the SFRTA and the Contractor was on schedule. Such overtime work consisting of any work during the construction period beyond the regular eight (8) hour day and for any work performed on Saturday, Sunday or holidays.

2.30.5 Neither observations by CM&I Consultant or SFRTA, nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.

2.31 DEFECTIVE WORK

2.31.1 Work not conforming to the requirements of the Contract Documents shall be deemed defective Work. If required by SFRTA or CM&I Consultant, Contractor shall as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the defective Work has been rejected by SFRTA or CM&I Consultant, remove it from the site and replace it with non-defective Work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including, but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby, and shall hold SFRTA and CM&I Consultant harmless for same.

2.31.2 If SFRTA or CM&I Consultant consider it necessary or advisable that covered Work be observed by CM&I Consultant or inspected or tested by others, Contractor, at CM&I Consultant's or SFRTA's request, shall uncover, expose or otherwise make available for observation, inspection or tests as SFRTA or CM&I Consultant may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals), and SFRTA shall be entitled to an appropriate decrease in the Contract Amount. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Amount and/or an extension to the Contract Time, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

2.31.3 If any portion of the Work is defective, or Contractor fails to supply sufficient skilled workers with suitable materials or equipment, or fails to finish or perform the Work in such a way that the completed Work will conform to the Contract Documents, SFRTA may order Contractor to stop the Work, or any portion of the Work, until the cause for such order has been eliminated; however, this right of SFRTA to stop the Work shall not give rise to any duty on the part of SFRTA to exercise this right for the benefit of Contractor or any other party.

2.31.4 Should SFRTA determine, at its sole opinion, it is in SFRTA's best interest to accept defective Work, SFRTA may do so. Contractor shall bear all direct, indirect and consequential costs attributable to SFRTA's evaluation of and determination to accept defective Work. If such determination is rendered prior to Final Payment, a Modification

shall be executed evidencing such acceptance of such defective Work, incorporating the necessary revisions in the Contract Documents and reflecting an appropriate decrease in the Contract Amount. If SFRTA accepts such defective Work after Final Payment, Contractor shall promptly pay SFRTA an appropriate amount determined by SFRTA to adequately compensate SFRTA for its acceptance of the defective Work.

2.31.5 If Contractor fails, within a reasonable time after the written notice from SFRTA or CM&I Consultant, to correct defective Work or to remove and replace rejected defective Work as required by SFRTA or CM&I Consultant, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any of the provisions of the Contract Documents, SFRTA may, after seven (7) days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, SFRTA may exclude Contractor from any or all of the Project site(s), take possession of all or any part of the Work, and suspend Contractor's services related that portion of the Work, take possession of Contractor's tools, appliances, construction equipment and machinery at the Project site(s) and incorporate in the Work all materials and equipment stored at the Project site(s) or for which SFRTA has paid Contractor but which are stored elsewhere. Contractor shall allow SFRTA, CM&I Consultant and their respective representatives, agents, and employees such access to the Project site(s) as may be necessary to enable SFRTA to exercise the rights and remedies under this Paragraph. All direct, indirect and consequential costs of SFRTA in exercising such rights and remedies shall be charged against Contractor, and a Modification shall be issued, incorporating the necessary revisions to the Contract Documents, including an appropriate decrease to the Contract Amount. Such direct, indirect and consequential costs shall include, but not be limited to, fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by SFRTA of SFRTA's rights and remedies hereunder.

2.32 SUPERVISION AND CONTRACTOR'S REPRESENTATIVE

2.32.1 Contractor shall supervise and direct the Work competently and efficiently devoting such attention and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. **Contractor shall directly employ at least 25% of the workforce at all times.** Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents. Contractor shall keep on the Work at all times during its progress a competent resident representative who shall not be replaced without prior written notice to SFRTA and CM&I Consultant, except under extraordinary circumstances. The representative shall have authority to act on behalf of Contractor. All communications given to the representative shall be as binding as if given to Contractor. SFRTA shall have the right to direct Contractor to remove and replace its Project representative or any other employee of Contractor or any employee of any subcontractor from this Project, with or without cause.

2.32.2 The Contractor shall maintain sufficient off-site support staff, and competent full time staff at the Project site(s) authorized to act on behalf of the Contractor to coordinate, inspect and provide general direction of the Work and progress of the subcontractors. Contractor shall provide no less than those personnel during the respective phases of construction that are set forth in the Contractor's Staffing Schedule. The Contractor shall not change any of those persons identified in the Staffing Schedule unless mutually agreed to in writing by SFRTA and Contractor. In such case, SFRTA shall have the right to approve the replacement personnel.

2.32.3 The Contractor shall establish and maintain lines of authority for its personnel, and shall provide this information to SFRTA and all other affected parties, such as the code inspectors of any permitting authority, the subcontractors, and the CM&I Consultant. SFRTA and CM&I Consultant may attend meetings between the Contractor and its subcontractors; however, such attendance is optional and shall not diminish either the authority or responsibility of the Contractor to administer the subcontracts.

2.32.4 The Contractor shall be responsible to SFRTA for the acts and omissions of its employees and agents and its subcontractors, their agents and employees, and all other persons performing any of the Work or supplying materials under a contract to the Contractor. The Contractor shall develop and maintain a program, acceptable to SFRTA and CM&I Consultant, to assure quality control of the Work. The Contractor shall supervise the Work of all subcontractors, providing instructions to each when their portion of the Work does not conform to the requirements of the Contract Documents and Contractor shall continue to exert its influence and control over each subcontractor to ensure that corrections are made in a timely manner so as to not affect the efficient progress of the Work. Should a disagreement occur between the Contractor and the CM&I Consultant over the acceptability of the Work, SFRTA, in its sole discretion, shall have the right to determine the acceptability.

2.32.5 The Contractor shall not employ on this Project any person who has been convicted of a felony or misdemeanor-level criminal charge regarding sexual abuse or misconduct, nor permit any subcontractor to assign any employee of it to this Project who has been convicted of a felony or misdemeanor-level criminal charge regarding sexual abuse or misconduct.

2.33 PROTECTION OF WORK

2.33.1 Contractor shall fully protect the Work from loss or damage and shall bear the cost of any such loss or damage until final payment has been made. If Contractor or anyone for whom Contractor is legally liable is responsible for any loss or damage to the Work, or other work or materials of SFRTA or SFRTA's separate Contractors, Contractor shall be charged with the same, and any monies necessary to replace such loss or damage shall be deducted from any amounts due Contractor.

2.33.2 The Contractor shall ascertain what temporary enclosures, if any, of building areas, including existing facilities, should be provided for and may be provided as a practical matter, in order to assure orderly progress of the Work and to protect and secure the Work and existing facilities, in periods when extreme weather conditions are likely to be experienced.

2.33.3 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

2.33.4 Contractor shall not disturb any benchmark established by SFRTA with respect to the Project. If Contractor, or its subcontractors, agents or anyone for whom Contractor is legally liable, disturbs SFRTA's benchmarks, Contractor shall immediately notify SFRTA and CM&I Consultant. SFRTA shall have the benchmarks reestablished and Contractor shall be liable for all costs incurred by SFRTA.

2.34 EMERGENCIES

In the event of an emergency affecting the safety or protection of persons or the Work or property at the Project site(s) or property adjacent to it, Contractor, without special instruction or authorization from SFRTA or CM&I Consultant is obligated to act to prevent threatened damage, injury or loss. Contractor shall give CM&I Consultant written notice within forty-eight (48) hours after the occurrence of the emergency, if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If CM&I Consultant determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Modification shall be issued to document the consequences of the changes or variations. If Contractor fails to provide the forty-eight (48) hour written notice noted above, Contractor shall be deemed to have waived any right it otherwise may have had to seek an adjustment to the Contract Amount or an extension to the Contract Time. Contractor is obligated to promptly report in writing to SFRTA all accidents relating to the Work that result in any personal injury or property damage.

2.35 USE OF PREMISES

Contractor shall confine all construction equipment, the storage of materials and equipment and the operations of workers to the Project site(s) and land and areas identified in and permitted by the Contract Documents and other lands and areas permitted by law, rights of way, permits and easements, and shall not unreasonably encumber the Project site(s) with construction equipment or other material or equipment. Contractor shall assume full responsibility for any damage to any such land or area or to the SFRTA or occupant, or any land or areas contiguous to it, resulting from the performance of the Work.

2.36 SAFETY

2.36.1 Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs necessary for the safe performance of the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

A. All employees on the Work and other persons and/or organizations who may be affected thereby;

B. All the Work and materials and equipment to be incorporated, whether in storage on or off the Project site(s); and

C. Other property on Project site(s) or adjacent to it, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and any underground structures or improvements not designated for removal, relocation or replacement in the Contract Documents.

2.36.2 Contractor shall comply with Contractor's Safety Plan approved by SFRTA and SFRTA's System Safety Program Plan and Emergency Response Plans, which are incorporated by this reference, all applicable codes, laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner of adjacent property and of underground structures, improvements and utilities when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation or replacement of their property. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as the Work is completed and final acceptance of same by SFRTA has occurred.

2.36.3 Contractor shall designate a responsible representative (Safety Deputy) at the Project site(s) whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to SFRTA. Contractor is obligated to promptly report in writing to SFRTA all accidents relating to the Work that result in any personal injury or property damage.

2.37 PROJECT MEETINGS

Prior to the commencement of Work, Contractor shall attend a pre-construction conference with SFRTA, Design Consultant, CM&I Consultant and others as appropriate to discuss the Construction Schedule, procedures for handling shop drawings and other submittals, and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work. During the prosecution of the Work, Contractor shall attend any and all meetings convened by SFRTA or CM&I Consultant with respect to the Project, when directed to do so by SFRTA or CM&I Consultant. Contractor shall have its subcontractors and suppliers attend all such meetings (including the reconstruction conference) as may be directed by SFRTA or CM&I Consultant.

2.38 MATERIAL SAFETY DATA SHEET

If any chemicals, materials, or products containing toxic substances, as defined by Chapter 442, Florida Statutes, or any local, state or federal statutes or regulations, are contained in the products used on site or incorporated into the construction by the Contractor or any of its subcontractors, the Contractor shall provide to the CM&I Consultant and SFRTA a Material Safety Data Sheet at the time of each delivery or prior to each new use of such product.

2.39. AUDITING RIGHTS

2.39.1 SFRTA reserves the right to audit the Contractor's and any subcontractor's records, as such records relate to the construction of the Project. This auditing right shall survive the termination of this Contract.

2.39.2 Contractor agrees to provide such records and accounts as may be necessary to record complete and correct entries as to hours expended and hourly billing rates, costs, and other expenses for which Contractor expects to be reimbursed.

2.39.3 Such books and records shall be available at all reasonable times for examination and audit by SFRTA, state and federal auditors during the term of this Contract and for a period of three (3) years following the end of the Contract term. Incomplete or incorrect entries in such books and records will be grounds for disallowance by SFRTA of any fees or expenses based upon such entries.

2.39.4 SFRTA reserves the right to perform Quality Assurance Audits of the Contractor and subcontractors.

2.40 COMPLIANCE WITH LAWS

2.40.1 Contractor agrees to comply, at its own expense, with all federal, state and local laws, codes, statutes, ordinances, rules, administrative orders, regulations and requirements applicable to the Project, including but not limited to those dealing with safety (including, but not limited to, the Trench Safety Act, Chapter 553, Florida Statutes). If Contractor observes that the Contract Documents are at variance with any of the above-referenced legal authorities, it shall promptly notify SFRTA and CM&I Consultant in writing.

2.40.2 City and County building authorities may or may not have jurisdiction over this Project. The Contractor shall be responsible for determining which governmental agencies have jurisdiction and obtaining all permits approval and inspections as required.

2.41 SUBCONTRACTS

2.41.1 A subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work. The Contractor shall be solely responsible for and have control over the subcontractors. The Contractor shall negotiate all Modifications, and Field Orders, with all affected subcontractors and shall review the costs of those proposals and advise SFRTA and CM&I Consultant of their validity and reasonableness, acting in SFRTA's best interest, prior to requesting approval of each Modification from SFRTA.

2.41.2 The names of all subcontractors for each portion of the Work are identified on the List of Subcontractors and Suppliers attached to the Contract. Subcontractors identified on that List of Subcontractors and Suppliers shall not be replaced by Contractor without SFRTA's prior written approval. The Contractor shall not contract with any subcontractor to whom SFRTA has made reasonable objection. Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection. Subcontracts between the Contractor and subcontractors shall (1) require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume towards the Contractor all the obligations and responsibilities which the Contractor, by the Contract Documents, assumes towards SFRTA and CM&I Consultant, (2) provide for the

assignment of those subcontracts from Contractor to SFRTA at the election of SFRTA upon termination of Contractor, (3) provide that SFRTA will be an additional indemnified party, (4) provide that SFRTA will be an additional insured on all required insurance policies, (5) assign all warranties directly to SFRTA and (6) identify SFRTA as an intended third-party beneficiary of the subcontract. The Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract, copies of the Contract Documents to which the subcontractor will be bound by this Paragraph and identify to the subcontractor any terms and conditions of the proposed subcontract which may be at variance with the Contract Documents. Each subcontractor shall similarly make copies of such documents available to its sub-subcontractors.

2.41.3 The subcontractor must agree to provide field (on-site) supervision through a named superintendent for each trade (e.g. general concrete forming and placement, masonry, mechanical, plumbing, electrical and roofing) included in the subcontract. In addition, the subcontractor shall assign and name a qualified employee for scheduling direction for its work. The supervisory employees of the subcontractor (including field superintendent, foreman and schedulers at all levels) must have been employed in a supervisory (leadership) capacity of substantially equivalent level on a similar project for at least two years within the last five years. The subcontractor shall include a resume of experience for each employee identified by it to supervise and schedule its work.

2.41.4 All subcontracts shall provide:

A. LIMITATION OF REMEDY - NO DAMAGES FOR DELAY

That the subcontractor's exclusive remedy for delays in the performance of the contract caused by events beyond its control, including delays claimed to be caused by the SFRTA or CM&I Consultant or attributable to SFRTA or CM&I Consultant and including claims based on breach of contract or negligence, shall be an extension of its contract time.

In the event of a change in the work, the subcontractor's claim for adjustments in the contract sum are limited exclusively to its actual costs for such changes plus no more than 5% for overhead and profit.

The subcontract shall require the subcontractor to expressly agree that the foregoing constitute its sole and exclusive remedies for delays and changes in the Work and thus eliminate any other remedies for claim for increase in the subcontract price, damages, losses or additional compensation.

B. Each subcontract shall require that any claims by subcontractor for delay or additional cost must be submitted to Contractor within the time and in the manner in which the Contractor must submit such claims to SFRTA, and that failure to comply with such conditions for giving notice and submitting claims shall result in the waiver of such claims.

2.41.5 SFRTA shall not be bound by any subcontract, and no subcontract shall include a provision purporting to bind SFRTA. Each subcontractor shall look only to the Contractor for the payment of any claims of any nature whatsoever arising out of said

Subcontract, and each Subcontractor shall agree not to make any claim whatsoever against SFRTA or its officers, agents, servants or employees for any Work performed or thing done by reason of such subcontract, or for any other cause whatsoever which may arise by reason of the relationship created between the Contractor and subcontractor by the subcontract.

2.42 PARTNERING

The Contractor, prior to commencement of the Work, shall prepare and submit for the SFRTA's approval a proposed Partnering Program for the Project. The Partnering Program shall contain, at a minimum, procedures for the enhancement of communication and cooperation between the SFRTA, Contractor, CM&I Consultant, separate Contractors, inspectors and other consultants and subcontractors on the Project, as well as procedures for the speedy and efficient resolution of problems and disagreements during construction. Upon approval by SFRTA, the Partnering Program shall be implemented and coordinated by the Contractor throughout the remainder of the Project.

2.43 DBE COMPLIANCE AND SUBCONTRACTING

2.43.1 Contractor shall cooperate with SFRTA in meeting commitments and goals with regard to the maximum utilization of DBEs. Best efforts shall be used on the Project to ensure DBEs receive the maximum opportunity to compete for subcontracts.

2.43.2 A stated goal of SFRTA is that DBEs will be afforded full opportunity to participate in this Project and will not be discriminated against on the grounds of race, sex, color, religion, ancestry, national origin, physical handicap, including AIDS, marital status, age over forty or cancer-related medical condition.

2.43.3 Requests for general information regarding the DBE Program, shall be addressed during the questions period specified in the Instructions to Proposers.

2.43.4 Contractor agrees to ensure that certified DBE firms are provided the maximum opportunity to participate in the performance of Work under the Contract. The DBE participation which the Contractor commits to in its proposal that meets or exceeds the contract goal shall become the goal of record, and SFRTA shall enforce the DBE participation committed to in the Bid. If the Contractor cannot meet the stated DBE contract goal, the Contractor shall provide SFRTA with information necessary to establish Contractor's good faith efforts to obtain the DBE participation goal. Successful achievement of good faith efforts will be based on criteria specified by SFRTA, which includes the following areas:

(a) Advertisement

Copies of advertisements placed in at least one general circulation media, one trade association publication and one minority focused media at least twenty (20) days prior to SFRTA's Bid due date.

(b) Community Outreach

Copies of letters, telephone logs and faxes used to contact organizations/groups, including names of organizations/groups, dates, names of contacts, telephone numbers and copies of correspondence received from any of these organizations/groups acknowledging contact by Contractor.

(c) Defining Scope of Work

Contractor shall determine the portion of the Work that is intended to be performed by its own workforce and that portion of the Work that has been identified for subcontracting.

(d) Written Requests for Proposal

Extend written Invitations for Quote/Proposal to DBE firms for all Work that the Contractor intends to subcontract and provide specification requirements to DBE's.

(e) Solicitation Follow-up

Oral and/or written follow-up of initial solicitation of DBE firms.

(f) Attend Pre-Bid/Proposal Conference

Although attendance at Pre-Bid/Proposal Conferences scheduled by SFRTA is optional, this is one of the criteria for meeting good faith efforts.

(g) List of Proposals from DBEs

If applicable, documentation showing instances where Contractor negotiated in good faith with DBEs and did not unjustifiably reject proposals prepared by any DBE.

2.43.5 SFRTA may verify that all information is complete, accurate and adequately documents the Contractor's good faith efforts before committing itself to the performance of the Contract by the Contractor. An opportunity for an administrative reconsideration is available to the Contractor whenever a good faith effort is challenged. The Contractor has the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts. SFRTA's decision on reconsideration will be made by an official who did not take part in the original determination that the Contractor failed to meet the goal or make adequate good faith efforts to do so.

2.43.6 Compliance with DBE Requirements

The Contractor shall fully comply with the requirements and provisions set forth in the SFRTA DBE Requirements, including SFRTA only counting the value of the work toward the DBE contract goal only when a DBE performs a commercially useful function as part of the Contract. SFRTA will evaluate such relevant factors as the amount of work

subcontracted, industry practices and whether the amount paid is commensurate with the work performed. Failure to carry out these DBE Requirements is a material breach of this Contract by Contractor that may result in the termination of this Contract or such other remedy as SFRTA deems appropriate.

2.43.7 The Proposer shall submit a schedule of DBE participation for those DBE firms they intend to use during the Project and an Intent To Perform as Subcontractor form from each proposed DBE Subcontractor. The Proposer shall also submit a schedule of Subcontractor participation for those non-DBE firms they intend to utilize during the Project.

2.43.8 Monthly Subcontractor Utilization Report & Monthly Employee Utilization Report

Contractor shall provide a Monthly Subcontractor Utilization Report and a Monthly Employee Utilization Report with each application for payment. These forms are provided in this document.

2.44 EQUAL EMPLOYMENT OPPORTUNITY/NON-DISCRIMINATION

In performing all services to be provided hereunder, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such actions shall include, but not be limited to, the following: (i) employment, upgrading, demotion or transfer; (ii) recruitment or recruitment advertising; (iii) layoff or termination; (iv) rates of pay or other forms of compensation; and (v) selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to all employees and applicants for employment notices setting forth the terms of this Equal Employment Opportunity Non-Discrimination Clause and stating that all qualified candidates will receive consideration for employment without regard to race, color, religion, sex or national origin.

2.45 BONDS

2.45.1 Within ten (10) business days after the execution of this Contract by SFRTA and Contractor, Contractor shall provide SFRTA with Performance and Payment Bonds, in the form prescribed, in the amount of 100% of the Contract Amount, the costs of which are to be paid by Contractor. The Performance and Payment Bonds must comply with the following provisions and must be otherwise acceptable to SFRTA:

2.45.2 The Bonds must be underwritten by a surety company which has a currently valid Certificate of Authority issued by the State of Florida, Department of Insurance, authorizing it to write surety bonds in the State of Florida.

2.45.3 The surety company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.

2.45.4 The surety company shall be in full compliance with the provisions of the Florida Insurance Code.

2.45.5 The surety company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued.

2.45.6 The Bonds must be fully performable in Florida, with service and venue in Palm Beach, Broward or Miami-Dade counties, Florida.

2.45.7 If the Contract Amount exceeds $500,000.00, the surety company shall also comply with the following provisions:

A. The surety company shall have at least the following minimum ratings in the latest issue of Best's Key Rating Guide:

CONTRACT	POLICY HOLDER'S RATING	REQUIRED FINANCIAL RATING
$ 500,000 to 1,000,000	A	CLASS IV
1,000,000 to 2,500,000	A	CLASS V
2,500,000 to 5,000,000	A	CLASS VI
5,000,000 to 10,000,000	A	CLASS VII
10,000,000 to 25,000,000	A	CLASS VIII
25,000,000 to 50,000,000	A	CLASS IX
50,000,000 to 75,000,000	A	CLASS X

B. The surety company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:

(1) Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance to do business in this state have been met.

(2) In the case of a surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any surety deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

C. If the surety for any bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is terminated in the State of Florida, or it ceases to meet the requirements imposed by the Contract Documents, Contractor shall, within five (5) calendar days thereafter, substitute another bond and surety, both of which shall be subject to the minimum requirements noted above and the SFRTA's approval.

2.46 LIQUIDATED DAMAGES

SFRTA and Contractor recognize that, since time is of the essence for this Contract, SFRTA will suffer financial loss if the Work associated with the Construction Phase is not substantially completed within the Contract Time. In such event, the total amount of the SFRTA's damages, will be difficult, if not impossible, to definitely ascertain and quantify, because this is a public construction project that will, when completed, benefit the public and enhance the delivery of transportation services to the public, in Palm Beach, Broward and Miami-Dade counties, Florida. It is hereby agreed that it is appropriate and fair that the SFRTA receive liquidated damages from the Contractor, if the Contractor fails to achieve Substantial Completion of the Work within the required Contract Time. Should Contractor fail to substantially complete the Work within the required time period, SFRTA shall be entitled to assess, as liquidated damages, but not as a penalty, the amounts established in the Agreement for each calendar day after the Contractor exceeds the Contract Time until Substantial Completion is achieved. Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of SFRTA's actual damages at the time of contracting if Contractor fails to substantially complete the Work in a timely manner. Liquidated damages may not exceed ten (10) percent of the contract amount. This provision contains the sole means for determining damages for delay under this Contract. The amount of liquidated damages is set forth in the Special Terms and Conditions.

2.47 QUALITY MANAGEMENT PLAN (QMP)

The Quality Management Program (QMP) is founded upon accepted concepts and processes, which are recognized by the American Public Transportation Association (APTA) and the Federal Transit Administration (FTA) and which have been applied successfully on other public transit projects. The following is a brief summary of the principal quality-related concepts and processes as defined and as specifically applied to the Project:

The objective of the QMP is to assure that the Project is designed, procured, and constructed in accordance with established design, engineering, security and quality requirements. These requirements provide the controls for design, procurement, construction, and inspection, which will enable SFRTA to be assured that the quality necessary for safe, secured and reliable operation of each transit system provided is achieved.

In conjunction with the QMP, the Contractor shall establish and implement a Quality Assurance Plan (QAP) for the Project. The QAP should include all those planned and systematic actions and or activities necessary to provide SFRTA with a high level of confidence that the product(s) or services to be provided shall be of the highest quality throughout and shall satisfy all areas of the contract. The QAP shall meet the requirements of FTA-IT-90-5001-02.1, ISO 9001-2008, or Association of American Railroads (AAR) Section J as described herein.

The Project is subject to safety and security certification by SFRTA. This Item is included in the Certifiable Elements of the SFRTA Standard Quality Procedures (SQP) 30 - Safety and Security Certification Program and will require a Certificate of Compliance. All designs, construction, installation, testing and Quality Assurance documentation, including Test Records, shall be reviewed and verified by the SFRTA Certification Manager during the certification process prior to the approval of the Project by the SFRTA Safety and Security Review Committee.

2.47.1 QUALITY ASSURANCE PLAN (QAP)

The Contractor within thirty (30) days from the issuance of Notice to Proceed (NTP) shall establish a QAP for the Project, which meets the requirements of the SFRTA Quality Assurance Handbook (QAH). The Project QAP shall include the process and control to be used for assuring the quality of design and construction. The Contractor's Project QAP shall be reviewed and approved by SFRTA's Quality Assurance (QA) manager prior to use.

The Contractor shall provide SFRTA with copies of its QAP for the Project and maintain the plan in accordance with the following requirements:

The QAP shall include: a quality policy; a statement by a duly authorized officer stating the commitment and support by the Contractor's management, which supports and takes responsibility for quality, and its personnel who undertake QA and Quality Control (QC) activities; and implementing procedures to supplement the QAP.

All work undertaken by the Contractor and its sub-contractors prior to approval of the QAP by SFRTA will be at the Contractor's sole risk and expense.

Contents of QAP: The QAP shall describe in detail all elements of the QA System the Contractor proposes to implement for the Project. These elements shall be considered in the development of detailed quality procedures. The quality elements at minimum to be addressed in this plan are as follows:

A. Organization: A functional organization chart showing the interrelationships between the Contractor and subcontractors, and other supporting organizations and permitting review agencies. Based on the functional organization chart, the organization structure, levels of authority, and lines of communication for activities affecting quality shall be clearly established and delineated. QA personnel shall have the authority and responsibility to evaluate and assure that the QA System is correctly and effectively executed and verified. Where problems are identified, QA personnel shall have the authority and organizational freedom to initiate, recommend and provide solutions.

B. Quality Assurance System: The QA System shall include consideration of the technical aspects of the activities affecting quality; provide control over activities affecting quality to the extent consistent to their importance; provide for the planning and accomplishment of activities affecting quality under suitably controlled conditions. Controlled conditions shall include the use of appropriate equipment, suitable environmental conditions for accomplishing the activity, and assurance that the prerequisites for any given activities have been satisfied; provide for any special controls, processes, test equipment, tools and skills to attain required quality and for necessary verification of quality such as inspection or test; provide orientation and training, as necessary, of personnel performing activities affecting quality to assure that suitable proficiency is achieved and maintained; and provide

Management to assess regularly the adequacy of the QA System and assure its effective implementation.

C. Design Control: The QA System shall include design control to assure that design specifications, regulatory and code requirements, and engineering standards are correctly translated into drawings, specifications, procedures, and instructions; appropriate quality standards are specified into the design documents; selection and review for application of materials and processes that are essential to construction are suitable; design review/checking, and certification by appropriate licensed professional engineers are performed; and issuance and distribution of all design documents are controlled.

D. Procurement Control: The QA System shall include a procurement control process to assure that design, engineering, construction, materials, machinery and equipment are procured in accordance with the contract and quality requirements; procurement documents are prepared and reviewed to include technical, quality and commercial requirements; and consultants, contractors and suppliers are competent, reliable and qualified.

E. Instructions, Procedures and Drawings: The QA System shall include procedures where instructions, procedures and drawings used in the construction are prepared and accepted or approved by the appropriate agencies and regulators. Instructions, procedures and drawings shall also prescribe quantitative and qualitative acceptance criteria.

F. Document and Data Control: The QA System shall describe the procedures for issuance, approval, distribution, retention, and maintenance detail of drawings, specifications, reports, procedures, and other quality-related documents applicable to the design and construction of the projects. All documents that specify quality requirements or prescribed activities affecting quality shall be controlled to assure that the correct documents are being employed.

G. Control of Purchased Materials, Machinery, Equipment, and Services: This QA element is required to assure that purchased materials, machinery, equipment, and services are delivered / performed by consultants, contractors, and suppliers in conformance with the requirements stipulated in the contract documents; and are identified and verifiable to the documents submitted.

H. Identification and Control of Materials, Parts, and Components: The QA System shall include this element to assure that all materials, parts, and components are properly identified and controlled; identification is maintained by part number, serial number or other appropriate means either on the item or on the records that are traceable to the item as required throughout fabrication or construction of the item; and nonconforming work, materials, parts or components are prevented from being incorporated into the final product.

I. Control of Special Processes: The QA System shall include this element to assure that special processes including, but not limited to, welding, heat treating, non-destructive testing, are properly controlled and performed by qualified personnel using approved procedures in accordance with the applicable codes and engineering standards under suitable conditions.

J. Inspection: The QA System shall include inspection during all phases to assure that requirements of contract documents (*e.g.*, drawings, specifications, instructions, regulatory requirements, applicable codes and standards, etc.) are being complied with by the consultants, contractors, and suppliers.

K. Test Control: The QA System shall include the element of test control to assure that all testing required to demonstrate that the equipment and systems will perform satisfactorily and are done in accordance with approved procedures; test procedures shall include all prerequisite requirements and acceptance criteria specified in the contract documents; and test results are evaluated by responsible and competent persons.

L. Control of Measuring and Test Equipment: The QA System shall include control of measuring and testing equipment to assure that tools, gauges, instruments, and other measuring and testing devices used in the activities affecting quality and safety are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits; records of issuance and calibration are properly maintained; and measuring and test equipment are identified and marked to indicate calibration status.

M. Handling, Storage, Shipping, and Preservation: The QA System shall include control of handling, storage, shipping, cleaning and preservation of materials and equipment to prevent damages, deterioration, and loss at the work site(s).

N. Inspection, Test, and Operating Status: The QA System shall include inspection, test and operating status to assure that all manufactured or fabricated equipment, components, or systems have satisfactorily passed all required inspection, examination and testing.

O. Nonconforming Parts, Materials, and Components: The QA System shall assure that nonconforming parts, materials and components are prevented from being incorporated in all manufacturing tasks and/or into the final product; are properly identified and segregated from conforming items while awaiting disposition; and reported for immediate disposition of nonconformance.

P. Corrective Action: The QA System shall include corrective action to assure that conditions which are adverse to quality are promptly identified and corrected; determine the cause of nonconformance and take corrective measures to prevent recurrence; document and report to appropriate management all records and procedures used in correcting the condition of

nonconformance; and assure that corrective actions resulting from the audits are properly corrected and immediately responded to.

Q. Quality Assurance Records: The QA System shall include procedures to assure that all QA-related documents and evidences are properly accumulated, maintained, organized and protected; and all documents are properly identified, controlled, and stored in a well-defined location.

R. Audits: The QA System shall include audits to verify implementation and compliance with all aspects of the QA System and to determine the effectiveness of the system; assure that audits are performed in accordance with a written checklist by qualified personnel; assure that all audit results are documented and reviewed by management responsible for the area being audited; and assure that follow-up actions and actual verification, including re-audit of deficient areas are performed. The schedule and frequency of these audits shall be delineated in the QAP. SFRTA Quality or their assigned representatives will examine the Contractor audits, in addition, SFRTA Quality or their assigned representatives may conduct their own audits of the Contractor, and any sub-contractors. At the discretion of SFRTA, planned audits may be requested to be joint Contractor/SFRTA activities.

S. Servicing: The QA System shall include documented procedures for performing, verifying, and reporting that the servicing meets the specified requirements.

2.48 FLAGGING SERVICES

Should flagging services be required under this Contract, the Special Terms and Conditions in this document will include a provision specifying how the Contractor shall proceed with those services.

2.49 SUCCESSORS AND ASSIGNS

Subject to its other provisions, the Contract shall be binding upon and shall inure to the benefit of the successors and assigns of the parties to the Contract.

2.50 GOVERNING LAW, JURISDICTION, VENUE AND WAIVER OF JURY TRIAL

The Contract shall be interpreted under and its performance governed by the laws of the State of Florida.

Any litigation between the SFRTA and Contractor (which term for the purposes of this subparagraph shall include the Contractor's surety), whether arising out of any Claim or arising out of the Contract or any breach thereof, shall be brought, maintained and pursued only in the appropriate State courts of the State of Florida; and the SFRTA and the Contractor each hereby waive and renounce any and all rights and options which they, or either of them, have or might have to bring or maintain any such litigation or action in the Federal Court system of the United States or in any United States Federal District Court.

Venue of any such litigation between the SFRTA and Contractor shall lie and be only in the appropriate State courts of the State of Florida's Seventeenth Circuit in and for Broward County, Florida. SFRTA and Contractor consent and submit to the jurisdiction of any such court and agree to accept service of process outside the State of Florida in any matter to be submitted to any such court pursuant hereto. By submittal of its Bid, Proposal or Submittal, the Bidder or Proposer (and ultimately the Contractor) and SFRTA EXPRESSLY WAIVE ALL RIGHTS TO TRIAL BY JURY REGARDING ANY DISPUTE RELATING TO THE CONTRACT (AND THE CONTRACTOR'S WORK HEREUNDER) THAT RESULTS IN LIGITATION. CONTRACTOR SHALL NOT BRING ANY COURT ACTION AGAINST SFRTA EITHER IN EQUITY OR IN LAW, AND CONTRACTOR EXPRESSLY WAIVES ITS RIGHT TO INSTITUTE LITIGATION AGAINST SFRTA FOR ANY MATTER ARISING UNDER THE TERMS OF THIS CONTRACT, UNTIL AFTER THE PROJECT HAS BEEN COMPLETED AND ACCEPTED BY SFRTA.

2.51 NO WAIVER

The failure of SFRTA to enforce at any time or for any period of time any one or more of the provisions of the Contract shall not be construed to be and shall not be a waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.

2.52 JOINT PREPARATION

The preparation of this Contract has been a joint effort of the parties, and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

2.53 SEVERABILITY

In the event any term or provision of this Contract shall be determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be given its nearest legal meaning or be construed or deleted as such authority determines, and the remainder of this Contract shall be construed to be in full force and effect.

2.54 RELATIONSHIP OF THE PARTIES

Except as set forth herein, no party to this Contract shall have any responsibility whatsoever with respect to services provided or contractual obligations assumed by the other party. Contractor is and shall be in the performance of all work, services, and activities under this Contract independent, and not an employee, agent, or servant of SFRTA. All persons engaged in any of the work or services performed pursuant to this Contract shall at all times and in all places be subject to Contractor's sole discretion, supervision, and control. Contractor shall exercise control over the means and manner in which it and its employees perform the work, and in all respects Contractor's relationship and the relationship of its employees to SFRTA shall be that of an independent and not as employees or agent.

2.55 CONTINGENT FEE

Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract and that it

has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for Contractor any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the making of this Contract. For the breach or violation of this provision, SFRTA shall have the right to terminate the Contract without liability at its discretion, to deduct from the contract price or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

2.56 TRUTH IN NEGOTIATING

Contractor shall execute a Truth-in-Negotiation Certificate stating that wage rates and other factual unit costs supporting the compensation of this Contract are accurate, complete, and current at the time of contracting. The original contract price and any additions to it shall be adjusted to exclude any significant sums by which SFRTA determines the contract price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs. All such contract adjustments shall be made within one (1) year following the end of this Contract.

2.57 CONFLICT

Where there is a conflict between any provision set forth within this Contract and a more stringent state or federal provision which is applicable to any services performed under this Contract, the more stringent state or federal provision shall prevail.

2.58 PUBLIC ENTITY CRIMES

Execution of this Contract by Contractor is certification that the Contractor is in compliance with the provisions of Section 287.133 (2)(a), Florida Statutes, which reads as follows;

> "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a firm, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list."

2.59 PROHIBITED INTEREST

SFRTA shall not enter into a contract or arrangement in connection with the Project or any property included or planned to be included in the Project, with any officer, director or employee of SFRTA, or any business entity of which the officer, director or employee or the officer's, director's or employee's spouse or child is an officer, partner, director, or proprietor or in which such officer, director or employee or the officer's, director's or employee's spouse or child, or any combination of them, has a material interest. Material interest means direct or indirect ownership of more than five (5) percent of the total assets or capital stock of any business entity.

SFRTA shall not enter into any contract or arrangement in connection with the Project or any property included or planned to be included in the Project, with any person or entity who was represented before SFRTA by any person who at any time during the immediately preceding two years was an officer, director or employee of SFRTA.

2.60 INTEREST OF MEMBERS OF, OR DELEGATES TO, CONGRESS

No member or delegate to the Congress of the United States shall be admitted to any share or part of this Contract or any benefit arising from it.

2.61 CERTIFICATION OF DEBARMENT AND SUSPENSION

During the performance of this Contract, the Contractor and its Subcontractors must be in compliance with the requirements regarding the "Report of Suspensions, Debarments and Disqualification of Firms and Individuals." The Contractor is solely responsible for ensuring compliance with such requirements, at all times, by itself and all of its Subcontractors. The Contractor shall immediately notify SFRTA of any changes with regard to its own or its Subcontractors' status. The Contractor must provide certifications with its Bid, in the form provided by SFRTA and prior to entering into a subcontract with any subcontractor. The Contractor shall be responsible at its own expense by providing conforming Subcontractors, even if substitutions of proposed subcontractors are required.

Failure by the Contractor to fully comply with these requirements is a material default by the Contractor and will be grounds for SFRTA to terminate this Contract for cause and for it to avail itself of any and all other remedies against the Contractor.

2.62 AMENDMENTS

This Agreement may not be changed, altered, or modified except by an instrument in writing signed by all parties against whom enforcement of such change would be sought, with the exception of a Change Directive. SFRTA may issue a Change Directive directing the Contractor to make changes in the plans, specifications or work that does not involve a material change in the Contract's scope of work. In addition, SFRTA shall have the unilateral right to issue a Change Directive and negotiate cost and price for time and materials, if applicable, after its issuance.

2.63 PRIOR AGREEMENTS

This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained herein and the parties agree that there are no commitments, agreements or understandings concerning the subject matter of this Contract that are not contained in this document. Accordingly, the parties agree that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written.

2.64 HEADINGS

The section and paragraph headings in this Contract are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope or intent of any provision hereof.

2.65 RECOVERY SCHEDULE

If the initial schedule or any current updates fail to reflect the Work's actual plan or method of operation, or a contractual milestone date is more than fifteen (15) days behind, the SFRTA shall require that the Contractor provide a revised schedule ("Recovery Schedule") for completion of the remaining Work be submitted. The Recovery Schedule must be submitted within seven (7) calendar days of the SFRTA's request. The Recovery Schedule shall describe in detail the Contractor's plan to complete the remaining Work by the required Contract milestone date. The Recovery Schedule submitted shall meet the same requirements as the original Construction Schedule. The narrative submitted with the Recovery Schedule should describe in detail all changes that have been made to meet the Contract milestone dates.

2.66 E-VERIFY

If State monies are used for this Contract the following language shall apply:

The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to verify the employment eligibility of all new employees hired by the Contractor during the Contract term to perform employment duties within Florida and all persons, including subcontractors, assigned by the Contractor to perform work pursuant to the Contract with the Department.

All contracts between the Contractor and a subcontractor shall require the subcontractor to disclose similar provisions in their subcontractor agreements. The Contractor and subcontractors shall be required to certify as to the truth of this provision or to disclose circumstances to the contrary.

2.67 CONTRACTOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES

This Section applies to any contract for goods or services for $1 million or more:
The Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and that it does not have business operations in Cuba or Syria as provided in section 287.135, Florida Statutes (2014), as may be amended or revised. The Authority may terminate this Contract at the Authorities option if the Contractor is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statues (2014), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2014), as may be amended or revised.

2.68 INDEPENDENT CONTRACTOR

The Contractor is, and shall be, in the performance of all Work, services and activities under this Agreement, an independent contractor under this Agreement and not an employee or agent of SFRTA. All persons engaged in any of the work, services or activities performed pursuant to this Agreement shall at all times, and in all places, be subject to the Contractor's sole direction, supervision, and control. The Contractor shall exercise control over the means and manner in which it and its employees perform the work, services and activities under the Agreement. In all respects the Contractor's relationship and the relationship of its employees to SFRTA shall be that of an Independent Contractor and not as employees or agents of SFRTA.

2.69 THIRD PARTY BENEFICIARIES

The parties do not intend to directly or substantially benefit a third party by this Agreement. Therefore, the parties agree that there are no third party beneficiaries to this Agreement and that no third party shall be entitled to assert a right or claim against any of the parties based upon this Agreement.

2.70 MATERIALITY AND WAIVER OF BREACH

a. The parties agree that each requirement, duty, and obligation set forth herein was bargained for at arms-length and is agreed to by the parties in exchange for quid pro quo, that each is substantial and important to the formation of this Agreement and that each is, therefore, a material term hereof.

b. Failure to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement. A waiver of any breach of a provision of this Agreement shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of the terms of this Agreement.

2.71 REPRESENTATION OF AUTHORITY

Each individual executing this Agreement on behalf of a party hereby represents and warrants that he or she is, on the date he or she signs this Agreement, duly authorized by all necessary and appropriate action to execute this Agreement on behalf of such PARTNER and does so with full legal authority.

2.72 MULTIPLE ORIGINALS

Multiple copies of this Agreement may be executed by all parties, each of which, bearing original signatures, and shall have the force and effect of an original document.

2.73 EXAMINATION OF DOCUMENTS

The submission of a ITB Submittal will constitute an incontrovertible representation by Contractor that Contractor has complied with every requirement of the ITB; that without exception, the ITB Submittal is premised upon performing and furnishing the Work required by the ITB and applying the specific means, methods, techniques, sequences, or procedures for the Work that may be shown or indicated or expressly required by the ITB; that Contractor has given

SFRTA written notice of all conflicts, errors, ambiguities and discrepancies that Contractor has discovered in the ITB and the written resolution thereof by SFRTA is acceptable to the Contractor; and that the ITB is generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

2.74 FAMILIARITY WITH LAWS

The Contractor is required to be familiar and shall comply with all Federal, State and local laws, ordinances, rules, and regulations ("Legal Requirements") that in any manner affect the Work. Ignorance on the part of the Contractor will in no way relieve the Contractor from responsibility for compliance with such Legal Requirements.

2.75 RIGHTS IN TECHNICAL DATA

All documents and materials prepared or developed by the Contractor and its subcontractors pursuant to this Agreement shall become the property of SFRTA without restriction or limitation on their use and shall be made available upon request to SFRTA at any time. Original copies of such shall be delivered to SFRTA upon completion of the services or termination of the services. The Contractor shall be permitted to retain copies of such items for the furtherance of its technical proficiency; however, publication of this material is subject to the written approval of SFRTA.

No material or technical data prepared by the Contractor under this Agreement is to be released by the Contractor to any other person or agency except as necessary for the performance of the services. All press releases or information to be published in print or electronic media, shall be distributed only after first being authorized by SFRTA.

SFRTA shall have the right to use, duplicate, modify or disclose the technical data and the information conveyed therein, in whole or in part, in any manner whatsoever, and to have or permit others to do so.

The Contractor grants to SFRTA and to its officers, agents, and employees acting within the scope of their official duties, a royalty-free license to publish, translate, reproduce, deliver, and use as they deem fit all technical data covered by copyright supplied for this Agreement. No such copyrighted matter shall be included in technical data furnished hereunder without the written permission of the copyright owner for SFRTA to use in the manner herein described.

The Contractor warrants that the processes, design, equipment, materials, or devices used in providing the services shall be delivered free of any rightful claim of any third party for infringement of any United States patent or copyright. If a suit or proceeding based on a claimed infringement of a patent or copyright is brought against SFRTA, the Contractor shall, at its own expense, defend or settle any such suit or proceeding if authorized to do so in writing by SFRTA, and indemnify and hold harmless SFRTA, its agents, officers and employees from all liability, damages, costs, and expenses associated therewith, including, without limitation, defense costs and attorney fees.

2.76 UNCONTROLLABLE FORCES

Neither SFRTA nor the Contractor shall be considered to be in default of the Agreement if delays in or failure of performance shall be due to Uncontrollable Forces, the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid. The term "Uncontrollable Forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under the Agreement and which is beyond the reasonable control of the non-performing party. It includes, but is not limited to fire, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, and governmental actions.

SECTION 3.0 - SPECIAL TERMS AND CONDITIONS

3.1 SCOPE OF WORK 1
3.2 PLANNING OF THE WORK 2
3.3 MOBILIZATION 2
3.4 PROTECTION OF SFRTA EQUIPMENT AND PROPERTY 2
3.5 DIFFERING SITE CONDITIONS 3
3.6 RAILROAD SAFETY 3
3.7 SCHEDULE 4

3.0 - SPECIAL TERMS AND CONDITIONS

3.1 SCOPE OF WORK

The Scope of Work (the "Work") for the Hialeah Yard Electrical Upgrades Project (the "Project") includes the testing, demolition, relocation, re-wiring and installation of electrical equipment, conduits, lighting and mechanical equipment associated with the conversion of the primary electrical power to the SFRTA Hialeah Maintenance Yard ("Hialeah Yard" or the "Yard") from 240V, 3-phase, Delta service to 480V, 3-phase, Wye service. The Yard will remain operational at all times and the existing 240V distribution system shall remain in place and operational until the new power system is engaged. Demolished wiring material will be salvaged and credit returned to SFRTA. A limited NESHAP Asbestos and Lead Paint Survey Report has been completed for the Project site. Asbestos-containing materials were not identified in the survey. Lead based paint (LBP) was identified at the red paint electrical panels, at the gray paint on columns and at the older yellow paint over gray columns. Under EPA regulations activities that disturb the LBP, such as sanding, scraping or activities that would otherwise cause inhalation hazard should be avoided. The contractor will be responsible for the proper handling and disposal of LBP material as identified in the report and in accordance with EPA regulation. Roof top exhaust fans will be replaced and existing air compressors will be re-furbished and upgraded. The facility is operated and managed by an SFRTA contractor that maintains additional safety procedures that must be adhered to by all visitors, workers, contractors and subcontractors.

The Contractor shall field verify areas of work identified in the Construction Documents. Contractor shall report any inconsistencies immediately to the SFRTA CM&I Consultant and Design Consultant for resolution.

Recent topographic and underground investigation/surveys relevant to the project area are included in this package in order to facilitate construction planning.

SFRTA's Maintenance Building and all associated operations are to remain open throughout the Project. The selected Contractor shall coordinate construction operations with SFRTA and SFRTA's fleet maintenance contractor, Bombardier Mass Transit Corporation ("Bombardier"). The Contractor shall insure that during the Facility's operational hours, which are 24 hours a day, 7 days a week, construction operations associated with this Project do not interfere with SFRTA's or Bombardier's maintenance operations within the Facility.

Due to the nature of the maintenance operations inside of the facility, and the train schedules, any Work that would interfere with SFRTA's or Bombardier's maintenance operations within the facilities, may be limited to off-hour times. Off-hour times at the Facility are from 11 p.m. to 7 a.m. on weekdays and weekends. Other work hours may be arranged with prior approval in writing by Bombardier and the SFRTA Project Manager. The Contractor shall make requests to work during times other than off-hours at least forty-eight (48) hours in advance of the time(s) requested. Contractor Work that does not interfere with SFRTA's or Bombardier's maintenance operations may take place during normal work hours. Work outside of the maintenance building, within the electrical substation and the vicinity, may be performed from sunrise to sunset, Monday through Friday.

3.2 PLANNING OF THE WORK

All power within the shop facility shall remain in full service throughout the duration of the Project unless approved for temporary shut down by Bombardier and the SFRTA Project Manager. The selected Contractor will be expected to execute a plan of construction in a well-planned and organized manner referencing the work zones as designated on the construction plans and to stay clear of active yard tracks unless proper track protection is in place as required by SFRTA to avoid worker injuries and any adverse impact to SFRTA maintenance programs, schedules and rail operations. All workers will be required to attend a Bombardier safety course and will be required to strictly adhere to all relevant safety protocol within the Yard when in proximity to active rail lines.

At a minimum, a licensed electrical journeyman will be required on the site at all times during construction. A plan of work and schedule will be required to be submitted to the SFRTA Project Manager for review and approval. Refer to Section 2.0 - General Terms and Conditions, Paragraph 2.11 Schedule. Due to the time sensitive and critical nature of the maintenance work within the facility, scheduling that includes any shutdown of electrical power, wiring above and electrical work within the safety zones of the rails, roof openings that may allow rain to affect operations and lifting operations will be thoroughly examined and discussed.

3.3 MOBILIZATION

Contractor shall perform preparatory work and operations in mobilizing for beginning Work on the Project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the Work sites and for the establishment of temporary offices, safety equipment and first aid supplies, sanitary and other facilities. An area will be designated by the SFRTA Project Manager for a safe staging area, temporary storage of waste and demolished material, final disposal of which is the responsibility of the Contractor, and storage area for new construction material.

Mobilization shall include the costs of bonds and any required insurance and any other preconstruction expense necessary for the start of the Work, excluding cost of construction materials.

3.4 PROTECTION OF SFRTA EQUIPMENT AND PROPERTY

The Contractor shall take appropriate measures to protect all SFRTA equipment and property from loss and damages during the duration of the Work. The equipment and property shall include, but not be limited to, the track bed, rails, ties, ballast and sub-ballast, turn-outs, signaling and switch machines, signage and other associated Work. The protective measures shall include, but not be limited to, temporary sheathing, matting, barriers, enclosures, fencing, and temporary removal. The provision of the protective measures shall be coordinated with the construction-staging plan and with the appropriate agency. The mechanical measures for protection such as sheathing, matting, barriers, enclosures, fencing, etc., shall be temporary and shall be installed and secured in accordance with all applicable safety and industry standards and shall be removed in their entirety at the completion of the Work. If the Contractor is unsure of which facilities may be impacted, SFRTA shall be contacted for clarification.

3.5 DIFFERING SITE CONDITIONS

A. Contractor shall promptly, and before the conditions are disturbed, give a written notice to SFRTA of (i) subsurface or latent physical conditions at the Project site which differ materially from those indicated in the Contract Documents, or (ii) unknown physical conditions at the Project site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character called for by the Contract Documents.

B. SFRTA will investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the Work, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the Contract Price or Contract Time modified by written Amendment to the Contract.

C. No request by Contractor for an equitable adjustment under paragraph B. shall be allowed unless Contractor has given the written notice required; provided that the time prescribed for giving written notice may be extended by SFRTA.

D. The provisions of this paragraph are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the site.

3.6 RAILROAD SAFETY

DESCRIPTION

This Section includes the requirements for safe operations when working within the limits of the Hialeah Yard and the procedures and methods for ensuring safe construction operations within the limits of the Project.

REQUIREMENTS

A. **General:** Insuring the safety of property, employees and/or representatives of CSXT, SFRTA, Bombardier, Transdev, Amtrak and FDOT and all employees of the Contractor and subcontractors working on the Project shall be of primary concern for the Contractor.

B. Contractors must be certified on SFRTA Roadway Worker Protection rules prior to the start of the project.

C. Safety Provisions: The Contractor shall comply with all the applicable safety rules of the FDOT, SFRTA, Bombardier and the U.S. Occupational Safety and Health Administration (OSHA); including the SFRTA Contractor Safety course.

1. The Contractor shall comply with the applicable provisions of OSHA, the U.S. Environmental Protection Agency (EPA), the Federal Railway Administration (FRA), the Florida Department of Environmental Protection (DEP), the National Fire Protection Association (NFPA), including National Electrical Codes, and all other applicable rules and regulations. For situations where there is a conflict between the applicable safety rules, the more restrictive rule shall apply.

2. Bombardier is responsible for safety within the Hialeah Yard. Contractors must comply with all safety policies, procedures and practices as determined by Bombardier.

D. **Contractor's Responsibility:**

1. **General:** The Contractor shall conduct its Work in a manner, and at times and with precautions and safeguards as SFRTA may require, that avoids interference with the safe and continuous operations of the Hialeah Yard. The Work shall also avoid interference with or injury to Contractor's employees, workers in the Yard or other persons. The Contractor shall at all times comply with the requirements of SFRTA with respect to the disposal and handling of materials, placing of lights, use of scaffolding, shields and other structures, and with all other reasonable requirements to that end, such that interference with the safe and continuous operation of the existing facilities and damage to property is avoided. When necessary, the Contractor will erect barriers to prevent access to the Work site. Contractor will coordinate all activities with the Bombardier and, if necessary, coordinate activities with other Hialeah Yard users, including Transdev, Amtrak and CSXT.

2. **Clothing:** During the performance of any duties, the Contractor and subcontractor's employees shall comply with all OSHA, and SFRTA Safety Rules applicable to wearing appropriate clothing. The clothing worn shall include an approved orange hard hat and safety glasses, reflective lime or fluorescent green vest (when at a road crossing), long pants, hearing protection as needed, life vests (when working over water), and steel-toed shoes.

3. **Safety Meetings:** The Contractor shall hold safety meetings, properly train new employees and monitor job site safety via inspection at the start and completion of each day's work as well as monitoring the job site for this purpose throughout the day. These safety meetings shall also be conducted at shift crossovers.

4. **Accident/Incident Reporting:** Contactor must comply with SFRTA Internal Control Plan requirements for reporting accidents and incidents or as directed by the SFRTA Safety / Security Administrator.

3.7 SCHEDULE

3.7.1 Construction Schedule: Prior to issuance of the NTP, the Contractor shall submit to the SFRTA and CM&I Consultant for their review and comment a schedule covering the timing of completion of the Work, including the time needed to meet all significant milestones, (the "Construction Schedule"). The Construction Schedule shall conform to the format outlined in Paragraph 3.7.2 below and shall be updated no less frequently than monthly by the Contractor throughout the Project. SFRTA and the CM&I Consultant shall review the Construction Schedule and provide the Contractor with a written list of any corrections needed. The Contractor must make all corrections and resolve all comments within seven (7) days of the NTP. The Contractor is and shall remain solely responsible for the planning and execution of all Work in order to meet Project milestones and the Completion Date.

Following development and approval of the Construction Schedule, the Contractor shall, at the end of each calendar month during the Contract Time, update and/or revise the Construction Schedule which shall be submitted to the SFRTA in duplicate. No additional compensation will be due the Contractor for making such updates. Failure of the Contractor to update, revise, and submit updated Construction Schedules shall be sufficient grounds for the SFRTA to find the Contractor in default and that sufficient cause exists to terminate the Contract or to withhold payment to the Contractor until a Construction Schedule update acceptable to the SFRTA is submitted.

3.7.2 Schedule Format: The Construction Schedule shall be planned and recorded with a Critical Path Method (CPM) schedule in the form of an activity-on-node diagram. All activity-on-node diagrams shall include the Activity Identification, Activity Description, and the type of relationship between activities, including any lead or lag time.

3.7.2.1 No activity shall have a duration greater than fifteen (15) work days or less than one (1) work day. If requested by the SFRTA or CM&I Consultant, the Contractor shall furnish any information needed to justify the reasonableness of activity durations.

3.7.2.2 Completion of the Work, or any milestone, shall not exceed the specified Contract Time. Logic or activity durations shall be revised in the event that any milestone or the Completion Date is exceeded in the schedule.

3.7.2.3 The CPM schedules must be compatible with Microsoft Project, version 4.0 (or later). It is the Contractor's responsibility to ascertain the software compatibility with the SFRTA or CM&I Consultant.

3.7.2.4 Schedule Update Requirements: The Contractor shall update the Construction Schedule monthly to show actual, current progress. The schedule updates shall be submitted within seven (7) calendar days of the due date.

3.7.3 Change Directive: When a Change Directive is proposed, the Contractor must identify all logic changes as a result of the Change Directive. The Contractor shall include, as part of each Change Directive proposal, a sketch showing all schedule logic revisions, duration changes, and the relationships to other activities in the approved Construction Schedule. The logic changes required by the Change Directive will be considered incidental to the Contractor's work. No separate payment will be made.

SPECIFICATIONS

Section	Title
Division 22 – Plumbing	
22 15 19	Packaged Air Compressors and Receivers
Division 23 – Heating, Ventilation and Air Conditioning	
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 48.13	Vibration Conrols for HVAC
23 05 93	Testing, Adjusting and Balancing for HVAC
23 34 23	HVAC Power Ventilators
Division 26 – Electrical	
26 00 16	Basic Electrical Requirements
26 00 17	Electrical System Analysis
26 05 00	Basic Electrical Materials and Methods
26 05 10	Conductors
26 05 26.13	Grounding
26 05 33.13	Raceways
26 08 13	Electrical Testing
26 23 00	Low Voltage Power Ciruit Beaker Switchgear
26 24 19	Low Voltage Motor Control Centers
26 41 00	Lightning Protection System

Part 1 General

1.01 Related Documents

Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.02 Summary

Section Includes: Oil-flooded, rotary-screw air compressors and Refrigerant compressed-air dryers.

1.03 Definitions

A. Actual Air: Air delivered from air compressors. Flow rate is delivered compressed air measured in acfm (actual L/s).

B. Standard Air: Free air at 68 deg F (20 deg C) and 1 atmosphere (29.92 in. Hg) before compression or expansion and measured in scfm (standard L/s).

1.04 Action Submittals

A. Product Data: For each type of product. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

B. Shop Drawings: Include diagrams for power, signal, and control wiring.

C. Delegated-Design Submittal: For compressed-air equipment mounting.

1. Detail fabrication and assembly of supports.

2. Include design calculations for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.

1.05 Informational Submittals

Seismic Qualification Certificates: For compressed-air equipment, accessories, and components, from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.

2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification

is based and their installation requirements.

1.06 Closeout Submittals

Operation and Maintenance Data: For compressed-air equipment to include in emergency, operation, and maintenance manuals.

1.07 Maintenance Material Submittals

Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Air-Compressor, Inlet-Air-Filter Elements: Equal to solid particulate removal to 1.0 micron.

1.08 Field Conditions

Interruption of Existing Compressed-Air Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:

1. Notify Owner no fewer than two days in advance of proposed interruption of compressed-air service.

2. Do not proceed with interruption of compressed-air service without Owner's written permission.

1.09 Coordination

Coordinate sizes and locations of concrete bases with actual equipment provided.

Part 2 Products

2.01 System Description

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. ASME Compliance: Fabricate and label receivers to comply with ASME Boiler and Pressure Vessel Code.

2.02 Performance Requirements

Delegated Design: Engage a qualified professional engineer to design compressed-air equipment mounting.

2.03 General Requirements for Packaged Air Compressors and Receivers

A. General Description: Factory-assembled, -wired, -piped, and -tested; electric-motor-driven; air-cooled; continuous-duty air compressors and receivers that deliver air of quality equal to intake air.

B. Control Panels: Automatic control station with load control and protection functions. Comply with NEMA ICS 2 and UL 508.

1. Enclosure: NEMA ICS 6, Type 12 control panel unless otherwise indicated.

2. Motor Controllers: Full-voltage, combination magnetic type with under voltage release feature and motor-circuit-protector-type disconnecting means and short-circuit protective device.

3. Control Voltage: 120-V ac or less, using integral control power transformer.

4. Motor Overload Protection: Overload relay in each phase.

5. Starting Devices: Hand-off-automatic selector switch in cover of control panel, plus pilot device for automatic control.

6. Instrumentation: Include discharge-air pressure gage, air-filter maintenance indicator, hour meter, compressor discharge-air and coolant temperature gages, and control transformer.

7. Alarm Signal Device: For connection to alarm system to indicate when backup air compressor is operating.

C. Receivers: Steel tank constructed according to ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.

1. Pressure Rating: At least as high as highest discharge pressure of connected compressors, and bearing appropriate code symbols.

2. Interior Finish: Corrosion-resistant coating.

3. Accessories: Include safety valve, pressure gage, drain, and pressure-reducing valve.

D. Mounting Frame: Fabricate mounting and attachment to pressure vessel with reinforcement strong enough to resist packaged equipment movement during a seismic event when base is anchored to building structure.

2.04 Oil-Flooded, Rotary-Screw Air Compressors

A. Basis-of-Design Product: Subject to compliance with requirements, provide comparable product by one of the following:

1. Atlas Copco or approved equal.

2. CompAir, Ltd. or approved equal.

3. Gardner Denver, Inc. or approved equal.

4. Ingersoll-Rand; Air Solutions Group. Compressed Air Solutions or approved equal.

5. Kaeser Compressors, Inc. or approved equal.

6. Quincy Compressor; an EnPro Industries company or approved equal.

7. Sullair Corporation or approved equal.

B. Compressor(s): Oil-flooded, rotary-screw type with lubricated helical screws and lubricated gear box.

1. Coupling: lubricated, flexible type.

2. Cooling/Lubrication System: Unit-mounted, air-cooled exchanger package prepiped to unit; with air pressure circulation system with coolant stop valve, full-flow coolant filter, and thermal bypass valve.

3. Air Filter: Dry type, with maintenance indicator and cleanable, replaceable filter element.

4. Air/Coolant Receiver and Separation System: 150-psig- (1035-kPa-) rated steel tank with ASME safety valve, coolant-level gage, multistage air-coolant separator element, minimum pressure valve, blowdown valve, discharge check valve, coolant stop valve, full-flow coolant filter, and thermal bypass valve.

5. Capacity Control: Capacity modulation between zero and 100 percent air delivery, with operating pressures between 50 and 100 psig (345 and 690 kPa). Include necessary control to hold constant pressure. When air demand is zero, unload compressor by using pressure switch and blowdown valve.

C. Capacities and Characteristics:

1. Air Compressor(s): One.

2. Standard-Air Capacity of Each Air Compressor: 489 scfm (standard L/s) free air.

3. Discharge-Air Pressure: 145 psig.

4. Motor (Each Air Compressor): Horsepower: 125.

5. Electrical Characteristics: Volts: 460, Phase(s): Three, and Hertz: 60.

2.05 Inlet-Air Filters

A. Description: Combination inlet-air filter-silencer, suitable for remote installation, for each air compressor.

1. Construction: Weatherproof housing for replaceable, dry-type filter element, with silencer tubes or other method of sound reduction.

2. Capacity: Match capacity of air compressor, with filter having collection efficiency of 99 percent retention of particles larger than 10 micrometers.

B. Description: Combination inlet-air filter-silencer, suitable for remote installation, for multiple air compressors.

1. Construction: Weatherproof housing for replaceable, dry-type filter element, with silencer tubes or other method of sound reduction.

2. Capacity: Match total capacity of connected air compressors, with filter having collection efficiency of 99 percent retention of particles larger than 10 micrometers.

2.06 Refrigerant Compressed-Air Dryers

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

1. Ingersoll-Rand Company; Compressed Air Solutions or approved equal.

2. Kaeser Compressors, Inc. or approved equal.

3. McIntire Company; Arrow Dryers or approved equal.

4. Numatics, Incorporated or approved equal.

5. Pioneer Air Systems, Inc. or approved equal.

6. Pneumatech Inc. or approved equal.

7. SPX Air Treatment or approved equal.

8. Van Air Systems, Inc. or approved equal.

9. Wilkerson Operations; Pneumatic Division or approved equal.

10. Zeks Compressed Air Solutions or approved equal.

C. Description: cycling, air-cooled, electric-motor-driven unit with steel enclosure and capability to deliver 38 deg F (2 deg C), 100-psig (690-kPa) air at dew point. Include automatic ejection of condensate from airstream, step-down transformers, disconnect switches, inlet and outlet pressure gages, thermometers, automatic controls, and filters.

D. Capacities and Characteristics:

1. Standard-Air Capacity of Each Compressed-Air Dryer: 520 scfm free air.

2. Electrical Characteristics: Volts: 460, Phase(s): Three, and Hertz: 60.

Part 3 Execution

3.01 Equipment Installation

A. Equipment Mounting: Install air compressors and air dryers on cast-in-place concrete equipment base(s).

B. Install compressed-air equipment anchored to substrate.

C. Arrange equipment so controls and devices are accessible for servicing.

D. Maintain manufacturer's recommended clearances for service and maintenance.

E. Install the following devices on compressed-air equipment:

1. Thermometer, Pressure Gage, and Safety Valve: Install on each compressed-air

receiver.

2. Pressure Regulators: Install downstream from air compressors and dryers.

3. Automatic Drain Valves: Install on dryer condensate over nearest floor drain.

3.02 Connections

A. Drawings indicate general arrangement of piping, fittings, and specialties.

B Where installing piping adjacent to machine, allow space for service and maintenance.

3.03 Identification

Identify general-service air compressors and components.

3.04 Startup Service

Engage a factory-authorized service representative to perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.

2. Check for lubricating oil in lubricated-type equipment.

3. Check belt drives for proper tension.

4. Verify that air-compressor inlet filters and piping are clear.

5. Check for equipment vibration-control supports and flexible pipe connectors, and verify that equipment is properly attached to substrate.

6. Check safety valves for correct settings. Ensure that settings are higher than air-compressor discharge pressure, but not higher than rating of system components.

7. Drain receiver tanks.

8. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.

9. Test and adjust controls and safeties.

3.05 Demonstration

Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain air compressors and air dryers.

END OF SECTION

Part 1 General

1.01 Summary

Section includes general requirements for single-phase and polyphase, general-purpose, horizontal, small and medium, squirrel-cage induction motors for use on ac power systems up to 600 V and installed at equipment manufacturer's factory or shipped separately by equipment manufacturer for field installation.

1.02 Coordination

Coordinate features of motors, installed units, and accessory devices to be compatible with the following:

1. Motor controllers.
2. Torque, speed, and horsepower requirements of the load.
3. Ratings and characteristics of supply circuit and required control sequence.
4. Ambient and environmental conditions of installation location.

Part 2 Products

2.01 General Motor Requirements

Comply with NEMA MG 1 unless otherwise indicated.

2.02 Motor Characteristics

Capacity and Torque Characteristics: Sufficient to start, accelerate, and operate connected loads at designated speeds, at installed altitude and environment, with indicated operating sequence, and without exceeding nameplate ratings or considering service factor.

2.03 Polyphase Motors

A. Description: NEMA MG 1, Design B, medium induction motor.

B. Efficiency: Energy efficient, as defined in NEMA MG 1.

C. Service Factor: 1.15.

D. Multispeed Motors: Variable torque.

1. For motors with 2:1 speed ratio, consequent pole, single winding.

2. For motors with other than 2:1 speed ratio, separate winding for each speed.

E. Rotor: Random-wound, squirrel cage.

F. Bearings: Regreasable, shielded, antifriction ball bearings suitable for radial and thrust loading.

G. Temperature Rise: Match insulation rating.

H. Insulation: Class F.

I. Code Letter Designation:

1. Motors 15 HP and Larger: NEMA starting Code F or Code G.

2. Motors Smaller than 15 HP: Manufacturer's standard starting characteristic.

J. Enclosure Material: Cast iron for motor frame sizes 324T and larger; rolled steel for motor frame sizes smaller than 324T.

2.04 Polyphase Motors with Additional Requirements

A. Motors Used with Reduced-Voltage and Multispeed Controllers: Match wiring connection requirements for controller with required motor leads. Provide terminals in motor terminal box, suited to control method.

B. Motors Used with Variable Frequency Controllers: Ratings, characteristics, and features coordinated with and approved by controller manufacturer.

1. Windings: Copper magnet wire with moisture-resistant insulation varnish, designed and tested to resist transient spikes, high frequencies, and short time rise pulses produced by pulse-width modulated inverters.

2. Energy- and Premium-Efficient Motors: Class B temperature rise; Class F insulation.

3. Inverter-Duty Motors: Class F temperature rise; Class H insulation.

4. Thermal Protection: Comply with NEMA MG 1 requirements for thermally protected motors.

2.05 Single-Phase Motors

A. Motors larger than 1/20 hp shall be one of the following, to suit starting torque and requirements of specific motor application:

1. Permanent-split capacitor.

2. Split phase.

3. Capacitor start, inductor run.

4. Capacitor start, capacitor run.

B. Multispeed Motors: Variable-torque, permanent-split-capacitor type.

C. Bearings: Prelubricated, antifriction ball bearings or sleeve bearings suitable for radial and thrust loading.

D. Motors 1/20 HP and Smaller: Shaded-pole type.

E. Thermal Protection: Internal protection to automatically open power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal-protection device shall automatically reset when motor temperature returns to normal range.

Part 3 Execution (Not Used)

END OF SECTION

Part 1 General

1.01 Summary

Section Includes: Housed-spring isolators.

1.02 Action Submittals

A. Product Data: For each type of product.

B. Delegated-Design Submittal: For each vibration isolation device. Include design calculations for selecting vibration isolators.

Part 2 Products

2.01 Housed-Spring Isolators

Freestanding, Laterally Stable, Open-Spring Isolators in Two-Part Telescoping Housing:

1. Basis-of-Design Product: Subject to compliance with requirements, provide or comparable product by one of the following:

    a. Ace Mountings Co., Inc. or approved equal

    b. California Dynamics Corporation or approved equal.

    c. Isolation Technology, Inc. or approved equal.

    d. Kinetics Noise Control, Inc. or approved equal.

    e. Mason Industries, Inc. or approved equal.

    f. Vibration Eliminator Co., Inc. or approved equal.

    g. Vibration Isolation or approved equal.

    h. Vibration Mountings & Controls, Inc. or approved equal.

2. Outside Spring Diameter: Not less than 80 percent of the compressed height of the spring at rated load.

3. Minimum Additional Travel: 50 percent of the required deflection at rated load.

4. Lateral Stiffness: More than 80 percent of rated vertical stiffness.

5. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.

6. Two-Part Telescoping Housing: A steel top and bottom frame separated by an elastomeric material and enclosing the spring isolators.

    a. Drilled base housing for bolting to structure with an elastomeric isolator pad attached to the underside. Bases shall limit floor load to 500 psig (3447 kPa).

    b. Top housing with threaded mounting holes and internal leveling device.

Part 3 Execution

3.01 Vibration Control Device Installation

Installation of vibration isolators must not cause any change of position of equipment, piping, or ductwork resulting in stresses or misalignment.

END OF SECTION

Part 1 General

1.01 Summary

A. Balancing Air Systems: Variable-air-volume systems.

1.02 Definitions

A. AABC: Associated Air Balance Council.

B. NEBB: National Environmental Balancing Bureau.

C. TAB: Testing, adjusting, and balancing.

D. TABB: Testing, Adjusting, and Balancing Bureau.

E. TAB Specialist: An entity engaged to perform TAB Work.

1.03 Action Submittals

LEED Submittals:

1. Air-Balance Report for Prerequisite IEQ 1: Documentation of work performed for ASHRAE 62.1, Section 7.2.2 - Air Balancing.

2. TAB Report for Prerequisite EA 2: Documentation of work performed for ASHRAE/IESNA 90.1, Section 6.7.2.3 - System Balancing.

1.04 Informational Submittals

A. Strategies and Procedures Plan: Within 30 days of Contractor's Notice to Proceed, submit TAB strategies and step-by-step procedures as specified in Preparation Article.

B. Certified TAB reports.

1.05 Quality Assurance

A. TAB Contractor Qualifications: Engage a TAB entity certified by AA or TABB.

1. TAB Field Supervisor: Employee of the TAB contractor and certified by AABC or TABB.

2. TAB Technician: Employee of the TAB contractor and who is certified by AABC or TABB as a TAB technician.

B. Certify TAB field data reports and perform the following:

1. Review field data reports to validate accuracy of data and to prepare certified TAB reports.

2. Certify that the TAB team complied with the approved TAB plan and the procedures specified and referenced in this Specification.

C. TAB Report Forms: Use standard TAB contractor's forms approved by Owner or Commissioning Authority.

D. Instrumentation Type, Quantity, Accuracy, and Calibration: As described in ASHRAE 111, Section 5, Instrumentation.

E. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 7.2.2 - Air Balancing.

F. ASHRAE/IESNA Compliance: Applicable requirements in ASHRAE/IESNA 90.1, Section 6.7.2.3 - System Balancing.

Part 2 Products (Not Used)

Part 3 Execution

3.01 Examination

A. Examine the Contract Documents to become familiar with Project requirements and to discover conditions in systems' designs that may preclude proper TAB of systems and equipment.

B. Examine systems for installed balancing devices, such as test ports, gage cocks, thermometer wells, flow-control devices, balancing valves and fittings, and manual volume dampers. Verify that locations of these balancing devices are accessible.

C. Examine the approved submittals for HVAC systems and equipment.

D. Examine design data including HVAC system descriptions, statements of design assumptions for environmental conditions and systems' output, and statements of philosophies and assumptions about HVAC system and equipment controls.

E. Examine equipment performance data including fan and pump curves.

1. Relate performance data to Project conditions and requirements, including system effects that can create undesired or unpredicted conditions that cause reduced capacities in all or part of a system.

2. Calculate system-effect factors to reduce performance ratings of HVAC equipment when installed under conditions different from the conditions used to rate equipment performance. To calculate system effects for air systems, use tables and charts found in AMCA 201, "Fans and Systems," or in SMACNA's "HVAC Systems - Duct Design." Compare results with the design data and installed conditions.

F. Examine system and equipment installations and verify that field quality-control testing, cleaning, and adjusting specified in individual Sections have been performed.

G. Examine test reports specified in individual system and equipment Sections.

H. Examine HVAC equipment and filters and verify that bearings are greased, belts are aligned and tight, and equipment with functioning controls is ready for operation.

I. Examine terminal units, such as variable-air-volume boxes, and verify that they are accessible and their controls are connected and functioning.

J. Examine strainers. Verify that startup screens are replaced by permanent screens with indicated perforations.

K, Examine three-way valves for proper installation for their intended function of diverting or mixing fluid flows.

L. Examine heat-transfer coils for correct piping connections and for clean and straight fins.

M. Examine system pumps to ensure absence of entrained air in the suction piping.

N. Examine operating safety interlocks and controls on HVAC equipment.

O. Report deficiencies discovered before and during performance of TAB procedures. Observe and record system reactions to changes in conditions. Record default set points if different from indicated values.

3.02 Preparation

A. Prepare a TAB plan that includes strategies and step-by-step procedures.

B. Complete system-readiness checks and prepare reports. Verify the following:

1. Permanent electrical-power wiring is complete.

2. Hydronic systems are filled, clean, and free of air.

3. Automatic temperature-control systems are operational.

4. Equipment and duct access doors are securely closed.

5. Balance, smoke, and fire dampers are open.

6. Isolating and balancing valves are open and control valves are operational.

7. Ceilings are installed in critical areas where air-pattern adjustments are required and access to balancing devices is provided.

8. Windows and doors can be closed so indicated conditions for system operations can be met.

3.03 General Procedures For Testing and Balancing

A. Perform testing and balancing procedures on each system according to the procedures contained in SMACNA's "HVAC Systems - Testing, Adjusting, and Balancing" and in this Section. Comply with requirements in ASHRAE 62.1, Section 7.2.2 - Air Balancing.

B. Cut insulation, ducts, pipes, and equipment cabinets for installation of test probes to the minimum extent necessary for TAB procedures. After testing and balancing, patch probe holes in ducts with same material and thickness as used to construct ducts.

C. Mark equipment and balancing devices, including damper-control positions, valve position indicators, fan-speed-control levers, and similar controls and devices, with paint or other suitable, permanent identification material to show final settings.

D. Take and report testing and balancing measurements in inch-pound (IP) units.

3.04 General Procedures for Balancing Air Systems

A. Prepare test reports for both fans and outlets. Obtain manufacturer's outlet factors and recommended testing procedures. Crosscheck the summation of required outlet volumes with required fan volumes.

B. For variable-air-volume systems, develop a plan to simulate diversity.

C. Check airflow patterns from the outdoor-air louvers and dampers and the return- and exhaust-air dampers through the supply-fan discharge and mixing dampers.

D. Locate start-stop and disconnect switches, electrical interlocks, and motor starters.

E. Verify that motor starters are equipped with properly sized thermal protection.

F. Check dampers for proper position to achieve desired airflow path.

G. Check for airflow blockages.

3.05 Procedures for Variable-Air-Volume Systems

A. Compensating for Diversity: When the total airflow of all terminal units is more than the indicated airflow of the fan, place a selected number of terminal units at a minimum set-point airflow with the remainder at maximum airflow condition until the total airflow of the terminal units equals the indicated airflow of the fan. Select the reduced-airflow terminal units so they are distributed evenly among the branch ducts.

B. Pressure-Independent, Variable-Air-Volume Systems: After the fan systems have been adjusted, adjust the variable-air-volume systems as follows:

1. Measure total system airflow. Adjust to within indicated airflow.

2. Set terminal units at maximum airflow and adjust controller or regulator to deliver the designed maximum airflow. Use terminal-unit manufacturer's written instructions to make this adjustment. When total airflow is correct, balance the air outlets downstream from terminal units the same as described for constant-volume air systems.

3. Set terminal units at minimum airflow and adjust controller or regulator to deliver the designed minimum airflow

4. Record final fan-performance data.

C. Pressure-Dependent, Variable-Air-Volume Systems without Diversity: After the fan systems have been adjusted, adjust the variable-air-volume systems as follows:

1. Balance variable-air-volume systems the same as described for constant-volume air systems.

2. Set terminal units and supply fan at full-airflow condition.

3. Adjust inlet dampers of each terminal unit to indicated airflow and verify operation of the static-pressure controller. When total airflow is correct, balance the air outlets downstream from terminal units the same as described for constant-volume air systems.

4. Readjust fan airflow for final maximum readings.

5. Measure operating static pressure at the sensor that controls the supply fan if one is installed, and verify operation of the static-pressure controller.

6. Set supply fan at minimum airflow if minimum airflow is indicated. Measure static pressure to verify that it is being maintained by the controller.

7. Set terminal units at minimum airflow and adjust controller or regulator to deliver the designed minimum airflow. Check air outlets for a proportional reduction in airflow the same as described for constant-volume air systems. If air outlets are out of balance at minimum airflow, report the condition but leave the outlets balanced for maximum airflow.

8. Measure the return airflow to the fan while operating at maximum return airflow and minimum outdoor airflow. Adjust the fan and balance the return-air ducts and inlets the same as described for constant-volume air systems.

9. Indicated airflow. When total airflow is correct, balance the air outlets downstream from terminal units the same as described for constant-volume air systems.

10. Adjust terminal units for minimum airflow.

11. Measure static pressure at the sensor.

12. Measure the return airflow to the fan while operating at maximum return airflow and minimum outdoor airflow. Adjust the fan and balance the return-air ducts and inlets the same as described for constant-volume air systems.

3.06 Tolerances

Set HVAC system's air flow rates and water flow rates within the following tolerances: Exhaust Fans and Equipment with Fans: Plus or minus 10 percent.

3.07 Reporting

A. Initial Construction-Phase Report: Based on examination of the Contract Documents as specified in "Examination" Article, prepare a report on the adequacy of design for systems' balancing devices. Recommend changes and additions to systems' balancing devices to facilitate proper performance measuring and balancing. Recommend changes and additions to HVAC systems and general construction to allow access for performance measuring and balancing devices.

B. Status Reports: Prepare monthly progress reports to describe completed procedures, procedures in progress, and scheduled procedures. Include a list of deficiencies and problems found in systems being tested and balanced. Prepare a separate report for each system and each building floor for systems serving multiple floors.

3.08 Final Report

A. General: Prepare a certified written report; tabulate and divide the report into separate sections for tested systems and balanced systems.

1. Include a certification sheet at the front of the report's binder, signed and sealed by the certified testing and balancing engineer.

2. Include a list of instruments used for procedures, along with proof of calibration.

B. Final Report Contents: In addition to certified field-report data, include the following:

1. Pump curves.

2. Fan curves.

3. Manufacturers' test data.

4. Field test reports prepared by system and equipment installers.

5. Other information relative to equipment performance; do not include Shop Drawings and product data.

C. General Report Data: In addition to form titles and entries, include the following data:

1. Title page.

2. Name and address of the TAB contractor.

3. Project name.

4. Project location.

5. Architect's name and address.

6. Engineer's name and address.

7. Contractor's name and address.

8. Report date.

9. Signature of TAB supervisor who certifies the report.

10. Table of Contents with the total number of pages defined for each section of the report. Number each page in the report.

11. Summary of contents including the following:

    a. Indicated versus final performance.

    b. Notable characteristics of systems.

    c. Description of system operation sequence if it varies from the Contract Documents.

12. Nomenclature sheets for each item of equipment.

13. Data for terminal units, including manufacturer's name, type, size, and fittings.

14. Notes to explain why certain final data in the body of reports vary from indicated values.

15. Test conditions for fans and pump performance forms including the following: Fan drive settings including settings and percentage of maximum pitch diameter.

3.09 Additional Tests

A. Within 90 days of completing TAB, perform additional TAB to verify that balanced conditions are being maintained throughout and to correct unusual conditions.

B. Seasonal Periods: If initial TAB procedures were not performed during near-peak summer and winter conditions, perform additional TAB during near-peak summer and winter conditions.

END OF SECTION

Part 1 General

1.01 Related Documents

Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.02 Summary

Section Includes: Upblast propeller roof exhaust fans.

1.03 Performance Requirements

A. Project Altitude: Base fan-performance ratings on sea level.

B. Operating Limits: Classify according to AMCA 99.

1.04 Action Submittals

A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories. Also include the following:

1. Certified fan performance curves with system operating conditions indicated.

2. Certified fan sound-power ratings.

3. Motor ratings and electrical characteristics, plus motor and electrical accessories.

4. Material thickness and finishes, including color charts.

5. Dampers, including housings, linkages, and operators.

6. Roof curbs.

7. Fan speed controllers.

8. Contractor shall provide windload calculations and installation Drawings signed and sealed by a Florida Registered Engineer, in accordance with Miami-Dade County requirements.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1. Detail equipment assemblies and indicate dimensions, weights, loads, required

clearances, method of field assembly, components, and location and size of each field connection.

2. Wiring Diagrams: For power, signal, and control wiring.

C. Delegated-Design Submittal: For unit hangars and supports indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1. Vibration Isolation Base Details: Detail fabrication including anchorages and attachments to structure and to supported equipment. Include adjustable motor bases, rails, and frames for equipment mounting.

2. Design Calculations: Calculate requirements for selecting vibration isolators and for designing vibration isolation bases.

1.05 Informational Submittals

Field quality-control reports.

1.06 Closeout Submittals

Operation and Maintenance Data: For power ventilators to include in emergency, operation, and maintenance manuals.

1.07 Maintenance Material Submittals

Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Belts: One set(s) for each belt-driven unit.

1.08 Quality Assurance

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. AMCA Compliance: Fans shall have AMCA-Certified performance ratings and shall bear the AMCA-Certified Ratings Seal.

C. UL Standards: Power ventilators shall comply with UL 705. Power ventilators for use for restaurant kitchen exhaust shall also comply with UL 762.

1.09 Coordination

A. Coordinate size and location of structural-steel support members.

B. Coordinate sizes and locations of concrete bases with actual equipment provided.

C. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.

Part 2 Products

2.01 Upblast Propeller Roof Exhaust Fans

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following.

B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

1. Acme Engineering & Manufacturing Corporation or approved equal.

2. Aerovent; a division of Twin City Fan Companies, Ltd. or approved equal.

3. American Coolair Corporation or approved equal.

4. Ammerman; Millennium Equipment or approved equal.

5. Breidert Air Products or approved equal.

6. Carnes Company or approved equal.

7. Cincinnati Fan or approved equal.

8. Greenheck Fan Corporation or approved equal.

9. Hartzell Fan Incorporated or approved equal.

10 .JencoFan or approved equal.

11. Loren Cook Company or approved equal.

12. Madison Manufacturing or approved equal.

13. New York Blower Company (The) or approved equal.

14. PennBarry or approved equal.

15. Quietaire Inc. or approved equal.

16. Stanley Fans or approved equal.

C. Wind Band, Fan Housing, and Base: Reinforced and braced aluminum, containing aluminum butterfly dampers and rain trough, motor and drive assembly, and fan wheel.

1. Damper Rods: Steel with nylon bearings.

2. Hinged Subbase: Galvanized-steel hinged arrangement permitting service and maintenance.

D. Fan Wheel: Replaceable, extruded-aluminum, airfoil blades fastened to cast-aluminum hub; factory set pitch angle of blades.

E. Direct Drives:

1. Resiliently mounted to housing.

2. Weatherproof housing of same material as fan housing.

3. Fan Shaft: Turned, ground, and polished steel; keyed to wheel hub.

4. Shaft Bearings: Pre-lubricated and sealed, self-aligning, pillow-block-type ball bearings.

F. Roof Curbs: Galvanized steel; mitered and welded corners; 1-1/2-inch- (40-mm-) thick, rigid, fiberglass insulation adhered to inside walls; and 1-1/2-inch (40-mm) wood nailer. Size as required to suit roof opening and fan base.

1. Configuration: Self-flashing without a cant strip, with mounting flange.

2. Overall Height: 16 inches (400 mm).

3. Sound Curb: Curb with sound-absorbing insulation.

4. Pitch Mounting: Manufacture curb for roof slope.

5. Metal Liner: Galvanized steel.

6. Mounting Pedestal: Galvanized steel with removable access panel.

G. Capacities and Characteristics:

1. Airflow: see schedule.

2. External Static Pressure: see schedule.

3. Fan Diameter: see model specified.
4. Drive Arrangement: Direct Drive.
5. Fan rpm: see schedule.
6. Tip Speed: see schedule.
7. Sound:
8. Curb Size: existing.
9. Curb Height: existing.
10. Damper: Yes.
11. Brake Horsepower: see schedule.
12. Motor Size: see schedule.
13. Motor rpm: see schedule.
14. Electrical Characteristics: Volts: 480, Phase: 3, and Hertz: 60.

2.02 Motors

A. Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors specified in Section 23 05 13 Common Motor Requirements for HVAC Equipment. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.

B. Enclosure Type: Totally enclosed, fan cooled.

2.03 Source Quality Control

A. Certify sound-power level ratings according to AMCA 301, "Methods for Calculating Fan Sound Ratings from Laboratory Test Data." Factory test fans according to AMCA 300, "Reverberant Room Method for Sound Testing of Fans." Label fans with the AMCA-Certified Ratings Seal.

B. Certify fan performance ratings, including flow rate, pressure, power, air density, speed of rotation, and efficiency by factory tests according to AMCA 210, "Laboratory Methods of Testing Fans for Aerodynamic Performance Rating." Label fans with the AMCA-Certified Ratings Seal.

Part 3 Execution

3.01 Installation

A. Install power ventilators level and plumb.

B. Equipment Mounting: Comply with requirements for vibration isolation devices specified in Section 23 05 48.13 Vibration Controls for HVAC.

C. Secure roof-mounted fans to roof curbs with cadmium-plated hardware.

D. Ceiling Units: Suspend units from structure; use steel wire or metal straps.

E. Install units with clearances for service and maintenance.

3.02 Connections

A. Ground equipment according to Section 26 05 26.13 Grounding.

B. Connect wiring according to Section 26 05 10 Conductors.

3.03 Field Quality Control

A. Perform tests and inspections. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

B. Tests and Inspections:

1. Verify that shipping, blocking, and bracing are removed.

2. Verify that unit is secure on mountings and supporting devices and that connections to ducts and electrical components are complete. Verify that proper thermal-overload protection is installed in motors, starters, and disconnect switches.

3. Verify that cleaning and adjusting are complete.

4. Disconnect fan drive from motor, verify proper motor rotation direction, and verify fan wheel free rotation and smooth bearing operation.

5. Adjust damper linkages for proper damper operation.

6. Verify lubrication for bearings and other moving parts.

7. Verify that manual and automatic volume control and fire and smoke dampers in connected ductwork systems are in fully open position.

8. Disable automatic temperature-control operators, energize motor and adjust fan to indicated rpm, and measure and record motor voltage and amperage.

9. Shut unit down and reconnect automatic temperature-control operators.

10. Remove and replace malfunctioning units and retest as specified above.

C. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Prepare test and inspection reports.

3.04 Adjusting

A. Adjust damper linkages for proper damper operation.

B. Comply with requirements in Section 23 05 93 Testing, Adjusting, and Balancing for HVAC for testing, adjusting, and balancing procedures.

END OF SECTION

Part 1 General

1.01 Related Sections

Requirements specified within this section apply to all sections in Division 26, ELECTRICAL. Work specified herein shall be performed as if specified in the individual sections.

1.02 Design Requirements

A. All electronic boards as part of electrical equipment shall meet the atmospheric conditions of the space the equipment is installed in. All electronic boards which are not installed in a conditioned environment shall be fungus-resistant.

B. All electrical equipment shall be rated for the conditions the equipment is installed in.

1.03 Standards, Codes, Permits, and Regulations

A. Perform all work; furnish and install all materials and equipment in full accordance with the latest applicable rules, regulations, requirements, and specifications of the following:

1. Local Laws and Ordinances.
2. State and Federal Laws.
3. National Electrical Code (NEC).
4. State Fire Marshal.
5. Underwriters' Laboratories (UL).
6. National Electrical Safety Code (NESC).
7. American National Standards Institute (ANSI).
8. National Electrical Manufacturer's Association (NEMA).
9. National Electrical CONTRACTOR'S Association (NECA) Standard of Installation.
10. Institute of Electrical and Electronics Engineers (IEEE).
11. Insulated Cable Engineers Association (ICEA).

12. Occupational Safety and Health Act (OSHA).

13. National Electrical Testing Association (NETA).

14. American Society for Testing and Materials (ASTM).

15. Florida Building Code, including Miami-Dade County amendments.

B. Conflicts, if any, which may exist between the above items, will be resolved at the discretion of the ENGINEER.

C. Wherever the requirements of the Specifications or Drawings exceed those of the above items, the requirements of the Specifications or Drawings govern. Code compliance is mandatory. Construe nothing in the Contract Documents as permitting work not in compliance with these codes.

D. Obtain all permits and pay all fees required by any governmental agency having jurisdiction over the work. Arrange all inspections required by these agencies. On completion of the work, furnish satisfactory evidence to the ENGINEER that the work is acceptable to the regulatory authorities having jurisdiction.

1.04 Electrical Coordination

A. Work Provided Under this Contract:

1. See plans.

2. Contractor shall submit a Construction Sequence Plan to Owner and Engineer for approval prior to beginning work.

3. Contractor shall hire the services of Tradewinds Power (generator manufacturer) or Tradewinds Power approved Contractor, to re-wire the existing generator from 120/240V, 3-phase, Delta to 277/480V, 3-phase, Wye. After modifications, generator shall be load bank tested on-site by the manufacturer. Test shall include a "cold start" test, a two-hour full load test, and a one-step rated load pickup test in accordance with NFPA 110. Manufacturer shall provide a resistive load bank and make temporary connections for full load test.

4. Contractor shall hire the services of Air Compressor Works, Inc. or Air Compressor Works, Inc. approved Contractor, to re-wire existing Air Compressor 2 from 120/240V, 3-phase, Delta to 277/480V, 3-phase, Wye.

B. Temporary Power: Provide temporary power for all office trailers and for all construction areas.

C. Emergency Power: Provide temporary emergency power for maintenance facility during generator modification.

1.05 Submittals

A. Quality Control Submittals:

1. Voltage Field Test Results.

2. Voltage Balance Report.

3. Equipment Line Current Report.

4. Factory test certification and reports for all major electrical equipment.

5. Site test certification and reports as specified in other Division 26, ELECTRICAL sections.

6. As part of the electrical submittal, the contractor shall provide a minimum of ¼”=1’-0” scaled layout of the electrical equipment in the electrical room or major electrical equipment in a mechanical room showing sizes of all equipment and their spatial relationship. Non-electrical equipment shall be approved before finalizing the electrical layout in mechanical rooms.

B. The following information shall be provided for all electrical equipment:

1. A copy of each specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check-marks (√) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the Contractor, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph. The remaining portions of the paragraph not underlined shall signify compliance on the part of the Contractor with the specifications. The submittal shall be accompanied by a detailed, written justification for each deviation.

2. Electrical equipment submittals shall be made by specification section. Submit one package per specification section and do not group multiple specification sections under one submittal package.

3. Provide complete conduit and equipment layouts: a scaled plan layout of the electrical room(s) showing spatial relationships of all equipment as well as the overall size of the room. Minimum scale shall be ¼”=1’-0”.

4. Provide a conduit plan for major power, instrumentation and control conduits, both interior and exterior, showing routing, size and stub up locations for buried or in slab conduits.

1.06 Environmental Conditions

A. Electrical equipment in rooms designated as Classified by NFPA 70 (national electrical code) as Division 1 or Division 2 shall meet all requirements set forth for that classification as described in NEC article 500.

B. All outdoor electrical panel and instrumentation control panels, shall be mounted with supports to meet the local wind loading requirements, indicated or not on drawings. All panels shall be mounted steady and securely.

1.07 Inspection of the Site and Existing Conditions

A. The Electrical Drawings were developed from past record drawings and information supplied by the OWNER. Verify all scaled dimensions prior to submitting bids.

B. Before submitting a bid, visit the site and determine conditions at the site and at all existing structures in order to become familiar with all existing conditions and electrical system which will, in any way or manner, affect the work required under this Contract. No subsequent increase in Contract cost will be allowed for additional work required because of the CONTRACTOR's failure to fulfill this requirement.

C. Carry out any work involving the shutdown of the existing services to any piece of equipment now functioning in existing areas at such time as to provide the least amount of inconvenience to the OWNER. Do such work when directed by the ENGINEER.

D. After award of Contract, locate all existing underground utilities at each area of construction activity. Protect all existing underground utilities during construction. Pay for all required repairs without increase in Contract cost, should damage to underground utilities occur during construction.

1.08 Responsibility

A. The CONTRACTOR shall be responsible for:

1. Complete systems in accordance with the intent of these Contract Documents.

2. Coordinating the details of facility equipment and construction for all Specification Divisions which affect the work covered under Division 26, ELECTRICAL.

3. Furnishing and installing all incidental items not actually shown or specified, but which are required by good practice to provide complete functional systems.

4. Coordinate with equipment supplier for dimensions of the equipment and ask the supplier to ship the equipment in section if the equipment is too large to enter the room (door) where the equipment will be installed. The cost to assembly the equipment at the job site shall be included in the bid price.

1.09 Intent of Drawings

A. Electrical plan Drawings show only general location of equipment, devices, and raceway, unless specifically dimensioned. The CONTRACTOR shall be responsible for the proper routing of raceway, subject to the approval of the ENGINEER.

B. All electrical equipment sizes and characteristics have been based on manufacturer Cutler-Hammer. If the CONTRACTOR chooses to and is allowed to substitute, the CONTRACTOR shall be responsible for fitting all the equipment in the available space as shown on the Drawings.

Part 2 Products

2.01 General

A. Provide materials and equipment listed by UL wherever standards have been established by that agency.

B. Equipment Finish:

1. Provide manufacturers' standard finish and color, except where specific color is indicated.

2. If manufacturer has no standard color, provide equipment with ANSI No. 61, light gray color.

Part 3 Execution

3.01 General

A. Electrical Drawings show general locations of equipment, devices, and raceway, unless specifically dimensioned.

B. Install work in accordance with NECA Standard of Installation, unless otherwise specified.

3.02 Rubber Mats

A three foot wide rubber mat shall be furnished and installed on the floor and in front of each switchgear, switchboard, and MCC assembly. The mat shall be long enough to cover the full length of each line-up. The mat shall be 1/4 inch thick with beveled edges, canvas back, solid type with corrugations running the entire length of the mat. The mat shall be guaranteed extra quality, free from cracks, blow holes, or other defects detrimental to their mechanical or electrical strength. The mat shall meet OSHA requirements and the requirements of ANSI/ASTM D-178 J6-7 for Type 2, Class 2 insulating matting.

3.03 Load Balance

A. Drawings and Specifications indicate circuiting to electrical loads and distribution equipment.

B. Balance electrical load between phases as nearly as possible on switchboards, panel boards, motor control centers, and other equipment where balancing is required.

C. When loads must be reconnected to different circuits to balance phase loads, maintain accurate record of changes made, and provide circuit directory that lists final circuit arrangement.

3.04 Checkout and Startup

A. Voltage Field Test:

1. Check voltage at point of termination of power company supply system to project when installation is essentially complete and is in operation.

2. Check voltage amplitude and balance between phases for loaded and unloaded conditions.

3. Record supply voltage (all three phases simultaneously on the same graph) for 24 hours during normal working day.

4. Submit Voltage Field Test Report within 5 days of test.

5. Unbalance Corrections:

a. Make written request to power company to correct condition if balance (as defined by NEMA) exceeds 1 percent, or if voltage varies throughout the day and from loaded to unloaded condition more than plus or minus 4 percent of nominal.

b. Obtain a written certification from a responsible power company official that the voltage variations and unbalance are within their normal

standards if corrections are not made.

B. Equipment Line Current Tests:

1. Check line current in each phase for each piece of equipment.

2. Make line current check after power company has made final adjustments to supply voltage magnitude or balance.

3. If any phase current for any piece of equipment is above rated nameplate current, prepare Equipment Line Phase Current Report that identifies cause of problem and corrective action taken.

C. Startup:

1. Demonstrate satisfactory operation of all 480-volt electrical equipment. Participate with other trades in all startup activities.

2. Assist the Instrumentation and Control (I&C) Contractor in verifying signal integrity of all control and instrumentation signals.

END OF SECTION

Part 1 General

1.01 Scope of Work

A. The requirements of this specification shall apply to the new electrical distribution system at the SFRTA Hialeah Tri-Rail Maintenance Facility. The end result shall be a fully protected, and properly coordinated, system with proper arc flash safety labels and personal protective equipment recommendations.

B. Contractor shall furnish short-circuit and protective device coordination studies as described herein. The coordination study shall begin with the utility company's feeder protective device and include all of the electrical protective devices down to, and including, the main breaker and feeder circuit in each 208 Volt panelboard. The study shall also include power factor correction equipment, transformers and emergency and standby generators associated equipment and distribution switchgear.

C. The contractor shall furnish an Arc Flash Hazard Analysis Study per NFPA 70E - Standard for Electrical Safety in the Workplace, reference Article 130.3 and Annex D.

1.02 References

A. The following is a list of standards that may be referenced in this section:

1. Institute of Electrical and Electronics Engineers, Inc. (IEEE):

    a. IEEE 141 – Recommended Practice for Electric Power Distribution and Coordination of Industrial and Commercial Power Systems.

    b. IEEE 241 – Recommended Practice for Electric Power Systems in Commercial Buildings.

    c. IEEE 242: Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.

    d. IEEE 399: Recommended Practice for Industrial and Commercial Power System Analysis.

    e. IEEE 1015 – Recommended Practice for Applying Low-Voltage Circuit Breakers Used in Industrial and Commercial Power Systems.

    f. IEEE 1584-2002: Guide for Performing Arc Flash Hazard Calculations.

2. American National Standards Institute (ANSI):

a. C57.12.00, Standard General Requirements for Liquid-immersed Distribution, Power, and Regulating Transformers.

b. ANSI C37.13 – Standard for Low Voltage AC Power Circuit Breakers Used in Enclosures.

c. ANSI C37.010 – Standard Application Guide for AC High Voltage Circuit Breakers Rated on a Symmetrical Current Basis.

d. ANSI C 37.41 – Standard Design Tests for High Voltage Fuses, Distribution Enclosed Single-Pole Air Switches, Fuse Disconnecting Switches and Accessories.

e. ANSI C37.5 – Methods for Determining the RMS Value of a Sinusoidal Current Wave and Normal-Frequency Recovery Voltage, and for Simplified Calculation of Fault Currents.

3. National Fire Protection Association:

a. NFPA 70E: National Electrical Safety Code Chapter 1.

b. NFPA 70: National Electrical Code.

4. Occupational Safety & Health Administration (OSHA): 29-CFR, Part 1910, sub part S.

1.03 Submittals

Shop drawings: the results of the short-circuit; protective device coordination and arc flash hazard analysis studies shall be summarized in a preliminary and final summary report. Submit five (5) three-ring binder bound copies of the complete preliminary and final study reports. The preliminary short circuit and device coordination study report shall be submitted within 30 days of notice to proceed and shall be a basis for approval of all other electrical equipment in the power distribution system. The contractor is expected to review the results of the preliminary short circuit and device coordination study report against all other applicable shop drawings, including industrial control panels, prior to shop drawing submittal to coordinate appropriate fault duty ratings of all electrical equipment. The final short circuit and device coordination study report shall incorporate all comments from shop drawing submittals and include the arc-flash hazard analysis. The contractor shall ensure proper arc-flash warning labels are applied to all appropriate electrical equipment installed under this contract when the final study has been approved.

1.04 Quality Assurance

A. Short circuit, protective device coordination, and arc flash studies shall be prepared by the manufacturer furnishing the electrical power distribution equipment or a professional electrical engineer registered in the State of Florida, hired by the manufacturer, in accordance with IEEE 242 and IEEE 399.

B. Manufacturer shall have unit responsibility for the equipment and protective device coordination.

1.05 Sequencing and Scheduling

A. An initial, complete short circuit and arc flash study must be submitted and reviewed before Engineer will approve Shop Drawings for switchgear, unit sub stations, breakers, MCC'S, switchboard, VFD'S, manufactured industrial control panels and circuit breaker panelboard equipment. Failure to do so will delay the approval of major equipment submittals.

B. The short circuit, protective device coordination and arc flash studies shall be updated prior to Project Substantial Completion. Utilize characteristics of as-installed equipment actual wire run lengths and materials.

Part 2 Products

2.01 General

A. Contractor shall furnish all field data as required for the power system studies. The Engineer performing the short-circuit, protective device coordination and arc flash hazard analysis studies shall furnish the Contractor with a listing of required data immediately after award of the contract. The Contractor shall expedite collection of the data to eliminate unnecessary delays and assure completion of the studies as required for final approval of the distribution equipment shop drawings and/or prior to the release of the equipment for manufacturing.

B. Source combination may include present and future utility supplies, motors, and generators.

C. Load data utilized may include existing and proposed loads obtained from Contract Documents provided by Owner or Contractor.

D. Equipment and component titles used in the studies shall be identical to the equipment and component titles shown on the Drawings.

E. Perform studies using digital computer with a software package such as SKM Power*Tools for Windows™ DAPPER™, CAPTOR™ and ARC FLASH™, or

approved equal.

F. Perform complete fault calculations for all busses on utility and generator power sources. Perform load flow and voltage drop studies for major feeders and loads with long feeder runs. Analysis shall include expected fault currents at industrial control panels manufactured in accordance with UL 508A and NEC article 409.

G. Fault source combinations shall include large motors, large transformers, utility and generator.

H. Utilize proposed and existing load data for the study obtained from Contract Documents and field survey. Coordinate with local power utility for available fault currents from utility services.

I. Existing Equipment:

1. Include fault contribution of existing motors, services, generators and equipment, as appropriate, in the study.

2. Obtain required existing equipment data from the field and FPL.

J. Provide a comprehensive report document containing the short circuit, device coordination and arc flash studies. As a minimum the report structure shall contain the following:

1. Executive Summary.

2. Methodology.

3. One Line Diagram(s).

4. Short Circuit Analysis.

5. Short Circuit Analysis Results/Conclusions/Recommendations.

6. Device Coordination Analysis.

7. Recommended protective devices settings.

8. Arc Flash Analysis.

9. Arc Flash PPE recommendations.

2.02 Short Circuit Study

A. General:

1. Use cable impedances based on copper conductors. Use actual conductor impedances if know. If unknown, use typical conductor impedances based on IEEE Standards 141, latest edition.

2. Use bus impedances based on copper bus bars.

3. Use cable and bus resistances calculated at 25 degrees C.

4. Use 600-volt cable reactances based on use of typical data of conductors to be used in this project.

5. Use transformer impedances 92.5 percent of "nominal" impedance based on tolerances specified in ANSI C57.12.00.

B. Provide:

1. Calculation methods and assumptions.

2. Selected base per unit quantities.

3. One-line diagrams annotated with results of short circuit analysis including:

a. Three phase, line-to-line and single line to ground faults.

b. Equipment Short Circuit Rating.

4. Source impedance data, including electric utility system and motor fault contribution characteristics.

5. DAPPER™ Short circuit report, demand load report, load flow report and input data reports.

6. Results, conclusions, and recommendations.

C. Calculate short circuit interrupting and momentary (when applicable) duties for an assumed symmetrical three-phase bolted fault, bolted line-to-ground fault, and bolted line-to-line fault at each:

1. Electric utility's supply termination point.

2. Main breakers, generator breakers and feeder breakers.

3. Low voltage switchgear, switchboard and/or distribution panelboard.

4. Unit substations.

5. Motor control centers.

6. Standby generator.

7. Automatic Transfer Switch (if applicable).

8. All branch circuit panelboards.

9. Variable Frequency Drives.

10. Industrial control panels manufactured in accordance with UL 508A and NEC article 409.

11. Other significant locations throughout the system.

12. Future load contributions as shown on one-line diagram.

D. Protective Device Evaluation:

1. Evaluate equipment and protective devices and compare to short circuit ratings Verify all equipment, main breakers, ATS, and protective devices are applied within their ratings.

2. Adequacy of switchgear, switchboards, motor control centers, unit substations and panelboard bus bar bracing to withstand short-circuit stresses.

3. Adequacy of transformer windings to withstand short-circuit stresses.

4. Cable and busway sizes for ability to withstand short-circuit heating besides normal load currents.

5. Notify Owner in writing, of existing, circuit protective devices improperly rated for the calculated available fault current.

E. Through the General Contractor, furnish expected fault currents for industrial control panels, constructed and installed under other divisions and specifications of this contract, to the panel builder for his coordination with meeting the requirements of UL 508A and NEC article 409.

2.03 Protective Device Coordination Study

A. Proposed protective device coordination time-current curves for distribution system, graphically displayed on log-log scale paper. Time Current Curve plots from SKM CAPTOR™ program are acceptable.

B. Each curve sheet to have title and one-line diagram with legend identifying the specific portion of system associated with time-current curves on that sheet.

C. Terminate device characteristic curves at a point reflecting maximum symmetrical or asymmetrical fault current to which device is exposed.

D. Identify device associated with each curve by manufacturer type, function, and, if applicable, tap, time delay, and instantaneous settings recommended.

E. Perform device coordination on time-current curves for low voltage distribution system(s).

F. Provide Individual protective device time-current characteristics on log-log paper or software generated graphs.

G. Plot Characteristics on Curve Sheets:

1. Electric utility's relays or protective device (if applicable).

2. Electric utility's fuses including manufacturer's minimum melt, total clearing, tolerance, and damage bands (if applicable).

3. Medium voltage equipment relays (if applicable).

4. Medium and low voltage fuses including manufacturer's minimum melt, total clearing, tolerance, and damage bands.

5. Low voltage equipment circuit breaker trip devices, including manufacturer’s tolerance bands.

6. Transformer full-load current, magnetizing inrush current, and ANSI transformer withstand parameters.

7. Transformer damage curves.

8. Conductor damage curves.

9. ANSI transformer with stand parameters.

10. Significant symmetrical and asymmetrical fault currents.

11. Ground fault protective devices and settings (if applicable).

12. Pertinent motor starting characteristics and motor damage points.

13. Pertinent generator short circuit decrement curve and generator damage point.

14. Circuit breaker panelboard main breakers, where appropriate.

15. Motor circuit protectors for major motors.

H. Provide adequate time margins between device characteristics such that selective operation is provided, while providing proper protection.

I. Primary Protective Device Settings for Delta-Wye Connected Transformer:

1. Secondary Line-to-Ground Fault Protection: Primary protective device operating band within the transformer's characteristics curve, including a point equal to 58 percent of ANSI C57.12.00 withstand point.

2. Secondary Line-To-Line Faults: 16 percent current margin between primary protective device and associated secondary device characteristic curves.

J. Separate medium voltage relay characteristics curves from curves for other devices by at least 0.4-second time margin.

2.04 Arc Flash Analysis

A. Perform incident energy calculations in accordance with IEEE 1584-2002 Guide for Performing Arc Flash Hazard Calculations for all equipment analyzed in the short circuit study. Tabular results and recommended labels from SKM ARC FLASH™ are acceptable.

B. When appropriate, the short circuit calculations and the clearing times of the phase overcurrent devices will be retrieved from the short-circuit and coordination study model.

C. The flash protection boundary and the incident energy shall be calculated at all significant locations in the electrical distribution system (switchboards, switchgear, motor-control centers, panelboards, bussway and unit substations, variable frequency drives, industrial control panels) where work could be performed on energized parts.

D. The Arc-Flash Hazard Analysis shall include all medium voltage, low voltage and significant locations in 240 volt and 208 volt systems fed from transformers equal to or greater than 125 kVA. Arc-Flash Hazard Analysis on low voltage systems 120V and below is not required.

E. Safe working distances shall be specified for calculated fault locations based upon the calculated arc flash boundary considering an incident energy of 1.2 cal/cm2.

F. The Arc Flash Hazard analysis shall include calculations for maximum and minimum contributions of fault current magnitude. The minimum calculation shall assume that

the utility contribution is at a minimum and shall assume a minimum motor load. Conversely, the maximum calculation shall assume a maximum contribution from the utility and shall assume motors to be operating under full-load conditions.

G. Arc flash computation shall include both line and load side of main breaker calculations, where necessary.

H. Arc Flash calculations shall be based on actual overcurrent protective device clearing time. Maximum clearing time will be capped at 2 seconds based on IEEE 1584-2002 section B.1.2.

I. Furnish recommendations for Personal Protective Equipment, in accordance with OSHA standards, and proper labels to be located on the electrical equipment in accordance with NEC Article 110.16.

J. Use manufacturer data for: enclosure type; gap between exposed conductors or buss way; grounding type; number of phases and connection; and working distance.

2.05 Tabulations

A. Input Data:

1. Utility three-phase and line-to-ground available contribution with associated X/R ratios.

2. Short circuit reactances of rotating machines and associated X/R ratios.

3. Cable type, construction, size, quantity per phase, length, impedance and conduit type.

4. Bus data, including impedance.

5. Transformer primary & secondary voltages, winding configurations, kVA rating, impedance, and X/R ratio.

B. Short Circuit Data:

1. Source fault impedance and generator contributions.

2. X to R ratios.

3. Asymmetry factors.

4. Motor contributions.

5. Short circuit kVA.

6. Symmetrical and asymmetrical fault currents.

C. Recommended Protective Device Settings:

1. Phase and ground relays:

a. Relay name.

b. Device number.

c. Description.

d. TCC catalog number.

e. Short circuit ratings.

f. Current transformer ratio.

g. Current tap.

h. Time dial setting (as applicable).

i. Instantaneous pickup setting (as applicable).

j. Ground fault setting (as applicable).

k. Specialty, non-overcurrent device settings.

l. Recommendations on improved relaying systems, if applicable.

2. Circuit Breakers:

a. Breaker name.

b. Breaker Description.

c. Model number.

d. TCC catalog number.

e. Short circuit rating.

f. Frame/Sensor rating.

g. Adjustable pickups and time delays (long time, short time, ground).

h. Adjustable time-current characteristic.

i. Adjustable instantaneous pickup.

j. Recommendations on improved trip systems, if applicable.

3. Motor Circuit Protectors (MCP):

a. MCP name.

b. MCP Description.

c. Model number.

d. TCC catalog number.

e. Short circuit rating.

f. Frame/Sensor rating.

g. Instantaneous settings.

4. Fuses:

a. Fuse name.

b. Fuse Description.

c. Model number.

d. TCC catalog number.

e. Short circuit rating.

f. Fuse rating.

D. Incident energy and flash protection boundary calculations.

1. Arcing fault magnitude

2. Device clearing time

3. Duration of arc

4. Arc flash boundary

5. Working distance

6. Incident energy

7. Hazard Risk Category

8. Recommendations for arc flash energy reduction

2.06 Study Analyses

A. Written Summary:

1. Scope of studies performed.

2. Explanation of bus and branch numbering system.

3. Prevailing conditions.

4. Selected equipment deficiencies.

5. Results of short circuit and coordination studies.

6. Comments or suggestions.

B. Suggest changes and additions to equipment rating and/or characteristics.

C. Notify Engineer in writing of existing circuit protective devices improperly rated for new fault conditions.

Part 3 Execution

3.01 General

A. Adjust relay and protective device settings according to values established by coordination study.

B. Make minor modifications to equipment as required to accomplish conformance with the short circuit and protective device coordination studies.

C. Notify Engineer in writing of any required major equipment modifications.

END OF SECTION

Part 1 General

1.01 References

A. The following is a list of standards that may be referenced in this section:

1. American National Standards Institute (ANSI):

   a. C55,1, Standard for Shunt Power Capacitors.

   b. C62.11, Standard for Metal-Oxide Surge Arrestors for AC Circuits.

   c. Z55.1, Gray Finishes for Industrial Apparatus and Equipment.

2. American Society for Testing and Materials (ASTM):

   a. A167, Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

   b. A240, Standard Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels.

   c. A570, Standard Specification for Steel, Sheet, and Strip, Carbon, Hot-Rolled, Structural Quality.

3. Federal Specifications (FS):

   a. W-C-596, Connector, Receptacle, Electrical.

   b. W-S-896E, Switches, Toggle, Flush Mounted.

4. National Electrical Contractor's Association, Inc. (NECA): 5055, Standard of Installation.

5. National Electrical Manufacturers Association (NEMA):

   a. 250, Enclosures for Electrical Equipment (1000 Volts Maximum).

   b. AB 1, Molded Case Circuit Breakers and Molded Case Switches.

   c. CP I, Shunt Capacitors.

   d. ICS 2, Industrial Control Devices, Controllers, and Assemblies.

   e. KS 1, Enclosed Switches.

f. LA I, Surge Arrestors.

g. PB 1, Panelboards.

h. ST 20, Dry-Type Transformers for General Applications.

i. WD I, General Requirements for Wiring Devices.

6. National Fire Protection Association (NFPA): 70, National Electrical Code (NEC).

7. Underwriters Laboratories, Inc. (UL):

a. 67, Standard for Panelboards.

b. 98, Standard for Enclosed and Dead-Front Switches.

c. 198C, Standard for Safety High-Intermpting-Capacity Fuses, Current-Limiting Types.

d. 198E, Standard for Class Q Fuses.

e. 486E, Standard for Equipment Wiring Terminals.

f. 489, Standard for Molded Case Circuit Breakers and Circuit Breaker Enclosures.

g. 508, Standard for Industrial Control Equipment.

h. 810, Standard for Capacitors.

i. 943, Standard for Ground-Fault Circuit Interrupters.

j. 1059, Standard for Terminal Blocks.

k. 1561, Standard for Dry-Type General-Purpose and Power Transformers.

1.02 Submittals

A. Shop Drawings:

1. Device boxes for use in hazardous areas.

2. Junction and pull boxes used at, or below, grade.

3. Hardware.

4. Terminal junction boxes.

5. Panelboards and circuit breaker data.

6. Fuses.

7. Contactors.

8. Transformers.

9. All other miscellaneous material part of this project.

10. Wire pulling compound.

B. Quality Control Submittals: Test Report: Sound test certification for dry type power transformers (O to 600-volt, primary).

1.03 Quality Assurance

A. UL Compliance: Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

B. Hazardous Areas: Materials and devices shall be specifically approved for hazardous areas of the class, division, and group shown and of a construction that will ensure safe performance when properly used and maintained.

C. Contractor may use an “or equal” product and manufacturer for the products and manufacturers called for in these specifications. If the Contractor proposes to use an “or equal”, product or manufacturer, other than those listed in the specifications, approval from the Engineer of Record must be obtained prior to bidding.

1.04 Spare Parts

Furnish, tag, and box for shipment and storage the following spare parts: Fuses, 0 to 600 Volts: Six of each type and each current rating installed.

Part 2 Products

2.01 Outlet and Device Boxes

A. Sheet Steel: One-piece drawn type, zinc- or cadmium-plated.

B. Not Used

C. Cast Aluminum:

1. Material:

   a. Box: Cast, copper-free aluminum.

   b. Cover: Gasketed, weatherproof, cast copper-free aluminum with stainless steel screws.

2. Hubs: Threaded.

3. Lugs: Cast mounting.

4. Manufacturers:

   a. Crouse-Hinds; Type FS-SA or FD-SA or approved equal.

   b. Appleton; Type FS or FD or approved equal.

D. Not Used

E. Nonmetallic:

1. Box: PVC.

2. Cover: PVC, weatherproof, with stainless steel screws.

3. Manufacturer: Carlon; Type FS or FD, with Type E98 or E96 covers or approved equal.

2.02 Junction and Pull Boxes

A. Outlet Boxes Used as Junction or Pull Box: As specified under Article OUTLET AND DEVICE BOXES.

B. Large Sheet Steel Box: NEMA 250, Type 1.

1. Box: Code-gauge, galvanized steel.

2. Cover: Full access, screw type.

3. Machine Screws: Corrosion-resistant.

C. Large Cast Metal Box: NEMA 250, Type 4.

1. Box: Cast malleable iron, hot-dip galvanize finished, with drilled and tapped conduit entrances.

2. Cover: Hinged with screws.

3. Hardware and Machine Screws: ASTM A167, Type 316 stainless steel.

4. Manufacturers, Surface Mounted Type:
   a. Crouse-Hinds; Series W or approved equal.

   b. O.Z./Gedney; Series Y or approved equal.

5. Manufacturers, Recessed Type:

   a. Crouse-Hinds; Type WJBF or approved equal.

   b. O.Z./Gedney; Series YR or approved equal.

D. Large Stainless Steel Box: NEMA 250, Type 4X.

1. Box: 14-gauge, ASTM A240, Type 304 stainless steel.

2. Cover: Hinged with screws.

3. Hardware and Machine Screws: ASTM A167, Type 304 stainless steel.

4. Manufacturers:

   a. Hoffman Engineering Co. or approved equal

   b. Robroy Industries or approved equal.

E. Large Steel Box: NEMA 250, Type 4.

1. Box: 12-gauge steel, with white enamel painted interior and gray primed exterior, over phosphated surfaces, with final ANSI Z55.1, No. 61 gray enamel on exterior surfaces.

2. Cover: Hinged with screws.

3. Hardware and Machine Screws: ASTM A167, Type 316 stainless steel.

4. Manufacturers:

   a. Hoffman Engineering Co. or approved equal

   b. Robroy Industries or approved equal.

F. Large Nonmetallic Box:

1. NEMA 250, Type 4X.

2. Box: High-impact, fiberglass-reinforced polyester or engineered thermoplastic, with stability to high heat.
3. Cover: Hinged with screws.

4. Hardware and Machine Screws: ASTM A167, Type 316 stainless steel.

5. Conduit hubs and mounting lugs.

6. Manufacturers:

a. Crouse-Hinds; Type NJB or approved equal.

b. Carlon; Series N, C, or H or approved equal.

c. Robroy Industries or approved equal.

G. Concrete Box:

1. Box: Reinforced, cast concrete.

2. Cover: Cast iron.

3. Cover Marking: ELECTRICAL, TELEPHONE, or as shown.

4. Manufacturers:

a. Brooks Products Inc.; No. 36/36T or approved equal.

b. Qwikset; W 17 or approved equal.

2.03 Floor Boxes – Not Used

2.04 Telephone Terminal Cabinet (TTC) – Not Used

2.05 Wiring Devices

A. Switches:

1. NEMA WD I and FS W-S-896E.

2. Specification grade, totally-enclosed, ac type, with quiet tumbler switches and screw terminals.

3. Capable of controlling 100 percent tungsten filament and fluorescent lamp loads.

4. Rating: 20 amps, 120/277 volts.

5. Color:

   a. Office Areas: Ivory.

   b. Other Areas: Brown.

6. Switches with Pilot Light: 125-volt, neon light with red jewel, or lighted toggle when switch is ON.

7. Manufacturers:

   a. Bryant or approved equal.

   b. Leviton or approved equal.

   c. Hubbell or approved equal.

   d. Pass and Seymour or approved equal.

   e. Arrow Hart or approved equal.

B. Receptacle, Single and Duplex:

1. NEMA WD 1 and FS W-C-596.

2. Specification grade, two-pole, three-wire grounding type with screw type wire terminals suitable for No. 10 AWG.

3. High strength, thermoplastic base color.

4. Color:

   a. Office Areas: Ivory.

   b. Other Areas: Brown.

5. Contact Arrangement: Contact to be made on two sides of each inserted blade without detent.

6. Rating: 125 volts, NEMA WD 1, Configuration 5-20R, 20 amps.

7. Manufacturers:

   a. Bryant or approved equal.

   b. Leviton or approved equal.
   c. Hubbell or approved equal.

   d. Pass and Seymour or approved equal.

   e. Sierra or approved equal.

   f. Arrow Hart or approved equal.

C. Receptacle, Ground Fault Circuit Interrupter: Duplex, specification grade, tripping at 5 mA.

   1. Color: Ivory.

   2. Rating: 125 volts, NEMA WD 1, Configuration 5-20R, 20 amps, capable of interrupting 5,000 amps without damage.

   3. Size: For 2-inch by 4-inch outlet boxes.

   4. Standard Model: NEMA WD 1 with No. 12 AWG copper USE/RHH/RHW-XLPE insulated pigtails and provisions for testing.

   5. Feed-Through Model: NEMA WD 1, with No. 12 AWG copper USE/RHH/RHW-XLPE insulated pigtails and provisions for testing.

   6. Manufacturers:

      a. Pass and Seymour or approved equal.

      b. Bryant or approved equal.

      c. Leviton or approved equal.

      d. Hubbell or approved equal.

      e. Arrow Hart or approved equal.

D. Receptacle, Special-Purpose:

   1. Rating and number of poles as indicated or required for anticipated purpose.

2. Matching plug with cord-grip features for each special-purpose receptacle.

E. Multioutlet Surface Raceway System: Three-wire grounding receptacles, spaced on 6-inch centers with insulated grounding conductor to each receptacle.

1. Color: Gray with black receptacles.
2. Manufacturers:

a. Plugmold; 2000 or approved equal.

b. Walker; Duct 2GW or approved equal.

2.06 Device Plates

A. General: Sectional type plates not permitted.

B. Plastic:

1. Material: Specification grade, 0.10-inch minimum thickness, noncombustible, thermosetting.

2. Color: To match associated wiring device.

3. Mounting Screw: Oval-head metal, color matched to plate.

C. Metal:

1. Material: Specification grade, one-piece, 0.040-inch nominal thickness stainless steel.

2. Finish: ASTM A167, Type 302/304, satin.

3. Mounting Screw: Oval-head, finish matched to plate.

D. Cast Metal:

1. Material: Malleable ferrous metal, with gaskets.

2. Screw: Oval-head stainless steel.

E. Engraved:

1. Character Height: 3/16 inch.

2. Filler: Black.

F. Weatherproof:

1. For Receptacles: Gasketed, cast metal or stainless steel, with individual cap over each receptacle opening.

2. Mounting Screw: Stainless steel.
   a. Cap Spring: Stainless steel.

   b. Manufacturers:

      1) General Electric or approved equal.

      2) Bryant or approved equal.

      3) Hubbell or approved equal.

      4) Sierra or approved equal.

      5) Pass and Seymour or approved equal.

      6) Crouse-Hinds; Type WLRD or WLRS or approved equal.

      7) Bell or approved equal.

      8) Arrow Hart or approved equal.

3. For Switches: Gasketed, cast metal incorporating external operator for internal switch.

   a. Mounting Screw: Stainless steel.

   b. Manufacturers:

      1) Crouse-Hinds; DS-181 or DS-185 or approved equal.

      2) Appleton; FSK-LVTS or FSK-IVS or approved equal.

G. Raised Sheet Metal: 1/2-inch high zinc- or cadmium-plated steel designed for one-piece drawn type sheet steel boxes.

2.07 Lighting and Power Distribution Panelboard (LP, IP, and PP Panel)

A. NEMA PB I, NFPA 70, and UL 67, including panelboards installed in motor control equipment.

B. Panelboards and Circuit Breakers: Suitable for use with 75 degrees C wire at full

NFPA 70, 75 degrees C ampacity.

C. Short-Circuit Current Equipment Rating: Fully rated; series connected unacceptable.

D. Rating: If not otherwise shown in plans. Applicable to a system with available short-circuit current of 25,000 amperes rms symmetrical at 208Y/120 or 120/240 volts and 65,000 amperes rms symmetrical at 480Y/277 volts.

E. Where ground fault interrupter circuit breakers are indicated or required by code: 5 mA trip, 10,000 amps interrupting capacity circuit breakers.

F. Cabinet: As shown on plans.

G. Bus Bar:

1. Material: Copper, full sized throughout length.

2. Provide for mounting of future circuit breakers along full length of bus regardless of number of units and spaces shown. Machine, drill, and tap as required for current and future positions.

3. Neutral: Insulated, rated 150 percent of phase bus bars with at least one terminal screw for each branch circuit.

4. Ground: Copper, installed on panelboard frame, bonded to box with at least one terminal screw for each circuit.

5. Lugs and Connection Points:

a. Suitable for either copper or aluminum conductors.

b. Solderless main lugs for main, neutral, and ground bus bars.

c. Subfeed or through-feed lugs as shown.

6. Bolt together and rigidly support bus bars and connection straps on molded insulators.

H. Circuit Breakers:

1. NEMA AB 1 and UL 489.

2. Thermal-magnetic, quick-make, quick-break, molded case, of the indicating type showing ON/OFF and TRIPPED positions of operating handle.

3. Noninterchangeable, in accordance with NFPA 70.

4. Locking: Provisions for handle padlocking, unless otherwise shown.

5. Type: Bolt-on circuit breakers in all panelboards.

6. Multipole circuit breakers designed to automatically open all poles when an overload occurs on one pole.

7. Do not substitute single-pole circuit breakers with handle ties for multipole breakers.

8. Do not use tandem or dual circuit breakers in normal single-pole spaces.

9. Ground Fault Interrupter:

   a. Equip with conventional thermal-magnetic trip and ground fault sensor rated to trip in 0.025 second for a 5-milliampere ground fault (UL 943, Class A sensitivity).

   b. Sensor with same rating as circuit breaker and a push-to-test button

I. Metering (Panelboard Hvlp-1):

1. Panelboard HVLP-1 shall have integral microprocessor based metering equipment.

2. The meter shall be UL and RoHS compliant.

3. Meter shall be designed for multifunction electrical measurement on 3 phase power systems.

4. The measured energy consumption shall be retained in non-volatile ferromagnetic memory.

5. The power meter shall support alerts for low power factor (phase current or voltage miss-wired), current over range, voltage over range, and frequency out of range.

6. The meter shall be able to monitor and display phase and average current and voltage, frequency, phase and average power factor, and phase and total power (apparent, reactive, and real)

7. The meter shall meet the accuracy requirements of ANSI C12.20 (Class 0.5%) and IEC62053-22 Class .5S for real power and energy and Class 2 for reactive power and energy accuracy specifications.

8. The meter shall provide true RMS measurements of voltage, phase to neutral and phase to phase; current, per phase.

9. The meter shall provide sampling at 42 samples per cycle on all channels measured readings simultaneously.

10. Meter shall provide update rate for parameters of 1 second.

11. The meter shall include a multi-line backlit LCD display showing measured parameters as well as alarm functions and pulse output.

12. An IP40 faceplate rating shall be available for the meter.

13. The meter shall include 1 optional independent communication port.

14. The meter shall provide user configured fixed window or sliding window demand. This shall allow the user to set up the particular utility demand profile.

15. Readings and peak for kW, kVAR, and kVA shall be calculated using utility demand features.

16. The power meter shall have demand measurement programmable for up to 6 sub-intervals of 10 seconds to 546 minutes duration.

17. The meter shall be capable of operating on a power supply of 90 to 600 Volts AC and 125 to 300 Volts DC.

18. The power meter shall have separate control power inputs such that may be powered from a different service than it measures.

19. Meter shall be able to be stored in (-40 to +85) degrees C and (-10 to +60) degrees C for the display.

20. Operating temperature for the meter shall be (-30 to +70) degrees C and (10 to 50) degrees C for the display.

21. Panelboard shall be type Eaton Pow-R-Line IQ35M or approved equal

J. Manufacturers:

1. Eaton or approved equal

2. Or approved equal or approved equal.

2.08 Not Used

2.09 Circuit Breaker, Individual, 0 To 600 Volts

A. NEMA AB I, UL 489 listed for use at location of installation.

B. Minimum Interrupt Rating: As shown or as required.

C. Thermal-magnetic, quick-make, quick-break, indicating type, showing ON/OFF and TRIPPED indicating positions of the operating handle.

D. Suitable for use with 75 degrees C wire at full NFPA 70, 75 degrees C ampacity.

E. Locking: Provisions for padlocking handle.

F. Multipole breakers to automatically open all poles when an overload occurs on one-pole.

G. Enclosure: NEMA 250, Type 12, Industrial Use, 4X - outdoors, wet locations and corrosive areas, unless otherwise shown.

H. Interlock: Enclosure and switch shall interlock to prevent opening cover with switch in the ON position.

I. Do not provide single-pole circuit breakers with handle ties where multipole circuit breakers are shown.

2.10 Fused Switch, Individual, 0 To 600 Volts

A. UL 98 listed for use and location of installation.

B. NEMA KS 1 and UL 98 Listed for application to system with available short circuit current of 22,000 amps rms symmetrical.

C. Quick-make, quick-break, motor rated, load-break, heavy-duty (HD) type with external markings clearly indicating ON/OFF positions.

D. Suitable for use with 75 degrees C wire at full NFPA 70, 75 degrees C ampacity.

E. Fuse mountings shall reject Class H fuses and accept only current-limiting fuses specified.

F. Enclosure: NEMA 250, Type 12, Industrial Use, 4X - outdoors, wet locations and corrosive areas, unless otherwise shown.

G. Interlock: Enclosure and switch to prevent opening cover with switch in the ON position.

2.11 Nonfused Switch, Individual, 0 To 600 Volts

A. NEMA KS 1.

B. Quick-make, quick-break, motor rated, load-break, heavy-duty (HD) type with external markings clearly indicating ON/OFF positions.

C. Suitable for use with 75 degrees C wire at full NFPA 70, 75 degrees C ampacity.

D. Enclosure: NEMA 250, Type 12, industrial use, 4X- outdoors, wet locations and corrosive areas, unless otherwise shown.

E. Interlock: Enclosure and switch to prevent opening cover with switch in the ON position.

2.12 Fuse, 0 To 600 Volts

A. Current-limiting, with 200,000 ampere rms interrupting rating.

B. Provide to fit mountings specified with switches and features to reject Class H fuses.

C. Motor and Transformer Circuits, 0- to 600-Volt:

1. Amperage: 0 to 600.

2. UL 198E, Class RK-1, dual element, with time delay.

3. Manufacturers:

a. Bussmann; Type LPS-RK or approved equal.

b. Littlefuse; Type LLS-RK or approved equal.

D. Motor and Transformer Circuits, 0- to 250-Volt:

1. Amperage: 0 to 600.

2. UL 198E, Class RK-1, dual element, with time delay.

3. Manufacturers:

a. Bussmann; Type LPN-RK or approved equal.

b. Littlefuse; Type LLN-RK or approved equal.

E. Feeder and Service Circuits, 0- to 600-Volt:

1. Amperage: 0 to 600.
2. UL 198E, Class RK-I, dual element, with time delay.
3. Manufacturers:
   a. Bussmann; Type LPS-RK or approved equal.
   b. Littlefuse; Type LLS-RK or approved equal.

F. Feeder and Service Circuits, O- to 250-Volt:

1. Amperage: 0 to 600.
2. UL 198E, Class RK-I, dual element, with time delay.
3. Manufacturers:
   a. Bussmann; Type LPN-RK or approved equal.
   b. Littleluse; Type LLN-RK or approved equal.

G. Feeder and Service Circuits, 0- to 600-Volt:

1. Amperage: 601 to 6,000.
2. UL 198C, Class L, double O-rings and silver links.
3. Manufacturers:
   a. Bussmann; Type KRP-C or approved equal.
   b. Littlefuse; Type KLPC or approved equal.

2.13 Pushbutton, Indicating Light, and Selector Switches

A. Contact Rating: NEMA ICS 2, Type A600.

B. Selector Switch Operating Lever: Standard.

C. Indicating Lights: Push-to-test.

D. Pushbutton Color:

1. ON or START: Black.

2. OFF or STOP: Red.

E. Pushbuttons and selector switches lockable in the OFF position where indicated.

F. Legend Plate:

1. Material: Aluminum.

2. Engraving: 11 character/spaces on one line, 14 character/spaces on each of two lines, as required, indicating specific function.

3. Letter Height: 7/64 inch.

G. Manufacturers:

1. Heavy-Duty, Oiltight Type:

a. General Electric; Type CR 104P or approved equal.

b. Square D; Type T or approved equal.

c. Cutler-Hammer; Type 10250T or approved equal.

2. Heavy-Duty, Watertight, and Corrosion-Resistant Type:

a. Square D; Type SK or approved equal.

b. General Electric; Type CR 104P or approved equal.

c. Cutler-Hammer; Type E34 or approved equal.

d. Crouse-Hinds; Type NCS or approved equal.

2.14 Terminal Junction Box

A. Cover: Hinged, unless otherwise shown.

B. Terminal Blocks: Provide separate connection point for each conductor entering or leaving box. Spare Terminal Points: 25 percent.

C. Interior Finish: Paint with white enamel or lacquer.

2.15 Terminal Block (0 To 600 Volts)

A. UL 486E and UL 1059.

B. Size components to allow insertion of necessary wire sizes.

C. Capable of termination of all control circuits entering or leaving equipment, panels, or boxes.

D. Screw clamp compression, dead front barrier type, with current bar providing direct contact with wire between the compression screw and yoke.

E. Yoke, current bar, and clamping screw of high strength and high conductivity metal.

F. Yoke shall guide all strands of wire into terminal.

G. Current bar shall ensure vibration-proof connection.

H. Terminals:

1. Capable of wire connections without special preparation other than stripping.

2. Capable of jumper installation with no loss of terminal or rail space.

3. Individual, rail mounted.

I. Marking system allowing use of preprinted or field-marked tags.

J. Manufacturers:

1. Weidmuller or approved equal.

2. Ideal or approved equal.

3. Electrovert or approved equal.

2.16 Magnetic Control Relay

A. NEMA ICS 2, Class A600 (600 volts, 10 amps continuous, 7,200VA make, 720VA break), industrial control with field convertible contacts.

B. Time Delay Relay Attachment:

1. Pneumatic type, timer adjustable from 0.2 to 60 seconds (minimum).

2. Field convertible from ON delay to OFF delay and vice versa.

C. Latching Attachment: Mechanical latch having unlatching coil and coil clearing contacts.

D. Manufacturers:

1. Cutler-Hammer; Type M-600 or approved equal.

2. General Electric; Type CR120B or approved equal.

2.17 Reset Timer

A. Drive: Synchronous motor, solenoid operated clutch.

B. Mounting: Semiflush, panel.

C. Contacts: 10-amp, 120-volt.

D. Manufacturers:

1. Eagle Signal; Bulletin 125 or approved equal.

2. Automatic Timing and Controls; Bulletin 305 or approved equal.

2.18 Elapsed Time Meter

A. Drive: Synchronous motor.

B. Range: 0 to 99,999.9 hours, nonreset type.

C. Mounting: Semiflush, panel.

D. Manufacturers:

1. General Electric; Type 240, 2-1/2-inch Big Look or approved equal.

2. Eagle Signal; Bulletin 705 or approved equal.

2.19 Magnetic Contactor

A. NEMA ICS 2, UL 508.

B. Electrically operated, electrically held.

C. Main Contacts:

1. Power driven in one direction with gravity dropout.

2. Silver alloy with wiping action and arc quenchers.

3. Continuous-duty, rated 30 amperes, 600-volt.

4. Three-pole.

D. Control: Two-wire.

E. One normally open and one normally closed auxiliary contacts rated 10 amperes at 480-volt.

F. Enclosure: NEMA 250, Type 12, unless otherwise shown.

G. Manufacturers:

1. Westinghouse; Class A211 or approved equal.

2. General Electric; CR 353 or approved equal.

3. Allen-Bradley; Bulletin 500 Line or approved equal.

2.20 Magnetic Lighting Contactor

A. NEMA ICS 2, UL 508.

B. Electrically operated by dual-acting, single coil mechanism.

C. Inherently interlocked and electrically held in both OPEN and CLOSED position.

D. Main Contacts:

1. Power driven in both directions.

2. Double-break, continuous-duty, rated 20 amperes, 600 volts, withstand rating of 22,000 amps rms symmetrical at 250 volts.

3. Marked for electric discharge lamps, tungsten, and general-purpose loads.

4. Position not dependent on gravity, hooks, latches, or semi-permanent magnets.

5. Capable of operating in any position.

6. Visual indication for each contact.

E. Auxiliary contact relay for three-wire control.

F. One normally open and one normally closed auxiliary contacts rated 10 amperes at 480-volt.

G. Fully rated neutral plate.

H. Provision for remote pilot lamp with use of auxiliary contacts.

I. Clamp type, self-rising terminal plates for solderless connections.

J. Enclosure: NEMA 250, Type 12, Dust-Tight, Drip-Tight, Industrial Use, unless otherwise shown.

K. Manufacturers:

1. ASCO or approved equal.

2. Westinghouse; Class A202 or approved equal.

3. General Electric; Class 360 or approved equal.

2.21 Industrial Capacitors

A. UL 810, NEMA CP1, ANSI C55.1, and NFPA 70, Article 460.

B. Enclosed, outdoor, weatherproof, three-phase capacitor units containing internally mounted, indicating type, high interrupting-capacity, current limiting fuses and discharge resistors.

C. Units containing PCB dielectric fluid are unacceptable.

D. Kilovar Ratings:

1. Kilovar ratings of capacitors connected to individual motor circuits were selected based on expected motor power factor.

2. Check motor nameplate and manufacturer's power factor and no-load current data for actual motor installed.

3. Reduce capacitor kVAR if required, so the size does not exceed the motor manufacturer's recommended maximum size, and so it does not exceed the value required to raise motor no-load power factor to 0.95.

4. Manufacturers:

a. ABB or approved equal.

b. Square D or approved equal.

2.22 Thermostat

A. Rating: 7.4 amps continuous, 44 amps locked rotor current at 120 volts and 3.7 amps continuous, 22 amps locked rotor current at 240 volts.

B. Line voltage, single-stage, treated to resist corrosion, dust, dirt, and humidity with sealed SPDT contacts.

C. Heating Adjustment Range: 35 to 100 degrees F.

D. Cooling or Ventilating Adjustment Range: 70 to 140 degrees F.

E. Manufacturer: Honeywell; Type T631F1084 or approved equal.

2.23 Dry Type Transformer (0- To 600-Volt Primary)

A. UL 1561, NEMA ST 20, unless otherwise indicated.

B. Self-cooled, two-winding, UL K-4 rated for nonlinear loads.

C. Insulation Class and Temperature Rise: Manufacturer's standard.

D. Core and Coil:

1. Encapsulated for single-phase units 1/2 to 25 kVA and for three-phase units 3 to 15 kVA.

2. Thermosetting varnish impregnated for single-phase units 37.5 kVA and above, and for three-phase units 30 kVA and above.

E. Enclosure:

1. Single-Phase, 3 to 25 kVA: NEMA 250, Type 3R, non-ventilated.

2. Single-Phase, 37-1/2 kVA and Above: NEMA 250, Type 2, ventilated.

3. Three-Phase, 3 to 15 kVA: NEMA 250, Type 3R, nonventilated.

4. Three-Phase, 30 kVA and Above: NEMA 250, Type 2, ventilated.

5. Outdoor Transformers: NEMA 250, Type 3R.

F. Wall Bracket: For single-phase units, 15 to 37-1/2 kVA, and for three-phase units, 15 to 30 kVA.

G. Voltage Taps:

1. Single-Phase, 3 to 10 kVA: Four 2-1/2 percent, full capacity; two above and two below normal voltage rating.

2. Single-Phase, 15 kVA and Above: Four 2-1/2 percent, full capacity; two above and two below normal voltage rating.

3. Three-Phase, 3 to 15 kVA: Four 2-1/2 percent, full capacity; two above and two below normal voltage rating.

4. Three-Phase, 30 kVA and Above: Four 2-1/2 percent, full capacity; two above and two below normal voltage rating.

H. Impedance: 4.5 percent minimum on units 75 kVA and larger.

I. Maximum Sound Level: NEMA ST 20:

1. 40 decibels for 0 to 9 kVA.

2. 45 decibels for 10 to 50 kVA.

3. 50 decibels for 51 to 150 kVA.

4. 55 decibels for 151 to 300 kVA.

5. 60 decibels for 301 to 500 kVA.

J. Vibration Isolators:

1. Rated for transformer's weight.

2. Isolation Efficiency: 99 percent, at fundamental frequency of sound emitted by transformer.

3. Less Than 30 kVA: Isolate entire unit from structure with external vibration isolators.

4. 30 kVA and Above: Isolate core and coil assembly from transformer enclosure with integral vibration isolator.

K. Manufacturers:

1. Eaton or approved equal.

2. Square D or approved equal.

2.24 Low Voltage, Secondary Surge Protective Equipment

A. NEMA LA1, ANSI C62. 11.

B. Surge Capacitor:

1. Impregnated with non-PCB, biodegradable dielectric fluid.

2. Integral discharge resistor which will drain residual voltage to 50 volts crest in less than I minute after disconnection from circuit.

C. Arrestor: High strength metal oxide valve elements enclosed in high strength, corrosion resistant, molded resin housing.

D. Equip capacitor and arrestor with mounting nipple, flat washer, and nut suitable for knockout or bracket mounting.

2.25 Support and Framing Channels

A. Material: All Areas: Aluminum

B. Finish: All Areas: Aluminum

C. Inserts: Continuous.

D. Beam Clamps: Gray cast iron.

E. Manufacturers:

1. B-Line or approved equal.

2. Unistrut or approved equal.

2.26 Nameplates

A. Material: Laminated plastic.

B. Attachment Screws: Stainless steel.

C. Color: White, engraved to a black core.

D. Engraving:

1. Pushbuttons/Selector Switches: Name of drive controlled on one, two, or three lines, as required.

2. Panelboards: Panelboard designation, service voltage, and phases.

E. Letter Height:

1. Pushbuttons/Selector Switches: 1/8 inch.

2. Panelboards: 1/4 inch.

2.27 Surge Protective Device

A. This section describes the material and installation requirements for transient voltage surge suppression devices (TVSS) or surge protective device (SPD) in switchboards, panelboards, main breaker, and motor control centers for the protection of all AC electrical circuits.

B. SPD shall be listed and component recognized in accordance with UL 1449 3rd edition and UL 1283.

C. SPD shall be installed and warranted by and shipped from the electrical distribution equipment manufacturer's factory.

D. SPD shall provide surge current diversion paths for all modes of protection; L-L, L-N, L-G, N-G in WYE systems, and L-L, L-G in DELTA systems.

E. SPD shall be modular in design. Each module shall be fused with a surge rated fuse.

F. A UL approved disconnect switch shall be provided as a means of disconnect in the switchboard device only.

G. SPD shall meet or exceed the following criteria:

1. Maximum surge current capability (single pulse rated) shall be:

a. Service entrance switchboard 300kA

b. Branch panelboards & MCC: 200kA

c. Branch panelboards: 100kA

2. UL 1449 Listed and Recognized Component Suppression Voltage Ratings shall not exceed the following:

Voltage	L-N	L-G	N-G
208Y/120	700V	700V	700V
480Y/277	1200V	1200V	1200V

H. SPD shall be UL labeled with a 20kA I-nominal (ensuring UL 96A compliance), 200kA Short Circuit Current Rating (SCCR), and labeled as a Type 1 device.

I. SPD shall be provided with 1 set of NO/NC dry contacts, visual LED diagnostics and indications.

J. SPD shall have a warranty for a period of five years, incorporating unlimited replacements of suppressor parts if they are destroyed by transients during the warranty period. Warranty will be the responsibility of the electrical distribution equipment manufacturer.

K. Manufactures are:

1. Cutler Hammer or approved equal.

2. General Electric or approved equal.

3. Siemens or approved equal.

4. Square D Company or approved equal.

5. Current Technology or approved equal.

2.28 Gas Detector

A. System Controller:

1. The system shall be a single point gas monitoring and alarming system in a NEMA 4X, UL listed enclosure for Nitric Oxide to be mounted in the maintenance facility. The system shall have integral relays, a horn for local alarming purposes, plus a failure alarm relay contact. Local LEDs (3) shall provide alarm status. Plug-in sensors for Oxygen and all common toxic and combustible gases shall be interchangeable without any reprogramming of the system.

2. The unit will display the monitored gas value on a 1.5 inch minimum height, ultra-bright, 3 digit LED display, and also have a separate display for the gas name and engineering units. 4-20 mA and RS-485 (Modbus protocol) outputs will be provided.

3. The sensor shall be temperature compensated and intelligent to minimize drift

and maintenance intervals, and will be mounted in the (floor, breathing, or ceiling) zone. The contractor will provide a one year supply of spare parts, calibration gas and kit, system start-up and training of owners' personnel. The controller shall be SensAlert 4channel, as manufactured in the USA by Sensidyne, LP in Clearwater, Florida or approved equal.

B. Remote Diesel Exhaust Smoke Sensor:

1. The Sensor Head shall be Intrinsically Safe to minimize installation-maintenance costs and employ temperature compensated, hot-swappable smart sensors, with non-volatile memory for all operating parameters. Predictive Sensor Failure function will be provided. The Universal Transmitter must automatically recognize and set-up for Electrochemical, Catalytic, and Infrared Gas Sensors.

2. The Nitric Oxide Transmitter and Sensor shall be performace tested and listed by FM and/or UL for Class 1 Division 2, Groups A, B, C and D atmospheres.

3. A large, menu-driven graphic display for Gas Name or type, measured value, units, and maintenance functions, password protected per the ISA Standard, shall be provided. (LEDs will confirm interface actions and annunciate the standard and optional alarm relays.)

4. The transmitter must perform continuous diagnostics and produce user configurable alarms including Value, TWA, and PSF, with one (four) standard relay(s) and a warning on the current loop. A 4-20 mA output capable of driving 600 Ω at 24 VDC transmitter terminal voltage is required.

5. The Vendor shall furnish a priced spare parts list for two years operation and a calibration kit with one year's gas supply. A factory technician will commission the system and train the owner's personnel.

6. The gas detection shall be SensAlert Plus, as manufactured in the USA by Sensidyne, LP in Clearwater, Florida or approved equal.

Part 3 Execution

3.01 General

Install equipment in accordance with NECA 5055.

3.02 Outlet And Device Boxes

A. Install suitable for conditions encountered at each outlet or device in the wiring or raceway system, sized to meet NFPA 70 requirements.

B. Size:

1. Depth: Minimum 2 inches, unless otherwise required by structural conditions. Box extensions not permitted. Hollow Masonry Construction: Install with sufficient depth such that conduit knockouts or hubs are in masonry void space.

2. Ceiling Outlet: Minimum 4-inch octagonal sheet steel device box, unless otherwise required for installed fixture.

3. Switch and Receptacle: Minimum 2-inch by 4-inch sheet steel device box.

C. Locations:

1. Drawing locations are approximate.

2. To avoid interference with mechanical equipment or structural features, relocate outlets as directed by ENGINEER.

3. Light Switch: Install on lock side of doors.

4. Light Fixture: Install in symmetrical pattern according to room layout unless otherwise shown.

D. Mounting Height:

1. General:

a. Measured to centerline of box.

b. Where specified heights do not suit building construction or finish, mount as directed by ENGINEER.

2. Light Switch: 48 inches above floor.

3. Thermostat: 54 inches above floor.

4. Telephone Outlet: 6 inches above counter tops or 18 inches above floor.

5. Wall Mounted Telephone Outlet: 52 inches above floor.

6. Convenience Receptacle:

a. General Interior Areas: 18 inches above floor.

b. General Interior Areas (Counter Tops): Install device plate bottom or side flush with top of splashback, or 6 inches above countertops without splashback.

c. Industrial Areas, Workshops: 48 inches above floor.

d. Outdoor, All Areas: 24 inches above finished grade.

7. Special-Purpose Receptacle: 54 inches above floor or as shown.

E. Install plumb and level.

F. Flush Mounted:

1. Install with concealed conduit.

2. Install proper type extension rings or plaster covers to make edges of boxes flush with finished surface.

3. Holes in surrounding surface shall be no larger than required to receive box.

G. Support boxes independently of conduit by attachment to building structure or structural member.

H. Install bar hangers in frame construction, or fasten boxes directly with wood screws on wood, bolts and expansion shields on concrete or brick, toggle bolts on hollow masonry units, and machine screws threaded into steelwork.

I. Threaded studs driven in by powder charge and provided with lock washers and nuts are acceptable in lieu of expansion shields.

J. Provide plaster rings where necessary.

K. Boxes embedded in concrete or masonry need not be additionally supported.

L. Install stainless steel mounting hardware in industrial areas.

M. Boxes Supporting Fixtures: Provide means of attachment with adequate strength to support fixture.

N. Open no more knockouts in sheet steel device boxes than are required; seal unused openings.

O. Not Used

P. Box Type (Rigid Aluminum Raceway System): Cast aluminum.

Q. Box Type (Nonmetallic Raceway System):

1. Corrosive Locations: Nonmetallic.

2. Exposed Raceways: Nonmetallic.

3. Concealed Raceways: Nonmetallic.

4. Concrete Encased Raceways: Nonmetallic.

R. Not Used

3.03 Junction and Pull Boxes

A. Install where shown and where necessary to terminate, tap-off, or redirect multiple conduit runs.

B. Install pull boxes where necessary in raceway system to facilitate conductor installation.

C. Install in conduit runs at least every 150 feet or after the equivalent of three right-angle bends.

D. Use outlet boxes as junction and pull boxes wherever possible and allowed by applicable codes.

E. Installed boxes shall be accessible.

F. Do not install on finished surfaces.

G. Install plumb and level.

H. Support boxes independently of conduit by attachment to building structure or structural member.

I. Install bar hangers in frame construction, or fasten boxes directly with wood screws on wood, bolts and expansion shields on concrete or brick, toggle bolts on hollow masonry units, and machine screws or welded threaded studs on steelwork.

J. Threaded studs driven in by powder charge and provided with lock washers and nuts are acceptable in lieu of expansion shields.

K. Boxes embedded in concrete or masonry need not be additionally supported.

L. At or Below Grade:

1. Install boxes for below grade conduits flush with finished grade in locations outside of paved areas, roadways, or walkways.

2. If adjacent structure is available, box may be mounted on structure surface just above finished grade in accessible but unobtrusive location.

3. Obtain ENGINEER's written acceptance prior to installation in paved areas, roadways, or walkways.

4. Use boxes and covers suitable to support anticipated weights.

M. Flush Mounted:

1. Install with concealed conduit.

2. Holes in surrounding surface shall be no larger than required to receive box.

3. Make edges of boxes flush with final surface.

N. Mounting Hardware:

1. Noncorrosive Interior Areas: Zinc Plated Steel.

2. All Other Areas: 316 Stainless Steel.

O. Location/Type:

1. Finished, Indoor, Dry: NEMA 250, Type 1.

2. Unfinished, Indoor, Dry: NEMA 250, Type 12.

3. Unfinished, Indoor and Outdoor, Wet and Corrosive: NEMA 250, Type 4X.

4. Unfinished, Indoor and Outdoor, Wet, Dust, or Oil: NEMA 250, Type 13.

5. Unfinished, Indoor and Outdoor, Hazardous: NEMA 250, Type 7 and Type 9, where indicated.

6. Underground Conduit: Concrete Encased.

7. Corrosive Locations: Nonmetallic.

3.04 Telephone Terminal Cabinet (TTC) – Not Used

3.05 Telephone Outlet – Not Used

3.06 Wiring Devices

A. Switches:

1. Mounting Height: See Paragraph OUTLET AND DEVICE BOXES.

2. Install with switch operation in vertical position.

3. Install single-pole, two-way switches such that toggle is in up position when switch is on.

B. Receptacles:

1. Install with grounding slot down except where horizontal mounting is shown, in which case install with neutral slot up.

2. Ground receptacles to boxes with grounding wire only.

3. Weatherproof Receptacles:

a. Install in cast aluminum box.

b. Install such that hinge for protective cover is above receptacle opening.

4. Ground Fault Interrupter: Install feed-through model at locations where ground fault protection is specified for "downstream" conventional receptacles.

5. Special-Purpose Receptacles: Install in accordance with manufacturer's instructions.

C. Multioutlet Surface Raceway System:

1. Install in accordance with manufacturer's instructions.

2. Wire alternate outlets to each circuit where two-circuit, three-wire supply is shown.

3.07 Device Plates

A. Securely fasten to wiring device; ensure a tight fit to the box.

B. Flush Mounted: Install with all four edges in continuous contact with finished wall surfaces without use of mats or similar materials. Plaster fillings will not be acceptable.

C. Surface Mounted: Plate shall not extend beyond sides of box unless plates have no

sharp corners or edges.

D. Install with alignment tolerance to box of 1/16 inch.

E. Engrave with designated titles.

F. Types (Unless Otherwise Shown):

1. Office: Stainless Steel.

2. Exterior: Weatherproof.

3. Interior:

a. Flush Mounted Boxes: Stainless Steel.

b. Surface Mounted, Cast Metal Boxes: Cast metal.

c. Surface Mounted, Sheet Steel Boxes: Stainless Steel.

d. Surface Mounted, Nonmetallic Boxes: Plastic.

3.08 Pushbutton, Indicating Light, and Selector Switch

A. Heavy-Duty, Oiltight Type: Locations (Unless Otherwise Shown): Nonhazardous, indoor, dry locations, including motor control centers, control panels, and individual stations.

B. Heavy-Duty, Watertight, and Corrosion-Resistant Type:

1. Locations (Unless Otherwise Shown): Nonhazardous, outdoor, or normally wet areas.

2. Mounting: NEMA 250, Type 4X enclosure.

3.09 Terminal Junction Box

A. Install in accordance with Paragraph JUNCTION AND PULL BOXES.

B. Label each block and terminal with permanently attached, nondestructible tag.

C. Do not install on finished outdoor surfaces.

D. Location:

1. Finished, Indoor, Dry: NEMA 250, Type 1.

2. Unfinished, Indoor, Dry: NEMA 250, Type 12.

3. Unfinished, Indoor and Outdoor, Wet and Corrosive: NEMA 250, Type 4X.

4. Unfinished, Indoor and Outdoor, Wet, Dust, or Oil: NEMA 250, Type 13.

3.10 Lighting and Power Distribution Panelboard

A. Install securely, plumb, in-line and square with walls.

B. Install top of cabinet 6 feet above floor unless otherwise shown.

C. Provide typewritten circuit directory for each panelboard.

3.11 Industrial Capacitors

Provide suitable hangers or mounting brackets for wall or ceiling mounting.

3.12 Dry Type Transformer (0- To 600-Volt Primary)

A. Load external vibration isolator such that no direct transformer unit metal is in direct contact with mounting surface.

B. Provide moisture-proof, flexible conduit for electrical connections.

C. Connect voltage taps to achieve (approximately) rated output voltage under normal plant load conditions.

D. Provide wall brackets for single-phase units, 15 to 167-1/2 kVA, and three-phase units, 15 to 112 kVA.

3.13 Support and Framing Channel

A. Install where required for mounting and supporting electrical equipment and raceway systems.

B. Interior and Exterior Areas:

1. Supports for Rigid Aluminum Conduits shall be Aluminum.

2. All other interior applications shall utilize 316 Stainless Steel.

3.14 Motor Surge Protection

A. Ground in accordance with NFPA 70.

B. Low Voltage: Ground terminals to equipment bus.

END OF SECTION

Part 1 General

1.01 References

A. The following is a list of standards that may be referenced in this section:

1. American National Standards Institute (ANSI): 386, Standard for Separable Insulated Connector Systems for Power Distribution Systems Above 600V.

2. American Society for Testing and Materials (ASTM):

   a. A167, Standard Specification for Stainless and Heat Resisting Chromium-Nickel-P1ated Steel Plate, Sheet, and Strip.

   b. B3, Standard Specification for Soft or Annealed Copper Wire.

   c. B8, Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.

   d. B263, Standard Test Method for Determination of Cross- Sectional Area of Stranded Conductors.

3. Association of Edison Illuminating Companies (AEIC):

   a. CS 5, Crosslinked Polyethylene Insulated Shielded Power Cables Rated 5 Through 35 kV.

   b. CS 6, Ethylene- Propylene-Rubber-Insulated Shielded Power Cables Rated 5 Through 69 kV.

4. Insulated Cable Engineer's Association, Inc. (ICEA): T-29-250, Procedure for Conducting Vertical Cable Tray Flame Test With a Theoretical Heat Input of 210,000 Btu/hour.

5. Institute of Electrical and Electronics Engineers, Inc. (IEEE):

   a. 48, Standard Test Procedures and Requirements or High-Voltage Alternating Current Cable Terminations.

   b. 404, Standard for Cable Joints for Use with Extruded Dielectric Cable Rated 5,000V through 46,000V and Cable Joints for Use with Laminated Dielectric Cable Rated 2,500V through 500,000V.

6. National Electrical Contractors Association, Inc. (NECA): 5055, Standard of Installation.

7. National Electrical Manufacturers' Association (NEMA):

    a. CC 1, Electric Power Connectors for Substations.

    b. WC 3, Rubber-insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

    c. WC 5, Thermoplastic Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

    d. WC 7, Crosslinked-Thermosetting-Polyethylene-lnsulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

    e. WC 8, Ethylene-Propylene-Rubber Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

    f. WC 55, Instrumentation Cables and Thermocouple Wire.

8. National Fire Protection Association (NFPA): 70, National Electrical Code (NEC).

9. Underwriters Laboratories, Inc. (UL):

    a. 13, Standard for Safety Power-Limited Circuit Cables.

    b. 44, Standard for Safety Rubber-Insulated Wires and Cables.

    c. 62, Standard for Safety Flexible Cord and Fixture Wire.

    d. 486A, Standard for Safety Wire Connector and Soldering Lugs for Use with Copper Conductors.

    e. 486B, Standard for Safety Wire Connectors and Soldering Lugs for Use with Aluminum Conductors.

    f. 510, Standard for Safety Insulating Tape.

    g. 854, Standard for Safety Service-Entrance Cables.

    h. 910, Standard for Safety Test Method for Fire and Smoke Characteristics of Electrical and Optical-Fiber Cables Used in Air Handling Spaces.

    i. 1072, Standard for Safety Medium-Voltage Power Cables.

    j. 1277, Standard for Safety Electrical Power and Control Tray Cables with Optional Optical-Fiber Members.

k. 1581, Standard for Safety Reference Standard for Electrical Wires, Cables, and Flexible Cords.

1.02 Submittals

A. Shop Drawings:

1. Wire and cable descriptive product information.

2. Wire and cable accessories descriptive product information.

3. Cable fault detection system descriptive product information.

4. Manufactured wiring systems descriptive product information.

5. Manufactured wire systems rating information.

6. Manufactured wire systems dimensional drawings.

7. Manufactured wire systems special fittings.

B. Quality Control Submittals:

1. Certified Factory Test Report for conductors 600 volts and below.

2. Certified Factory Test Report per AEIC CS6, including AEIC qualification report for conductors above 600 volts.

1.03 UL Compliance

A. Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

Part 2 Products

2.01 Conductors 600 Volts and Below

A. Conform to applicable requirements of NEMA WC 3, WC 5, and WC 7.

B. Conductor Type:

1. 120- and 277-Volt Lighting, No. 10 AWG and Smaller: Stranded copper.

2. 120-Volt Receptacle Circuits, No. 10 AWG and Smaller: Stranded copper.

3. All Other Circuits: Stranded copper.

C. Insulation: Type THHN/THWN, except for sizes No. 6 and larger, with XHHW insulation.

D. Direct Burial and Aerial Conductors and Cables:

1. Type USE/RHH/RHW insulation, UL t(54 listed, Type RHW-2/USE-2.

2. Conform to physical and minimum thickness requirements of NEMA WC 3.

E. Flexible Cords and Cables:

1. Type SOW-A50 with ethylene propylene rubber insulation in accordance with UL 62.

2. Conform to physical and minimum thickness requirements of NEMA WC 8.

F. Cable Tray Conductors and Cables: Type TC.

2.02 Conductors Above 600 Volts

A. EPR Insulated Cable:

1. Extrusion: Single-pass, triple-tandem, of conductor screen, insulation, and insulation screen.

2. Type: 5 kV, shielded, UL 1072, Type MV-90.

3. Conductors: Copper, concentric lay Class B round stranded in accordance with ASTM B3, ASTM B8, and ASTM B263.

4. Conductor Screen: Extruded, semiconducting ethylene-propylene rubber in accordance with NEMA WC 8 and AEIC CS 6.

5. Insulation: 133 percent insulation level, ethylene-propylene-rubber (EPR), containing no polyethylene in accordance with NEMA WC 8, and AEIC CS 6.

6. Insulation Thickness: 90 mils, 5 kV, nominal.

7. Insulation Screen: Thermosetting, semiconducting ethylene-propylene rubber (EPR), extruded directly over insulation in accordance with NEMA WC 8, and AEIC CS 6.

8. Metallic Shield: Uncoated, copper shielding tape helically applied with 17-1/2 percent minimum overlap.

9. Jacket: Extruded polyvinyl chloride (PVC) compound applied over the metallic shield in accordance with NEMA WC 8.

10. Operating Temperature: 90 degrees C continuous normal operations, 130 degrees C emergency operating conditions, and 250 degrees C short-circuit conditions.

11. Manufacturers:

    a. Okonite Co. or approved equal.

    b. Pirelli Wire and Cable or approved equal.

    c. Cablec Corp. or approved equal.

    d. Southwire or approved equal.

2.03 600-Volt Rated Cable

A. General:

1. Type: TC, meeting requirements of UL 1277, including Vertical Tray Flame Test at 20,000 Btu/hr, and NFPA 70, Article 340, or UL 13 Listed Power Limited Circuit Cable meeting requirements of NFPA 70, Article 725.

2. Permanently and legibly marked with manufacturer's name, maximum working voltage for which cable was tested, type of cable, and UL listing mark.

3. Suitable for installation in open air, in cable trays, or conduit.

4. Minimum Temperature Rating: 90 degrees C dry locations, 75 degrees C wet locations.

5. Overall Outer Jacket: PVC, flame-retardant, sunlight- and oil-resistant.

B. Wire and Connectors: Cable shall be rated for 600 volts and shall meet the requirements below:

1. Conductors shall be stranded.

2. All wire shall be brought to the job in unbroken packages and shall bear the data of manufacturing; not older than 12 months.

3. Type of wire shall be XHHW or THHN, rated 75 degrees C suitable for wet locations except where required otherwise by the drawings.

4. No wire smaller than No. 12 gauge shall be used unless specifically indicated.

5. Conductor metal shall be copper.

6. All conductors shall be megger tested after installation and insulation must be in compliance with the Insulated Power Cable Engineers Association Minimum Values of Insulation Resistance.

C. Type l-Multiconductor Control Cable:

1. Conductors:

a. No. 14 AWG, seven-strand copper.

b. Insulation: 15-mil PVC with 4-mil nylon.

c. UL 1581 listed as Type THHN/THWN rated VW-I.

d. Conductor group bound with spiral wrap of barrier tape

e. Color Code: In accordance with NEMA WC 5, Method 1, Sequence K-2.

2. Cable: Passes the ICEA T-29-520 210,000 Btu/hr Vertical Tray Flame Test.

3. Cable Sizes:

No. of Conductors	Max. Outside Diameter (inches)	Jacket Thickness (mils)
3	0.41	45
5	0.48	45
7	0.52	45
12	0.72	60
19	00.83	60
25	1.00	60
37	1.15	80

4. Manufacturers:

a. Okonite Co. or approved equal.

b. Rome Cable or approved equal.

D. Type 2-Multiconductor Power Cable:

1. Conductors:

   a. Class B stranded, coated copper.

   b. Insulation: Chemically crosslinked ethylene-propylene with Hypalon jacket.

   c. UL 1581 listed as Type EPR, rated VW-1.

   d. Color Code: Conductors, size No. 8 AWG and smaller, colored conductors, NEMA WC5 Method 1, color 5 per Article POWER CONDUCTOR COLOR CODING. Conductors, size No. 6 AWG and larger, NEMA WC5, Method 4.

2. Cable pass the ICEA T-29-520 210,000 Btu/hr Vertical Tray Flame Test.

3. Cable Sizes:

Conductor Size	Minimum Ground Wire Size	No. of Conductors	Max.Outside Diameter (Inches)	Nominal Jacket Thickness (Mils)
12	12	2 3 4	0.42 0.45 0.49	45 45 45
10	10	2 3 4	0.54 0.58 0.63	60 60 60
8	10	3 4	0.66 0.72	60
6	8	3 4	0.74 0.81	60
4	6	3 4	0.88 0.97	60 80
2	6	3 4	1.01 1.11	80
1/0	6	3 4	1.22 1.35	80
2/0	4	3 4	1.32 1.46	80
4/0	4	3 4	1.56 1.78	80

4. Manufacturers:

   a. Okonite Co. or approved equal.

   b. Pome Cable or approved equal.

E. Type B-No. 16 AWG, Twisted, Shielded Pair, Instrumentation Cable: Single pair, designed for noise rejection for process control, computer, or data log applications meeting NEMA WC 55 requirements.

1. Outer Jacket: 45-mil nominal thickness.

2. Individual Pair Shield: 1.35-mil, double-faced aluminum/synthetic polymer overlapped to provide 100 percent coverage.

3. Dimension: 0.31-inch nominal OD.

4. Conductors:

   a. Bare soft annealed copper, Class B, seven-strand concentric, meeting requirements of ASTM B8.

   b. 20 AWG, seven-strand tinned copper drain wire.

   c. Insulation: 15-mil nominal PVC.

   d. Jacket: 4-mil nominal nylon.

   e. Color Code: Pair conductors black and red.

5. Manufacturers:

   a. Okonite Co. or approved equal.

   b. Alpha Wire Corp. or approved equal.

6. The following test shall be performed on instrumentation and control system cables. All tests shall be end-to-end test of installed cables with the ends supported in free air, not adjacent to any ground object. All test data shall be recorded on forms acceptable to the Engineer. Complete records of all tests shall be made and delivered to the Engineer.

   a. Continuity tests shall be performed by measuring wire/shield loop resistances of signal cable as the wires, taken one at a time, are shorted to the channel shield. No loop resistance measurement shall carry by more than ± 2 ohms from the calculated average loop resistance valve.

   b. Insulation resistance tests shall be performed by using a 500 volt megohmeter to measure the insulation resistance between each channel wire and channel shield, between individual channel shields in a multi-channel cable, between each individual channel and the overall cable

shield in multi-channel cable, between each wire and ground, and between each shield and ground. Values of resistance less than 10 megohms shall be unacceptable.

F. Type B1-No. 16 AWG, Twisted, Shielded Triad Instrumentation Cable: Single triad, designed for noise rejection for process control, computer, or data log applications meeting NEMA WC 55 requirements.

1. Outer Jacket: 45-mil nominal.

2. Individual Pair Shield: 1.35-mil, double-faced aluminum/synthetic polymer, overlapped to provide 100 percent coverage.

3. Dimension: 0.32-inch nominal OD.

4. Conductors:

a. Bare soft annealed copper, Class B, seven-strand concentric, meeting requirements of ASTM B8.

b. 20 AWG, seven-strand, tinned copper drain wire.

c. Insulation: 15-mil nominal PVC.

d. Jacket: 4-mil nylon.

e. Color Code: Triad conductors black, red, and white.

5. Manufacturers:

a. Okonite Co. or approved equal.

b. Alpha Wire Corp. or approved equal.

G. Type B2-No. 18 AWG, Multi-Twisted, Shielded Pairs with a Common, Overall Shield Instrumentation Cable: Designed for use as instrumentation, process control, and computer cable, meeting NEMA WC 55 requirements.

1. Conductors:

a. Bare soft annealed copper, Class B, seven-strand concentric, in accordance with ASTM B8.

b. Tinned copper drain wires.

c. Pair drain wire size AWG 20, group drain wire size AWG 18.

d. Insulation: 15-mil PVC.

e. Jacket: 4-mil nylon.

f. Color Code: Pair conductors black and red with red conductor numerically printed for group identification.

g. Individual Pair Shield: 1.35-mil, double-faced aluminum/synthetic polymer.

2. Cable Shield: 2.35-mil, double-faced aluminum/synthetic polymer, overlapped for 100 percent coverage.

3. Cable Sizes:

Number of Pairs	Maximum Outside Diameter (inches)	Nominal Jacket Thickness (mils)
4	0.50	45
8	0.68	60
12	0.82	60
16	0.95	80
24	1.16	80
36	1.33	80
50	1.56	80

4. Manufacturers:

a. Okonite Co. or approved equal.

b. Alpha Wire Corp. or approved equal.

H. Type B3-No. 18 AWG, Multi-twisted Pairs with a Common Overall Shield Instrumentation Cable: Designed for use as instrumentation, process control, and computer cable meeting NEMA WC 55.

1. Conductors:

a. Bare soft annealed copper, Class B, seven-strand concentric, in accordance with ASTM B8.

b. Tinned copper drain wire size 18 AWG.

c. Insulation: 15-mil nominal PVC.
d. Jacket: 4-mil nylon.

e. Color Code: Pair conductors black and red, with red conductor numerically printed for group identification.

2. Cable Shield: 2.35-mil, double-faced aluminum/synthetic polymer, overlapped for 100 percent coverage.

3. Cable Sizes:

Number Of Pairs	Maximum Outside Diameter (inches)	Nominal Jacket Thickness (mils)
4	0.46	45
8	0.63	60
12	0.75	60
16	0.83	60
24	1.06	80
36	1.21	80
50	1.42	80

4. Manufacturers:

a. Okonite Co. or approved equal.

b. Alpha Wire Corp. or approved equal.

I. Variable Frequency Drive (VFD) Output Power Cable:

1. Section applies to power cables routed between the output of VFD's and motor terminals.

2. Cable shall be rated for 600 volts type MC and shall meet the requirements below:

a. Conductors shall be stranded copper.

b. All wire shall be brought to the job in unbroken packages and shall bear the data of manufacturing; not older than 12 months.

c. Type of wire shall be XHHW or RHW rated 75 degrees C suitable for wet locations.

d. No wire smaller than No. 12 gauge shall be used unless specifically indicated.

e. Cable construction shall consist of three insulated current-carrying phase

conductors and three bare ground conductors, symmetrically placed between the phase conductors, and twisted beneath a continuous aluminum armor and overall polymeric jacket.

f. Armor must be continuous corrugated aluminum armor (CCA) manufacture. Aluminum interlocked armor (AIA) construction is not acceptable.

3. Each ground conductor size (circular mil area) shall be one-third (1/3) of the NEC required size (circular mil area) for a single ground conductor. If one third of the required circular mil area does not correspond to a standard size (circular mil area) of construction, the next largest size of standard construction shall be us All conductors shall be megger tested after installation and insulation must be in compliance with the Insulated Power Cable Engineers Association Minimum Values of Insulation Resistance.

4. Manufacturers:

a. Southwire – ARMOR-X or approved equal.

J. Ethernet Cat. 6e UTP Cable (Copper):

1. Section applies to all Ethernet Cable (Copper) except for Fiber Optic cable.

2. Conductor Physical Characteristics: 4 twisted pairs (8 conductors), 23 AWG solid bare Copper with Polyolefin Insulation. Overall Nominal Diameter: 0.235 inch. Operating Temperature Range: -20’C to +75’C. Model Number – 7881A, Belden Inc.

3. NEC/UL specification CMR, UL444, UL verified category 6.

4. Manufacturer: Belden Inc. or approved equal.

2.04 Grounding Conductors

A. Equipment: Stranded copper with green, Type USE/RHH/RHW-XLPE or THHN/THWN, insulation.

B. Direct Buried: Bare stranded copper.

2.05 Accessories For Conductors 600 Volts And Below

A. Tape:

1. General Purpose, Flame Retardant: 7-mil, vinyl plastic, Scotch Brand 33, rated

for 90 degrees C minimum, meeting requirements of UL 510.

2. Flame Retardant, Cold and Weather Resistant: 8.5-mil, vinyl plastic, Scotch Brand 88.

3. Arcs and Fireproofing:

   a. 30-mil, elastomer

   b. Manufacturers and Products:

      1) Scotch; Brand 77, with Scotch Brand 69 glass cloth tape binder or approved equal.

      2) Plytnount; Plyarc 30, with Plymount Plyglas glass cloth tape binder or approved equal.

B. Identification Devices:

1. Sleeve: Permanent, PVC, yellow or white, with legible machine-printed black markings.

2. Marker Plate: Nylon, with legible designations permanently hot stamped on plate.

3. Grounding Conductor: Permanent green heat-shrink sleeve, 2-inch minimum.

C. Connectors and Terminations:

1. Nylon, Self-Insulated Crimp Connectors: Manufacturers and Products:

   a. Thomas & Betts; Sta-Kon or approved equal.

   b. Burndy; Insulink or approved equal.

   c. ILSCO or approved equal.

2. Nylon, Self-Insulated, Crimp Locking-Fork, Torque-Type Terminator: Manufacturers and Products:

   a. Thomas & Betts; Sta-Kon or approved equal.

   b. Burndy; Insulink or approved equal.

   c. ILSCO or approved equal.

D. Cable Lugs:

1. In accordance with NEMA CC I.

2. Rated 600 volts of same material as conductor metal.

3. Insulated, Locking-Fork, Compression Lugs: Manufacturers and Products:

a. Thomas & Betts; Sta-Kon or approved equal.

b. ILSCO; ILSCONS or approved equal.

4. Un-insulated Crimp Connectors and Terminators: Manufacturers and Products:

a. Square D; Versitide or approved equal.

b. Thomas & Betts; Color-Keyed or approved equal.

c. ILSCO or approved equal.

5. Un-insulated, Bolted, Two-Way Connectors and Terminators: Manufacturers and Products:

a. Thomas & Betts; Locktite or approved equal.

b. Burndy; Quiklug or approved equal.

c. ILSCO or approved equal.

E. Cable Ties: Nylon, adjustable, self-locking, and reusable. Manufacturers and Product: Thomas & Betts; TY-RAP or approved equal.

F. Heat Shrinkable Insulation: Thermally stabilized, crosslinked polyofin. Manufacturers and Product: Thomas & Betts; SHRINK-KON or approved equal.

2.06 Accessories for Conductors Above 600 Volts

A. Molded Splice Kits:

1. Components necessary to provide insulation, metallic shielding and grounding systems, and overall jacket.

2. Capable of making splices that has a current rating equal to, or greater than the cable ampacity, conforming to IEEE 404.

3. 25 kV class, with compression connector, EPDM molded semiconductive

insert, peroxide-cured EPDM insulation, and EPDM molded semiconductive outer shield.

4. Pre-molded splice shall be re-jacketed with a heat shrinkable adhesive-lined sleeve to provide a waterproof seal.

5. Manufacturers:

   a. Elastimold or approved equal.

   b. Cooper industries or approved equal.

B. Heat Shrinkable Splice Kits:

1. Components necessary to provide insulation, metallic shielding and grounding systems, and overall jacket.

2. Capable of making splices that has a current rating equal to, or greater than the cable ampacity, conforming to IEEE 404.

3. 25 kV class, with compression connector, splice insulating and conducting sleeves, stress-relief materials, shielding braid and mesh, and abrasion-resistant heat shrinkable adhesive-lined re-jacketing sleeve to provide a waterproof seal.

4. Manufacturers:

   a. Raychem or approved equal.

   b. 3M Co or approved equal.

C. Termination Kits:

1. Capable of terminating a 25 kV, single-conductor, polymeric-insulated shielded cables plus a shield ground clamp.

2. Capable of producing a termination with a current rating equal to, or greater than, the cable ampacity, meeting Class 1 requirements of IEEE 48.

3. Capable of accommodating any form of cable shielding or construction without the need for special adapters and/or accessories.

4. Manufacturers:

   a. Raychem or approved equal.

   b. 3M Co. or approved equal

D. Bus Connection Insulation:

1. Heat shrinkable tubing, tape, and sheets of flexible crosslinked polymeric material formulated for high dielectric strength.

2. Tape and sheet products to have coating to prevent adhesion to metal surfaces.

3. Insulating materials to be removable and reusable.

4. Manufacturer: Raychem or approved equal.

E. Cable Lugs:

1. In accordance with NEMA CCI.

2. Rated 25 kV of same material as conductor metal.

3. Manufacturers and Products, Uninsulated Crimp Connectors and Terminators:

a. Square D; Versitide or approved equal.

b. Thomas & Betts; Color-Keyed or approved equal.

c. ILSCO or approved equal.

4. Manufacturers and Products, Uninsulated, Bolted, Two-Way Connectors and Terminators:

a. Thomas & Betts; Locktite or approved equal.

b. Burndy; Quiklug or approved equal.

c. JLSCO or approved equal.

2.07 Pulling Compound

A. Nontoxic, non-corrosive, noncombustible, nonflammable, wax-based lubricant; UL listed.

B. Suitable for rubber, neoprene, PVC, polyethylene, hypalon, CPE, and lead-covered wire and cable.

C. Suitable for zinc-coated steel, aluminum, PVC, bituminized fiber, and fiberglass raceways.

D. Manufacturers and Products:

1. Ideal Co.; Yellow 77 or approved equal.

2. Polywater, Inc. or approved equal.

3. Cable Grip Co. or approved equal.

2.08 Busway

A. Low impedance, copper bus bar, outdoor copper-free 1/8-inch extruded aluminum housing with full neutral (where specified) and internal ground bus, totally enclosed non-ventilated and joint insulation of polyester film.

B. UL listed for support and spacing provided, meeting NFPA 70 requirements, NEMA BU-1, UL B57, ANSI C37.23, and totally enclosed throughout its length.

C. Suitable for mounting in vertical (edgewise) or horizontal position without derating, and capable of withstanding short-circuit of 100,000 amperes symmetrical.

D. Provide expansion fitting when the bus crosses a building expansion joint.

E. Provide integral weather seal on all outdoor entrance points.

F. Provide flanged ends or end cable tap box on all indoor end points.

G. Manufactured by Square D, Model I-Line II, or approved equal.

2.09 Warning Tape

As specified in Section 26 05 33.13, Raceways.

2.10 Source Quality Control

A. Conductors 600-Volts and Below: Test in accordance with UL 44 and 854 Standards.

B. Conductors Above 600 Volts: Test in accordance with NEMA W8 and AEIC CS 6 partial discharge level test for EPR insulated cable.

Part 3 Execution

3.01 General

A. Conductor installation to be in accordance with NECA 5055.

B. Conductor and cable sizing shown is based on copper conductors, unless noted otherwise.

C. Do not exceed cable manufacturer's recommendations for maximum pulling tensions and minimum bending radii.

D. Tighten screws and terminal bolts in accordance with UL 486A for copper conductors.

E. Cable Lugs: Provide with correct number of holes, bolt size, and center-to-center spacing as required by equipment terminals.

F. Bundling: Where single conductors and cables in manholes, hand holes, vaults, and other indicated locations are not wrapped together by some other means, bundle conductors from each conduit throughout their exposed length with cable ties placed at intervals not exceeding 18 inches on center.

G. Ream, remove burrs, and clear interior of installed conduit before pulling wires or cables.

H. Concrete-Encased Raceway Installation: Prior to installation of conductors, pull through each raceway a mandrel approximately 1/4-inch smaller than raceway inside diameter.

I. Cable Tray Installation:

1. Install wire and cable parallel and straight in tray.

2. Bundle, in groups, all wire and cable of same voltage having a common routing and destination; use cable ties, at maximum intervals of 8 feet.

3. Clamp cable bundles prior to making end termination connections.

4. Separate cables of different voltage rating in same cable tray with barriers.

5. Fasten wires, cables, and bundles to tray with nylon cable straps at the following maximum intervals:

a. Horizontal Runs: 20 feet.

b. Vertical Runs: 5 feet.

3.02 Power Conductor Color Coding

A. Conductors 600 Volts and Below:

1. No. 6 AWG and Larger: Apply general purpose, flame retardant tape at each end, and at accessible locations wrapped at least six full overlapping turns, covering an area 1-1/2 to 2 inches wide.

2. No. 8 AWG and Smaller: Provide colored conductors.

3. Colors:

System	Conductor	Color
All Systems	Equipment Grounding	Green
240/120 Volts Single-Phase, Three-Wire	Grounded Neutral One Hot Leg Other Hot Leg	White Black Red
208Y/120 Volts Three-Phase, Four-Wire	Grounded Neutral Phase A Phase B Phase C	White Black Red Blue
240/120 Volts Three-Phase, Four-Wire Delta, Center Tap Ground on Single-Phase	Grounded Neutral Phase A High (wild) Leg Phase C	White Black Orange Blue
480Y/277 Volts Three-Phase, Four-Wire	Grounded Neutral Phase A Phase B Phase C	Gray Brown Purple Yellow
NOTE: Phase A, B, C implies direction of positive phase rotation		

4. Tracer: Outer covering of white with an identifiable colored strip other than green in accordance with NFPA 70.

B. Conductors Above 600 Volts: Apply general purpose, flame retardant tape at each end, and at accessible locations wrapped at least six full overlapping turns, covering an area 1-1/2 to 2 inches wide.

1. Colors:

a. Grounded Neutral: White.

b. Phase A: Brown.

c. Phase B: Purple.

d. Phase C: Yellow.

3.03 Circuit Identification

A. Circuits Appearing in Circuit Schedules: identify power, instrumentation, and control conductor circuits, using circuit schedule designations, at each termination and in accessible locations such as manholes, hand holes, panels, switchboards, motor control centers, pull boxes, and terminal boxes.

B. Circuits Not Appearing in Circuit Schedules:

1. Assign circuit name based on device or equipment at load end of circuit.

2. Where this would result in same name being assigned to more than one circuit, add number or letter to each otherwise identical circuit name to make it unique.

C. Method:

1. Conductors No. 3 AWG and Smaller: Identify with sleeves.

2. Cables, and Conductors No. 2 AWG and Larger:

a. Identify with marker plates.

b. Attach marker plates with nylon tie cord.

3. Taped-on markers or tags relying on adhesives not permitted.

3.04 Conductors 600 Volts and Below

A. Install 10 AWG or 12 AWG conductors for branch circuit power wiring in lighting and receptacle circuits.

B. Do not splice incoming service conductors and branch power distribution conductors No. 6 AWG and larger unless specifically indicated or approved by ENGINEER.

C. Connections and Terminations:

1. Install wire nuts only on solid conductors.

2. Install nylon self-insulated crimp connectors and terminators for instrumentation, control, and power circuit conductors No. 6 AWG and smaller.

3. Install un-insulated crimp connectors and terminators for instrumentation, control, and power circuit conductors No. 4 AWG through No. 2/0 AWG.

4. Install un-insulated, bolted, two-way connectors and terminators for power circuit conductors No. 4/0 AWG and larger.

5. Install un-insulated bolted, two-way connectors for motor circuit conductors No. 12 and larger.

6. Tape insulates all un-insulated connections.

7. Place no more than one conductor in any single-barrel pressure connection.

8. Install crimp connectors with tools approved by connector manufacturer.

9. Install terminals and connectors acceptable for type of material used.

10. Compression Lugs:

    a. Attach with a tool specifically designed for purpose.

    b. Tool shall provide complete controlled crimp and shall not release until crimp is complete.

    c. Do not use plier type crimpers.

D. Do not use soldered mechanical joints.

E. Splices and Terminations:

1. Indoors: Use general purpose, flame retardant tape.

2. Outdoors: Use flame retardant, cold- and weather-resistant tape.

F. Cap spare conductors and conductors with UL listed end caps.

G. Cabinets, Panels, and Motor Control Centers:

1. Remove surplus wire, bridle and secure.

2. Where conductors pass through openings or over edges in sheet metal, remove bums, chamfer edges, and install bushings and protective strips of insulating material to protect the conductors.

H. Control and Instrumentation Wiring:

1. Where terminals provided will accept such lugs, terminate control and instrumentation wiring, except solid thermocouple leads, with insulated, locking-fork compression lugs.

2. Terminate with methods consistent with terminals provided, and in accordance with terminal manufacturer's instructions.

3. Locate splices in readily accessible cabinets or junction boxes using terminal strips.

4. Where connections of cables installed under this section leave pigtails of adequate length for bundled connections.

5. Cable Protection:

   a. Under Infinite Access Floors: May be installed without bundling.

   b. All Other Areas: Install individual wires, pairs, or triads in flex conduit under the floor or grouped into bundles at least 1/2-inch in diameter.

   c. Maintain integrity of shielding of instrumentation cables.

   d. Ensure grounds do not occur because of damage to jacket over the shield.

I. Extra Conductor Length: For conductors to be connected by others, install minimum 6 feet of extra conductor in freestanding panels and minimum 2 feet in other assemblies.

J. Variable Frequency Drive (VFD) Output Power Cable:

1. Install cables in raceway.

2. Terminate the three ground conductors together at the motor and at the ground bus of the VFD.

3. Terminate aluminum armor at motor and at VFD. At motor, terminate shield with cable manufacturer recommended termination kit. Termination shall be to the motor junction box. At the VFD, terminate armor to the invertor drive frame. The termination kit must provide a 360-degree connection of the armor to frame and motor junction box.

3.05 Conductors Above 600 Volts

A. Do not splice unless specifically indicated or approved by the ENGINEER.

B. Make joints and terminations with splice and termination kits, in accordance with kit

manufacturer's instructions

C. Install splices or terminations as continuous operation in accessible locations under clean, dry conditions.

D. Single Conductor Cable Terminations: Provide heat shrinkable stress control and outer non-tracking insulation tubing, high relative permittivity stress relief mastic for insulation shield cutback treatment, and a heat-activated sealant for environmental sealing, plus a ground braid and clamp.

E. Install terminals or connectors acceptable for type of conductor material used.

F. Provide outdoor rain skirts for all riser pole and outdoor switchgear terminations.

G. Provide shield termination and grounding for all terminations.

H. Provide necessary mounting hardware, covers, and connectors.

I. Where elbow connectors are specified, install in accordance with manufacturer's instructions.

J. Connections and Terminations:

1. Install un-insulated crimp connectors and terminators for instrumentation, control, and power circuit conductors No. 4 AWG through No. 210 AWG.

2. Install un-insulated, bolted, two-way connectors and terminators for power circuit conductors No. 4/0 AWG and larger.

3. Install un-insulated, bolted, two-way connectors for motor circuit conductors No. 12 and larger.

4. Insulate bus connections with heat shrinking tubing, tape, and sheets.

5. Make all bus connections removable and reusable in accordance with manufacturer’s instructions.

K. Give 2 working days' notice to ENGINEER prior to making splices or terminations.

3.06 Conductor Arc and Fireproofing

A. Install arc and fireproofing, tape on 600-volt single conductors and cables except those rated Type TC in manholes, hand holes, vaults, cable trays, and other indicated locations.

B. Install arc and fireproofing tape on 25 kV cables throughout their entire exposed

length in manholes, hand holes, vaults, cable trays, and other indicated locations.

C. Wrap conductors of same circuit entering from separate conduit together as a single cable.

D. Follow tape manufacturer's installation instructions.

E. Secure tape at intervals of 5 feet with bands of tape binder. Each tape band shall consist of a minimum of two wraps directly over each other.

3.07 Busway – Not Used

3.08 Underground Direct Burial Cable – Not Used

3.09 Field Quality Control

In accordance Section 26 08 13, Electrical Testing.

END OF SECTION

Part 1 General

1.01 References

The following is a list of standards which may be referenced in this section:

1. American National Standards Institute (ANSI): C2, National Electrical Safety Code (NESC).

2. National Fire Protection Association (NFPA): 70, National Electrical Code (NEC).

1.02 Submittals

Shop Drawings: Product Data:

1. Exothermic weld connectors.

2. Mechanical connectors.

1.03 UL Compliance

Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

Part 2 Products

2.01 Ground Rod

A. Material: Copper clad.

B. Diameter: 3/4 inch.

C. Length: 20 feet.

2.02 Ground Conductors

As specified in Section 26 05 10, Conductors.

2.03 Connectors

A. Exothermic Weld Type:

1. Outdoor Weld: Suitable for exposure to elements or direct burial.

2. Indoor Weld: Utilize low-smoke, low-emission process.

3. Manufacturers:

a. Erico Products, Inc.; Cadweld amd Cadweld Exolon.

b. Thermoweld.

B. Mechanical Type: Split-bolt, saddle, or cone screw type; copper alloy material. Manufacturers:

1. Burndy Corp. or approved equal.

2. Thomas and Betts Co. or approved equal.

2.04 Grounding Wells

A. Ground rod box complete with cast iron riser ring and traffic cover marked GROUND ROD.

B. Manufacturers:

1. Christy Co.; No. G5 or approved equal.

2. Lightning and Grounding Systems, Inc.; I-R Series or approved equal.

Part 3 Execution

3.01 General

A. Grounding shall be in compliance with NFPA 70 and ANSI C2.

B. Ground electrical service neutral at service entrance equipment to supplementary grounding electrodes.

C. Ground each separately derived system neutral to nearest effectively grounded building structural steel member or separate grounding electrode.

D. Bond together system neutrals, service equipment enclosures, exposed non-current-carrying metal parts of electrical equipment, metal raceways, ground conductor in raceways and cables, receptacle ground connections, and metal piping systems.

E. Shielded Power Cables: Ground shields at each splice or termination in accordance with recommendations of splice or termination manufacturer.

F. Shielded Control Cables:

1. Ground shield to ground bus at power supply for analog signal.

2. Expose shield minimum I inch at termination to field instrument and apply heat shrink tube.

3. Do not ground control cable shield at more than one point.

3.02 Wire Connections

A. Ground Conductors: Install in conduit containing power conductors and control circuits above 50 volts.

B. Nonmetallic Raceways and Flexible Tubing: Install an equipment grounding conductor connected at both ends to non current-carrying grounding bus.

C. Connect ground conductors to raceway grounding bushings.

D. Extend and connect ground conductors to ground bus in all equipment containing a ground bus.

E. Connect enclosure of equipment containing ground bus to that bus.

F. Bolt connections to equipment ground bus.

G. Bond grounding conductors to metallic enclosures at each end, and to intermediate metallic enclosures.

H. Junction Boxes: Furnish materials and connect to equipment grounding system with grounding clips mounted directly on box, or with 3/8-inch machine screws.

3.03 Motor Grounding

A. Extend equipment ground bus via grounding conductor installed in motor feeder raceway; connect to motor frame.

B. Nonmetallic Raceways and Flexible Tubing: Install an equipment grounding conductor connected at both ends to non current-carrying grounding bus.

C. Motors Less Than 10 hp: Furnish mechanical-type terminal connected to conduit box mounting screw.

D. Motors 10 hp and Above: Tap motor frame or equipment housing; furnish mechanical-type terminal connected with minimum 5/16-inch brass threaded stud with bolt and washer.

E. Circuits 20 Amps or Above: Tap motor frame or equipment housing; install solderless terminal with minimum 5/16-inch diameter bolt.

3.04 Ground Rods

A. Install full length with conductor connection at upper end.

B. Install with connection point below finished grade, unless otherwise shown.

3.05 Grounding Wells

A. Install inside buildings, asphalt, and paved areas.

B. Install riser ring and cover flush with surface.

C. Place 9 inches crushed rock in bottom of each well.

3.06 Connections

A. General:

1. Above grade Connections: Use either exothermic weld or mechanical-type connectors.

2. Below grade Connections: Install exothermic weld type connectors.

3. Remove paint, dirt, or other surface coverings at connection points to allow good metal-to-metal contact.

4. Notify ENGINEER prior to backfilling ground connections.

B. Exothermic Weld Type:

1. Wire brush or file contact point to bare metal surface.

2. Use welding cartridges and molds in accordance with manufacturer's recommendations.

3. Avoid using badly worn molds.

4. Mold to be completely filled with metal when making welds.

5. After completed welds have cooled, brush slag from weld area and thoroughly clean joint.

C. Mechanical Type:

1. Apply homogeneous blend of colloidal copper and rust and corrosion inhibitor before making connection.

2. Install in accordance with connector manufacturer's recommendations.

3. Do not conceal mechanical connections.

3.07 Metal Structure Grounding

A. Ground metal sheathing and exposed metal vertical structural elements to grounding system.

B. Bond electrical equipment supported by metal platforms to the platforms.

C. Provide electrical contact between metal frames and railings supporting pushbutton stations, receptacles, and instrument cabinets, and raceways carrying circuits to these devices.

3.08 Manhole and Handhole Grounding

A. Install one ground rod inside each.

B. Ground Rod Floor Protrusion: 4 to 6 inches above floor.

C. Make connections of grounding conductors fully visible and accessible.

D. Connect all non current-carrying metal parts, and any metallic raceway grounding bushings to ground rod with No. 6 AWG copper conductor.

3.09 Transformer Grounding

A. Bond neutrals of transformers within buildings to system ground network, and to any additional indicated grounding electrodes.

B. Bond neutrals of substation transformers to substation grounding grid and system grounding network.

C. Bond neutrals of pad-mounted transformers to four locally driven ground rods and buried ground wire encircling transformer and system ground network.

3.10 Surge Protection Equipment Grounding

Connect surge arrestor ground terminals to equipment ground bus.

3.11 Instrument Ground - Surge Suppression

Connect all instrument surge protection with #6 insulated copper ground wire (in conduit where above grade) to closest plant ground system

3.12 Bonding

A. Bond to Main Conductor System:

1. All roof mounted ventilators, fans, air handlers, masts, flues, cooling towers, handrails, and other sizeable metal objects.

2. Roof flashing, gravel stops, insulation vents, ridge vents, roof drains, soil pipe vents, and other small metal objects if located within 6 feet of main conductors or another grounded object.

3. Provide air terminals as required.

B. Bond steel columns or major framing members to grounding system per National Electrical Code.

C. Bond each main down conductor to grounding system.

3.13 Grounding System

A. Grounding Conductor:

1. Completely encircle building structure.

2. Bury minimum 30” below finished grade.

3. Minimum 2 feet distance from foundation walls.

B. Interconnect ground rods by direct-buried copper cables.

C. Connections:

1. Install ground cables continuous between connections.

2. Exothermic welded connections to ground rods, cable trays, structural steel, handrails, and buried and nonaccessible connections.

3. Provide bolted clamp type mechanical connectors for all exposed secondary connections.

4. Use bolded offset parapet bases or through-roof concealed base assemblies for

air terminal connections.

5. Provide interconnections with electrical and telephone systems and all underground water and metal pipes.

6. Provide electric service arrestor ground wire to building water main.

3.14 Field Quality Control

As specified in Section 26 08 13, Electrical Testing.

END OF SECTION

Part 1 General

1.01 References

A. The following is a list of standards which may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO): Division I, Standard Specifications for Highway Bridges, Fourteenth Edition.

2. American National Standards Institute (ANSI):

   a. C80.1, Rigid Steel Conduit-Zinc Coated.

   b. C80.3, Electrical Metallic Tubing-Zinc Coated.

   c. CS0.5, Rigid Aluminum Conduit.

   d. C80.6, Intermediate Metal Conduit (IMC)-Zinc Coated.

3. American Society for Testing and Materials (ASTM):

   a. A123 El, Standard Specification for Zinc-Coated (Galvanized) Coatings on Iron and Steel Products.

   b. C857, Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures.

4. National Electrical Contractor's Association, Inc. (NECA): 5055, Standard of Installation.

5. National Electrical Manufacturers Association (NEMA):

   a. RN 1, Polyvinyl-Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.

   b. TC 2, Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80).

   c. TC 3, PVC Fittings for Use with Rigid PVC Conduit and Tubing.

   d. TC 6, PVC and ABS Plastic Utilities Duct for Underground Installation.

   e. VE 1, Metallic Cable Tray Systems.

6. National Fire Protection Association (NFPA): 70, National Electric Code. (NEC)

7. Underwriters Laboratories, Inc. (UL):

   a. 1, Standard for Safety Flexible Metal Conduit.

   b. 6, Standard for Safety Rigid Metal Conduit.

   c. 360, Standard for Safety Liquid-Tight Flexible Steel Conduit.

   d. 514B, Standard for Safety Fittings for Conduit and Outlet Boxes.

   e. 514C, Standard for Safety Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers.

   f. 651, Standard for Safety Schedule 40 and 80 PVC Conduit.

   g. 651A, Standard for Safety Type EB and Rigid PVC Conduit and HDPF Conduit.

   h. 797, Standard for Safety Electrical Metallic Tubing.

   i. 870, Standard for Safety Wireways, Auxiliary Gutters, and Associated Fittings.

   j. 1242, Standard for Safety Intermediate Metal Conduit.

   k. 1660, Standard for Safety Liquid-Tight Flexible Nonmetallic Conduit.

1.02 Submittals

Shop Drawings:

1. Manufacturer's Literature:

   a. Not used

   b. Not used

   c. Rigid aluminum conduit.

   d. PVC Schedule 40 conduit.

   e. Not used

f. Flexible metal, liquid-tight conduit.

g. Flexible, nonmetallic, liquid-tight conduit.

h. Conduit fittings.

i. Wireways.

j. Detectable electric warning tape.

2. Precast Manholes and Handholes:

a. Dimensional drawings and descriptive literature.

b. Traffic loading calculations.

c. Accessory information.

3. Cable Tray Systems:

a. Dimensional drawings, calculations, and descriptive information.

b. NEMA load/span designation and how it was selected.

c. Support span length and pounds-per-foot actual and future cable loading at locations, with safety factor used.

d. Location and magnitude of maximum simple beam deflection of tray for loading specified.

e. Layout drawings and list of accessories being provided.

4. Conduit Layout: Plan and section type, showing arrangement and location of conduit and duct bank required for:

a. Low and medium voltage feeder and branch circuits.

b. Instrumentation and control systems.

c. Communications systems.

d. Empty conduit for future use.

5. Reproducible mylar; scale not greater than 1 inch equals 20 feet.

a. Equipment and machinery proposed for bending metal conduit.

b. Method for bending PVC conduit less than 30 degrees.

1.03 UL Compliance

Materials manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.

Part 2 Products

2.01 Conduit and Tubing

A. Not Used

B. Not Used

C. Rigid Aluminum Conduit:

1. Meet requirements of ANSI C80.5 and UL 6.

2. Material: Type 6063, copper-free aluminum alloy.

D. PVC Schedule 40 Conduit:

1. Meet requirements of NEMA TC 2 and UL 651.

2. UL listed for concrete encasement, underground direct burial, concealed or direct sunlight exposure, and 90 degrees C insulated conductors.

E. Not Used

F. Flexible Metal, Liquid-Tight Conduit:

1. UL 360 listed for 105 degrees C insulated conductors.

2. Material: Galvanized steel, with an extruded PVC jacket.

G. Flexible, Nonmetallic, Liquid-Tight Conduit:

1. Material: PVC core with fused flexible PVC jacket.

2. UL 1660 listed for:

a. Dry Conditions: 80 degrees C insulated conductors.

b. Wet Conditions: 60 degrees C insulated conductors.

3. Manufacturers:

   a. Carlon; Carflex or X-Flex or approved equal.

   b. T & B; Xtraflex LTC or EFC or approved equal.

2.02 Fittings

A. Not Used

B. Not Used

C. Rigid Aluminum Conduit:

1. General:

   a. Meet requirements of UL 514B.

   b. Type: Threaded, copper-free. Set screw fittings not permitted.

2. Insulated Bushing:

   a. Material: Cast aluminum, with integral insulated throat, rated for 150 degrees C.

   b. Manufacturer: O.Z. Gedney; Type AB or approved equal.

3. Grounding Bushing:

   a. Material: Cast aluminum with integral insulated throat, rated for 150 degrees, with solderless lugs.

   b. Manufacturer: O.Z. Gedney; Type ABLG or approved equal.

4. Conduit Hub:

   a. Material: Cast aluminum, with insulated throat.

   b. Manufacturers:

      1) O.Z. Gedney; Type CHA or approved equal.

      2) T & B; Series 370AL or approved equal.

5. Conduit Bodies:

a. Manufacturers (For Normal Conditions):

1) Appleton; Form 85 threaded Unilets or approved equal.

2) Crouse-Hinds; Mark 9 or Form 7-SA threaded condulets or approved equal.

3) Killark; Series O Electrolets or approved equal.

b. Manufacturers (For Hazardous Locations):

1) Appleton or approved equal.

2) Crouse-Hinds or approved equal.

3) Killark or approved equal.

6. Couplings: As supplied by conduit manufacturer.

7. Conduit Sealing Fitting Manufacturers:

a. Appleton; Type EYF-AL or EYM-AL or approved equal.

b. Crouse-Hinds; Type EYS-SA or EZS-SA or approved equal.

c. Killark; Type EY or EYS or approved equal.

8. Drain Seal Manufacturers:

a. Appleton; Type EYDM-A or approved equal.

b. Crouse-Hinds; Type EYD-SA or EZD-SA or approved equal.

9. Drain/Breather Fitting Manufacturers:

a. Appleton; Type ECDB or approved equal.

b. Crouse-Hinds; ECD or approved equal.

10. Expansion Fitting Manufacturers:

a. Deflection/Expansion Movement: Steel City; Type DF-A or approved equal.

b. Expansion Movement Only: Steel City; Type AF-A or approved equal.

11. Cable Sealing Fittings: To form watertight nonslip cord or cable connection to conduit.
    a. Bushing: Neoprene at connector entry.

    b. Manufacturer: Appleton CG-S or approved equal.

D. PVC Conduit and Tubing:

1. Meet requirements of NEMA TC-3.

2. Type: PVC, slip-on.

E. Not Used

F. Flexible Metal, Liquid-Tight Conduit:

1. Metal insulated throat connectors with integral nylon or plastic bushing rated for 105 degrees C.

2. Insulated throat and sealing O-rings.

3. Long design type extending outside of box or other device at least 2 inches.

4. Manufacturer: T & B; Series 5300 or approved equal.

G. Flexible, Nonmetallic, Liquid-Tight Conduit: Meet requirements of UL 514B.

1. Type: One-piece fitting body, complete with lock nut, O-ring, threaded ferrule, sealing ring, and compression nut.

2. Manufacturers:

    a. Carlon; Type LT or approved equal.

    b. Kellems; Polytuff or approved equal.

    c. T & B; LT Series or approved equal.

H. Watertight Entrance Seal Device:

1. New Construction:

    a. Material: Oversized sleeve, malleable iron body with sealing ring, pressure ring, grommet seal, and pressure clamp.

    b. Manufacturer: O.Z./Gedney; Type FSK or WSK, as required or approved

equal.

2. Gored-Hole Application:
   a. Material: Assembled dual pressure disks, neoprene sealing ring, and membrane clamp.

   b. Manufacturer: O.Z./Gedney; Series CSM or approved equal.

I. Hazardous Locations: Approved for use in the atmosphere involved.

1. Manufacturer: Crouse-Hinds; Type ECGJH or approved equal.

J. Not Used

2.03 Wireways

A. Meet requirements of UL 870.

B. Type: Steel-enclosed, with removable, hinged cover.

C. Rating: Outdoor raintight if outdoor, and indoor if indoor.

D. Finish: Gray, baked enamel.

E. Manufacturers:

1. Square D or approved equal.

2. B-Line Systems, Inc. or approved equal.

2.04 Not Used

2.05 Precast Manholes and Handholes

A. Concrete Strength: Minimum, 3,000 psi compressive, in 28 days.

B. Loading: AASHTO Division 1, H-20 in accordance with ASTM C857.

C. Access: Provide cast concrete 6- or 12-inch risers and access hole adapters between top of manhole and finished grade at required elevations.

D. Drainage:

1. Slope floors toward drain points, leaving no pockets or other non-draining areas.

2. Provide drainage outlet or sump at low point of floor constructed with a heavy, cast iron, slotted or perforated hinged cover, and 4-inch minimum outlet and outlet pipe.

E. Raceway Entrances:

1. Provide on all four sides.

2. For raceways to be installed under this Contract, provide knockout panels or precast individual raceway openings.

3. At entrances where raceways are to be installed by others, provide minimum 12-inch high by 24-inch wide knockout panels for future raceway installation.

F. Embedded Pulling Iron:

1. Material: 3/4-inch diameter stock, fastened to overall steel reinforcement before concrete is placed.

2. Location:

a. Wall: Opposite each raceway entrance and knockout panel for future raceway entrance.

b. Floor: Centered below manhole or handhole cover.

G. Cable Racks:

1. Arms and Insulators: Adjustable, of sufficient number to accommodate cables for each raceway entering or leaving manhole, including spares.

2. Wall Attachment:

a. Adjustable inserts in concrete walls. Bolts or embedded studs not permitted.

b. Insert Spacing: Maximum 3-foot on center entire inside perimeter of manhole.

c. Arrange so that spare raceway ends are clear for future cable installation.

H. Manhole Frames and Covers:

1. Material: Machined cast iron.

2. Diameter: 32 inches.

3. Cover Type: Indented, solid top design, with two drop handles each.

4. Cover Loading: AASHTO Division I, H-20.
5. Cover Designation: Cast, on upper side, in integral letters, minimum 2 inches in height, appropriate titles:

   a. Above 600 Volts: ELECTRIC HV.

   b. 600 Volts and Below: ELECTRIC LV

.

   c. TELEPHONE.

I. Handhole Frames and Covers:

1. Material: Steel, hot-dipped galvanized.

2. Cover Type: Solid, bolt-on, of checkered design.

3. Cover Loading: H-20.

4. Cover Designation: Burn by welder, on upper side in integral letters, minimum 2 inches in height, appropriate titles:

   a. 600 Volts and Below: ELECTRIC LV.

   b. TELEPHONE.

J. Hardware: Steel, hot-dip galvanized.

K. Furnish knockout for ground rod in each handhole and manhole.

L. Manufacturers:

1. U.S. Precast or approved equal.

2. Brooks Products, Inc. or approved equal.

3. Penn-Cast Products, Inc. or approved equal.

4. Concrete Conduit Co. or approved equal.

5. Associated Concrete Products, Inc. or approved equal.

6. Utility Vault Co. or approved equal.

7. Pipe,Inc. or approved equal.

2.06 Accessories

A. Duct Bank Spacers:

1. Type: Nonmetallic, interlocking, for multiple conduit sizes.

2. Suitable for all types of conduit.

3. Manufacturer: Underground Device, Inc.; Type WUNPEECE or approved equal.

B. Identification Devices:

1. Raceway Tags:

a. Material: Permanent, nylon.

b. Shape: Round.

c. Raceway Designation: Pressure stamped, embossed, or engraved.

d. Tags relying on adhesives or taped-on markers not permitted.

2. Detectable Electric Warning Tape:

a. Material: Polyethylene, 4-mil gauge with solid aluminum foil core tapes.

b. Color: Red.

c. Width: Minimum 6-inch.

d. Designation: Warning on tape that electric circuit is located below tape.

e. Manufacturers:

1) Blackburn or approved equal.

2) Griffolyn Co. or approved equal.

3. Buried Raceway Marker:

a. Material: 6”x6”x12” concrete monument, consisting of double-ended arrows, straight for straight runs and bent at locations where runs change direction.

b. Designation: Incise to depth of 3/32 inch, ELECTRIC CABLES. in

letters 1/4-inch high.

C. Raceway Coating:

1. Material: Bitumastic or plastic tape coating.

2. Manufacturers:

a. Koppers bitumastic; No. 505 or approved equal.

b. Scotchwrap; No. 51, plastic tape or approved equal.

D. Wraparound Duct Band:

1. Material: Heat-shrinkable, cross-linked polyolefin, precoated with hot-melt adhesive.

2. Manufacturer: Raychem; Type TWDB or approved equal.

Part 3 Execution

3.01 General

A. Conduit and Tubing sizes shown are based on the use of copper conductors. Reference Section 26 05 10, Conductors, concerning conduit sizing for aluminum conductors.

B. All installed Work shall comply with NECA 5055.

C. Crushed or deformed raceways not permitted.

D. Maintain raceway entirely free of obstructions and moisture.

E. Immediately after installation, plug or cap raceway ends with watertight and dust-tight seals until time for pulling in conductors.

F. Aluminum Conduit: Do not install in direct contact with concrete.

G. Sealing Fittings: Provide drain seal in vertical raceways where condensate may collect above sealing fitting.

H. Avoid moisture traps where possible. When unavoidable in exposed conduit runs, provide junction box and drain fitting at conduit low point.

I. Group raceways installed in same area.

J. Proximity to Heated Piping: Install raceways minimum 12 inches from parallel runs.

K. Follow structural surface contours when installing exposed raceways. Avoid obstruction of passageways.

L. Run exposed raceways parallel or perpendicular to walls, structural members, or intersections of vertical planes.

M. Block Walls: Do not install raceways in same horizontal course with reinforcing steel.

N. Install watertight fittings in outdoor, underground, or wet locations.

O. Not used

P. All metal conduit to be reamed, burrs removed, and cleaned before installation of conductors, wires, or cables.

Q. Do not install raceways in concrete equipment pads, foundations, or beams.

R. Horizontal raceways installed under floor slabs shall lie completely under slab, with no part embedded within slab.

S. Install concealed, embedded, and buried raceways so that they emerge at right angles to surface and have no curved portion exposed.

3.02 Installation of Cast-In-Place Structural Concrete

A. Minimum cover 1-1/2 inches.

B. Provide support during placement of concrete to ensure raceways remain in position.

C. Floor Slabs:

1. Outside diameter of conduit not to exceed one-third of the slab thickness.

2. Separate conduit by minimum six times conduit outside diameter, except at crossings.

3.03 Conduit Application

A. Diameter: Minimum 3/4 inch.

B. Exterior, Exposed: Rigid aluminum.

C. Interior, Exposed: Rigid aluminum.

D. Interior, Concealed (Not Embedded in Concrete): Rigid aluminum.

E. Aboveground, Embedded in Concrete Walls, Ceilings, or Floors: PVC Schedule 40.

F. Direct Earth Burial: PVC Schedule 40.

G. Concrete-Encased Raceways: PVC Schedule 40.

H. Under Slabs-On-Grade: PVC Schedule 40.

3.04 Connections

A. For motors, wall or ceiling mounted fans and unit heaters, dry type transformers, electrically operated valves, instrumentation, and other equipment where flexible connection is required to minimize vibration:

1. Conduit Size 4 Inches or Less: Flexible metal, liquid-tight conduit.

2. Conduit Size Over 4 Inches: Nonflexible.

3. Corrosive Areas: Not used.

4. Length: 18-inch minimum, 60-inch maximum, of sufficient length to allow movement or adjustment of equipment.

B. Lighting Fixtures in Dry Areas: Flexible steel, nonliquid-tight conduit.

C. Outdoor Areas, Process Areas Exposed to Moisture, and Areas Required to be Oiltight and Dust-Tight: Flexible metal, liquid-tight conduit.

D. Transition From Underground or Concrete Embedded to Exposed: Rigid aluminum conduit.

E. Under Equipment Mounting Pads: Rigid aluminum conduit.

F. Exterior Light Pole Foundations: Rigid aluminum conduit.

3.05 Penetrations

A. Make at right angles, unless otherwise shown.

B. Notching or penetration of structural members, including footings and beams, not permitted.

C. Fire-Rated Walls, Floors, or Ceilings: Fire-stop openings around penetrations to maintain fire-resistance rating.

D. Apply single layer of wraparound duct band to all metallic conduit in contact with concrete floor slabs to a point 2 inches above concrete surface.

E. Concrete Walls, Floors, or Ceilings (Aboveground): Provide nonshrink grout dry-pack, or use watertight seal device.

F. Entering Structures:

1. General: Seal raceway at the first box or outlet with minimum 2 inches thick expandable plastic compound to prevent the entrance of gases or liquids from one area to another.

2. Concrete Roof or Membrane Waterproofed Wall or Floor:

a. Provide a watertight seal.

b. Without Concrete Encasement: Install watertight entrance seal device on each side.

c. With Concrete Encasement: Install watertight entrance seal device on the accessible side.

d. Securely anchor malleable iron body of watertight entrance seal device into construction with one or more integral flanges.

e. Secure membrane waterproofing to watertight entrance seal device in a permanent, watertight manner.

3. Heating, Ventilating, and Air Conditioning Equipment:

a. Penetrate equipment in area established by manufacturer.

b. Terminate conduit with flexible metal conduit at junction box or conduit attached to exterior surface of equipment prior to penetrating equipment.

c. Seal penetration with silicone type sealant for Fire Stopping.

4. Corrosive-Sensitive Areas: Not used

5. Existing or Precast Wall (Underground): Core drill wall and install a watertight entrance seal device.

6. Nonwaterproofed Wall or Floor (Underground, without Concrete Encasement):

a. Provide Schedule 40 galvanized pipe sleeve, or watertight entrance seal device.

b. Fill space between raceway and sleeve with an expandable plastic compound on each side.

7. Manholes and Handholes:

a. Metallic Raceways: Provide insulated grounding bushings.

b. Nonmetallic Raceways: Provide bell ends flush with wall.

c. Install such that raceways enter as near as possible to one end of wall, unless otherwise shown.

3.06 Support

A. Support from structural members only, at intervals not exceeding NFPA 70 requirements, and in any case not exceeding 10 feet. Do not support from piping, pipe supports, or other raceways.

B. Multiple Adjacent Raceways: Provide ceiling trapeze. For trapeze-supported conduit, allow 40 percent extra space for future conduit.

C. Provide and attach wall brackets, strap hangers, or ceiling trapeze as follows:

1. Wood: Wood screws.

2. Hollow Masonry Units: Toggle bolts.

3. Concrete or Brick: Expansion shields, or threaded studs driven in by powder charge, with lock washers and nuts.

4. Steelwork: Machine screws.

D. Nails or wooden plugs inserted in concrete or masonry for attaching raceway not permitted. Do not weld raceways or pipe straps to steel structures. Do not use wire in lieu of straps or hangers.

3.07 Bends

A. Install concealed raceways with a minimum of bends in the shortest practical distance.

B. Make bends and offsets of longest practical radius.

C. Install with symmetrical bends or cast metal fittings.

D. Avoid field-made bends and offsets, but where necessary, make with acceptable hickey or bending machine. Do not heat metal raceways to facilitate bending.

E. Make bends in parallel or banked runs from same center or centerline with same radius so that bends are parallel.

F. Factory elbows may be installed in parallel or banked raceways if there is change in plane of run, and raceways are same size.

G. PVC Conduit:

1. Bends 30-Degree and Larger: Provide factory-made elbows.

2. Use manufacturer's recommended method for forming smaller bends.

H. Flexible Conduit: Do not make bends that exceed allowable conductor bending radius of cable to be installed or that significantly restricts conduit flexibility.

3.08 Expansion/Deflection Fittings

A. Provide on all raceways at all structural expansion joints, and in long tangential runs.

B. Provide expansion/deflection joints for 50 degrees F maximum temperature variation.

C. Install in accordance with manufacturer's instructions.

3.09 PVC Conduit

A. Solvent Welding:

1. Provide manufacturer recommended solvent; apply to all joints.

2. Install such that joint is watertight.

B. Adapters:

1. PVC to Metallic Fittings: PVC terminal type.

2. PVC to Rigid Metal Conduit or IMC: PVC female adapter.

C. Belied-End Conduit: Bevel the unbelled end of the joint prior to joining.

3.10 Not Used

3.11 Wireways

A. Install in accordance with manufacturer's instructions.

B. Locate with cover on accessible vertical face of wireway, unless otherwise shown.

3.12 Not Used

3.13 Termination at Enclosures

A. Cast Metal Enclosure: Provide manufacturer's premolded insulating sleeve inside metallic conduit terminating in threaded hubs.

B. Sheet Metal Boxes, Cabinets, and Enclosures:

1. Rigid Aluminum Conduit:

   a. Provide one lock nut each on inside and outside of enclosure.

   b. Install grounding bushing.

   c. Provide bonding jumper from grounding bushing to equipment ground bus or ground pad; if neither ground bus nor pad exists, connect jumper to lag bolt attached to metal enclosure.

   d. Install insulated bushing on ends of conduit where grounding is not required.

   e. Provide insulated throat when conduit terminates in sheet metal boxes having threaded hubs.

2. Electric Metallic Tubing: Provide gland compression, insulated connectors.

3. Flexible Metal Conduit: Provide two screw type, insulated, malleable iron connectors.

4. Flexible, Nonmetallic Conduit: Provide nonmetallic, liquid-tight strain relief connectors.

5. PVC-Coated Rigid Galvanized Steel Conduit: Provide PVC-coated, liquid-tight, metallic connector.

6. PVC Schedule 40 Conduit: Provide PVC terminal adapter with lock nut.

C. Motor Control Center, Switchboard, Switchgear, and Free-Standing Enclosures: Terminate conduit entering bottom with grounding bushing; provide a grounding

jumper extending to equipment ground bus or grounding pad.

3.14 Underground Raceways

A. Grade: Maintain minimum grade of 4 inches in 100 feet, either from one manhole, handhole, or pull box to the next, or from a high point between them, depending on surface contour.

B. Cover: Maintain minimum 2-foot cover above conduit and concrete encasement, unless otherwise shown.

C. Make routing changes as necessary to avoid obstructions or conflicts.

D. Couplings: In multiple conduit runs, stagger so that couplings in adjacent runs are not in same transverse line.

E. Union type fittings not permitted.

F. Spacers:

1. Provide preformed, nonmetallic spacers, designed for such purpose, to secure and separate parallel conduit runs in a trench or concrete encasement.

2. Install at intervals not greater than that specified in NFPA 70 for support of the type conduit used, but in no case greater than 10 feet.

G. Support conduit so as to prevent bending or displacement during backfilling or concrete placement.

H. Installation with Other Piping Systems:

1. Crossings: Maintain minimum 12-inch vertical separation.

2. Parallel Runs: Maintain minimum 12-inch separation.

3. Installation over valves or couplings not permitted.

I. Metallic Raceway Coating: At couplings and joints and along entire length, apply wraparound duct band with one-half tape width overlap to obtain two complete layers.

J. Concrete Encasement:

1. Concrete Color: Gray, dust top of concrete ductbank with powdered red concrete dye before concrete sets and trowel dry onto top of ductbank.

K. Backfill: Do not backfill until inspected by ENGINEER.

3.15 Manholes And Handholes

A. Excavate, shore, brace, backfill, and final grade back to original state.

B. Do not install until final raceway grading has been determined.

C. Install such that raceways enter at nearly right angles and as near as possible to one end of wall, unless otherwise shown.

D. Grounding: As specified in Section 26 05 26.13, Grounding.

E. Identification: Field stamp covers with manhole or handhole number as shown. Stamped numbers to be i-inch minimum height.

3.16 Empty Raceways

A. Provide permanent, removable cap over each end.

B. Provide PVC plug with pull tab for underground raceways with end bells.

C. Provide nylon pull cord.

D. Identify, as specified in Paragraph Identification Devices, with waterproof tags attached to pull cord at each end, and at intermediate pull point.

3.17 Identification Devices

A. Raceway Tags:

1. Identify origin and destination.

2. Install at each terminus, near midpoint, and at minimum intervals of every 50 feet of exposed Raceway, whether in ceiling space or surface mounted.

3. Provide nylon strap for attachment.

B. Detectable Electric Warning Tape: Install approximately 12 inches above underground or concrete-encased raceways. Align parallel to, and within 12 inches of, centerline of runs.

C. Buried Raceway Markers:

1. Install at grade to indicate direction of underground raceways.

2. Install at all bends and at intervals not exceeding 100 feet in straight runs.

3.18 Protection of Installed Work

A. Protect products from effects of moisture, corrosion, and physical damage during construction.

B. Provide and maintain manufactured watertight and dust-tight seals over all conduit openings during construction.

END OF SECTION

Part 1 General

1.01 References

A. The following is a list of standards which may be referenced in this section:

1. American National Standards Institute (ANSI):

   a. 450, Recommended Practice for Maintenance, Testing, and Replacement of Large lead Storage Batteries for Generator Stations and Substations.

   b. C2, National Electrical Safety Code.

   c. C37.20.1, Metal-Enclosed Low Voltage Power Circuit Breaker Switchgear.

   d. C37.20.2, Metal-Clad and Station-Type Cubicle Switchgear.

   e. C37.20.3, Metal-Enclosed Interrupter Switchgear.

   f. C62.33, Standard Test Specifications for Varistor Surge- Protective Devices.

2. American Society for Testing and Materials (ASTM):

   a. D665, Standard Test Method for Rust Preventing Characteristics of Inhibited Mineral Oil in the Presence of Water.

   b. DS77, Standard Test Method for Dielectric Breakdown Voltage of Insulating Liquids Using Disk Electrodes.

   c. D923, Standard Test Method for Sampling Electrical Insulating Liquids.

   d. D924, Standard Test Methods for A-Class Characteristics and Relative Permittivity (Dielectric Constant) of Electrical Insulating Liquids.

   e. D971, Standard Test Method for Interfacial Tension of 0.1 Against Water by the Ring Method.

   f. D974, Standard Test Method for Acid and Base Number by Color-Indicator Titration.

   g. D1298, Standard Test Method for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method.

h. D1500, Standard Test Method for ASTM Color of Petroleum Products.

i. D1524, Standard Test Method for Visual Examination of Used Electrical Insulating Oils of Petroleum Origin in the Field.

j. D1533, Standard Test Methods for Water in Insulating Liquids.

k. D1816, Standard Test Method for Dielectric Breakdown Voltage of Insulating Oils of Petroleum Origin Using VDE Electrodes.

l. D2285, Standard Test Method for Interfacial Tension of Electrical Insulating Oils of Petroleum Origin Against Water by the Drop- Weight Method.

3. Institute of Electrical and Electronics Engineers (IEEE):

a. 43, Recommended Practice for Testing Insulating Resistance of Rotating Machinery.

b. 48, Standard Test Procedures and Requirements for High-Voltage Alternating-Current Cable Terminators.

c. 81, Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System.

d. 95, Recommended Practice for Insulation Testing of Large AC Rotating Machinery with High Direct Voltage.

e. 118, Standard Test Code for Resistance Measurement.

f. 400, Guide for Making High-Direct-Voltage Tests on Power Cable Systems in the Field.

4. National Electrical Manufacturers Association (NEMA):

a. AB 4, Guideline for Inspection and Preventive Maintenance of Molded Case Circuit Breakers Used in Commercial and Industrial Applications.

b. PB 2, Deadfront Distribution Switchboards.

c. WC 7, Cross-Linked-Thermosetting-Polyethylene- Wire and Cable for the Transmission and Distribution of Electrical Energy.

d. WC 8, Ethylene-Propylene-Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

5. International Electrical Testing Association (NETA): ATS, Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

6. National Fire Protection Association (NFPA):

   a. 70, National Electrical Code (NEC).

   b. 70E, Standard for Electrical Safety Requirements for Employee Workplaces.

1.02 Submittals

A. Administrative Submittals: Submit 30 days prior to performing inspections or tests:

1. Schedule for performing inspection and tests.

2. List of references to be used for each test.

3. Sample copy of equipment and materials inspection form(s).

4. Sample copy of individual device test form.

5. Sample copy of individual system test form.

B. Quality Control Submittals: Submit within 30 days after completion of test: Test or inspection reports and certificates for each electrical item tested.

C. Contract Closeout Submittals: Operation and Maintenance Data: After test or inspection reports and certificates have been reviewed by ENGINEER and returned, insert a copy of each in operation and maintenance manual.

1.03 Quality Assurance

A. Testing Firm Qualifications:

1. Corporately and financially independent organization functioning as an unbiased testing authority.

2. Professionally independent of manufacturers, suppliers, and installers, of electrical equipment and systems being tested.

3. Employer of engineers and technicians regularly engaged in testing and inspecting of electrical equipment, installations, and systems.

4. Supervising engineer accredited as Certified Electrical Test Technologist by National Institute for Certification of Engineering Technologists (NICET), or International Electrical Testing Association and having a minimum of 5 years testing experience on similar projects.

5. Technicians certified by NICET or NETA.

6. Assistants and apprentices assigned to project at ratio not to exceed two certified to one noncertified assistant or apprentice.

7. Registered Professional Engineer to provide comprehensive project report outlining services performed, results of such services, recommendations, actions taken, and opinions.

8. In compliance with OSHA Title 29, Part 1907 criteria for accreditation of testing laboratories or a full Member Company of International Electrical Testing Association.

B. Test equipment shall have an operating accuracy equal to, or greater than, requirements established by NETA ATS.

C. Test instrument calibration shall be in accordance with NETA ATS.

1.04 Sequencing and Scheduling

A. Perform inspection and electrical tests after equipment has been installed.

B. Perform tests with apparatus de-energized whenever feasible.

C. Inspection and electrical tests on energized equipment are to be:

1. Scheduled with ENGINEER prior to de-energization.

2. Minimized to avoid extended period of interruption to the operating plant equipment.

D. Notify ENGINEER at least 24 hours prior to performing tests on energized electrical equipment.

Part 2 Products (Not Used)

Part 3 Execution

3.01 General

A. Tests and inspection shall establish that:

1. Electrical equipment is operational within industry and manufacturer's tolerances.

2. Installation operates properly.

3. Equipment is suitable for energization.

4. Installation conforms to requirements of Contract Documents and NFPA 70, NFPA 70E, and ANSI C2.

B. Perform inspection and testing in accordance with NETA ATS, industry standards, and manufacturer's recommendations.

C. Set, test, and calibrate protective relays, circuit breakers, fuses, and other applicable devices in accordance with values established by the short circuit and coordination study as specified in Section 16015, ELECTRICAL SYSTEMS ANALYSIS.

D. Adjust mechanisms and moving parts for free mechanical movement.

E. Adjust adjustable relays and sensors to correspond to operating conditions, or as recommended by manufacturer.

F. Verify nameplate data for conformance to Contract Documents.

G. Realign equipment not properly aligned and correct unlevelness.

H. Properly anchor electrical equipment found to be inadequately anchored.

I. Tighten accessible bolted connections, including wiring connections, with calibrated torque wrench to manufacturer's recommendations, or as otherwise specified.

J. Clean contaminated surfaces with cleaning solvents as recommended by manufacturer.

K. Provide proper lubrication of applicable moving parts.

L. Inform ENGINEER of working clearances not in accordance with NFPA 70.

M. Investigate and repair or replace:

1. Electrical items that fail tests.

2. Active components not operating in accordance with manufacturer's instructions.

3. Damaged electrical equipment.

N. Electrical Enclosures:

1. Remove foreign material and moisture from enclosure interior.

2. Vacuum and wipe clean enclosure interior.

3. Remove corrosion found on metal surfaces.

4. Repair or replace, as determined by ENGINEER, door and panel sections having dented surfaces.

5. Repair or replace, as determined by ENGINEER, poor fitting doors and panel sections.

6. Repair or replace improperly operating latching, locking, or interlocking devices.

7. Replace missing or damaged hardware.

8. Finish:

a. Provide matching paint and touch up scratches and mars.

b. If required due to extensive damage, as determined by ENGINEER, refinish the entire assembly.

O. Replace fuses and circuit breakers that do not conform to size and type required by the Contract Documents.

P. Replace transformer insulating oil not in compliance with ASTM D923.

3.02 Switchgear and Switchboard Assemblies

A. Visual and Mechanical Inspection:

1. Insulator damage and contaminated surfaces.

2. Proper barrier and shutter installation and operation.

3. Proper operation of indicating devices.

4. Improper blockage of air cooling passages.

5. Proper operation of drawout elements.

6. Integrity and contamination of bus insulation system.

7. Check Door and Device Interlocking System By:

   a. Closure attempt of device when door is in OFF or OPEN position.

   b. Opening attempt of door when device is in ON or CLOSED position.

8. Check Key Interlocking Systems For:

   a. Key captivity when device is in ON or CLOSED position.

   b. Key removal when device is in ON or CLOSED position.

   c. Closure attempt of device when key has been removed.

   d. Correct number of keys in relationship to number of lock cylinders.

   e. Existence of other keys capable of operating lock cylinders. Destroy duplicate sets of keys.

9. Check Nameplates for Proper Identification Of:

   a. Equipment title and tag number with latest one-line diagram.

   b. Pushbutton.

   c. Control switch.

   d. Pilot light.

   e. Control relay.

f. Circuit breaker.

g. Indicating meter.

10. Verify that fuse and circuit breaker ratings, sizes, and types conform to those specified.

11. Check bus and cable connections for high resistance by low resistance ohmmeter and calibrated torque wrench thermographic survey applied to bolted joints.

    a. Ohmic value to be zero.

    b. Bolt torque level in accordance with NETA ATS, Table 10. 1, unless otherwise specified by manufacturer.

    c. Thermographic survey temperature gradient of 2 degrees C, or less.

12. Check Operation and Sequencing of Electrical and Mechanical Interlock Systems By:

    a. Closure attempt for locked open devices.

    b. Opening attempt for locked closed devices.

    c. Key exchange to operate devices in OFF-NORMAL positions.

13. Verify performance of each control device and feature.

14. Control Wiring:

    a. Compare wiring to local and remote control and protective devices with elementary diagrams.

    b. Proper conductor lacing and bundling.

    c. Proper conductor identification.

    d. Proper conductor logs and connections.

15. Exercise active components.

16. Perform phasing check on double-ended equipment to ensure proper bus phasing from each source.

B. Electrical Tests:

1. Insulation Resistance Tests:

    a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 7.1.1.

    b. Each phase of each bus section.

    c. Phase-to-phase and phase-to-ground for 1 minute.

    d. With switches and breakers open.

    e. With switches and breakers closed.

    f. Control wiring except that connected to solid state components.

    g. Insulation resistance values equal to, or greater than, ohmic values established by manufacturer.

2. Overpotential Tests:

    a. Applied ac or dc voltage and test procedure in accordance with ANSI C37.20.3 and NEMA PB 2.

    b. Each phase of each bus section.

    c. Phase-to-phase and phase-to-ground for 1 minute.

    d. Test results evaluated on a pass/fail basis.

3. Current Injection Tests:

    a. For entire current circuit in each section.

    b. Secondary injection for current flow of 1 ampere.

    c. Test current at each device.

4. Control Wiring:

    a. Apply secondary voltage to control power and potential circuits.

    b. Check voltage levels at each point on terminal boards and each device terminal.

5. Operational Test:

a. Initiate control devices.

b. Check proper operation of control system in each section.

3.03 Dry Type Transformers

A. Visual and Mechanical Inspection:

1. Physical and insulator damage.

2. Proper winding connections.

3. Bolt torque level in accordance with NETA ATS, Table 10.1, unless otherwise specified by manufacturer.

4. Defective wiring.

5. Proper operation of fans, indicators, and auxiliary devices.

6. Removal of shipping brackets, fixtures, or bracing.

7. Free and properly installed resilient mounts.

8. Cleanliness and improper blockage of ventilation passages.

9. Verify that tap-changer is set at correct ratio for rated output voltage under normal operating conditions.

10. Verify proper secondary voltage phase-to-phase and phase-to-ground after energization and prior to loading.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 7.2.3 for each:

1) Winding-to-winding.

2) Winding-to-ground.

b. l0-minute test duration with resistances tabulated at 30 seconds, 1 minute, and 10 minutes.

c. Results temperature corrected in accordance with NETA ATS, Table 7.2.4.

d. Temperature corrected insulation resistance values equal to, or greater than, ohmic values established by manufacturer.

e. Insulation resistance test results to compare within 1 percent of adjacent windings.

2. Perform tests and adjustments for fans, controls, and alarm functions as suggested by manufacturer.

3.04 Liquid Filled Transformers

A. Visual and Mechanical Inspection:

1. Physical and insulator damage.

2. Proper winding connections.

3. Bolt torque level in accordance with NETA ATS, Table 10.1, unless otherwise specified by manufacturer.

4. Defective wiring.

5. Proper operation of fans, indicators, and auxiliary devices.

6. Effective core and equipment grounding.

7. Removal of shipping brackets, fixtures, or bracing.

8. Tank leaks and proper liquid level.

9. Integrity and contamination of bus insulation system.

10. Verify that tap-changer is set at correct ratio for rated voltage under normal operating conditions.

11. Verify proper secondary voltage phase-to-phase and phase-to-ground after energization and prior to loading.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 7.2.3 for each:

1) Winding-to-winding.

2) Winding-to-ground.

b. 10-minute test duration with resistances tabulated at 30 seconds, 1 minute, and 10 minutes.

c. Results temperature corrected in accordance with NETA ATS Table, 7.2.4.

d. Temperature corrected insulation resistance values equal to, or greater than, ohmic values established by manufacturer.

e. Insulation resistance test results to compare within 1 percent of adjacent windings.

2. Perform tests and adjustments for fans, controls, and alarm functions as suggested by manufacturer.

3. Sample Insulating Oil in Accordance with ASTM D923 and Have Laboratory Tested For.

a. Dielectric breakdown voltage in accordance with ASTM D877 or D1816.

b. Acid neutralization number in accordance with ASTM D974 and D665.

c. Interfacial tension in accordance with ASTM D971 or D2285.

d. Color in accordance with ASTM D1500.

e. Visual condition in accordance with ASTM D1524.

f. Specific gravity in accordance with ASTM D1298.

g. Water content, in parts per million, in accordance with ASTM D1533.

h. Dielectric fluid test results in accordance with NETA ATS, Table 7.2.2.

i. Power factor at 25 degrees C and at 100 degrees, in accordance with ASTM D924.

j. Maximum power factor, corrected to 20 degrees C, in accordance with manufacturer's specifications.

3.05 Low Voltage Cables, 600 Volts Maximum

A. Visual and Mechanical Inspection:

1. Inspect Each Individual Exposed Power Cable No. 6 and Larger For:

   a. Physical damage.

   b. Proper connections in accordance with single-line diagram.

   c. Cable bends not in conformance with manufacturer's minimum allowable bending radius where applicable.

   d. Color coding conformance with specifications.

   e. Proper circuit identification.

2. Mechanical Connections For:

   a. Proper lug type for conductor material.

   b. Proper lug installation.

   c. Bolt torque level in accordance with NETA ATS, Table 10. 1, unless otherwise specified by manufacturer.

3. Shielded Instrumentation Cables For:

   a. Proper shield grounding.

   b. Proper terminations.

   c. Proper circuit identification.

4. Control Cables For:

   a. Proper termination.

   b. Proper circuit identification.

5. Cables Terminated Through Window Type CTs: Verify that neutrals and grounds are terminated for correct operation of protective devices.

B. Electrical Tests for Conductors No. 6 and Larger:

1. Insulation Resistance Tests:

a. Test each conductor with respect to ground and to adjacent conductors per IEEE 118 procedures for 1 minute.

b. Evaluate ohmic values by comparison with conductors of same length and type.

c. Investigate values less than 50 megohms.

d. Utilize 1,000V dc megohmmeter for 600V insulated conductors.

2. Continuity test by ohmmeter method to ensure proper cable connections.

3.06 Medium Voltage Cables, 25 kV Maximum

A. Visual and Mechanical Inspection:

1. Inspect Each Individual Exposed Cable For:

a. Physical damage plus jacket and insulation condition.

b. Proper connections in accordance with single-line diagram.

c. Proper shield grounding.

d. Proper cable support.

e. Proper cable termination.

f. Cable bends not in conformance with manufacturer's minimum allowable bending radius.

g. Proper are and fireproofing in common cable areas.

h. Proper circuit and phase identification.

2. Mechanical Connections For:

a. Proper lug type for conductor material.

b. Proper lug installation.

c. Bolt torque level in accordance with NETA ATS, Table 10. 1, unless otherwise specified by manufacturers.

3. Conductors Terminated Through Window Type CTs: Verify that neutrals and grounds are terminated for correct operation of protective devices.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Utilize 10,000-volt megohmmeter for 25 kV conductors.

b. Test each cable individually with remaining cables and shields grounded.

c. Test each conductor with respect to ground and to adjacent conductors in accordance with IEEE 118 procedures for 1 minute.

d. Evaluate ohmic values by comparison with conductors of same length and type.

e. Investigate values less than 50 megohms.

2. Shield Continuity Tests:

a. By ohmmeter method on each section of conductor.

b. Investigate values in excess of 10 ohms per 1,000 feet of conductors.

3. High Potential dc Tests:

a. In accordance with NEMA WC 8 for EPR insulated conductors.

b. Each conductor section tested with:

1) Splices and terminations in-place but disconnected from equipment.

2) Remaining conductors and shields grounded in accordance with IEEE 400.

c. Apply maximum dc test voltage as per manufacturer’s recommendation.

d. Measure only the leakage current associated with conductor.

e. Utilize guard ring or field reduction sphere to suppress corona at disconnected terminations.

f. Maximum test voltage shall not exceed limits for terminators specified in IEEE 48 or manufacturer's specifications.

g. Apply test voltage in a minimum of five equal increments until maximum acceptable test voltage is reached.

1) Increments not to exceed ac voltage rating of conductor.

2) Record dc leakage current at each step after a constant stabilization time consistent with system charging current.

h. Raise conductor to specified maximum test voltage and hold for 15 minutes, or as specified by conductor manufacturer. Record dc leakage current at 30 seconds and 1 minute and at 1-minute intervals, thereafter.

i. Immediately following test, ground conductor for adequate time period to drain insulation stored charge.

j. Test results evaluated on a pass/fail basis.

3.07 Metal Enclosed Busways

A. Visual and Mechanical Inspection:

1. Inspect for:

a. Proper connections.

b. Proper bracing, suspension alignment, and enclosure ground.

c. Check if orientation of ventilated bus provides proper cooling in accordance with manufacturer's instructions and if ventilation openings are not blocked.

d. Proper phase relationship using continuity test.

e. Supports at maximum allowable intervals.

2. For Busways Rated for Outdoors, Check for:

a. Check bus orientation for proper location of breathers or weep-hole plugs.

b. Removal of weep-hole plugs.

c. Proper installation of joint shields.

d. Proper operation of space heaters.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 10.2.

b. Each phase of each bus section.

c. Phase-to-phase and phase-to-ground for 1 minute.

d. Insulation resistance values equal to, or greater than, ohmic values established by manufacturer.

2. Overpotential Tests:

a. Applied ac or dc voltage in accordance with ANSI C37.23 and NETA ATS Table 7.1.2 on busways rated above 600 volts.

b. Phase-to-phase and phase-to-ground for 1 minute.

c. Test results evaluated on pass/fail basis.

3. Contact Resistance Tests:

a. At each uninsulated bus connection.

b. On insulated bus, measure resistance of bus section and compare values with adjacent phases.

3.08 Safety Switches, 600 Volts Maximum

A. Visual and Mechanical Inspection:

1. Proper blade pressure and alignment.

2. Proper operation of switch operating handle.

3. Adequate mechanical support for each fuse.

4. Proper contact-to-contact tightness between fuse clip and fuse.

5. Cable connection bolt torque level in accordance with NETA ATS, Table 10.1.

6. Proper phase barrier material and installation.

7. Verify that fuse sizes and types correspond to one-line diagram.

8. Perform mechanical operational test and verify electrical and mechanical interlocking system operation and sequencing.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 10.2.

b. Phase-to-phase and phase-to-ground for 1 minute on each pole.

c. Insulation resistance values equal to, or greater than, ohmic values established by manufacturer.

2. Contact Resistance Tests:

a. Contact resistance in microhms across each switch blade and fuse holder.

b. Investigate deviation of 50 percent or more from adjacent poles or similar switches.

3.09 Medium Voltage Metal Enclosed Air Switches

A. Visual and Mechanical Inspection:

1. Proper blade pressure, alignment, and arch interrupter operation.

2. Proper operation of operating mechanism.

3. Proper contact condition.

4. Adequate mechanical support for each fuse.

5. Proper contact-to-contact tightness between fuse clip and fuse.

6. Bus and cable connection tightness.

7. Proper phase barrier material and installation.

8. Proper operation of indicating devices.

9. Installation of expulsion limiting devices on expulsion type element holders.

10. Verify that fuse linksand types correspond to one-line diagram.

11. Perform mechanical operational test to verify electrical and mechanical interlocking system operation and sequencing.

12. Perform phasing check on double-ended air switch arrangements to ensure proper bus phasing from each source.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS Table 10.2.

b. Phase-to-phase and phase-to-ground for 1 minute on each pole.

c. Insulation resistance values equal to, or greater than, ohmic values established by manufacturer.

2. Contact Resistance Tests:

a. Contact resistance in microhms across each switch blade and fuse holder.

b. Investigate values exceeding 500 microhms or deviation of 50 percent or more from adjacent poles or similar switches.

3. Overpotential Tests:

a. Applied ac or dc voltage in accordance with NETA ATS Table 7.1.2.

b. Phase-to-phase and phase-to-ground for 1 minute.

c. Test results evaluated on pass/fail basis.

3.10 Molded and Insulated Case Circuit Breakers

A. General: Inspection and testing limited to circuit breakers rated 70 amperes and larger and to motor circuit protector breakers rated 50 amperes and larger.

B. Visual and Mechanical Inspection:

1. Proper mounting.

2. Proper conductor size.

3. Feeder designation according to nameplate and one-line diagram.

4. Cracked casings.

5. Connection bolt torque level in accordance with NETA ATS, Table 10.1.

6. Operate breaker to verify smooth operation.

7. Compare frame size and trip setting with circuit breaker schedules or one-line diagram.

8. Verify that terminals are suitable for 75 degrees C rated insulated conductors.

C. Electrical Tests:

1. Insulation Resistance Tests:

a. Utilize 1,000-volt dc megohmmeter for 480- and 600-volt circuit breakers and 500-volt dc megohmmeter for 240-volt circuit breakers.

b. Pole-to-pole and pole-to-ground with breaker contacts opened for 1 minute.

c. Pole-to-pole and pole-to-ground with breaker contacts closed for 1 minute.

d. Test values to comply with NETA ATS, Table 10.2.

2. Contact Resistance Tests:

a. Contact resistance in microhms across each pole.

b. Investigate deviation of 50 percent or more from adjacent poles and similar breakers.

3. Primary Current Injection Test to Verify:

a. Long-time minimum pickup and delay.

b. Short-time pickup and delay.

c. Ground fault pickup and delay.

d. Instantaneous pickup by run-up or pulse method.

e. Trip characteristics of adjustable trip breakers shall be within manufacturer's published time-current characteristic tolerance band, including adjustment factors.

f. Trip times shall be within limits established by NEMA AB 4, Table 5-3.

g. Instantaneous pickup value shall be within values established by NEMA AB 4, Table 5-4.

3.11 Protective Relays

A. Visual and Mechanical Inspection:

1. Visually Check Each Relay For:

a. Tight cover gasket and proper seal.

b. Unbroken cover glass.

c. Condition of spiral spring and contacts.

d. Disc clearance.

e. Condition of case shorting contacts if present.

2. Mechanically Check Each Relay For:

a. Freedom of movement.

b. Proper travel and alignment.

3. Verify That Each Relay:

a. Complies with Contract Documents and application.

b. Is set in accordance with recommended settings.

B. Electrical Tests:

1. Insulation resistance test on each circuit to frame except for solid state devices.

2. Tests on Nominal Recommended Setting For:

a. Pickup parameters on each operating element.

b. Timing at three points on time-current curve.

c. Pickup target and seal-in units.

d. Special tests as required to check operation of restraint, directional, and other elements in accordance with manufacturer's instruction manual.

3. Phase angle and magnitude contribution tests on differential and directional relays after energization to vectorially verify proper polarity and connections.

4. Current Injection Tests:

a. For entire current circuit in each section.

b. Secondary injection for current flow of 1 ampere.

c. Test current at each device.

3.12 Instrument Transformers

A. Visual and Mechanical Inspection:

1. Visually Check Current, Potential, and Control Transformers For:

a. Cracked insulation.

b. Broken leads or defective wiring.

c. Proper connections.

d. Adequate clearances between primary and secondary circuit wiring.

2. Verify Mechanically That:

a. Grounding and shorting connections have good contact.

b. Withdrawal mechanism and grounding operation, when applicable, operate properly.

3. Verify proper primary and secondary fuse sizes for potential transformers.

B. Electrical Tests:

1. Current Transformer Tests:

a. Insulation resistance test of transformer and wiring-to-ground at 1,000 volts dc for 30 seconds.

b. Polarity test.

2. Potential Transformer Tests:

a. Insulation resistance test at test voltages in accordance with NETA ATS, Table 7.1.1 for 1 minute on:

1) Winding-to-winding.

2) Winding-to-ground.

b. Polarity test to verify polarity marks or H1-X1 relationship as applicable.

3. Insulation resistance measurement on instrument transformer shall not be less than that shown in NETA ATS, Table 7.1.1.

3.13 Metering

Visual and Mechanical Inspection:

1. Verify meter connections in accordance with appropriate diagrams.

2. Verify meter multipliers.

3. Verify that meter types and scales conform to Contract Documents.

4. Check calibration of meters at cardinal points.

5. Check calibration of electrical transducers.

3.14 Grounding Systems

A. Visual and Mechanical Inspection:

1. Equipment and circuit grounds in motor control centers, panelboards, switchboards, and switchgear assemblies for proper connection and tightness.

2. Ground bus connections in motor control centers, panelboards, switchboards, and switchgear assemblies for proper termination and tightness.

3. Effective transformer core and equipment grounding.

4. Accessible connections to grounding electrodes for proper fit and tightness.

5. Accessible exothermic-weld grounding connections to verify that molds were fully filled and proper bonding was obtained.

B. Electrical Tests:

1. Fall-Of-Potential Test:

a. In accordance with IEEE 81, Section 8.2.1.5 for measurement of main ground system's resistance.

b. Main ground electrode system resistance to ground to be no greater than 5 ohms.

2. Two-Point Direct Method Test:

a. In accordance with IEEE 81, Section 8.2. 1.1 for measurements of ground resistance between main ground system, equipment frames, and system neutral and derived neutral points.

b. Equipment ground resistance shall not exceed main ground system resistance by 0.50 ohm.

3.15 Ground Fault Systems

A. Inspection and Testing Limited To:

1. Zero sequence grounding systems.

2. Residual ground fault systems.

B. Visual and Manual Inspection:

1. Neutral Main Bonding Connection to Assure:

a. Zero sequence sensing system is grounded ahead of neutral disconnect link.

b. Ground strap sensing system is grounded through sensing device.

c. Neutral ground conductor is solidly grounded.

2. Verify that control power has adequate capacity for system.

3. Manually Operate Monitor Panels For:

a. Trip test.

b. No trip test.

c. Nonautomatic rest.

4. Zero sequence system for symmetrical alignment of core balance transformers about current carrying conductors.

5. Relay check for pickup and time under simulated ground fault conditions.

6. Verify nameplate identification by device operation.

C. Electrical Tests:

1. Test system neutral insulation resistance with neutral ground link removed. System neutral insulation resistance minimum 1 megohm.

2. Determine relay pickup by primary current injection at the sensor. Relay pickup current within plus or minus 10 percent of device dial or fixed setting.

3. Test relay timing by injecting 300 percent of pickup current, or as specified by manufacturer. Relay operating time in accordance with manufacturer's time-current characteristic curves.

4. Test system operation at 55 percent rated control voltage, if applicable.

5. Test zone interlock system by simultaneous sensor current injection and monitoring zone blocking functions.

3.16 AC Induction Motors

A. General: Inspection and testing limited to motors rated 5 horsepower and larger.

B. Visual and Mechanical Inspection:

1. Proper electrical and grounding connections.

2. Shaft alignment.

3. Blockage of ventilating air passageways.

4. Operate Motor and Check For:

a. Excessive mechanical and electrical noise.

b. Overheating.

c. Correct rotation.

d. Check vibration detectors, resistance temperature detectors, or motor inherent protectors for functionability and proper operation.

e. Excessive vibration.

5. Check operation of space heaters.

C. Electrical Tests:

1. Insulation Resistance Tests:

a. In accordance with IEEE 43 at test voltages established by NETA ATS, Table 10.2 for:

1) Motors above 200 horsepower for l0-minute duration with resistances tabulated at 30 seconds, 1 minute, and 10 minutes.

2) Motors 200 horsepower and less for 1-minute duration with resistances tabulated at 30 and 60 seconds.

b. Insulation resistance values equal to, or greater than, ohmic values established by manufacturers.

2. Calculate polarization index ratios for motors above 200 horsepower. Investigate index ratios less than 1.5 for Class A insulation and 2.0 for Class B insulation.

3. Insulation resistance test on insulated bearings in accordance with manufacturer's instructions.

4. Measure running current and voltage, and evaluate relative to load conditions and nameplate full-load amperes.

5. Overpotential Tests:

a. Applied dc voltage in accordance with IEEE 95.

b. Limited to 4,000-volt motors rated 1,000 horsepower and greater.

c. Test results evaluated on pass/fail basis.

3.17 Low Voltage Motor Control

A. Visual and Mechanical Inspection:

1. Proper barrier and shutter installation and operation.

2. Proper operation of indicating and monitoring devices.

3. Proper overload protection for each motor.

4. Improper blockage of air cooling passages.

5. Proper operation of drawout elements.

6. Integrity and contamination of bus insulation system.

7. Check Door and Device Interlocking System By:

    a. Closure attempt of device when door is in OFF or OPEN position.

    b. Opening attempt of door when device is in ON or CLOSED position.

8. Check Key Interlocking Systems For:

    a. Key captivity when device is in ON or CLOSED position.

    b. Key removal when device is in OFF or OPEN position.

    c. Closure attempt of device when key has been removed.

    d. Correct number of keys in relationship to number of lock cylinders.

    e. Existence of other keys capable of operating lock cylinders; destroy duplicate sets of keys.

9. Check Nameplates for Proper Identification Of:

    a. Equipment title and tag number with latest one-line diagram.

    b. Pushbuttons.

    c. Control switches.

    d. Pilot lights.

    e. Control relays.

    f. Circuit breakers.

    g. Indicating meters.

10. Verify that fuse and circuit breaker sizes and types conform to Contract

Documents.

11. Verify that current and potential transformer ratios conform to Contract Documents.

12. Check Bus Connections for High Resistance by Low Resistance Ohmmeter and Thermographic Survey:

    a. Ohmic value to be zero.

    b. Bolt torque level in accordance with NETA ATS, Table 10.1, unless otherwise specified by manufacturer.

    c. Thermographic survey temperature gradient of 2 degrees C, or less.

13. Check Operation and Sequencing of Electrical and Mechanical Interlock Systems By:

    a. Closure attempt for locked open devices.

    b. Opening attempt for locked closed devices.

    c. Key exchange to operate devices in OFF-NORMAL positions.

14. Verify performance of each control device and feature furnished as part of the motor control center.

15. Control Wiring:

    a. Compare wiring to local and remote control, and protective devices with elementary diagrams.

    b. Check for proper conductor lacing and bundling.

    c. Check for proper conductor identification.

    d. Check for proper conductor lugs and connections.

16. Exercise active components.

17. Inspect Contactors For:

    a. Correct mechanical operations.

    b. Correct contact gap, wipe, alignment, and pressure.

c. Correct torque of all connections.

18. Compare overload heater rating with full-load current for proper size.

19. Compare motor protector and circuit breaker with motor characteristics and power factor correction capacitors for proper size.

20. Perform phasing check on double-ended motor control centers to ensure proper bus phasing from each source.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 10.2.

b. Bus section phase-to-phase and phase-to-ground for 1 minute on each phase.

c. Contactor phase-to-ground and across open contacts for 1 minute on each phase.

d. Starter section phase-to-phase and phase-to-ground on each phase with starter contacts closed and protective devices open.

e. Test values to comply with NETA ATS, Table 10.2.

2. Overpotential Tests:

a. Maximum applied ac or dc voltage in accordance with NETA ATS, Table 7.1.2.

b. Phase-to-phase and phase-to-ground for 1 minute for each phase of each bus section.

c. Test results evaluated on pass/fail basis.

3. Current Injection Through Overload Unit at 300 Percent of Motor Full-Load Current and Monitor Trip Time:

a. Trip time in accordance with manufacturer's published data.

b. Investigate values in excess of 120 seconds.

4. Control Wiring Tests:

a. Apply secondary voltage to control power and potential circuits.

b. Check voltage levels at each point on terminal boards and each device terminal.

c. Insulation resistance test at 1,000 volts dc on control wiring except that connected to solid state components. Insulation resistance to be 1 megohm minimum.

5. Operational test by initiating control devices to affect proper operation.

3.18 Automatic Transfer Switches

A. Visual and Mechanical Inspection:

1. Check doors and panels for proper interlocking.

2. Check connections for high resistance by low resistance ohmmeter.

3. Check positive mechanical and electrical interlock between normal and alternate sources.

4. Check for Proper Operation:

a. Manual transfer function switch.

b. Generator under load and nonload conditions.

c. Auto-exerciser of generator under load and no-load conditions.

5. Verify settings and operation of control devices.

B. Electrical Tests:

1. Insulation Resistance Tests:

a. Applied megohmmeter dc voltage in accordance with NETA ATS, Table 10.2 for each phase with switch CLOSED in both source positions.

b. Phase-to-phase and phase-to-ground for 1 minute.

c. Test values in accordance with manufacturer's published data.

2. Contact Resistance Test:

    a. Contact resistance in microhms across each switch blade for both source positions.

    b. Investigate values exceeding 500 micro-ohms.

    c. Investigate values deviating from adjacent pole by more than 50 percent.

3. Set and Calibrate in Accordance with Specifications:

    a. Voltage and frequency sensing relays.

    b. Time delay relays.

    c. Engine start and shutdown relays.

4. Perform Automatic Transfer Tests By:

    a. Simulating loss of normal power.

    b. Return to normal power.

    c. Simulating loss of alternate power.

    d. Simulating single-phase conditions for normal and alternate sources.

5. Monitor and Verify Operation and Timing Of:

    a. Normal and alternate voltage sensing relays.

    b. Engine start sequence.

    c. Timing delay upon transfer and retransfer.

    d. Engine cool down and shutdown.

    e. Interlocks and limit switch functions.

    f. Engine cool down and shutdown feature.

3.19 Battery System

A. Visual and Mechanical Inspection:

1. Physical damage and electrolyte leakage.

2. Evidence of corrosion.

3. Intercell bus link integrity.

4. Battery cable insulation damage and contaminated surfaces.

5. Operating conditions of ventilating equipment.

6. Visual check of electrolyte level.

B. Electrical Tests:

1. Measure:

a. Bank charging voltage.

b. Individual cell voltage.

c. Electrolyte specific gravity in each cell.

d. Measured test values to be in accordance with manufacturer's published data.

2. Verify During Recharge Mode:

a. Charging rates from charger.

b. Individual cell acceptance of charge.

3. Load tests for integrity and capacity; test values in accordance with ANSI 450.

3.20 Low Voltage Surge Arrestors

A. Visual and Mechanical Inspection:

1. Adequate clearances between arrestors and enclosures.

2. Ground connections to ground bus or electrode.

B. Electrical Tests:

1. Varistor Type Arrestors:

a. Clamping voltage test.

b. Rated RMS voltage test.

c. Rated dc voltage test.

d. Variator arrester test values in accordance with ANSI C62.33, Sections 4.4 and 4.7.

3.21 Medium Voltage Surge Arrestors And Surge Capacitors

A. Visual Inspection:

1. Ground connections to ground bus or electrode.

2. Shortest practical jumper connections to line.

B. Electrical Tests:

1. Grounding electrode resistance test in accordance with IEEE 81, Section 8.2. 1.5 using three-point fall-of-potential method.

2. Insulation power factor.

3. Insulation resistance.

4. RF noise test using Stodard Noise Test set with applied voltage of 1.18 times maximum continuous operating voltage.

5. Insulation power factor leakage current, watts loss, and insulation resistance tests in accordance with manufacturer's test values. RIV value not to exceed 10 microvolts above background noise.

6. Leakage current and watts loss tests.

3.22 Power Factor Correction Capacitors

A. Visual and Mechanical Inspection:

1. Verify capacitors are connected in proper configuration.

2. For units switched with motors, verify that capacitor rating does not exceed motor nameplate maximum allowable value.

B. Electrical Tests:

1. Insulation resistance, each pole-to-case and pole-to-ground; values in accordance with manufacturer's recommendation.

2. Capacitance for pole-to-pole combinations; ratings differing more than plus 15,

minus 0 percent from manufacturer's values shall be replaced.

3. Resistance of internal discharge arrestors with analog volt-ohmmeter; resistance to be in excess of 2 megohms.

3.23 Standby and Emergency Generator Systems

A. Visual and Mechanical Inspection:

1. Proper grounding.

2. Blockage of ventilating passageways.

3. Proper operation of jack water heaters.

4. Integrity of engine cooling and fuel supply systems.

5. Excessive mechanical and electrical noise.

6. Overheating of engine or generator.

7. Proper installation of vibration isolators.

8. Proper cooling liquid type and level.

9. Operate Engine-Generator and Check For:

   a. Excessive mechanical and electrical noise.

   b. Overheating.

   c. Correct rotation.

   d. Check resistance temperature detectors or generator inherent thermal protectors for functionability and proper operation.

   e. Excessive vibration.

10. Verify that voltage regulator and governor operation will cause unit speed and output voltage to stabilize at proper values within reasonable length of time.

11. Proper operation of meters and instruments.

12. Compare generator nameplate rating and connection with one-line diagram.

13. Verify engine-generator operation with adjustable frequency drives energized and operating under normal load conditions.

B. Electrical and Mechanical Tests:

1. Cold start test by interrupting normal power source with test load consisting of connected building load to verify:

   a. Transfer switch operation.

   b. Automatic starting operation.

   c. Operating ability of engine-generator.

   d. Overcurrent devices capability to withstand inrush currents.

2. Phase rotation tests.

3. Test Engine Protective Shutdown Features For:

   a. Low oil pressure.

   b. Overtemperature.

   c. Overspeed.

4. Vibration base-line test on generator sets rated above 250 kW; levels in accordance with manufacturer's recommendations.

5. Load bank test with reactors and resistors adjusted to 80 percent power factor for each load step. Record voltage, frequency, load current, oil pressure, and engine coolant temperature at 15-minute intervals:

   a. 25 percent applied load for 30 minutes.

   b. 50 percent applied load for 30 minutes.

   c. 75 percent applied load for 30 minutes.

   d. 100 percent applied load for 3 hours.

   e. Load test results to demonstrate ability of unit to deliver rated load for test period.

6. One-Step Rated kW Load Pickup Test:

a. Perform test immediately after performing load bank test.

b. Apply rated load, minus largest rated horsepower motor, to generator.

c. Start largest rated horsepower motor and record voltage drop for 20 cycles minimum with high-speed chart recorder or digital storage oscilloscope.

d. Compare voltage drop with maximum allowable voltage dip for specified starting situation.

3.24 Thermographic Survey

A. Provide a thermographic survey of connections associated with incoming service conductors, bus work, and branch feeder conductors No. 2 and larger at each:

1. Medium voltage switchgear and transformer.

2. Switchboard.

3. Low voltage motor control center.

4. Panelboard.

B. Provide a thermographic survey of feeder conductors No. 2 and larger terminating at:

1. Motors rated 30 horsepower and larger.

2. Medium and low voltage disconnect switches.

3. Transfer switches.

4. Engine-generators.

C. Remove necessary enclosure metal panels and covers prior to performing survey.

D. Perform with equipment energized during periods of maximum possible loading.

E. Do not perform survey on equipment operating at less than 20 percent of rated connected operating load.

F. Utilize Thermographic Equipment Capable Of:

1. Detecting emitted radiation.

2. Converting detected radiation to visual signal.

3. Detecting 1 degree C temperature difference between subject area and reference point of 30 degrees C.

G. Temperature Gradients Of:

1. 3 degrees C to 7 degrees C indicates possible deficiency that warrants investigation.

2. 7 degrees C to 15 degrees C indicates deficiency that is to be corrected as time permits.

3. 16 degrees C and above indicates deficiency that is to be corrected immediately.

H. Provide Written Report Of:

1. Areas surveyed and the resultant temperature gradients.

2. Locations of areas having temperature gradients of 3 degrees C or greater.

3. Cause of heat rise and actions taken to correct the cause of heat rise.

4. Detected phase unbalance.

END OF SECTION

Part 1 General

1.01 The Requirement

A. The CONTRACTOR shall furnish, install, test, and place in satisfactory operation, dead-front type, low voltage, draw-out, metal enclosed power circuit breaker switchgear as specified herein and indicated on the Drawings.

B. The switchgear shall be the air break power circuit breaker type with drawout circuit breaker elements.

C. The line-up shall contain main breakers, feeder breakers, metering equipment, control devices, and all accessories as specified herein, indicated on the Drawings, and as required to result in a complete and operable power distribution equipment assembly.

D. The CONTRACTOR shall obtain the switchgear from one manufacturer who shall also manufacture the structure and major equipment components, which includes, but is not limited to, assemblies of circuit breakers and auxiliary housings, drawout type air circuit breakers, instrument transformers, meters, relays, and controls. Sub-contracting of wiring is not acceptable.

E. The switchgear shall be assembled using NEMA rated components. Components designed and built to International Electrotechnical Commission (IEC) standards are not recognized. Equipment designed, manufactured and labeled in compliance with IEC standards is not acceptable.

F. Circuit breaker control and relaying/metering circuits shall be wired in accordance with the requirements specified herein or indicated on the Drawings.

1.02 Codes and Standards

A. The switchgear assemblies and power circuit breakers shall comply with the following codes and standards:

1. American National Standards Institute (ANSI):

   a. C37.13 - Low Voltage AC Power Circuit Breakers Used in Enclosures.

   b. C37.16 - Preferred Ratings, Related Requirements and Application Recommendations for Low Voltage Power Circuit Breakers and AC Power Circuit Protectors.

   c. C37.20.1 - Standard for Metal - Enclosed Low Voltage Power Circuit Breaker Switchgear.

   d. C37.51 - Standard Conformance Test Procedures for Metal-Enclosed

Low Voltage AC Power Circuit Breaker Switchgear Assemblies.

2. Institute of Electrical and Electronic ENGINEERs (IEEE).

3. Insulated Cable ENGINEERs' Association (ICEA).

4. National Electrical Code (NEC).

5. National Electrical Manufacturers' Association (NEMA):

   a. SG3 - Low-Voltage Power Circuit Breakers.

   b. SG5 - Power Switchgear Assemblies.

6. Underwriters Laboratories, Inc. (UL): UL 1558 - Metal-Enclosed Low Voltage Power Circuit Breaker Switchgear.

1.03 Testing

A. All tests shall be performed in accordance with the requirements of the General Conditions and Division 1. The following tests are required:

1. Certified Shop Tests and Reports

   a. Submit description of proposed testing methods, procedures, and apparatus.

   b. Submit notarized and certified copies of all test reports.

   c. As a minimum, the entire switchgear assembly shall go through a quality inspection before shipment. This inspection shall include, but is not limited to, the following:

      1) Physical inspection of the structure and the electrical conductors including bussing, general wiring, and units.

      2) General electrical tests including power circuit phasing, control circuit wiring, instrument transformers, meters, ground fault system, and device electrical operation.

      3) AC dielectric tests of the power circuits and control circuits.

      4) Markings/labels, including instructional type, Underwriters Laboratory (U.L.), and inspector's stamps.

   d. The manufacturer shall use integral quality control checks throughout the

manufacturing process to maintain the correctness of the switchgear.

2. Field tests shall be performed in accordance with requirements specified in Section 26 08 13 Electrical Testing.

1.04 Submittals

A. Submittals, the CONTRACTOR shall obtain from the equipment manufacturer and submit the following:

1. Shop Drawings

2. Operation and Maintenance Manuals

3. Spare Parts List

4. Special Tools List

5. Proposed Testing Methods and Reports of Certified Shop Tests

B. Each submittal shall be identified by the applicable specification section.

1.05 Shop Drawings

A. Each submittal shall be complete in all respects, incorporating all information and data listed herein and all additional information required for evaluation of the proposed equipment's compliance with the Contract Documents.

B. Partial, incomplete or illegible submissions will be returned to the CONTRACTOR without review for resubmittal.

C. Shop drawings for <u>each switchgear assembly</u> shall include but not be limited to:

1. Equipment specifications and product data sheets identifying all electrical ratings.

2. Complete assembly, layout, installation, and foundation drawings with clearly marked dimensions.

3. Assembled weight of units and approximate total shipping weight.

4. Example equipment nameplate data sheet.

5. Plan, front and side view drawings, including overall dimensions of <u>each</u> switchgear assembly. Identify shipping splits and show conduit stub-up area locations on the drawings. Provide details for busway connections.

6. Internal wiring diagram of each low voltage switchgear compartment. Each wiring diagram shall include wire identification and terminal numbers.

7. Internal compartment-to-compartment interconnection wiring diagrams including wiring identification and terminal numbers.

8. Complete one-line diagram of each switchgear line-up and complete three-line diagram for each switchgear line-up. These drawings shall indicate devices comprising the switchgear assembly including, but not limited to, circuit breakers, control power and instrument transformers, meters, relays, and control devices. Clearly indicate electrical ratings of all devices.

9. Bill of material list for each switchgear assembly including each switchgear compartment.

10. Nameplate schedule for each compartment.

11. Manufacturer's installation instructions.

12. Manufacturer's standard warranty.

13. Key interlock scheme drawing and sequence of operation.

D. The shop drawing information shall be complete and organized in such a way that the ENGINEER can determine if the requirements of these specifications are being met. Copies of technical bulletins, technical data sheets from "soft-cover" catalogs, and similar information which is "highlighted" or somehow identifies the specific equipment items the CONTRACTOR intends to provide are acceptable and shall be submitted.

1.06 Operations and Maintenance Manuals

The CONTRACTOR shall submit operation and maintenance manuals in accordance with the procedures and requirements set forth in the General Conditions and Division 01. The manuals shall include:

1. Instruction books and/or leaflets.

2. Recommended spare parts list.

3. Final as-built construction drawings included in the shop drawings incorporating all changes made in the manufacturing process.

1.07 Tools, Supplies, and Spare Parts

A. The switchgear shall be furnished with all special tools necessary to disassemble, service, repair, and adjust the equipment and all spare parts as recommended by the equipment manufacturer. Furnish the following maintenance accessories for the switchgear:

1. Crank for racking breakers.

2. Overhead breaker lifting device.

3. Manual charging handle and maintenance slow closing device for electrically operated breakers.

4. Portable trip device test set and cables.

B. The CONTRACTOR shall furnish the following minimum spare parts for each switchgear assembly:

1. One dozen each of cover bolts, cage nuts and door fasteners.

2. One quart of touch-up paint.

3. 100 percent replacement of lens caps.

4. 10 pilot lamps of each size and voltage.

5. 10 control power fuses of each size.

6. 2 replacement sets (3) breaker current limiters of each size.

7. One complete PLC with program loaded including processor card and all I/O cards (not installed).

C. The spare parts shall be packed in containers suitable for long term storage, bearing labels clearly designating the contents and the pieces of equipment for which they are intended.

D. Spare parts shall be delivered at the same time as the equipment to which they pertain. The CONTRACTOR shall properly store and safeguard such spare parts until completion of the Work, at which time they shall be delivered to the OWNER.

E. Spare parts lists, included with the shop drawing submittal shall indicate specific sizes, quantities, and part numbers of the items to be furnished. Terms such as "1 lot of packing material" are not acceptable.

F. Parts shall be completely identified with a numerical system to facilitate parts inventory control and stocking. Each part shall be properly identified by a separate number. Those parts, which are identical for more than one size, shall have the same parts number.

1.08 Services of Manufacturer's Representative

A. The CONTRACTOR shall provide the services of a qualified manufacturer's technical representative who shall adequately supervise the installation and testing of all equipment furnished under this Contract and instruct the CONTRACTOR's personnel and the OWNER's operating personnel in its maintenance and operation. The services of the manufacturer's representative shall be provided for a period of not less than as follows:

1. One trip of one (1) working day during installation of the equipment for supervision and assistance of circuit breaker installation in switchgear structure. Coordinate with electrical contractor.

2. One trip of one (1) working day for the setting of the protective devices per approved coordination study.

3. One trip of one (1) working day after acceptance of the equipment for training of owner’s personnel in accordance with 26 23 00 Section 1.10 Training.

4. One trip of one (1) working day during the warranty period.

B. Any additional time required to achieve successful installation and operation shall be at the expense of the CONTRACTOR. The manufacturer's representative shall sign in and out at the office of the ENGINEER's Field Representative on each day he is at the project.

1.09 Identification

Each switchgear assembly shall be identified with the identification number indicated on the Drawings. A nameplate shall be securely affixed in a conspicuous place on each switchgear assembly.

1.10 Training

The CONTRACTOR shall provide training for OWNER personnel. Training shall be conducted by the manufacturer's factory trained specialists who shall instruct OWNER personnel in operation and maintenance of all equipment provided under this Section.

Part 2 Products

2.01 Manufacturers

A. The equipment covered by these specifications is intended to be standard equipment of proven performance as manufactured by reputable concerns. Equipment shall be designed, constructed and installed in accordance with the best practices of the trade, and shall operate satisfactorily when installed as shown on the Drawings.

B. It is the intent of these specifications that the switchgear be produced by a single manufacturer who shall be responsible for matching all components and providing equipment which functions together as a system. Manufacturers that provide complete switchgear assemblies using power circuit breakers produced by another major manufacturer shall only be allowed if specifically accepted by the ENGINEER

C. The switchgear shall be Type Magnum DS Cutler-hammer, Type AKD-10 as manufactured by General Electric, Type PWR Zone III as manufactured by Square D Company or approved equal.

2.02 Low Voltage Metal Enclosed Switchgear

A. Switchgear shall be suitable for use as service entrance equipment in accordance with Underwriters Laboratories requirements. Each complete assembly shall bear a U.L. label.

B. Ratings

1. Voltage rating shall be as indicated on the Drawings. The entire assembly shall be suitable for 600 volts maximum AC service. Basic impulse insulation level (BIL) shall be 30 kV.

2. Rate complete switchgear assembly to withstand mechanical forces exerted during short circuit conditions when connected directly to a power source having available fault current of 100,000 amperes symmetrical at rated voltage. Test switchgear for conformance according to ANSI C37.51.

3. The bus system shall have a minimum ANSI 4-cycle short circuit withstand rating of 100,000 amperes symmetrical without upstream current limiting fuses.

4. All circuit breakers shall have a minimum symmetrical interrupting capacity as specified on the drawings with confirmation from the short circuit and device coordination study required in specifications section 16015. To assure a fully selective system, all circuit breakers shall have 30 cycle short time withstand ratings equal to their symmetrical interrupting ratings, regardless of whether equipped with instantaneous trip protection or not. Circuit breaker AIC ratings shall be adjusted per recommendations of the short circuit and device

coordination study.

5. Where circuit breakers are equipped with current limiters, the combination shall have short time ratings in accordance with the characteristics of the limiter selected.

6. All ratings shall be tested to the requirements of ANSI C37.20.1, C37.50 and C37.51 and U.L. witnessed and approved.

7. The switchgear assembly enclosure rating shall be NEMA 1 (gasketed).

C. Stationary Structure

1. The switchgear structure shall be constructed of formed sections of special smooth and leveled steel, welded together and reinforced where necessary with formed steel members. The sides shall be covered with removable bolt on covers. The resulting structure shall be rigid and self-supporting. Structural steel channel sills with end covers shall be furnished for mounting and aligning the separate elements of the structure. The steel channels shall be installed in the concrete floor.

2. The rear of structure shall be covered with concealed hinged, padlockable steel doors for access to buses, connections, and other equipment mounted within. The ends of the structure shall be closed with removable steel panels held in place with slotted head bolts or concealed screws. The hinged access doors shall be provided with 2-point latches, doorstops, structural reinforcing to prevent sagging and provisions for padlocking. Knurled screwhead type fasteners are not acceptable.

3. Secondary control devices and associated wiring shall be isolated from all high voltage primary devices by grounded metal barriers. Primary circuits such as circuit breakers, transformers, and buses shall also be isolated from each other and from personnel by grounded metal barriers.

4. The assembly shall be provided with adequate lifting means and shall be capable of being moved into installation position and bolted directly to CONTRACTOR supplied floor sills to be set level in concrete per manufacturer's instructions. Provisions shall be made for jacking of shipping groups for removal of skids or insertion of equipment rollers. Base of assembly shall be suitable for rolling directly on pipes without skids.

5. Each vertical steel unit forming part of the switchgear line-up shall be a self-contained housing having one or more individual breaker or instrument compartments, a centralized main bus compartment, and a rear cabling compartment. Each individual circuit breaker compartment shall be segregated from adjacent compartments and sections, including the bus compartment, by

means of grounded steel barriers. It shall be equipped with drawout rails and primary and secondary disconnecting contacts. Current transformers for feeder instrumentation, where indicated on the Drawings, shall be located within the appropriate breaker cells.

6. The stationary part of the primary disconnecting devices for each power circuit breaker shall consist of a set of contacts extending to the rear through a glass polyester insulating support barrier; corresponding moving finger contacts suitably spaced shall be furnished on the power circuit breaker studs which engage in only the CONNECTED position. The assembly shall provide multiple silver-to-silver full floating high pressure point contacts with uniform pressure on each finger maintained by springs. Each circuit shall include the necessary three-phase bus connections between the section bus and the breaker line side studs. Load studs shall be equipped with insulated copper load extension busses terminating in solderless type terminals in the rear cable compartment of each structure. Bus extensions shall be silver-plated where outgoing terminals are attached.

7. The secondary disconnecting devices shall consist of floating fingers mounted on the removable unit and engaging flat contact segments at the rear of the compartment. The secondary disconnecting devices shall be silver-plated and sliding contact engagement shall be maintained in the CONNECTED and TEST positions.

8. The removable power circuit breaker element shall be equipped with disconnecting contacts, wheels, and interlocks for drawout application. It shall have four positions, CONNECTED, TEST, DISCONNECTED and REMOVE all of which permit closing the compartment door. The breaker drawout element shall contain a worm gear levering "in" and "out" mechanism with removable lever crank. Mechanical interlocking shall be provided so that the breaker is in the tripped position before levering "in" and "out" of the cell. The breaker shall include a provision for padlocking open to prevent manual or electric closing. The padlocking shall also secure the breaker in the CONNECTED, TEST, or DISCONNECTED position by preventing levering.

9. An insulating flash shield shall be mounted above each circuit breaker to prevent flashover from the arc chutes to ground.

10. Hinged doors with removable hinge pins shall be provided for the fronts of the drawout circuit breaker compartments.

11. Hinged panels shall be provided for mounting of meters, protective relays, and other devices. Doors and panels shall be equipped with concealed hinges and suitable latches. Doors and panels shall have one-inch (1") deep-formed edges with double returns where necessary to assure stiffness.

12. A glass polyester safety shutter shall be furnished to automatically cover the bus stabs in the circuit breaker compartment when the circuit breaker unit is moved to the TEST, DISCONNECTED, or REMOVE position.

13. Provide a rear compartment steel barrier between the cable compartment and main bus to protect against inadvertent contact with the main or vertical bus bars. Provide full height and depth metal barriers between adjacent vertical structures in the cable compartment. Provide a full height and depth glass polyester barrier with appropriate slots for the main bus between adjacent vertical structures in the bus compartment.

14. Equip each cable compartment with cable lug adapters complete with solderless mechanical lugs which can be mounted up or down at a 45 degree angle to facilitate cable termination with a minimum bending radius. Provide lugs including grounding lugs, suitable for copper cable, of quantity and size as indicated on the Drawings.

15. Except as otherwise described herein, all "space" compartments specified herein or indicated on the Drawings shall be furnished as "prepared spaces" or "futures" complete with buses, supports, insulators, primary and secondary disconnects, lugs for future outgoing cables, and rails ready to receive a future circuit breaker of appropriate size. Insulating barriers shall be installed in the cubicles to cover all live terminals to prevent accidental contact.

16. The withdrawal type units and the stationary sections for these units shall be assembled in jigs that accurately locate the contacts, holding devices, and interlocks. One removable unit of each type and rating shall be tried in each stationary compartment of same type and rating. Each stationary compartment shall be checked with its own removable unit to insure interchangeability.

D. Bus

1. Buses and main connections shall consist of silver plated flat copper bars or copper channels of suitable size carried on supports fabricated from an approved insulating material. The buses shall be mounted in a compartment at the rear or above the circuit breakers. Bus sizes shall be based upon a maximum current density of 1000 amperes per square inch. All bus connections, including shipping breaks and for future bus extensions, shall be silver-plated and tightly clamped with through bolts. Provide all bus joints with Bellville type spring washers. Buses shall have a continuous current-carrying capacity of not less than that specified herein or indicated on the Drawings.

2. Insulate/isolate buses to protect against spread of arcing faults and accidental contact by people or foreign objects.

3. Provide the 3-phase bus of each unit with insulation to completely encase each bar, including where provisions have been made by splicing adjacent units

together, or making connections to disconnecting devices.

4. Fabricate bus bar molded insulation, molded insulation covers for bus joints, and bus insulated supports from insulation possessing flame-retardant and self-extinguishing, dielectric and anti-hydroscopic properties.

5. A full neutral bus shall be provided as specified herein and indicated on the Drawings.

6. A ground bus shall be silver-plated copper bar, 1/4 inch by 2 inch minimum, and shall be furnished extending through all cubicles. Ground each housing directly to this bus. Ground relay panels with a No. 6 AWG insulated copper wire to the ground bus.

7. A silver plated ground bus of adequate capacity shall be furnished and installed throughout the switchgear structure. Each stationary unit shall be effectively connected to this ground bus. A substantial ground contact shall be provided between each breaker and removable element and the ground bus, which shall automatically be made before the primary contacts touch. Contact engagement to the ground bus shall be maintained in the CONNECTED and TEST positions.

8. Silver plated main and ground buses installed in the 480V sections shall be extended through the low voltage auxiliary unit.

E. Removable Element

1. Removable element of each circuit breaker unit shall consist of a 3-pole power circuit breaker with trip-free stored-energy mechanism, positive mechanical interlock, primary and secondary disconnecting devices, auxiliary switches, position indicator, and control wiring. The removable element shall have four positions: CONNECTED, TEST, DISCONNECTED, and REMOVE, all of which permit closing of the compartment door.

2. Provide for mechanical locking of the removable element in the TEST and DISCONNECTED position. Lock shall not interfere with operation of the breaker and its mechanism.

3. Provide an interlock on each circuit breaker unit to prevent the circuit breaker from being removed while breaker is closed and to prevent breaker from being placed in CONNECTED position unless the breaker is open. If the circuit breaker is closed, the interlock shall trip the breaker before it can be placed in CONNECTED position.

F. Circuit Breakers

1. Each drawout circuit breaker shall be enclosed in a separate metal compartment.

2. Circuit breakers shall be rated in accordance with Underwriters Laboratories Standards, with the following minimum ratings:

   a. Nominal voltage: 480 volts.

   b. Maximum design voltage: 600 volts

   c. Low frequency withstands: 2.2 kV

   d. Frame continuous current rating: as indicated on the Drawings.

   e. Sensor rating: Same as frame rating.

3. Circuit breakers shall be UL listed for application in their enclosures for 100 percent of their continuous current rating.

4. Circuit breakers of equal rating shall be completely interchangeable.

5. Equip each circuit breaker with secondary disconnecting contacts to automatically engage in the CONNECTED and TEST position to complete circuits as required.

6. Provide a means for racking in and out of the compartment and between positions. Provide a means for holding the circuit breaker in the compartment in all positions. Include a provision for padlocking open to prevent manual or electric closure of the circuit breaker.

7. Provide interlocking to prevent a closed circuit breaker from racking to or from any position. Provide an additional interlock to assure automatic discharging of the closing springs upon insertion or removal of the breaker into or out of the compartment.

8. Provide key interlocks as indicated on the Drawings.

9. Circuit breakers shall be equipped with arc suppressors and insulating barriers shall separate individual poles. Main contacts shall be silver faced. Arcing contacts shall have non-welding and high conductivity features. Each breaker shall be completely interchangeable with breakers of the same rating. Circuit breakers shall be drawout type with, manual pushbutton trip device.

10. Each low voltage power circuit breaker shall be long-short-instantaneous-ground (LSIG) type, equipped with current sensors and a self-powered microprocessor-based trip device to sense overload, short circuit conditions and

ground faults. The device shall measure true RMS currents. Peak sensing devices will not be accepted. All adjustment setting switches shall be digitally encoded type with gold contacts. The trip unit shall have current metering capabilities as well as voltage, energy, total power, real and reactive power, power demand and frequency metering.

11. Equip each circuit breaker with a Cutler-Hammer 1150, GE Micro Versa Trip Plus or equivalent microprocessor based trip unit complete with rating plug size as indicated on the Drawings. The trip units shall be furnished complete with all additional modules required to facilitate all trip unit functions.

12. Three phase metering and power quality analysis shall be provided on each main and generator circuit breaker by a power quality meter Cutler-Hammer IQ Analyzer, GE Multilin model PQMA or equivalent. Metering shall include A, V, W, Wh, Wcost, var, varh, VA, VAh, Hz, and PF in True RMS or displacement (fundamental) quantities. Power analysis features shall include an event recorder, waveform capture, trace memory, harmonic spectrum display (through the 62nd harmonic with total harmonic distortion) and a data logger function. All analysis data shall be non-volatile. Power quality meter shall communicate over PROFIBUS communications protocol (preferred) or MODBUS communications protocol (if PROFIBUS is not available) all listed values for remote monitoring.

13. Four switch inputs shall be provided which can be programmed for relay activation, counters, logic, demand sync, reset and alarms. Four output relays shall be provided which can be programmed to activate on alarms, setpoints, switch inputs, kWh pulse, and trace memory triggers or communications control. These output relays shall also be able to use demand-metering values of A, VAR, W and VA to control load shedding. PLC interface shall be provided via four isolated 4-20mA outputs programmable from measured and calculated parameters. Transducer monitoring shall be provided via a 4-20mA input. Preprogrammed logic shall allow capacitor bank control for power factor correction. Current inputs shall be via 1 amp or 5 amp CTs and no VTs shall be required for voltages up to 600V. Control power can be AC or DC.

14. Circuit breakers shall be equipped with a self-coupling primary and secondary disconnect contacts and arranged with a disconnect mechanism for moving it physically between the CONNECTED and DISCONNECTED positions.

15. A TEST position for each circuit breaker shall be provided and so interlocked to insure proper sequence and safe operation.

16. Each main, tie, and feeder circuit breaker shall be provided with "a" and "b" auxiliary contacts which will open or close when the breaker is open or closed. Each breaker shall also be provided with an alarm switch or contact to indicate that the breaker has tripped. All of these contacts shall be wired to terminals in

each compartment for use in indicating breaker status. Each circuit breaker shall be furnished with enough auxiliary contacts to indicate breaker position as required for this Contract.

G. Operation and Interlocks for the 480V Switchgear

1. Normally the two 480V bus sections will operate independently with the main breakers in the CLOSED position and the bus tie breaker in the OPEN position.

2. The main breakers shall be interlocked with the bus tie breaker by electrical interlocks to function as follows:

   a. Permit closing one or both main breakers when the bus tie breaker is OPEN automatically.

   b. Permit closing one or both generator breakers when the bus tie breaker is OPEN automatically.

   c. Prevent closing the bus tie breaker when both main breakers or generator breakers are CLOSED.

   d. Permit closing of only one main breaker or generator breaker when the bus tie breaker is CLOSED.

3 These interlocks are in addition to electrical interlocks specified herein or indicated on the Drawings. Drawing E-23 indicates all present and future interlocks required by the switchgear.

H. Current Transformers

1. Ring type current transformers shall be dry type, for indoor service, insulated for 600 volts, 10 kV BIL. Design shall have a mechanical and thermal rating to withstand short-circuit current, stresses, and heating effects equal to the rating of the circuit breaker of the application.

2. Current ratio shall be as indicated on the Drawings.

3. Transformers shall be rated in accordance with ANSI Standard C37.20.1, with accuracy of the current transformers suitable for BO.5 metering accuracy at rated burden. The transformers shall be sized for the necessary burden for the required devices, minimum.

4. Identify the current transformers for polarity with standard marking or symbols. The transformers shall be capable of carrying rated primary current continuously without damage.

5. Run secondary wiring from current transformers in suitable wiring trough, or conduit, to proper short-circuiting type terminal blocks for connection to relays, instruments, and other devices.

I. Potential Transformers

1. Potential transformers shall be indoor dry type, single-phase, 60 hertz.

2. Potential transformers shall have an accuracy classification determined according to ANSI Standards. The potential transformers shall be suitable for metering accuracy, the burden to be served for the required devices plus 20 percent, and shall meet the following minimum requirements:

a. BIL: 10kV

b. Primary Voltage: 480 volts

c. Secondary Voltage: 120 volts

d. Winding Ratio: 4:1

e. Metering Accuracy Class: 0.3 at rated burden

3. Identify polarity with standard markings or symbols. Connect secondaries to potential buses as required. Protect potential transformers with primary and secondary fuses. Protect primary side with current-limiting fuses.

J. Control Power Transformers

1. Provide 480 to 120 VAC control power transformers as required. Verify that control power transformers have adequate capacity for the load to be served.

2. Protect control power transformers with both primary and secondary fuses. Protect primary side with current limiting fuses. Provide a manual disconnect ahead of the primary fuses.

3. Control power transformers for space heaters, lighting, receptacles and other ancillary loads shall be separate from those used for control circuits.

4. Provide U.P.S. for each side of the Tie breaker & throw over with adequate capacity for critical operation of switchgear.

K. Control Wiring and Testing

1. Wire and factory test switchgear to satisfy the requirements of the operation described or necessary.

2. Switchgear wiring shall be NEC Type SIS, single-conductor, stranded copper, rated 600 volts bundled and secured with nylon ties. Provide flexible stranding for swinging door and panels. Minimum wire size: No. 14 for control circuits, and No. 12 for potential and current transformer circuits.

3. Route control wires for outgoing or "compartment-to-compartment" interconnecting wiring to master terminal blocks with suitable numbering strips numbered in agreement with the manufacturer's detailed wiring diagrams.

4. Terminate all control wiring in molded, screw-type terminal blocks acceptable to ENGINEER. Provide a minimum of 10 percent (10%) spare terminal blocks for each circuit breaker and auxiliary compartment. Compression type terminal blocks are not acceptable. Terminal blocks shall be States Company sliding link Type NT or as accepted by ENGINEER.

5. Number wiring with shrink-type tag devices at both ends consistent with the manufacturer's detailed wiring diagrams. Duplication of wire numbers and terminal block numbers is not acceptable.

L. Instruments, Meters, Relays, Control Devices, TVSS and PLC System

1. Furnish instruments, meters, protective relays, control devices, TVSS and PLC system complete with devices and associated circuitry necessary to perform the required functions in accordance with these Specifications.

2. Mount instruments and relays on hinged panels secured to the vertical structure. Devices shall have enclosing cases, dull black finish, and mounted semi-flush.

3. Instrument and control switches shall be rotary operated type with means for maintaining contact position. Contacts shall be silver-to-silver, enclosed in easily removable protective covers. Provide control switches for circuit breakers with low voltage indicating lamps with series resistors. Lamps shall be easily removable from front of panel and shall be LED type.

4. Requirements for items mounted on instrument, relay and control panels are as follows:

   a. Semi-flush mounting for panels unless otherwise noted.

   b. Items specified, as drawout case type shall be removable-chassis construction providing for removal of the relay from the case without disconnecting the leads or removing the case from the panel. The associated current-transformer secondaries shall automatically short-circuit at the case when the relay is removed from its case. Furnish targets, built-in test facilities, and visible self-aligning contacts.

c. Instruments shall be in accordance with ANSI C39.1, 1 percent accuracy class, 4-1/2 inch Nominal Square, with 250 degrees scale unless otherwise noted.

5. Provide terminal blocks, wireways, wiring, device mounting brackets, and other miscellaneous items as required.

6. Provide TVSS as shown on drawings as per specification 26 05 00 Basic Electrical Materials and Methods.

7. Provide auto/manual switch for main and generator breaker identified on the drawings. In the manual position, an open and close button shall be provided for each breaker. In the auto position, an automatic transfer control scheme shall be provided transferring electrical loads from the normal power source (utility) to the emergency power source (generator) upon reduction or loss of voltage and to retransfer loads when normal power is restored.

8. Generator starting contacts shall be provided to start the generator in case the voltage of the normal source drops below 80% (adjustable) on any phase after an adjustable time delay of 0.5-30 seconds to allow for momentary dips. The transfer logic shall transfer to emergency when 90% of rated voltage and frequency has been reached. If the generator does not pick up in 30 seconds, the logic shall open the generator breaker and close the main breaker. After restoration of normal power on all phases to 90% of rated voltage, an adjustable time delay period of 0-25 minutes shall delay retransfer to allow stabilization of normal power. If the emergency power source should fail during this time delay period, the switch shall automatically return to the normal source. After retransfer to normal, the engine generator shall be allowed to operate at no load for a cool-down period of 5 to 30 minutes (adjustable). Provide pilot lights to indicate open and close breaker positions. Logic shall be accomplished with a PLC and operator interface, where all adjustable timers and registers can be modified. Provide UPS for control backup power. Provide logic to open main breaker and generator breaker if the emergency glass station is activated. System, PLC, and control program features shall include:

a. Power brownout and power stabilization delay.

b. Automatic return to normal, optional re-transfer inhibit switch.

c. Automatic mode lockout for fault or emergency open.

d. Interlocking to prevent source paralleling in the control program of the PLC and with relays external to the PLC.

e. Local programming capability.

f. Keyswitch for security on auto/manual switch, transfer test switch, halt/run switch.

g. Light indication of source condition.

h. Local visible alarm annunciator.

i. Open, closed, fault indications and open/close control of each switching device in the system.

j. Undervoltage/phase failure (adjustable dropout/pickup) and phase reversal sending with local LED indication.

k. Control power transformers.

l. Control power source seeking transfer circuit with timer.

m. Frequency and overvoltage relays for generator applications.

9. PLC shall be provided with the capability (hardware and software) to expand the switchgear in the future to handle one more main breaker and generator breaker as shown on drawing. PLC, relays etc, shall be located in the main and generator breaker section. PLC shall provide dry contact outputs for connection to external plant PLC for “loss of utility power”. One contact is required for each utility service.

M. Nameplates

1. Provide engraved plastic nameplates to identify switchgear units, door mounted devices, and internal components.

2. Label the switchgear per the requirements of NEC, Articles 110-21 and 110-22.

N. Switchgear Equipment

Furnish and equip the circuit breaker compartments and auxiliary compartments as previously specified and as follows:

a. Power air circuit breaker unit including 1 set of primary disconnecting devices and current transformers and, where specified or required, potential transformers with fuses.

b. The power air circuit breaker faceplate shall include a drawout position indicator, spring charge indicator, push-to-trip button, push-to-close mechanism release button, and open-close indicator.

c. Panel-mounted circuit breaker control switch with red and green-indicating lights to indicate breaker contact position for electrically operated breakers. One of the following manufacturers or equal:

1) Cutler-Hammer.

2) General Electric Company

3) Square D equivalent.

d. Bottom entries for normal and standby applications as required and as indicated on the Drawings.

e. Furnish ground bus extending the full length of the switchgear. Provide lugs at each end of the bus for ground cable terminations.

f. Auxiliary contacts, auxiliary relays, and interposing contactors to provide remote interlocking and indicating functions indicated on the Drawings plus 2 spare normally open and 2 spare normally closed contacts.

O. Warning Signs

Provide a minimum of 2 warning signs on the front of the switchgear lineup and 2 on the back.

a. Red laminated plastic engraved with white letters approximately 1/2 inch high.

b. Signs shall read "DANGER 480 VOLTS”

P. Source Quality Control

1. Completely assemble, wire, and test switchgear at the factory. Detailed inspections before and after assembly shall assure correctness of design and workmanship. Provide groups of wires leaving the shipping-assembled equipment with terminal blocks with suitable numbering strips.

2. After assembly, provide the switchgear with lifting channels having eyebolts for attachment of crane slings to facilitate lifting and handling each shipping-assembly unit. These lifting channels shall be removable after equipment is placed on permanent foundations.

Part 3 Execution

3.01 Installation

A. The switchgear shall be furnished and installed as shown on the Drawings and in accordance with the manufacturer's installation instructions. One (1) copy of these instructions shall be included with the equipment at time of shipment. The equipment shall be suitably protected and space heaters connected until accepted by the OWNER.

B. Furnish and install structural mounting channels in accordance with manufacturer's recommendations to provide proper alignment of the units.

C. The equipment shall be installed and checked in accordance with the manufacturer's recommendations. This shall include but not limited to:

1. Checking to ensure that the pad location is level to within .125 inches.

2. Checking to ensure that all bus bars are torque to the manufacturer's recommendations.

3. Assemble all shipping sections, remove all shipping braces and connect all shipping split mechanical and electrical connections.

4. Secure assemblies to foundation or floor channels.

5. Measure and record Megger readings phase-to-phase, phase-to-ground, and neutral-to-ground (four-wire systems only).

6. Inspect and install all circuit breakers in their proper compartments.

D. Install the switchgear to allow complete unit door swing required for unit removal. This is specifically required where a vertical section of switchgear is set next to a wall to the left of a switchgear section.

E. The CONTRACTOR shall furnish and install all conduit and wire required to provide main, tie, and feeder breaker positions (open, closed) and breaker "TRIPPED" signals as inputs to the plant control system.

3.02 Painting

A. After fabrication, bonderize, chemically clean and paint exterior and interior surfaces of the switchgear with a rust inhibiting primer followed by an ANSI 61 gray finish coat cathodic electro-deposition epoxy.

B. Prior to final completion of the work, all metal surfaces of the equipment shall be cleaned thoroughly, and all scratches and abrasions shall be retouched with the same coating as used for factory finishing coats.

3.03 Rubber Mats

A three foot wide rubber mat shall be furnished and installed on the floor and in front of each switchgear assembly. The mat shall be long enough to cover the full length of each line-up. The mat shall be 1/4 inch thick with beveled edges, canvas back, solid type with corrugations running the entire length of the mat. The mat shall be guaranteed extra quality, free from cracks, blow holes, or other defects detrimental to their mechanical or electrical strength. The mat shall meet OSHA requirements and the requirements of ANSI/ASTM D-178 J6-7 for Type 2, Class 2 insulating matting.

3.04 Field Adjustments

The protective relays shall be set in the field by a qualified representative of the manufacturer, or an outside testing company retained by the CONTRACTOR, in accordance with the settings designated in a coordinated study of the system as required elsewhere in these Specifications.

3.05 Manufacturer's Certification

A qualified, factory-trained manufacturer's representative shall certify in writing that the equipment has been installed, adjusted and tested in accordance with the manufacturer's recommendations.

END OF SECTION

Part 1 General

1.01 References

A. The following is a list of standards which may be referenced in this section:

1. American National Standard Institute (ANSI):

   a. C2, National Electrical Safety Code (NESC).

   b. C57.12.28, Switchgear and Transformers - Pad-Mounted Equipment-Enclosure Integrity.

   c. Z55, Gray Finishes for Industrial Apparatus and Equipment.

2. National Electrical Manufacturers Association (NEMA):

   a. AB 1 Molded Case Circuit Breakers.

   b. ICS 1, General Standards for Industrial Control and Systems.

   c. ICS 2, Standards for Industrial Control Devices, Controllers, and Assemblies.

   d. ICS 2.3, Instructions for Handling, Installation, Operation, and Maintenance of Motor Control Centers.

   e. KS 1, Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum).

   f. 250-1997, Enclosures for Electrical Equipment (1,000 volts maximum).

3. National Fire Protection Association (NFPA): 70-90, National Electrical Code. (NEC) Latest Edition.

4. Underwriters Laboratories, Inc. (UL):

   a. 98, Standard for Safety Enclosed and Dead-Front Switches, Eleventh Edition.

   b. 489, Standard for Safety Molded Case Circuit Breakers and Circuit Breaker Enclosures, Seventh Edition.

   c. 845, Standard for Safety Motor Control Centers, Third Edition.

   d. 508A Industrial Control Equipment.

5. Uniform Building Code (UBC): Section 2312, Earthquake Requirements.

6. InterNational Electrical Testing Association (NETA) Acceptance Testing Specifications, latest edition.

7. Institute of Electrical and Electronics Engineers (IEEE):

   a. 112, latest revision, Standard Test Procedure for Polyphase Induction Motors and Generators.

   b. 43, latest edition, Recommended Practice for Testing Insulation Resistance of Rotating Machinery

1.02 Submittals

A. Shop Drawings:

1. Itemized bill of material.

2. Descriptive information.

3. Dimensional drawings.

4. Conduit entrance locations/provisions.

5. Bus data including horizontal and vertical bus capacities, voltage rating and interrupting capacity. Include materials of construction.

6. Protective Devices: Copies of time-current characteristics.

7. Anchoring instructions and details.

8. Typed tabulation:

   a. Motor name; tag (equipment) numbers as shown on Drawings.

   b. Motor horsepower.

   c. Nameplate full load current.

   d. Measured load current and voltage.

   e. Heater catalog number.

   f. Protective device trip settings.

9. Attach above typed, tabulated data to a copy of starter manufacturer's overload heater selection tables for the starters provided.

10. Control Diagrams:

    a. NEMA ICS 2, Section 322.08 Type I.

    b. Wiring Type B.

    c. In addition to standard NEMA control diagrams, provide the following:

        1) Remote control devices.

        2) Remote indication and/or pilot lights.

        3) Interconnections and interlocking circuits between starter and remote equipment.

        4) Remote sensors.

        5) Tag numbers associated with all control devices and equipment.

        6) Clearly identify items provided by others.

11. One-line diagrams.

12. Schematic (elementary) diagrams. Custom schematics shall be furnished. Diagrams shall include all remote devices. Submittals with drawings not meeting this requirement will not be reviewed further and will be returned to the CONTRACTOR stamped "REJECTED-RESUBMIT".

13. Outline diagrams.

14. Interconnection diagrams.

15. Enclosure NEMA rating and color.

16. Ground bus size and material of construction.

17. Main incoming line entry provision (top or bottom).

18. Control unit nameplate schedule.

19. All circuit breaker types, frames and settings.

20. All starter NEMA sizes, auxiliary contact provisions, coil voltage Relays,

timers, pilot devices, control transformer VA and fuse sizes.

21. Short circuit rating of the complete assembly.

22. Replacement parts lists and operation and maintenance procedures.

23. Plan and elevation dimensional views of each MCC section.

B. Quality Control Submittals:

1. Manufacturer's installation instructions

2. Operation and Maintenance Manual.

3. Factory test reports, certified.

1.03 UL Compliance

Products manufactured within scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL Listing Mark. Where shown or required motor control centers shall be suitable for service entrance.

1.04 Packing and Shipping

Shipping Splits: Established by CONTRACTOR to facilitate ingress of equipment to final installation location within the building.

1.05 Responsibilities

The information provided on the drawings is for guidance only and does not limit the equipment size. When motors furnished differ from the expected rating indicated the CONTRACTOR shall make the necessary adjustments to wiring, conduit, disconnect devices, motor starters, branch circuit protection, and other affected material or equipment to accommodate the motors actually installed.

1.06 Inspection Coordination

The CONTRACTOR shall provide access to the WORK for the ENGINEER as requested for inspection. The Contractor shall provide 48 hours notice of its intention to begin new WORK activities.

Part 2 Products

2.01 Manufacturers

A. Cutler-Hammer or approved equal.

B. Square D or approved equal.

C. General Electric or approved equal.

D. Siemens or approved equal.

2.02 Motor Control

A. General:

1. Provide each motor with a suitable controller and devices that will function as specified for the respective motors and meeting NEMA ICS 2, (class A), the NEC, and UL.

2. Like Items of Equipment: Same manufacturer as low voltage switchboard and panelboards for standardization. Devices of the same type shall be products of the same manufacturer. This requirement applies to all control devices, and insofar as practical, to equipment manufactured on a production basis. It also applies without exception to equipment custom fabricated for this project.

3. Make adjustments as necessary to wiring, conduit; disconnect devices, motor starters, branch circuit protection, and other affected material or equipment to accommodate motors actually provided under this Contract.

4. Overload Protection:

   a. Each motor shall have a direct current sensing solid-state overload protection in all ungrounded phases. This protection shall have current overload relays sensitive to motor current, and mounted within the motor controller. Reset of the protection shall be manually activated with externally operated reset button. All overload protection devices shall be the inverse time limit type and match the motor characteristic.

5. Control Transformer:

   a. Two winding, 120-volt secondary, primary voltage to suit.

   b. Two current-limiting fuses for primary circuit.
   c. One fuse in secondary circuit.

d. Mount within starter unit.

6. Suitable for use with 75 degrees C wire at full NFPA 70, 75 degrees C ampacity.

7. Lifting lugs on all equipment and devices weighing over 100 pounds.

8. Anchor Bolts: Galvanized, sized by equipment manufacturer.

9. Operating Conditions:

a. Ambient Temperature: Maximum 40 degrees C.

b. Equipment to be fully rated without any derating for operating conditions listed above.

10. Enclosures: In accordance with NEMA 250 and ANSI C57.12.28.

11. Equipment Finish:

a. Electro-coating process applied over a rust-inhibiting phosphated base coating.

b. Exterior Color: Manufacturer's standard.

12. All manual starters and combination motor starters shall be lockable in the off position.

B. Manually Operated Starter, Fractional Horsepower:

1. Rating: 16 amperes continuous at 277 volts maximum.

2. Single-phase, non-reversing, full voltage with overload protection.

3. Toggle operated, keyed where shown.

4. Enclosure: NEMA 250, Type 4, unless shown otherwise.

5. Neon Light: Red.

6. Handle guard/lock-off attachment.

C. Manually Operated Starter, Integral Horsepower:

1. Rating: Horsepower rated to maximum of 10 horsepower at 600 volts with

overload protection.

2. Single or three-phase, non-reversing, full voltage.

3. Control: Toggle or pushbutton.

4. Enclosure: NEMA 250, Type 4, unless shown otherwise.

5. Red pilot light in series with an auxiliary contact.

6. Locking in OFF position.

7. Two spare auxiliary, field-convertible contacts.

D. Combination Full-Voltage, Magnetic Starter:

1. Rating: Horsepower rated at 600 volts, UL labeled for 100,000 amperes with overload protection.

2. Three-phase, non-reversing, full voltage.

3. Control: As shown.

4. Disconnect Type: Motor circuit protector.

5. Enclosure: As shown.

6. Pilot Lights: As shown.

7. Pad-lockable operating handles.

2.03 Motor Control Centers

A. General:

1. In accordance with NEMA ICS 2 and UL 845.

2. The motor control centers shall be 600-volt class suitable for operation on a three-phase, 60-Hz system. The system operating voltage and number of wires shall be as indicated, on project drawings.

3. MCC designated as service entrance rated shall include provision for termination of an incoming neutral conductor in conformance to NEC requirements.

4. Short Circuit Rating: Amperes rms symmetrical as shown on Drawings for entire motor control center as a complete assembly.

5. All controllers, main and branch circuit breakers, wire connections, and other devices to be front mounted and accessible unless otherwise noted.

6. NEMA ICS 2, Section 322.08.

   a. Class: IIS.

   b. Type: B. Diagrams and wiring.

   c. Provide blank spaces on interconnection diagrams to add control conductor code designations during installation of equipment.

7. Size and Arrangement

   a. Motor control centers shall be of mechanical groupings of control center units, assembled into a lineup of control center sections. Each control section shall be nominally 90-inches tall by minimum 20-inches deep.

   b. MCC's shall be designed to not exceed the space requirements as indicated on the Contract Drawings, including spaces, spares, and future compartments. MCC's shall be subject to rejection for exceeding the lengths indicated where allotted space is critical.

   c. Equipment within the MCC may be rearranged at the discretion of the manufacturer, providing the MCC provides the spares, space, and future provisions indicated.

   d. All switches and circuit breakers used as switches shall be located so that the center of the grip of the operating handle of the switch or circuit breaker, when in its highest position, will not be more than 6-feet 7-in.

B. Enclosure:

1. Type: NEMA 250, Type 1, gasketed.

2. Construction:

   a. Sheet steel reinforced with channel or angle irons.

   b. Butt sections flush, end-to-end against similar section without bolts, nuts, or cover plates causing interference.

   c. Removable top cover plates and bottom cover plates.
   d. Removable plates on end panels for future bus extension.

e. Structural members shall be fabricated of not less than 12 gauge steel and side and top panels and doors shall be not less than 14 gauge steel.

4. Section Mounting: Removable formed-steel channel sills and lifting angles.

5. Horizontal Wiring Compartments: Accessible from front, full width, top and bottom.

6. Vertical Wiring Compartment: Full height, isolated from unit starters with separate door.

7. Unit Compartment: Individual compartments separated by steel barriers for each starter, feeder, or other unit capable of being wired from front without unit removal.

8. Compartment Doors: Separate hinged doors for each starter, feeder, or other unit.

9. Door Interlocking: Interlock starter and feeder doors mechanically so doors cannot be opened with unit energized. Provide defeater mechanism to allow intentional access at any time.

10. External disconnect handles, pad-lockable in OFF position.

11. Cable Entrance: Main leads enter as shown on the Drawings. Control and feeder circuits enter from top and bottom.

12. Spaces designated as "SPACE" or "BLANK" shall include blank hinged doors and vertical bus bars.

13. Control units inside compartments shall be clearly identified with tags or stencil markings.

14. Each control unit including spares, spaces and blanks, lights, and devices shall be identified by an engraved nameplate. Identification shall include circuit number as indicated.

15. Each motor control center shall be fitted with the manufacturer's nameplate which shall include the NEMA Standard electric rating and other pertinent data, including manufacturer, sales order number, date of manufacture, and place of manufacture.

16. Fans, heat exchangers, transformers, capacitors, junction boxes, or other devices may not be mounted on the outside of the motor control center enclosure.

17. Finish for motor control center shall be light grey, ANSI 61. The panels shall be given 2 coats of primer inside and out and 2 coats of enamel finish. External colors other than ANSI 61 will not be acceptable.

18. Each section shall be dead-front and dead-back construction. Rear access shall not be necessary for inspection and maintenance. The structure arrangement shall be for front only mounting of units.

19. Power cables to the motor control center shall be either top or bottom feed as indicated on the project drawings. Provide all necessary lugs, clamps, and supports to terminate incoming power cables.

C. Bus:

1. Horizontal Power Bus:

   a. Three-phase tin-plated, copper, entire width of control center, rated as indicated.

   b. Silver-plated at joints.

   c. Construct to allow future extension of additional sections.

   d. Pressure type solderless lugs for each incoming line cable.

   e. Isolated from top horizontal wireway.

   f. Provide Belleville washers on bus connection bolts.

2. Vertical Power Bus:

   a. Three-phase tin-plated, copper, full height of section, rated as required by the load but not less than 300 amperes, minimum.

   b. Silver-plated at joints.

   c. Sandwich type bus insulation providing deadfront construction with starter units removed except for bus stab openings.

   d. Insulated and isolated barrier complete with shutters.

   e. Provide Belleville washers on bus connection bolts.

3. Neutral Bus: None.

4. Ground Bus:

a. Copper, tin-plated, 33 percent minimum of phase bus ampacity, entire width of control center.

b. Provide Belleville washers on bus connection bolts.

5. Bus Bracing: 65,000 amperes rms symmetrical.

D. Motor Controller Unit:

1. Provide indicated individual components and control devices including pushbuttons, selector switches, indicating lights, control relays, time delay relays, and elapsed time meters as specified in Section 26 00 16, Basic Electrical Materials and Methods.

2. Each motor starter unit shall consist of a combination magnetic contactor and short circuit protective device. Short circuit protective device shall be an instantaneous, magnetic only circuit breaker or thermal magnetic circuit breaker as defined in the project one line diagrams. All circuit breakers provided as part of a motor starter unit shall be capable of being padlocked in the open position. Reset of thermal overload elements shall be possible with unit door closed. Three phase overload trip units shall be furnished to suit the full load current of the equipment installed. Overload relays shall be solid state type capable of detecting phase loss and ground faults and shall meet NEMA class 20 tripping characteristics.

3. Magnetic starters shall have auxiliary contacts as required by electrical motor control diagrams, including N-O and N-C contacts as indicated, plus one each spare N-O and N-C contact. As a minimum, provide one normally open and one normally closed auxiliary contact.

4. Each starter unit shall have its own control power transformer. It shall have a 115-volt grounded secondary. One secondary fuse and 2 primary fuses shall be provided. Control power transformers shall be sized to accommodate the control devices indicated. Minimum transformer size is 50 VA. Local control devices shall be mounted independently of the cover door. All starters shall have a local "running" lamp and a "off" light to indicate the presence of control power when the motor is not running. Indicating lights shall be push-to-test type. Starters shall be provided with elapsed time meters, hand/off/auto selector switches, and other devices as indicated. All cubicle control wires shall be terminated at a pull apart disconnecting terminal block at the cubicle.

5. The motor control center manufacturer shall be responsible for identifying each control wire within each motor starter unit with wrap-around permanent plastic markers. Each control wire shall be identified at both ends. Markers shall be produced from a device specifically made to produce tags, such as manufactured by Brady Corporation or Thomas & Betts or approved equal.

Hand lettered markers are not acceptable.

6. Motor starters shall be designed to NEMA ratings. Starters designed to IEC ratings or with dual IEC/NEMA ratings will not be acceptable, either as part of any MCC, as remote starters, or as part of any equipment package.

7. Construction:

   a. Draw out combination type with stab connections for starters NEMA ICS, Size 4 and smaller. The fixed-type unit assembly shall be constructed so that it can be easily removed from its panel after disconnecting the wires to the terminal block and withdrawing from the primary bus. Removal of a unit assembly shall be possible without rear access and without disturbing any other unit in the motor control center.

   b. Bolt-on combination type with cable connection to riser for starters NEMA ICS, Size 5 and larger.

   c. Readily interchangeable with starters of similar size.

   d. Pull-apart unit control wiring terminal boards on all units.

E. Starters:

1. NEMA ICS 2, Section 322.08 standard rating, except none smaller than NEMA ICS, Size 1.

2. Rating: Horsepower rated at 600 volt, UL labeled for 65,000 amperes with overload protection.

3. Three-phase, non-reversing, unless otherwise shown.

4. Disconnect Type: Motor circuit protector.

5. Combination Full Voltage, Magnetic Starter:

   a. Control: As shown.

   b. Pilot Lights: Red-ON and Green-OFF.

6. Two Speed Starters:

   a. Two Speed Starters shall be of the two-winding type unless otherwise indicated.
   b. Requirements set forth in paragraph 2.03 for enclosures and devices apply herein.

7. Disconnecting Device:

    a. In each starter, control circuit disconnect to de-energize circuits in unit which are not de-energized by starter power disconnect device.

    b. Pad-lockable in OPEN position.

8. Circuit Breaker:

    a. Meeting the requirements of NEMA AB1 and UL 489.

    b. Molded case with manufacturer's recommended trip setting for maximum motor protection.

    c. Magnetic trip only.

    d. Tripping indicated by operating-handle position.

    e. Interrupting capacity required for connection to system with short circuit capacity indicated.

10. Motor Overload Protection:

    a. Direct current sensing solid-state overload protection in all ungrounded phases.

    b. Manual-reset overload relays.

11. Motor Thermal Protector Interface: Manual-reset interposing relay for connection to motor-mounted thermal protector system.

12. Ground Fault Protection: Where indicated and as specified in paragraph Feeder Units and Main Protective Device, except provide instantaneous operation device.

E. Control Unit:

1. Disconnecting Device: Capable of de-energizing external source control circuits in unit.

2. Control Devices: As indicated and as specified in Section 26 00 16, Basic Electrical Materials and Methods.

3. Control Wiring:

a. Minimum wire size 14 AWG copper.

b. Permanent sleeve type markers with wire numbers applied to each end of wires.

c. Terminate wires using insulated locking fork or ring type crimp terminals.

d. Terminate current transformer leads on shorting type terminal blocks.

F. Incoming Line Terminal:

1. Construction: As specified in Paragraph Motor Controller Unit.

2. Incoming Service Feeder: Cable entering section as shown.

3. Maximum short-circuit rating of 65,000 amperes.

4. Mechanical type CU-/AL lugs for 75 degrees C cable.

G. Feeder Unit and Main Protective Device:

1. Construction: As specified in Paragraph Motor Controller Unit.

2. Incoming Service Feeder: Cable entering section as shown.

3. Molded Case Circuit Breaker:

a. In accordance with NEMA AB 1 and UL 489.

b. Main and feeder protective device.

c. UL labeled as suitable for service entrance.

d. Thermal-magnetic trip and interrupting capacity required for connection to system with short circuit capacity indicated.

e. Indicate tripping by operating-handle position.

f. Suitable for use with 75 degrees C wire at full NEC 75 degrees C ampacity.

g. Circuit breakers having a frame size of 150 amperes or less shall be molded-case type with thermal magnetic non-interchangeable, trip-free, sealed trip units.

h. Circuit breakers with a frame size of 225 amperes to 1,200 amperes shall

be molded case with interchangeable thermal and adjustable magnetic trip or RMS sensing electronic trip elements.

i. The interrupting capacity of all main, and feeder branch circuit breakers shall be a minimum of 65,000 RMS symmetrical amperes. Service disconnects rated 1000A or more shall provide ground fault protection of equipment.

4. Ground Fault Protection:

a. Suitable for 480-volt, three-phase, three-wire, solidly grounded wye system.

b. Ground sensors to encircle all phase conductors and neutral conductor where used and connected to ground relays with adjustable pickup settings and time-current characteristics indicated.

c. Circuit breaker shunt trip and relay operating from fused 120-volt ac control source within control center.

d. Manufacturers:

1) Ground Fault System ITE; Ground Shield or approved equal.

2) General Electric; Ground Break or approved equal.

5. Phase Monitoring Relay:

a. Three-phase monitoring relay to protect against low voltage, voltage unbalance, and phase reversal.

b. Manufacturer: Furnas; Class 47 or approved equal.

H. Instruments:

1. Provide solid state type metering where indicated. Include CT's and PT's of ratios as indicated.

a. Solid state “metering” shall include but not be limited to the following functions:

1) Metering: Device shall monitor Voltage (VLL/VLN), Current (Amps per phase), Real Power (W), Reactive Power (VAR) and Apparent Power (VA). Device shall have data gathering ability for analysis. The device(s) shall conform to the requirements of UL 508.

2) Alarms: Device shall utilize assignable output relays to trigger alarms for specific applications. Alarm messages shall be displayed on the front panel of the device. Alarm outputs via dry contacts shall alarm Over/Under Current, Over/Under Voltage, Current Unbalance/Neutral Current, Phase Sequence, Over/Under Frequency, Power Factor and Switch Inputs.

3) Communications: Device shall be able to communicate with current and future process control systems using standard protocols such as Devicenet, Ethernet, Modbus, Profibus, or as called for on project drawings. Front and rear panel communications ports shall be available for information access. Display of monitored values shall be available both locally and remotely.

I. Pushbuttons, selector switches, and pilot lights shall be the heavy-duty, oil-tight type, sized to 30 mm. Miniature style devices are not acceptable. All devices shall conform to the requirements of UL 508.

1. Lens colors for “run”, “stop”, “on”, “off”, “open”, and “closed” shall be coordinated with the District’s requirements.

2. Pilot lights shall be LED, push-to-test type.

3. Provide hazardous location type pilot devices in classified locations per the NEC.

J. Elapsed Time Meters: As specified in Section 26 00 16, Basic Electrical Materials and Methods.

K. Time Delay Relays: As specified in Section 26 00 16, Basic Electrical Materials and Methods.

L. Relays shall be 3 PDT with 10 amp contacts, plug-in type utilizing rectangular blades and provided with sockets for screw-type termination and hold-down clips.

M. Reset Timers: As specified in Section 26 00 16, Basic Electrical Materials and Methods.

N. Nameplates:

1. Laminated plastic; white, engraved to black core.

2. Provide for each motor control center and each unit.

3. Engrave with inscription shown on single-line diagram.

4. Provide blank nameplates on spaces for future units.

5. Attach with stainless steel pan head screws on face of control center.

O. Factory Testing: NEMA ICS 1, Section 109.

2.04 Spare Parts

A. The CONTRACTOR shall furnish the following for each MCC as a minimum:

1. One unit control transformer of each size furnished in magnetic starters installed

2. Three bezels of each color installed for pilot indicators

3. One dozen panel lamps

4. One dozen control fuses of each size installed

B. Spare parts shall be identified by MCC number, type, size, and manufacturer

Part 3 Execution

3.01 Installation

A. Install equipment in accordance with NEMA ICS 2.3, Submittal Drawings, and Manufacturer's Instructions and Recommendations.

B. Secure equipment to mounting pads with anchor bolts of sufficient size and number adequate for specified seismic conditions.

C. Install equipment plumb and in longitudinal alignment with pad or wall.

D. Coordinate terminal connections with installation of secondary feeders.

E. Grout mounting channels into floor or mounting pads.

F. Retighten current-carrying bolted connections and enclosure support framing and panels to manufacturer's recommendations.

G. Motor control centers shall be installed on concrete pads. After leveling and shimming, the CONTRACTOR shall anchor motor control centers to concrete pads, and shall grout so that no space exists between the pad and support beams.

H. The CONTRACTOR shall:

1. Torque all bus bar bolts to manufacturer's recommendations. Tighten all sheet metal and structure assembly bolts.

2. Adjust all Motor Circuit Protector (MCP) devices to the instantaneous trip setting position recommended for the actual horsepower and full load amps of the motor. Verify that overload devices are proper for equipment installed; make necessary changes in overload devices as required for motors having power factor correcting capacitors.

3. After equipment is installed, touch up scratches and verify that nameplate, and other identification is accurate.

4. Provide high voltage switchboard matting in front of the MCC. The mat shall be long enough to cover the full length of each line-up. The mat shall be 1/4 inch thick with beveled edges, canvas back, solid type with corrugations running the entire length of the mat. The mat shall be guaranteed extra quality, free from cracks, blow holes, or other defects detrimental to their mechanical or electrical strength. The mat shall meet OSHA requirements and the requirements of ANSI/ASTM D-178 J6-7 for Type 2, Class 2 insulating matting.

3.02 Testing

A. Factory Test: All motor control centers, micro processor based soft starters and their components shall be given manufacturer's standard electrical and mechanical production tests and inspections. The tests shall include electrical continuity check, dielectric tests for each circuit, and inspection for proper functioning of all components including controls, protective devices, metering, and alarm devices.

B. Field Test MCC:

Visual and mechanical inspection after installation.

a. Inspect for physical damage, proper anchorage, and grounding.

b. Verify that the ratings of the solid state overload relays match the motor full-load current nameplate data.

c. Check tightness of bolted connections.

C. Electrical Tests

1. Insulation tests

a. Measure insulation resistance of each bus section phase to phase and phase to ground for one minute. Test voltage and minimum acceptable

resistance shall be in accordance with manufacturer's recommendations.

b. Measure insulation resistance of each starter section phase to phase and phase to ground with the starter contacts closed and the protective device open. Test voltage and minimum acceptable resistance shall be in accordance with the manufacturer's recommendations.

c. Measure insulation resistance of each control circuit with respect to ground

2. Verify proper operation of control logic in all modes of control.

3.03 Solid State Reduced Voltage Starter Installation – Not Used

3.04 Circuit Breakers

A. Field adjust trip settings of motor starter magnetic-trip-only circuit breakers.

B. Adjust to approximately Il times motor rated current.

C. Determine motor rated current from motor nameplate following installation.

3.05 Overload Relay

Adjust overload relays after the actual nameplate full-load current rating of motor has been determined.

3.06 Motor Data

Provide typed, self-adhesive label attached inside each motor starter enclosure door displaying the following information:

1. Motor served by tag number and equipment name.

2. Nameplate horsepower.

3. Motor code letter.

4. Full load amperes.

5. Service factor.
6. Installed overload relay heater catalog number.

3.07 Field Quality Control

In accordance with Section 26 08 13, Electrical Testing.

3.08 MANUFACTURERS' SERVICES

Furnish manufacturer's representative for the following services at jobsite or classroom as designated by OWNER, for minimum person-days listed below, travel time excluded:

1. 1 person-day for installation assistance, and inspection of installation.

2. 1 person-day for functional and performance testing.

3. 1 person-day for plant startup.

END OF SECTION

Part 1 General

1.01 References

The following is a list of standards which may be referenced in this section:

1. Lightning Protection Institute (LPI): 175, Installation Standard.
2. National Fire Protection Association (NFPA): 780, Lightning Protection Code.
3. Underwriters Laboratories, Inc. (UL):
   a. 96, Standard for Safety Lightning Protection Components.
   b. 96A, Standard for Safety Installation Requirements for Lightning Protection Systems.

1.02 Design Requirements

A. Provide lightning protection system design for all of the following facilities: Maintenance Building

B. The work includes, but is not limited to, furnishing and installing air terminals, grounding conductors, connectors, fasteners, ground rods, and other materials necessary for a complete protective system.

C. Lightning protection system design to comply with all applicable provisions of LPI 175 and 176, UL 96 and 96A, and NFPA 780.

1.03 Submittals

A. Shop Drawings:

1. Reproducible Mylar Drawings:
   a. Lightning protection system layout.
   b. Component locations.
2. Detailed plans.
3. Down conductor.
4. Connecting conductor.
5. Bond strap.
6. Air terminals.
7. Fittings.
8. Connectors.

9. Ground rods.

B. Quality Control Submittals: Field test report.

C. Contract Closeout Submittals: Submit to OWNER:

1. Ground Witness Certification-Form LPI-175A.

2. Post-Installation System Certification.

3. UL 96 Master Label "C" Certification.

1.04 Quality Assurance

A. Designer: Lightning protection system design shall be prepared by an LPI-certified designer or recognized lightning protection manufacturer.

B. Manufacturer: All system components shall be the product of a single manufacturer regularly engaged in the manufacturing of lightning protection components in accordance with LPI 176 and UL 96.

C. Installer: Lightning protection system shall be installed under the direct supervision of an LPI 175 Certified Master Installer.

D. Inspector: Final installation and grounding connection inspection of the System shall be performed by the owner representative or agent in accordance with LPI 177.

E. UL Compliance: Materials manufactured within scope of Underwriters Laboratories, Inc. shall conform to UL Standards and have an applied UL listing mark.

Part 2 Products

2.01 Manufacturers

A. Thompson Lightning or approved equal.

B. IPC Protection or approved equal.

C. AC Lightning Security or approved equal.

D. Lightning & Grounding Systems, Inc. or approved equal.

2.02 General

A. Complete system shall bear UL 96 Master Label C.

B. System Material: Copper or high copper content, heavy-duty bronze castings, unless otherwise specified.

C. All material shall comply in weight, size, and composition for the class of structure to be protected as established by UL 96 and 96A.

2.03 Air Terminal

A. Material: Solid copper rods, with tapered points.

B. Length: Sufficient to extend minimum 10 inches above object being protected.

C. UL 96 Label B applied to each terminal.

2.04 Conductors

A. Copper Cable: Bare medium stranded, having 97.5 percent minimum conductivity.

B. Main Down Conductor: Per UL and NFPA criteria and based on building height.

C. Connecting Conductor: Secondary size per UL and NFPA criteria.

D. Bonding Conductor: Flexible strap, minimum 3/4-inch wide by 1/8-inch thick.

E. All main down and connecting conductors shall bear the UL 96 Label A, applied every 10 feet.

2.05 Cable Fastener and Accessories

Capable of withstanding minimum pull of 100 pounds.

2.06 Fittings

A. Heavy-duty Class II bolt pressure type.

B. Bolts, Screws, and Related Hardware: Stainless steel.

2.07 Ground Rods

Material: Copper clad steel - ¾” x 10’ long UL 469 listed..

2.08 Grounding Connections

A. Welds: Exothermic process.

B. Fasteners: Bolted clamp type, corrosion-resistant copper alloy.

C. Hardware: Stainless Steel.

2.09 Cable Connections and Splicers

A. Welds: Exothermic process (underground).

B. Fasteners: Bolted clamp type, corrosion-resistant copper alloy (above grade).

C. Through-Roof Connectors: Straight or right angle with lead flashing washer and other appurtenances to match existing roofing system.

2.10 Conduit

Schedule 40 PVC, as specified in Section 26 05 33.13, Raceways.

Part 3 Execution

3.01 General

A. Workmanship to comply with all applicable provisions of LPI 175, UL 96 and 96A, and NFPA 780.

B. Installation of bare copper materials on aluminum surfaces will not be permitted.

C. Provide waterproof seal of all roof penetrations.

D. Install system in inconspicuous manner so that components blend with building aesthetics.

3.02 Examination

Verify conditions prior to installation. Actual conditions may require adjustments in air terminal and ground rod locations.

3.03 Air Terminals

A. Supports: Brackets or braces.

B. Parapet Bracket Attachment: Lag or expansion bolts.

C. Secure base to roof surface with adhesive or pitch compatible with roofing bond.

D. Provide terminal flashing at roof penetrations.

E. Perimeter Terminals:

1. Maximum Spacing: 20 feet.

2. Maximum Distance From Outside Edge of Building: 2 feet.

F. Roof Ridge Terminals: Maximum spacing 20 feet.

G. Mid-Roof Terminals: Maximum spacing 50 feet.

3.04 Conductors

A. Conceal whenever practical.

B. Provide 1-inch PVC conduit in building walls or columns for main downleads and roof risers.

C. Support: Maximum spacing for exposed conductors. Vertical and Horizontal: 3 feet.

D. Maintain horizontal and vertical conductor courses free from dips or pockets.

E. Bends: Maximum 90 degrees, with minimum 8-inch radius.

F. Install air terminal conductors on the structural roof surface before roofing composition is applied.

3.05 Bonding

A. Bond to Main Conductor System:

1. All roof mounted ventilators, fans, air handlers, masts, flues, cooling towers, handrails, and other sizeable metal objects.

2. Roof flashing, gravel stops, insulation vents, ridge vents, roof drains, soil pipe vents, and other small metal objects if located within 6 feet of main conductors or another grounded object.

3. Provide air terminals as required.

B. Bond steel columns or major framing members to grounding system per National Electrical Code.

C. Bond each main down conductor to a ground rod.

3.06 Grounding System

A. Not Used

B. Not Used

C. Connections:

1. Install ground cables continuous between connections.

2. Exothermic welded connections to ground rods, cable trays, structural steel, handrails, and buried and nonaccessible connections.

3. Provide bolted clamp type mechanical connectors for all exposed secondary connections.

4. Use bolted offset parapet bases or through-roof concealed base assemblies for air terminal connections.

5. Provide interconnections with electrical and telephone systems and all underground water and metal pipes.

6. Provide electric service arrestor ground wire to building water main.

3.07 Field Quality Control

A. Isolate lightning protection system from other ground conditions while performing tests.

B. Resistance: Test ground resistance of grounding system by the fall-of-potential method.

1. Test Resistance to Ground: Maximum 25 ohms per National Electric Code.

2. Install additional ground rods as required to obtain maximum allowable resistance.

C. Test Report:

1. Description of equipment tested.

2. Description of test.

3. Test results.

4. Conclusions and recommendations.

5. Appendix, including appropriate test forms.

6. Identification of test equipment used.

7. Signature of responsible test organization authority.

END OF SECTION

INSURANCE REQUIREMENTS

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5 WAIVER OF SUBROGATION 5
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INSURANCE REQUIREMENTS

1. INSURANCE

Contractor shall provide, pay for, and maintain in force at all times during the services to be performed the policies set forth below. All policy declarations pages, endorsements, certificates, and/or binders shall be subject to approval by SFRTA as to form and content. These requirements are subject to amendment or waiver only if approved by SFRTA in writing. A lapse in any required insurance coverage during the term of this Agreement shall be a breach of this Agreement.

SFRTA reserves the right to reject coverage from any company not acceptable to SFRTA and to require Contractor to obtain coverage from another source. Self-insurance shall not be acceptable under the terms of this Agreement.

Contractor shall furnish a certificate(s) of insurance, the policy declaration page(s), required endorsements and other required insurance documentation (see below) to SFRTA within ten (10) business days of Contractor's receipt of a fully executed Contract. If the insurance certificate(s) is received within the specified time frame, but not in the manner prescribed, Contractor shall be verbally notified of such deficiency and shall have an additional five (5) business days to submit a corrected certificate to SFRTA. If Contractor fails to submit the required insurance certificate(s) in the manner prescribed within fifteen (15) business days from the receipt of a fully executed Contract, the Contractor shall be in default, and this Contract may be rescinded. Under such circumstances, Contractor may be prohibited from submitting future responses to SFRTA procurements.

Such policy or policies shall be issued by a company or companies authorized to transact business in the State of Florida or an eligible surplus lines insurer in good standing with the Florida Insurance Commissioner's Office.

Contractor shall use the Standard "ACORD" 25 Certificate of Liability Insurance form and Acord form 101, Additional Remarks Schedule, if necessary. Required endorsement pages, the declarations page and other policy documents evidencing that Contractor has met the insurance requirements shall be submitted with the Standard "ACORD" Insurance Certificate.

Coverage shall be at least as broad as follows:

1.1 Contractor shall provide Commercial General Liability (CGL) Insurance afforded on a form no more restrictive than the latest edition of the CGL Policy (ISO form CG 00 01) as filed for use in the State of Florida by the Insurance Services Office (ISO) without any restrictive endorsements other than those which are required by the State of Florida or those which, under an ISO filing, must be attached to the policy (i.e. mandatory endorsements) and those described below which would apply to the services contemplated by this Agreement.

At a minimum, the CGL policy described above shall include policy limits of:

A. Five Million Dollars ($5,000,000) for each occurrence of bodily injury and property damage.

B. Five Million Dollars ($5,000,000) annual aggregate per project

C. Two Million Dollars ($2,000,000) per occurrence and policy aggregate for personal injury and advertising injury

D. Two Million Dollars ($2,000,000) for completed operations and products liability per occurrence and project aggregate

UMBRELLA/EXCESS COVERAGE AND POLICIES MAY NOT BE USED TO SATISFY THE ABOVE LIMITS.

In addition, Contractor's coverage shall provide:

A. An endorsement giving SFRTA a minimum of ten (10) days' notice of cancellation for nonpayment of premium and thirty (30) days' notice of cancellation for any other reason, nonrenewal and/or added restriction.

B. An endorsement naming SFRTA, FDOT and CSXT as additional insureds. Coverage shall be at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 (ongoing operations) and CG 20 37 (completed operations) forms, if the later forms are used.

C. That the coverage provided to the additional insureds by the Contractor is primary to any other insurance coverage or self-insurance maintained by the additional insureds. To the extent other insurance may respond to a claim, it shall be considered excess to the limits of Contractor's insurance policies required by this Agreement.

D. An endorsement stating that the insurance company waives all of its rights of recovery under subrogation, a transfer of rights, or otherwise, against SFRTA, any additional insureds, separate contractors, and subcontractors.

E. A deductible no greater than $10,000. All deductible amounts shall be borne by the Contractor.

F. When working within fifty (50) feet of railroad track, the following endorsement: Contractual Liability Railroads ISO Form CG 24 17 10 01 (or later form if less restrictive or a substitute form providing equivalent coverage).

G. No XCU (explosion, collapse and underground) exclusion.

All Subcontractors retained or hired for the Work shall be required to maintain coverages, limits and term no less restrictive than those required of the Contractor.

1.2 Contractor shall provide Worker's Compensation Insurance applicable to all employees in compliance with the "Workers' Compensation Law" of the State of Florida and all applicable federal laws. In addition, the policy(ies) must include Employer's Liability with the minimum limit of One Million Dollars ($1,000,000).

1.3 Contractor shall provide Business Automobile Liability with minimum limits of One Million Dollars ($1,000,000) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Contractor shall specifically protect SFRTA by obtaining an endorsement to its Automobile Liability policy naming SFRTA, its employees and officers, FDOT, and CSXT as Additional Insureds. Coverage must be afforded on a form no more restrictive than the latest edition of the business Automobile Liability Policy, without restrictive endorsements, as filed by the Insurance Services Office with the State of Florida, and must include the following coverages:

A. Owned vehicles;

B. Hired and non-owned vehicles;

C. Employees' non-ownership; and,

D. Personal Injury, Property Damage, Uninsured Motorist, Collision, and Comprehensive coverages.

If indicated, the following insurance provisions are applicable to Contractor.

1.4 (Applicable) Contractor shall provide All Risk Builder's Risk Insurance covering all materials as stock or installed with: (1) a named windstorm deductible equal to five percent (5%) of total insurable values per location, per occurrence, subject to a minimum of One Hundred Thousand Dollar ($100,000) per occurrence; (2) a Twenty-five Thousand Dollar ($25,000) deductible per occurrence for all other wind and hail; and (3) a One Hundred Thousand Dollar ($100,000) All Other Perils (AOP) deductible clause, except the Special Flood deductible may be Five Hundred Thousand Dollars ($500,000). SFRTA, Contractor, and subcontractors at all tiers as their interest may appear must be included as "Additional Insured." Coverage must be afforded on a form no more restrictive than the latest edition of the All Risk Builders Risk Policy, without restrictive endorsements, as filed by the Insurance Services Office with the State of Florida. The Contractor shall assume the liability for the deductible amounts.

1.5 (Not applicable) Contractor shall provide Railroad Protective Insurance with a limit of not less than Two Million Dollars ($2,000,000) per occurrence/Six Million Dollars ($6,000,000) aggregate applying to Bodily Injury Liability, Property Damage Liability, or Physical Damage to property or a combination of all three. The aggregate

limit shall apply separately to each job, contract, agreement, project or work order. SFRTA, FDOT, and CSXT are to be the "Named Insureds" on the policy.

1.6 (Not applicable) Contractor shall provide Pollution Liability Insurance with a limit of not less than Five Million Dollars ($5,000,000) per occurrence and project aggregate with a Ten Thousand Dollar ($10,000) deductible clause. The Contractor shall assume the liability for the deductible amount. The policy shall cover third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from the Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion. Either Contractor's Pollution Liability policy or Contractor's Business Automobile Liability policy shall be endorsed to include Transportation Pollution Liability Insurance covering materials to be transported by Contractor pursuant to this Agreement. SFRTA, FDOT, and CSXT, are to be included as "Additional Insureds" by endorsement to the Contractor's Pollution Liability Insurance policy.

1.7 (Not applicable) Contractor shall provide Professional Liability Insurance (Errors & Omissions) covering all project services in an amount not less than One Million Dollars ($1,000,000) per occurrence or claim and Two Million Dollars ($2,000,000) policy aggregate. The policy shall include a discovery period for reporting claims of not less than twelve (12) months from the date of contract completion. The Professional Liability Insurance requirement shall apply to all members of the project team within the scope of professional liability coverage for the amounts stated above. The Contractor shall be responsible for monitoring insurance compliance of all its Subconsultants. Additionally, Contractor shall make available to SFRTA proof of insurance of all Subconsultants upon request.

2. RENEWAL OF INSURANCE

Contractor shall be responsible for assuring that the insurance policies required by this Agreement remain in force with no changes for the duration of the Agreement. If an insurance policy is scheduled to expire during the term of the Agreement, Contractor shall be responsible for submitting evidence of the same type originally provided to SFRTA that a new or renewed insurance policy was put in place to prevent any lapse in coverage. In the event that evidence of renewal is not provided prior to the expiration of an existing policy, Contractor shall be in breach of this Agreement and SFRTA shall suspend all payments until such time as evidence of the the new or renewed policy is received by SFRTA. SFRTA also may take any other actions allowed under the Agreement for breach of the Agreement up to, and including, termination. Evidence of renewal shall include a Certificate(s) of Liability insurance, the policy declaration page(s) and all required endorsements.

In no event shall the failure by SFRTA to receive evidence of insurance be constructed as a waiver of the Contractor's obligation to obtain the required insurance coverages. Failure by SFRTA to demand evidence of insurance or failure by SFRTA to identify a deficiency in the evidence provided, shall not be construed as a waiver of the Contractor's obligation to procure or maintain the insurance required. The acceptance of delivery by SFRTA of evidence of insurance

does not constitute approval or agreement that the insurance requirements have been met or that the insurance policies identified in the evidence of insurance are in compliance with such requirements.

3. MINIMUM COVERAGE

Insurance Coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor of liability in excess of such coverage, nor shall it preclude SFRTA from taking such other actions as is available to it under any other provisions of this Contract or otherwise in law or equity. If Contractor maintains limits higher than the minimum shown above, SFRTA and any additional insureds shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to SFRTA and any additional insureds.

4. INSURANCE COMPANY RATINGS

The above indicated insurance coverages shall be issued by insurers of financial responsibility that are rated "A" or better by Best's Insurance Report, "AA" or better by Standard & Poor's Insurance Rating Service, or "AA" or better by Moody's Investors Service. SFRTA reserves the right to reject as inadequate any insurance coverage provided by an insurance company that is rated less than the ratings above by any of the aforementioned rating services.

5. WAIVER OF SUBROGATION

Contractor shall require all policies of insurance that relate to the Work and that are secured and maintained by Contractor and all Subcontractors, other than professional liability insurance, to include endorsements providing that each insurance company shall waive all of its rights of recovery, under subrogation or otherwise, against SFRTA, Contractor, separate Contractors, and Subcontractors.

Contractor waives all rights of recovery against SFRTA, separate Contractors, and all Subcontractors which Contractor may have or acquire because of deductible clauses in or inadequacy of limits of any policies of insurance that are in any way related to the Work and that are secured and maintained by Contractor.

Contractor shall require all Subcontractors to waive their rights of recovery (as aforesaid waiver by Contractor) against SFRTA, Contractor, separate Contractors, and other Subcontractors (including Subcontractors of separate Contractors).

6. INDEMNIFICATION

The Contractor shall indemnify, hold harmless and defend SFRTA and their respective officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful misconduct of the Contractor and other persons employed or utilized by the Contractor in the performance of the Contract.

The Contractor's obligation to indemnify SFRTA shall be activated by SFRTA's notice of claim for indemnification to the Contractor. The Contractor's inability to evaluate liability or its evaluation of liability shall not excuse the Contractor's duty to indemnify within seven (7) days after such notice by SFRTA is given by registered mail. Only an adjudication or judgment after the highest appeal is exhausted specifically finding SFRTA solely negligent shall excuse performance of this provision by the Contractor. The Contractor shall pay all costs and fees related to this obligation and its enforcement by SFRTA. SFRTA's failure to notify the Contractor of a claim shall not release the Contractor of the above duty to indemnify.

It is specifically agreed between the parties executing the Contract that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof, a third-party beneficiary hereunder, or to authorize anyone not a party to the Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the Contract.

The Contractor guarantees the payment of all just claims for materials, supplies, tools or labor and other just claims against it or any Subcontractor or Subconsultant, in connection with the Contract.

The parties hereby agree and acknowledge that one hundred dollars ($100.00) of the first payment to the Contractor for performance of this Agreement is the specific consideration from SFRTA to the Contractor for the Contractor's indemnity agreement.

FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

FTA ASSISTED THIRD PARTY CONTRACTS AND SUBCONTRACTS

FEDERAL CLAUSES
ITB-15-011

MARKED CLAUSES ARE APPLICABLE TO THIS PROCUREMENT

X 1 NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES 1
X 2 FALSE OR FRAUDULENT STATEMENTS OR CLAIMS - CIVIL AND CRIMINAL FRAUD 1
X 3 ACCESS TO THIRD PARTY CONTRACT RECORDS 1
X 4 CHANGES TO FEDERAL REQUIREMENTS 2
X 5 CIVIL RIGHTS (TITLE VI, ADA, EEO) 2
X 6 DISADVANTAGED BUSINESS ENTERPRISES (DBE)s 3
X 7 INCORPORATION OF FTA TERMS 4
X 8 TERMINATION 4
X 9 DEBARMENT AND SUSPENSION 5
X 10 BUY AMERICA 5
X 11 RESOLUTION OF DISPUTES, BREACHES, OR OTHER LITIGATION 6
X 12 LOBBYING 6
X 13 CLEAN AIR 6
X 14 CLEAN WATER 6
X 15 CARGO PREFERENCE 6
X 16 FLY AMERICA 7
X 17 CONSTRUCTION EMPLOYEE PROTECTIONS – DAVIS–BACON ACT 7
X 18 CONSTRUCTION EMPLOYEE PROTECTIONS – CONTRACT WORK HOURS & SAFETY STANDARDS ACT 14
X 19 CONSTRUCTION EMPLOYEE PROTECTIONS – COPELAND ANTI-KICKBACK ACT 15
X 20 BONDING FOR CONSTRUCTION ACTIVITIES EXCEEDING $100,000 15
X 21 SEISMIC SAFETY 16
_ 22 NONCONSTRUCTION EMPLOYEE PROTECTION – CONTRACT WORK HOURS & SAFETY STANDARDS ACT 16
_ 23 TRANSIT EMPLOYEE PROTECTIVE ARRANGEMENTS 16
_ 24 CHARTER BUS OPERATIONS 17
_ 25 SCHOOL BUS OPERATIONS 18

_ 26 DRUG USE AND TESTING 18
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_ 28 PATENT AND RIGHTS IN DATA 19
_ 29 SPECIAL NOTIFICATION REQUIREMENT FOR STATES 19
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Provisions 1 through 7 apply to ALL CONTRACTS

1 NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES

A. SFRTA and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to SFRTA, Contractor, or any other party (whether or not a party to that Contract) pertaining to any matter resulting from the underlying Contract.

B. Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

2 FALSE OR FRAUDULENT STATEMENTS OR CLAIMS - CIVIL AND CRIMINAL FRAUD

A. Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 CFR Part 31, apply to its actions pertaining to this Project. Upon execution or performance of the underlying Contract, Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying Contract or the FTA assisted project for which this Contract work is being performed. In addition to other penalties that may be applicable, Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on Contractor to the extent the Federal Government deems appropriate.

B. Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a Contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on Contractor, to the extent the Federal Government deems appropriate.

C. Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

3 ACCESS TO THIRD PARTY CONTRACT RECORDS

A. For a period of three years following Contract closing, the Contractor shall maintain, preserve and make available to SFRTA, the FTA Administrator, the Comptroller General of the United States, and any of their authorized representatives, access at all reasonable times to any books, documents, papers

and records of Contractor which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 CFR 633.17, to provide the FTA Administrator or his or her authorized representatives, including any project management oversight contractor, access to Contractor's records and sites pertaining to a major capital project, defined at 49 U.S.C. § 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. §§ 5307, 5309 or 5311.

B. The Contractor shall maintain and SFRTA shall have the right to examine and audit all records and other evidence sufficient to reflect properly all prices, costs or rates negotiated and invoiced in performance of this Contract. This right of examination shall include inspection at all reasonable times of the Contractor's offices engaged in performing the Contract.

C. If this Contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement. The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this Contract until such appeals, litigation, or claims are finally resolved.

D. "Access to Records and Reports" applies with equal force and effect to any subcontractors hired by the Contractor to perform Work under this Contract. The Contractor shall insert this provision in all subcontracts under this Contract and require subcontractor compliance therewith.

4 CHANGES TO FEDERAL REQUIREMENTS

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the current Master Agreement between SFRTA and FTA, as they may be amended or promulgated from time to time during the term of this Contract. Contractor's failure to so comply shall constitute a material breach of this Contract. Contractor may contact either SFRTA or FTA for a copy of the current FTA Master Agreement.

5 CIVIL RIGHTS (TITLE VI, ADA, EEO)

The following requirements apply to the underlying Contract:

A. Nondiscrimination- In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

B. Equal Employment Opportunity – The following equal employment opportunity requirements apply to the underlying Contract:

1. Race, Color, Creed, National Origin, Sex- In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 CFR Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect activities undertaken in the course of this Contract. Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, Contractor agrees to comply with any implementing requirements FTA may issue.

2. Age- In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, Contractor agrees to comply with any implementing requirements FTA may issue.

3. Disabilities- In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 CFR Part 1630, pertaining to employment of persons with disabilities. In addition, Contractor agrees to comply with any implementing requirements FTA may issue.

C. Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

6 DISADVANTAGED BUSINESS ENTERPRISES (DBE)s

A. This Contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises (DBEs) in Department of Transportation Financial Assistance Programs. The national goal for participation of DBEs is 10%.

B. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted Contract. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this contract or such other remedy as SFRTA deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

C. The Contractor is required to pay its subcontractors performing Work related to this Contract for satisfactory performance of that Work no later than 30 days after the Contractor's receipt of payment for that Work from SFRTA. In addition, the Contractor shall return any retainage payments to subcontractors within 30 days after incremental acceptance of the subcontractor's Work by SFRTA and Contractor's receipt of the partial retainage payment related to the subcontractor's Work.

D. The Contractor must promptly notify SFRTA, whenever a DBE subcontractor performing Work related to this Contract is terminated or fails to complete its Work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of Work. The contractor may not terminate any DBE subcontractor and perform that Work through its own forces or those of an affiliate without prior written consent of SFRTA.

E. SFRTA sets an annual overall goal for the participation of disadvantaged business enterprises. This Contract contains a minimum level of DBE participation, and is awarded in reliance upon the Contractor's representations that it can attain such DBE participation levels in addition to all other of Contractor's representations, certifications and submittals as required by this Contract.

The Contractor shall cooperate with SFRTA with regard to maximum utilization of DBEs and will use its best efforts to insure that DBEs shall have the maximum practicable opportunity to compete for subcontract work under this Contract. The Contractor shall assist SFRTA in verifying compliance with the DBE requirements of this Contract, if any, by submitting status reports itemizing payments to all DBE subcontractors with each monthly request for payment. Upon Contract completion, the Contractor shall submit a summary of payments, by subcontract, made to all subcontractors to SFRTA's Administrative Compliance Officer.

7 INCORPORATION OF FTA TERMS

The provisions of this Contract include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the Contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, dated November 1, 2008, as may be amended, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any SFRTA requests which would cause SFRTA to be in violation of the FTA terms and conditions. The incorporation of FTA terms has unlimited flow down.

Provision 8 applies to AWARDS EXCEEDING $10,000

8 TERMINATION

Refer to SFRTA's General Terms and Conditions

Provision 9 applies to AWARDS EXCEEDING $25,000

9 DEBARMENT AND SUSPENSION

A. If this Contract is valued at $25,000 or greater, it is a covered transaction for purposes of 49 CFR Part 29. As such, Contractor is required to verify that none of Contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

B. Contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

C. By accepting this Contract, Contractor is certifying as follows:

1. The certification in this clause is a material representation of fact relied upon by SFRTA. If it is later determined that Contractor knowingly rendered an erroneous certification, in addition to remedies available to SFRTA, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. Contractor agrees to comply with the requirements of 49 CFR 29, Subpart C throughout the period of this Contract.

2. Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Provisions 10 through 11 apply to AWARDS EXCEEDING THE SIMPLIFTED ACQUISTION THRESHOLD ($100,000)

10 BUY AMERICA
(for Rolling Stock, Construction and Materials/Supplies)

The Buy America requirements apply to all contracts for construction, the acquisition of goods, or the acquisition of rolling stock that are valued at more than $100,000.

The Contractor agrees to comply with 49 USC 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 USC 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content. The Contractor shall be responsible for ensuring that lower tier contractors and subcontractors are in compliance with these requirements.

11 RESOLUTION OF DISPUTES, BREACHES, OR OTHER LITIGATION
Refer to SFRTA's General Terms and Conditions

Provisions 12 through 14 apply to AWARDS EXCEEDING $100,000 BY STATUTE

12 LOBBYING

Contractors and all subcontractors who apply or bid for an award of $100,000 or more shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not use and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. § 1352. Such disclosures are forwarded from tier to tier up to SFRTA. Contractor should contact SFRTA for the appropriate certification or retrieve a copy from the FTA Best Practices Manual at http://www.fta.dot.gov/library/admin/BPPM/.

13 CLEAN AIR

A. Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. Contractor agrees to report each violation to SFRTA and understands and agrees that SFRTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

B. Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

14 CLEAN WATER

A. Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq. Contractor agrees to report each violation to SFRTA and understands and agrees that SFRTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

B. Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

Provisions 15 and 16 apply for the TRANSPORT OF PROPERTY OR PERSONS

15 CARGO PREFERENCE
(Rolling Stock, Construction and Materials/Supplies)

The Cargo Preference requirements apply to all contracts involving equipment, materials, or commodities which may be transported by ocean vessels.

The Contractor agrees:

1. to use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;

2. to furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of -lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to SFRTA (through the Contractor in the case of a subcontractor's bill-of-lading);

3. to include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

16 FLY AMERICA

In the performance of Contracts that utilize FTA participation in the cost of international air transportation, Contractor agrees to comply with 49 U.S.C. § 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 C.F.R Part 301-10, which provide that recipients and subrecipients of Federal funds and their contractors are required to use U.S.-Flag air carriers for U.S Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S.-Flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

Provisions 17 through 21 apply to CONSTRUCTION ACTIVITIES

FTA 17 CONSTRUCTION EMPLOYEE PROTECTIONS – DAVIS–BACON ACT (Awards that exceed $2,000)

(1) Minimum wages - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the

full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days

of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will

approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(v) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(2) Withholding - The SFRTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the SFRTA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers

or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the SFRTA for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the

contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate

specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland "Anti-Kickback" Act requirements - The contractor shall comply with the requirements of Section 1 of the Act, as amended, 18 U.S.C. § 874; Section 2 of the Act, as amended, 18 U.S.C. § 3145; and U.S. DOL regulations "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States," 29 CFR Part 3, which are incorporated by reference in this contract.

(6) Subcontracts - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its

subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

18 CONSTRUCTION EMPLOYEE PROTECTIONS – CONTRACT WORK HOURS & SAFETY STANDARDS ACT

(for construction contracts that exceed $100,000)

(1) Overtime requirements - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages - In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages - The SFRTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts - The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) of this section and also a clause requiring the subcontractors to

include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

19 CONSTRUCTION EMPLOYEE PROTECTIONS – COPELAND ANTI-KICKBACK ACT

Compliance with Copeland "Anti-Kickback" Act ("Act") requirements - The contractor shall comply with the following requirements:

(a) Section 1 of the Act, as amended, 18 U.S.C. § 874, applies to all Contracts:

(i) Whoever, by force, intimidation, or threat of procuring dismissal from employment, or by any other manner whatsoever induces any person employed in the construction, prosecution, completion or repair of any public building, public work, or building or work financed in whole or in part by loans or grants from the United States, to give up any part of the compensation to which he is entitled under his contract of employment, shall be fined under this title or imprisoned not more than five years, or both;

(b) Section 2 of the Act, as amended, 18 U.S.C. § 3145, applies to construction and repair Contracts exceeding $2,000:

(i) In General.—The Secretary of Labor shall prescribe reasonable regulations for contractors and subcontractors engaged in constructing, carrying out, completing, or repairing public buildings, public works, or buildings or works that at least partly are financed by a loan or grant from the Federal Government. The regulations shall include a provision that each contractor and subcontractor each week must furnish a statement on the wages paid each employee during the prior week.

(ii) Application.— The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001; and

(c) U.S. DOL regulations "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States," 29 CFR Part 3, which are incorporated by reference in this contract.

(d) For additional requirements of the Act not specified in this Article, see preceding Article FTA 17 – Construction Employee Protections – Davis Bacon Act.

20 BONDING FOR CONSTRUCTION ACTIVITIES EXCEEDING $100,000

Bid Bond Requirements (Construction)

Refer to SFRTA's General Terms and Conditions

21 SEISMIC SAFETY

If this Contract for professional services involves the design of a new building or addition to an existing building, the Contractor agrees that any such new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The Contractor also agrees to ensure that all work performed under this Contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

Provision 22 applies to NONCONSTRUCTION ACTIVITIES

22 NONCONSTRUCTION EMPLOYEE PROTECTION – CONTRACT WORK HOURS & SAFETY STANDARDS ACT

(for all turnkey, rolling stock and operational contracts {except transportation services contracts and open market contracts} exceeding $100,000.)

The Contractor agrees to comply, and assures the compliance of each subcontractor, lessee, third party contractor, and other participant at any tier of the Project, with the employee protection requirements for nonconstruction employees of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 et seq., in particular with the wage and hour requirements of section 102 of that Act at 40 U.S.C. § 3702, and with implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provision Applicable to Nonconstruction Contracts Subject to the Contract Work hours and Safety Standards Act)," 29 CFR Part 5.

Provisions 23 through 27 apply to TRANSIT OPERATIONS

23 TRANSIT EMPLOYEE PROTECTIVE ARRANGEMENTS

Public Transportation Employee Protective Arrangements. If the Grant Agreement or Cooperative Agreement for the Project indicates that public transportation employee protective arrangements required by U.S. DOL apply to public transportation operations performed in connection with the Project, the Recipient agrees to comply with the applicable requirements for its Project as follows:

(1) Standard Public Transportation Employee Protective Arrangements. To the extent that the Project involves public transportation operations and as required by Federal law, the Recipient agrees to implement the Project in accordance with the terms and conditions that the U.S. Secretary of Labor has determined to be fair and equitable to protect the interests of any employees affected by the Project and that comply with the requirements of 49 U.S.C. § 5333(b), and with the U.S. DOL guidelines, "Section 5333(b), Federal Transit Law," 29 C.F.R. Part 215 and any amendments thereto. These terms and conditions are identified in U.S. DOL's certification of public transportation employee protective arrangements to FTA, the date of which appears in the Grant Agreement or Cooperative Agreement for the Project. The Recipient agrees to implement the Project in accordance with the conditions stated in

that U.S. DOL certification. That certification and any documents cited therein are incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. The requirements of this Subsection 24.d(1) of this Master Agreement do not apply to Projects for elderly individuals or individuals with disabilities that are authorized by 49 U.S.C. § 5310(a)(2) or subsection 3012(b) of SAFETEA-LU, or to Projects for nonurbanized areas authorized by 49 U.S.C. § 5311; separate requirements for those Projects are contained in Subsections 24.d(2) and (3), respectively, of this Master Agreement.

(2) Public Transportation Employee Protective Arrangements for Elderly Individuals and Individuals with Disabilities for the Elderly Individuals and Individuals with Disabilities Formula Program and Pilot Program. To the extent that the U.S. Secretary of Transportation has determined or determines in the future that employee protective arrangements required by 49 U.S.C. § 5333(b) are necessary or appropriate for a governmental authority sub recipient participating a Project authorized by 49 U.S.C.

§ 5310(b)(2) or subsection 3012(b) of SAFETEA-LU, 49 U.S.C. § 5310 note, the Recipient agrees to carry out the Project in compliance with the terms and conditions determined by the U.S. Secretary of Labor necessary to comply with the requirements of 49 U.S.C. § 5333(b), and the U.S. DOL guidelines, "Section 5333(b), Federal Transit Law," at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the U.S. DOL's certification of public transportation employee protective arrangements to FTA, the date of which appears in the Grant Agreement. The Recipient agrees to implement the Project in compliance with the conditions stated in that U.S. DOL certification. That U.S. DOL certification and any documents cited therein are incorporated by reference and made part of the Grant Agreement.

(3) Public Transportation Employee Protective Arrangements for Projects in Nonurbanized Areas Authorized by 49 U.S.C. § 5311. The Recipient agrees to comply with the terms and conditions of the Special Warranty for the Nonurbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979,U.S. DOL implementing procedures, and any revisions thereto.

24 CHARTER BUS OPERATIONS

The Contractor agrees that neither it nor any public transportation operator performing work in connection with a Project financed under 49 U.S.C. chapter 53 or under 23 U.S.C.§§ 133 or 142 will engage in charter service operations, except as authorized by 49 U.S.C. § 5323(d) and FTA regulations, "Charter Service," 49 C.F.R. Part 604, and any subsequent Charter Service regulations or FTA directives that may be issued, except to the extent that FTA determines otherwise in writing. Any charter service agreement required by FTA regulations is incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. The Contractor understands and agrees that in addition to any remedy specified in the charter service agreement, if a pattern of violations of that agreement is found, the violator will be barred from receiving Federal transit assistance in an amount to be determined by FTA or U.S. DOT.

25 SCHOOL BUS OPERATIONS

The Contractor agrees that neither it nor any public transportation operator performing work in connection with a Project financed under 49 U.S.C. chapter 53, or under 23 U.S.C. §§ 133 or 142 will engage in school transportation operations for the transportation of students or school personnel exclusively in competition with private school transportation operators, except as authorized by 49 U.S.C. §§ 5323(f) or (g), as applicable, and FTA regulations, "School Bus Operations," 49 C.F.R. Part 605, and any subsequent School Transportation Operations regulations or FTA directives that may be issued, except to the extent that FTA determines otherwise in writing. Any school transportation operations agreement required by FTA regulations is incorporated by reference and made part of the Grant Agreement or Cooperative Agreement for the Project. The Contractor understands and agrees that if it or an operator violates that school transportation operations agreement, the violator will be barred from receiving Federal transit assistance in an amount to be determined by FTA or U.S. DOT.

26 DRUG USE AND TESTING

The Contractor agrees to establish and implement a drug testing program that complies with 49 CFR Part 40 Part 655, and permit any authorized representative of the United States Department of Transportation or its operating administrations, or the SFRTA, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Part 40 and 655 and review the testing process. The Contractor agrees further to certify annually its compliance with Part 40 and 655 before December 31st of every year and to submit the Management Information System (MIS) reports no later than February 15th of every year to the SFRTA. To certify compliance, the Contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

27 ALCOHOL MISUSE AND TESTING

The Contractor agrees to establish and implement an alcohol testing program that complies with 49 CFR Part 40 Part 655, and permit any authorized representative of the United States Department of Transportation or its operating administrations, the State Oversight Agency, or the Regional Transportation District, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Part 40 and 655 and review the testing process. The Contractor agrees further to certify annually its compliance with Part 40 and 655 before December 31st of every year and to submit the Management Information System (MIS) reports no later than February 15th of every year to the SFRTA. To certify compliance, the Contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

Provision 28 applies to PLANNING, RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROJECTS

28 PATENT AND RIGHTS IN DATA

Refer to SFRTA's General Terms and Conditions

Provision 30 applies ONLY to States and Organizations that are being funded directly by the State with FTA grant funds.

29 SPECIAL NOTIFICATION REQUIREMENT FOR STATES

(Per FTA guidance dated July 2011: "The notification requirements concerning federal assistance apply only to States and those organizations that are being funded directly by the State with FTA grant funds. This would include sub-grantees, lessees, or third party contractors of the State. Government agencies that are not part of the State government who are receiving FTA grant funds directly from FTA do not have to comply with the special notification requirements for States." Therefore this clause does not apply to SFRTA Contracts.)

The Federal Transit Administration ("FTA") is the Federal agency that is providing the Federal assistance for this Contract. The Catalog of Federal Domestic Assistance Number is , for the amount of $__ .

MISCELLANEOUS SPECIAL REQUIREMENTS

30 ENERGY CONSERVATION

(applies to all contracts)

Contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan, if any, issued in compliance with the Energy Policy and Conservation Act.

31 RECYCLED PRODUCTS

(Contracts when procuring $10,000 or more per year of items designated by EPA)

The Contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

32 CONFORMANCE WITH NATIONAL ITS ARCHITECTURE

(Contracts and solicitations for ITS projects)

National Intelligent Transportation Systems Architecture and Standards. To the extent applicable, the Contractor agrees to conform to the National Intelligent Transportation Systems (ITS) Architecture and Standards as required by SAFETEA-LU § 5307(c), 23 U.S.C. § 512 note, and comply with FTA Notice, "FTA

National ITS Architecture Policy on Transit Projects" 66 Fed. Reg. 1455 et seq., January 8, 2001, and any subsequent further implementing directives, except to the extent FTA determines otherwise in writing.

33 ADA ACCESS
(Contracts for rolling stock or facilities construction/renovation)

A. SFRTA must comply with: 49 U.S.C. § 5301(d), which states the Federal policy that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation services and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement transportation accessibility rights for elderly individuals and individuals with disabilities; all applicable provisions of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of disability; the Americans with Disabilities Act of 1990 (ADA), as amended; 42 U.S.C. §§ 12101 et seq., which requires that accessible facilities and services be made available to individuals with disabilities; and the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities.

B. All deliverable items provided by the Contractor for SFRTA under this Contract shall comply with the above-referenced laws as well as all other applicable federal, state and local regulations and directives and any subsequent amendments thereto.

Provisions 34 through 36 apply to ROLLING STOCK PROCUREMENTS

34 BUS TESTING

The Contractor [Manufacturer] agrees to comply with 49 U.S.C. A 5323(c) and FTA's implementing regulation at 49 CFR Part 665 and shall perform the following

1) A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to the recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle.

2) A manufacturer who releases a report under paragraph 1 above shall provide notice to the operator of the testing facility that the report is available to the public.

3) If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to the recipient prior to recipient's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.

4) If the manufacturer represents that the vehicle is "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

35 PRE-AWARD AND POST-DELIVERY AUDIT REQUIREMENTS

The Contractor agrees to comply with 49 U.S.C. § 5323(l) and FTA's implementing regulation at 49 C.F.R. Part 663 and to submit the following certifications:

(1) Buy America Requirements: The Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Bidder/Offeror certifies compliance with Buy America, it shall submit documentation which lists 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

(2) Solicitation Specification Requirements: The Contractor shall submit evidence that it will be capable of meeting the bid specifications.

(3) Federal Motor Vehicle Safety Standards (FMVSS): The Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

36 TVM CERTIFICATION

The Transit Vehicle Manufacturer (TVM) shall provide SFRTA with a certificate that complies with 49 CFR Part 26.49 stating that the TVM has complied with FTA's DBE requirements. The TVM shall also provide SFRTA with the most current letter from the FTA approving the TVM's DBE goal/methodology and eligibility to participate in the FTA DBE program as a TVM in accordance with 49 CFR Part 26.49. If the FTA has not yet approved the DBE Goal, the TVM shall make a certification to that effect as required by 49 CFR Part 26.49 and in addition submit to SFRTA a copy of the documents submitted to FTA for approval. These documents shall be submitted with the solicitation response or the TVM's submittal may be deemed non-responsive.

General Decision Number: FL160027 05/20/2016 FL27

Superseded General Decision Number: FL20150027

State: Florida

Construction Type: Building

County: Miami-Dade County in Florida.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	01/15/2016
2	02/26/2016
3	04/29/2016
4	05/20/2016

CARP0079-001 04/01/2014

	Rates	Fringes
CARPENTER (Form Work Only).....	$ 22.20	7.37

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* ELEC0349-001 02/29/2016

	Rates	Fringes
ELECTRICIAN, Includes Installation of HVAC/Temperature Controls.....	$ 31.11	11.25

ELEV0071-001 01/01/2016

	Rates	Fringes
ELEVATOR MECHANIC.....	$ 40.91	29.985

FOOTNOTE:

A: Employer contributes 8% basic hourly rate for 5 years or more of service or 6% basic hourly rate for 6 months to 5 years of service as Vacation Pay Credit; Paid Holidays:

New Year's Day; Memorial Day; Independence Day; Labor Day; Veteran's Day; Thanksgiving Day; plus the Friday after Thanksgiving; and Christmas Day.

ENGI0487-001 07/01/2013

	Rates	Fringes
OPERATOR: Backhoe/Excavator	$ 22.00	8.80
OPERATOR: Concrete Pump, Truck Mounted		
Trailer Mounted	$ 21.44	8.80
Truck Mounted	$ 27.21	8.80
OPERATOR: Crane		
All Cranes Over 15 Ton Capacity; Boom Truck	$ 29.00	8.80
Yard Crane, Hydraulic Crane, Cpacity 15 Ton and Under; Boom Truck	$ 22.00	8.80
OPERATOR: Mechanic	$ 22.00	8.80
OPERATOR: Oiler	$ 21.00	8.80

IRON0272-003 02/01/2015

	Rates	Fringes
IRONWORKER, ORNAMENTAL, REINFORCING AND STRUCTURAL	$ 23.76	7.78

PAIN0365-003 08/01/2014

	Rates	Fringes
PAINTER: Roller, Spray, and Steel (Excludes Drywall Finishing/Taping)	$ 15.75	7.88

SFFL0821-001 01/01/2016

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers)	$ 26.68	17.87

SHEE0032-003 12/01/2013

	Rates	Fringes
SHEETMETAL WORKER (HVAC Duct Installation)	$ 23.50	12.18

SUFL2009-023 05/22/2009

	Rates	Fringes
BRICKLAYER	$ 18.93	0.00
CARPENTER, Includes Acoustical Ceiling		

Installation (Excludes Drywall Hanging, and Form Work)	$ 15.54	0.00
CEMENT MASON/CONCRETE FINISHER	$ 11.13	0.00
DRYWALL HANGER	$ 14.00	0.57
FENCE ERECTOR	$ 10.00	0.00
FLOOR LAYER: Carpet	$ 19.00	2.10
GLAZIER	$ 16.89	2.69
HVAC MECHANIC (HVAC Pipe Installation)	$ 16.19	2.48
HVAC MECHANIC (Installation of HVAC Unit Only, Excludes Installation of HVAC Pipe and Duct)	$ 17.91	2.64
INSTALLER - OVERHEAD DOOR	$ 14.40	0.00
LABORER: Asphalt Raker	$ 10.40	0.00
LABORER: Asphalt Shoveler	$ 7.88	0.00
LABORER: Common or General	$ 9.85	0.00
LABORER: Concrete Saw (Hand Held/Walk Behind)	$ 12.63	0.00
LABORER: Mason Tender - Brick	$ 10.75	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.83	1.90
LABORER: Pipelayer	$ 13.87	1.58
LABORER: Roof Tearoff	$ 8.44	0.00
LABORER: Landscape and Irrigation	$ 10.00	1.60
MECHANICAL INSULATOR, Including Duct and Pipe	$ 13.98	2.07
OPERATOR: Asphalt Spreader	$ 11.41	0.00
OPERATOR: Bulldozer	$ 16.21	0.00
OPERATOR: Distributor	$ 12.37	0.00
OPERATOR: Forklift	$ 14.00	0.00
OPERATOR: Grader/Blade	$ 13.73	0.00
OPERATOR: Loader	$ 16.00	2.82

OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 12.75	0.00
OPERATOR: Roller	$ 10.94	0.00
OPERATOR: Screed	$ 13.05	0.00
OPERATOR: Tractor	$ 9.91	0.00
OPERATOR: Trencher	$ 11.75	0.00
PAINTER: Brush, Includes Drywall Finishing/Taping	$ 13.72	2.22
PIPEFITTER, Excludes HVAC Pipe Installation	$ 17.85	2.54
PLASTERER	$ 15.05	0.00
PLUMBER, Excludes HVAC Pipe Installation	$ 20.00	1.37
ROOFER, Includes Built Up, Hot Tar, Modified Bitumen, Shake & Shingle, Single Ply, Slate, & Tile Roofs (Excludes Installation of Metal Roofs)	$ 13.59	0.00
ROOFER: Metal Roof	$ 17.10	0.00
SHEET METAL WORKER, Excludes HVAC Duct Installation	$ 15.62	2.03
TILE SETTER	$ 16.50	2.10
TRUCK DRIVER: 3 Axle Truck	$ 10.50	0.80
TRUCK DRIVER: Dump Truck	$ 10.00	0.00
TRUCK DRIVER: Lowboy Truck	$ 13.78	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage

determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current

negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

BID FORM
ITB No. 15-011
HIALEAH YARD ELECTRICAL UPGRADES

BIDDER: Solares Electrical Services, Inc

BIDS WILL BE OPENED AT 4:00 PM ON AUGUST 12, 2016 AND MAY NOT BE WITHDRAWN WITHIN ONE HUNDRED EIGHTY (180) DAYS AFTER SUCH DATE.

I CERTIFY that this bid is made without prior understanding, agreement or connection with any corporation, firm, or person submitting a bid for the same contractual services and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this solicitation and certify that I am authorized to sign this bid and that the bid is in compliance with all requirements of the Invitation to Bid, including but not limited to, certification requirements.

The Bidder further declares that it has examined the solicitation documents and all addenda thereto elsewhere; and that it has satisfied itself about the work to be performed and all other required information with the bid, **including the Bidder's requirement to provide a minimum of one (1) State of Florida Licensed Journeyman Electrician present on-site at all times while work is being performed.**

The Bidder certifies neither the bidding firm nor any of its officers is on the State of Florida Comptroller General's List of Ineligible Bidders or the United States comptroller General's List of Ineligible Contractors for Federally Financed or Assisted Projects.

The Bidder agrees, if this bid is accepted, to contract with the South Florida Regional Transportation Authority, an agency of the State of Florida, to furnish all necessary labor, materials, equipment, tools, apparatus, and all other items necessary to complete, for the amount bid and within the time limits specified, the work covered by this bid and other Contract Documents for the project entitled: ITB NUMBER 15-011, HIALEAH YARD ELECTRICAL UPGRADES.

TOTAL BID AMOUNT: $ 1,099,000.00
Numeric Value

One Million Ninety-nine Thousand & 00/100
Please write amount

Addenda: Provide signature and date for each Addenda received.

1. #1 July 29th	2. #2 Aug 2nd	3. #3 Aug 16th.
4.	5.	6.

BID WORKSHEET DECLARATION

As Bidder, we propose to furnish all labor, materials, equipment, appurtenances and supplies necessary to complete the project in accordance with the Contract Documents, for Hialeah Yard Electrical Upgrades, ITB No. 15-011, for the Total Lump Sum Amount as bid on the Bid Form.

1.	Lump Sum Amount	$ 1,099,000.00
	TOTAL BID AMOUNT	$ 1,099,000.00

Solares Electrical Services, Inc
Bidder

Andres Solares — President
Authorized Person (Print or Type) — Title

10421 NW 28th Street, D105, Doral ,FL 33172
Address

305-717-6184 — 305-715-7047
Telephone — Fax

Signature

Miami Dade
County Of

FL
State Of

Affix Corporate Seal
(If Applicable)

The foregoing instrument was acknowledged before me on this 29 day of Aug, 20 16

By Andres Solares

___ An individual acting in their own right;

XX President (Title) of Solares Electrical Services, inc (Corporation/Company)
a Florida (State) Corporation, on behalf of the corporation.

___ Acknowledging partner/agent on behalf of _____ (Name of partnership), a partnership.

This person is personally known me or has produced _____ as identification and did/did not take an oath.

Signature of Person Taking Acknowledgment

Place Notary Seal Here

In lieu of Stamp: Karen Sian
Type or Print Name

10/20/19
Expiration Date

Title

KAREN C SIAN
Commission # FF 929060
My Commission Expires
October 20, 2019

BID BOND

KNOW ALL PEOPLE BY THESE PRESENT: That
we, Solares Electrical Services, Inc.
10421 NW 28 St D105, Doral, FL 33172 as Principal (Bidder),and Fidelity and Deposit
Company of Maryland 1400 American Lane Tower 1, 18th Flr, Schaumburg, IL 60196 as Surety, are held and firmly bound unto the South Florida Regional Transportation Authority and its successors in office (hereinafter called the Obligee) in the full and just sum of five percent (5%) of the actual total of the Bid referred to herein (do not enter figures), in lawful money of the United States of America, to be paid to the Obligee, to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly be these presents:

WHEREAS, the said Principal is herewith submitting a bid to South Florida Regional Transportation Authority, 800 NW 33rd Street, Pompano Beach, Florida, 33064 in Broward County, particularly known as ITB No. 15-011, HIALEAH YARD ELECTRICAL UPGRADES.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the said Principal shall execute a contract and give bond for the faithful performance thereof within fifteen (15) days after being notified in writing of the award of such contract to Principal, or if the surety shall pay the Obligee the full amount of this bond, then this obligation shall be void, otherwise, it shall remain in full force and effect.

SIGNED, SEALED AND DATED THIS 30th DAY OF August 20 16

CORPORATION:

Solares Electrical Services, Inc. (Seal). Witness (1) Karen Klein
Principal (Bidder)

By: _____ (Seal) Witness (2) _____
President or Vice President

Attest: _____ (Seal)
Secretary or Asst. Secretary

(Affix Corporate Seal)

PARTNERSHIP:

_____ (Seal)
Principal (Bidder)

_____ (Seal) Witness (1) _____
Co-Partner or General Partner

_____ (Seal) Witness (2) _____
Co-Partner or General Partner

INDIVIDUAL OR FIRM TRADING AS:

_____ (Seal) Witness (1) _____
Principal (Bidder)

_____ (Seal) Witness (2) _____
Individual or Owner

SURETY:

Fidelity and Deposit Company of Maryland
Name of Surety

By: _____
Agent or Attorney-In-Fact Ramon A Rodriguez

Countersigned: _____
Florida Resident Agent Ramon A Rodriguez

STATE OF FLORIDA, COUNTY
OF Miami Dade

BEFORE ME, the undersigned authority, personally appeared Ramon A Rodriguez, who being duly sworn, deposes and says that he/she is a duly authorized insurance agent, properly licensed under the laws of the State of Florida to represent Fidelity and Deposit Company of MD of Maryland, a company authorized to make corporate surety Bonds under the laws of Florida, and that he/she has signed or countersigned the above bond on their behalf.

Sworn and subscribed to before me this 30th day of August 20 16

_____
Notary Public
State of Florida at Large

NOTARY PUBLIC STATE OF FLORIDA
MAYRA RODRIGUEZ
MY COMMISSION # FF 158347
EXPIRES: November 14, 2018
Bonded Thru Budget Notary Services

My commission expires: _____

Note: Surety must be company acceptable as Surety on Federal Bonds, Power of Attorney showing authority of Surety's Agent or Attorney-In-Fact shall be furnished. Affix Corporate Seals of Bidder (if a corporation) and Surety. Secretary or Assistant Secretary must attest signature of corporate officer.

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **MICHAEL BOND, Vice President,** in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Ramon A. RODRIGUEZ, William E. BECKHAM, Ernesto FREYRE JR. and Fausto ALVAREZ, all of Miami Lakes, Florida, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND,** this 8th day of June, A.D. 2016.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By:

Secretary
Michael McKibben

Vice President
Michael Bond

State of Maryland
County of Baltimore

On this 8th day of June, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **MICHAEL BOND, Vice President, and MICHAEL MCKIBBEN, Secretary,** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2019

POA-F 031-0044

CONTRACTOR'S QUALIFICATION CERTIFICATION

Complete one form for each firm if Partnership or Consortium

Firm Name: Solares Electrical Services, inc

Address: 10421 NW 28th Street, D105

City,State,Zip: Doral, FL 33172

Telephone: (305) 717-6184 Fax: (305) 715-7047

Contact Person: Andres Solares Title: President

E-Mail Address: asolares@solareselectrical.com

FEID # 65-0731811 DUNS # _____ FL Vendor # _____

1. DBE Certified ____ No X Yes Classification: Electrical
Certified By: Miami Dade County

2. Specify the principal product or service offered by your firm: Electrical
General Contractor

3. Identify the area(s) which the business serves: X Miami-Dade X Broward
___ Palm Beach X Florida ___Other _____

4. Date business was established: 2/1997 Occupational License: 2016001534
5. Type of Business: Electrical Contracting

A. ____**Sole Proprietor**
Name _____
Home Address _____
Home Phone _____ Cell Phone _____
Professional license/Certificate of Competency# _____

B. ____**Partnership**
Are the owners of the business lawful, permanent residents of Florida? ____Yes ____No
Provide the name, residential address and telephone number of all owners of the business.

Partners Name	Res. Address	Phone Number	Cell Number

Professional license/Certificate of Competency #: _____

Name in which license/Certificate of Competency is issued: _____

C. XX **Corporation** Incorporated in the state of FL Date 2/21/1997

Officer's Names	Title	Res. Address	Phone No.
Andres Solares	President	3380 SW 130th Ave Miami, FL 33175	305-717-6184

Professional license/Certificate of Competency #: EC13001908 / CGC1523633

Name in which license/Certificate is Issued Andres Solares

6(a). List each contract completed by you during the last five (5) years, or if less than five (5) contracts have been completed in the last five (5) years, list the last five (5) contracts completed **for which liquidated damages or other contractually stipulated sums or damages were assessed** against your business for failure to complete the work on time or for any other breach of contract by your business. For each such contract, provide a brief description of the work performed, the initial contract amount, the dollar amount at completion, date completed, and the name and telephone number of the owner's representative.

Contract Number	Description of Contract	POC & Phone	Initial Amount	Closeout Amount	Date Completed
	We have not had liquidated damages assessed.				

6(b). For the last five (5) years, list each contract under which the owner has **called upon your business' surety to complete the work, has terminated your business for default, or sued to complete performance or recover damages**. If fewer than five (5) contracts have been so affected during the last five (5) years, list the last five (5) contracts to be so affected. For each such contract, provide the same information as required in (a) above, and in addition, provide the name and contract person with telephone number of your business' surety.

Contract Number	Description of Contract	POC & Phone	Initial Amount	Closcout Amount	Date Comp	Surety POC & Phone No.
	We have never had the Surety called upon to complete a project we have been Involved in.					

6(c). List the details of any litigation which your business has been involved with in the past five (5) years (Attach pages if necessary).

N/A

7. References (Please list prior similar projects)

Year	Project Name	Company Name	Dollar Amount	Contact Person E-Mail Address
2014	Sawgrass WTP Switchgrear Reliabilty & Related Improvements	Ales Construction Group	$505,000.00	Ruben Alen Ruben@alenconstructiongroup.com
2015	Jackson Memorial Hospital Power Monitoring System	Jackson Health System	$1,626,122.73	Mairena, Allan allan.mairena@jhsmiami.org

Estimated amount of current work under contract: $ 5,000,000.00

8. List three (3) major contracts similar in scope currently underway or completed within the last five (5) years.

Project No. and Title	Owner	Value	Percent Complete	Contact Person E-Mail Address
MIA CcG Switchgear Replacement	Miami Intl Airport	$1.173,000.00	30%	
Doris Ison Mall Generator & SG Replacement	Community Health of South Florida	$485,185.00	99%	Al Fraga afraga@initialengineers.com
Zoo Miami Fl Exhibit Mission Everglades	Zoological Society	$1,915,637.00	99.8%	Donald Grady DJGrady@pcl.com
Tamiami Canal Bridge Replacement	Miami Dade County	$2,2125,2677.00	2%	Dhaval Gandhi dgandhi@walshgroup.com

Note: Attach additional sheets if necessary.

Please see attached project Summary of completed projects & Summary of Generator and Switchgear Experience

I, Andres Solares, President, OF Solares Electrical Services, Inc, CERTIFY THE INFORMATION PROVIDED ON THIS QUALIFICATION IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Signature

Affix Corporate Seal

COUNTY OF Miami Dade

STATE OF FL

The foregoing instrument was acknowledged before me on this 29th day of Aug, 2016
By Andres Solares

An individual acting in their own right;

President (Title) of Solares Electrical Services, Inc (Corporation/Company)
a FL (State) Corporation, on behalf of the corporation.

Acknowledging partner/agent on behalf of _____ (Name of partnership)
a partnership.

This person is personally known me or has produced _____ as identification and did/did not take an oath.

Signature of Person Taking Acknowledgment

Place Notary Seal Here

In lieu of Stamp: Karen Sian (Type or Print Name) _____ (Title)

10/20/19
Expiration Date

KAREN C SIAN
Commission # FF 929060
My Commission Expires
October 20, 2019

SCHEDULE OF PARTICIPATION
DISADVANTAGED BUSINESS ENTERPRISE

The undersigned representative of the Firm states that the undersigned has contacted the DBEs listed below and that said DBEs have agreed to perform the work for the dollar value set forth and that the following information regarding DBE Subcontractors is true and correct to the best of their knowledge. The dollar value identified below shall be the actual value of goods and/or services anticipated to be awarded to the listed DBE firm.

Name of DBE Subcontractor & Phone No.	Type of Minority*	Contract Items to be Purchased or Performed	Estimated Dollar Value of Participation
SOLARES ELECTRICAL IS COVERING THE DBE REQUIREMENT.			

Note: Copies of DBE certifications <u>MUST</u> be attached in order to qualify.

- Under Minority Group Enter:

B – Black American
H – Hispanic American
8(a) - SBA 8(a)
N - Native American
I - Asian Indian American
P - Asian Pacific American
W – Caucasian Women

Signature

8/29/16
Date

DRUG FREE WORKPLACE CERTIFICATE

The undersigned vendor hereby certifies that it will provide a drug-free workplace program by:

1. Publishing a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of controlled substance is prohibited in the Bidder's workplace, and specifying the actions that will be taken against employees for violations of such prohibition;

2. Establishing a continuing drug-free awareness program to inform its employees about:
   a. The dangers of drug abuse in the workplace;
   b. The Bidder's policy of maintaining a drug-free workplace;
   c. Any available drug counseling, rehabilitation, and employee assistance programs;
   d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

3. Giving all employees engaged in performance of the contract a copy of the statement required by paragraph 1;

4. Notify all employees, in writing, of the statement required by paragraph 1, that as a condition of employment on a covered contract, the employee shall:

   a. Abide by the terms of the statement;

   b. Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than five calendar days after such conviction;

5. Notifying South Florida Regional Transportation Authority in writing within ten calendar days after receiving notice under subdivision 4(a) above, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

6. Within thirty (30) calendar days after receiving notice under paragraph 4 of a conviction, taking one of the following actions with respect to an employee who is convicted of a drug abuse violation occurring in the workplace:

   a. Taking appropriate personnel action against such employee, up to and including termination; or

   b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state or local health, law enforcement, or other appropriate agency; and

7. Making a good faith effort to maintain a drug-free workplace program through implementation of paragraphs 1 through 6.

Firm: Solares Electrical Services, inc
(Please print or type)

By: _____
Authorized Signature

Andres Solares
Name of Authorized Signature

8/29/16
Date

Affix Corporate Seal
(If Applicable)

Miami Dade
County Of

FL
State Of

The foregoing instrument was acknowledged before me on this 29 day of AUG, 2016
By Andres Solares

____ An individual acting in their own right;

XX Presdient of Solares Electrical Services, Inc
Title Corporation/Company
a FL Corporation, on behalf of the corporation.
State

____ Acknowledging partner/agent on behalf of _____ a partnership.
Name of partnership

This person is personally known me or has produced _____ as identification and who (did/did not) take an oath.

_____
Signature of Person Taking Acknowledgment

Place Notary Seal Here

In lieu of Stamp: Karen Sian
Type or Print Name

_____
Title

10/20/19
Expiration Date

KAREN C SIAN
Commission # FF 929060
My Commission Expires
October 20, 2019

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS -

1. By signing and submitting this certification with the bid or proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, SFRTA may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this bid or proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "persons", "principal", "proposal" and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage section of rules implementing Executive Order 12549 [49 CFR Part 29]. You may contact the person to which this bid or proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this bid or proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this bid or proposal that it will include this clause title "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction -" without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions, and in all subcontracts.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded form the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List issued by U.S. General Service Administration.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transaction authorized under paragraph 5 of these instruction, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the SFRTA may pursue available remedies, including suspension and/or debarment.

State of Florida County of Miami Dade

I, Andres Solares, hereby attest and swear that I am

President of Solares Electrical Services, Inc and the
(Title) (Firm)
named firm is submitting the attached bid/proposal for the project(s) identified as follows:
SFRTA ITB NUMBER 15-011, for HIALEAH YARD ELECTRICAL UPGRADES.
I further hereby certify that:

1) I am either an officer, director, owner, partner, key employee, or other person within the prospective lower tier participant with primary management or supervisory responsibilities;

2) To the best of my knowledge and belief, the prospective lower tier participant and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this bid/proposal.

Exceptions:

_____

_____

_____

_____

Any exception list above will not necessarily result in denial of participation in this covered transaction. For any exception noted, indicate to whom it applies, initiating agency, and dates of agency action. The explanation will be considered in connection with SFRTA's determination whether to enter into this transaction.

affiant

Sworn to and subscribed before me this 29th day of August, 2016

Notary

My commission expires 10/20/19

KAREN C SIAN
Commission # FF 929060
My Commission Expires
October 20, 2019

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding $100,000)

The undersigned [Firm] certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.]

The Firm, Solares Electrical Services, Inc, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Firm understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq., apply* to this certification and disclosure, if any.

_____ Signature of Firm's Authorized Official

Andres Solares, President Name and Title of Firm's Authorized Official

8/29/16 Date

TRUTH-IN-NEGOTIATION CERTIFICATE

For the work described as:

HIALEAH YARD ELECTRICAL UPGRADES

I hereby certify that I am the President (title) and duly authorized representative of the Firm whose name is Solares Electrical Services, Inc and whose address is: 10421 NW 28th Street, D105, Doral, FL 33172.

In connection with the Firm's bid or price proposal for this firm fixed price, negotiated or change order contract which is to be submitted to the South Florida Regional Transportation Authority (SFRTA) for approval, I hereby certify, to the best of my knowledge, information, and belief, that:

(a) The wage rates and other factual unit costs supporting the Firm's compensation, as set forth in the bid or proposal, are accurate, complete and current as of the time of the contracting;

(b) It is my understanding and the understanding of the Firm I here represent that if any of the items of compensation under the above mentioned contract were increased due to the furnishing of inaccurate, incomplete or non-current wage rates or other units of costs, the SFRTA is entitled to an adjustment in all appropriate items of compensation, including profit, to exclude any significant sum by which the price was increased because of the defective data. It is also my understanding and that of the Firm I here represent that the SFRTA's right of adjustment includes the right to a price adjustment for defects in cost or pricing data submitted by a prospective or actual subcontractor.

(c) It is my understanding and the understanding of the Firm I here represent that if additions are made to the original price of the contract, such additions may be adjusted to exclude any significant sums where it is determined the price has been increased due to inaccurate, incomplete or non-current wage rates and other factual costs.

Date 8/29/16 Signature

Sworn to and subscribed to before me this 29 day of August, 20 16. Official Seal must be affixed.

Signature of Notary Public Karen Sian

My Commission Expires 10/20/19
(SEAL)

KAREN C SIAN
Commission # FF 929060
My Commission Expires
October 20, 2019

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY DECLARATION OF NON COLLUSION AND CERTIFICATION IN COMPLIANCE WITH 49 CFR SUBSECTION 29.510

STATE OF FLORIDA, COUNTY OF Miami Dade

I, Andres Solares (Name), hereby declare that I am President (Title)

of Solares Electrical Services, Inc (Firm) of Doral, FL (City and State)

and the person responsible within my firm for the final decision as to the price(s) and amount of this bid on South Florida Regional Transportation Authority Project No. 15-011.

I further declare that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition with any other contractor, bid or potential bidder.

2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.

3. No attempt has been made or will be made to solicit, cause or induce any firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non competitive bid or other form of complementary bid.

4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.

5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.

6. My firm has not accepted or been promised any subcontract or agreement regarding the sales of materials or services to any firm or person, and has not been promised to paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.

7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that they have not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this Declaration.

8. As required by Section 337.165, Florida Statutes, the firm has fully informed the South Florida Regional Transportation Authority in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(1)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

EXCEPTIONS: _____

_____

Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder's responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action. Providing false information may result in criminal prosecution and/or administrative sanctions.

I declare under penalty of perjury that the foregoing is true and correct.

Andres Solares

Declarant

Executed this 29th day of August, 20 16

"BUY AMERICA CERTIFICATE"

CONTRACT 15-011

As a condition of responsiveness, the bidder or offeror must complete the Buy America Certification listed below. Bidder or offeror shall certify either COMPLIANCE or NON-COMPLIANCE (not both). This Certification must be submitted with the bidder's or offeror's response.

STEEL, IRON, or MANUFACTURED PRODUCTS

CERTIFICATE OF COMPLIANCE WITH 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.5.

DATE August 29, 2016

COMPANY NAME Solares Electrical Services, Inc

SIGNATURE

TITLE President

-OR-

CERTIFICATE FOR NON-COMPLIANCE WITH 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 CFR 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 CFR Part 661.7.

DATE _____

COMPANY NAME _____

SIGNATURE _____

TITLE _____

rev. 2/06

SCHEDULE OF SUBCONTRACTORS

Bidder must include in this Schedule all Subcontractors anticipated to perform a portion of the Work.
Use additional sheets as needed.

Subcontractor Name and Trade/Discipline	Address	Phone	State Registration/ or License Number	Description Contract Items to be Purchased or Performed	DBE Y/N	Estimated Subcontract Value ($)
A&P Air Conditioning Mechanical	2322 West 78th Street Hialeah, FL 33016	305-556-7849	Florida. CAC058427	Replacement of Exhaust fans	N	$79,900.00
Decktight Roofing Service	6680 NW 17th Avenue Ft. Lauderdale, FL 33309	954-970-8565	Florida CCC050447	Roofing Repair	N	$37,600.00

Exhibit 12

INTENT TO PERFORM AS A SUBCONTRACTOR

TO: Solares Electrical Services, Inc.
(Name of Contractor)

ITB/RFP NUMBER: 15-011
PROJECT TITLE: HIALEAH YARD ELECTRICAL UPGRADES
The undersigned intends to perform subcontract work in connection with the above project as (Check One):

- ☐ an individual
- ☐ a partnership
- ☒ a corporation

The DBE status of the undersigned has been described in connection with the above project.

The undersigned is prepared to perform the following described work in connection with the above project:
Demolition of existing HVAC components, damper curb, exhaust fans with VFD's

and at the following price: $ 79,900.00

NOTE: Eliminate Price on Professional Service Contracts ONLY

The prime contractor has projected the following commencement date for such work, and the undersigned project's completion of such work as follows:

_____ Projected Commencement Date

_____ Projected Completion Date

With respect to the proposed subcontract described above, 7 % of the dollar value of such subcontract will be sublet and/or awarded to non-DBE contractors and/or non-DBE suppliers.

The undersigned will enter into a formal agreement for the above work with the prime contractor conditioned upon execution of a contract with SFRTA. As a DBE subcontractor, I will cooperate with the certification and monitoring process set forth by DBE for the referenced project.

Signature of DBE — Date — Name of DBE Firm: A & P Air Conditioning Corporation

Typed Name: Meyer Sarshalom — Address of DBE Firm: 2322 W. 78th Street, Hialeah, FL 33016

Typed Title: Vice-President — Telephone Number: 305 556 7849

Exhibit 12

INTENT TO PERFORM AS A SUBCONTRACTOR

TO: Deautbus Roofing Services Inc.
(Name of Contractor)
Solares Electrical Services, Inc.

ITB/RFP NUMBER: 15-011
PROJECT TITLE: HIALEAH YARD ELECTRICAL UPGRADES
The undersigned intends to perform subcontract work in connection with the above project as (Check One):

- ☐ an individual
- ☐ a partnership
- ☑ a corporation

The DBE status of the undersigned has been described in connection with the above project.

The undersigned is prepared to perform the following described work in connection with the above project:

Roof Curb Flashing

and at the following price: $ 37,600

NOTE: Eliminate Price on Professional Service Contracts ONLY

The prime contractor has projected the following commencement date for such work, and the undersigned project's completion of such work as follows:

TBD — Projected Commencement Date

TBD — Projected Completion Date

With respect to the proposed subcontract described above, 0 % of the dollar value of such subcontract will be sublet and/or awarded to non-DBE contractors and/or non-DBE suppliers.

The undersigned will enter into a formal agreement for the above work with the prime contractor conditioned upon execution of a contract with SFRTA. As a ~~DBE~~ subcontractor, I will cooperate with the certification and monitoring process set forth by DBE for the referenced project.

Signature of ~~DBE~~	Date 8/29/16	Name of ~~DBE Firm~~ Deautbus Roofing Services Inc
Richard Green		6680 NW 17th Ave Ft. Lauderdale Fl. 33309
Typed Name		Address of ~~DBE Firm~~
President		954-275-0011
Typed Title		Telephone Number

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
(SFRTA)
COMPLIANCE WITH THE U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. CITIZENSHIP AND IMMIGRATION SERVICES
EMPLOYMENT ELIGIBILITY VERIFICATION (E-VERIFY)

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to: **South Florida Regional Transportation Authority.**

by Andres Solares, President
(print individual's name and title)

for Solares Electrical Services, Inc
(print name of entity submitting sworn statement)

whose business address is: 10421 NW 28th Street, D105

Doral, FL 33172

and (if applicable) it's Federal Employer Identification Number (FEIN) is 65-0731811
(if the entity has no FEIN, include Social Security Number of the individual signing this sworn statement:

_____.)

I, being duly first sworn state:

That the above name firm, corporation or organization is in compliance with and agree to continue to comply with, and assure that any sub-contractor, or third party contractor under this project complies with all applicable requirements of the laws listed below including, but not limited to, those provisions pertaining to employment, provisions or programs and services, transportation, communication, access to facilities, renovations, and new construction.

E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigration Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor with the FAR E-Verify clause") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
(S.F.R.T.A.)
COMPLIANCE WITH THE U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. CITIZENSHIP AND IMMIGRATION SERVICES
EMPLOYMENT ELIGIBILITY VERIFICATION (E-VERIFY)

_____
(Signature)

Sworn to and subscribe before me this 29 day of August, 20 16

Personally known XX

or produced identification:

_____
(Type of Identification)

Notary Public, State of FL

My Commission Expires 10/20/19

KAREN C SIAN
Commission # FF 929060
My Commission Expires
October 20, 2019

Karen Sian

(Printed, typed or stamped commissioned name of Notary Public)

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA)
ITB NO. 15-011
HIALEAH YARD ELECTRICAL UPGRADES

CONTRACTOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES
(Agreements of $1,000,000.00 or more)

Name: Solares Electrical Services, Inc

FEIN: 65-0731811

Authorized Representative Name: Andres Solares

Title: President

Address: 10421 NW 28th Street, D105

City: Doral State: FL Zip: 33172

Phone No.: 305-717-6184 Fax No.: 305-715-7047

Email Address: asolares@solareselectrical.com

Section 287.135, Florida Statutes, prohibits local governments from contracting with companies, for goods or services of One Million and 00/100 Dollars ($1,000,000.00) or more that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and that it does not have business operations in Cuba or Syria. Both lists are created pursuant to section 215.473, Florida Statutes.

As the person authorized to sign on behalf of the CONTRACTOR, I hereby certify that the company identified above in the section entitled "CONTRACTOR Name" is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and that it does not have business operations in Cuba or Syria. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject the CONTRACTOR to termination of the Agreement, civil penalties, attorney's fees, and/or costs.

CERTIFIED BY: _____ Date: 8/29/16
Authorized Signature

Print Name: Andres Solares

Print Title: President

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Certificate of Disbursement of Previous Periodic Payment to Subcontractors

Contract No. 15-011 Date _____

Contract Name: HIALEAH YARD ELECTRICAL UPGRADES

Period of Work Invoiced For: ____/____/____ to ____/____/____

The Firm for the above referenced contract, hereby certifies that all subcontractors and vendors having interest in this contract have received their pro rata share of all previous periodic payments made to date by SFRTA for all work, materials and equipment furnished under the contract.

_____
Firm

_____
(Signature of Authorized Representative)

NOTARY STATEMENT
STATE OF FLORIDA COUNTY OF _____

The foregoing instrument was acknowledged before me the _____ day of _____,

20__, by _____ who is personally known to me or who has

produced _____ as identification and who did/did not take an oath.

_____
Signature of Notary

My Commission Expires _____

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Subcontractor's Certificate of Previous Payment

Note: The Prime Firm shall attach this statement to current payment invoices, completed by each Subcontractor whose work appears on the previous payment invoice.

KNOW ALL MEN BY THESE PRESENTS, That (name) _____

representing _____, whose

address is _____, with the

title of _____, whom after being first duly sworn, upon oath

deposes and says that pursuant to the provisions of the contract for:

CONTRACT NO. 15-011

CONTRACT NAME: HIALEAH YARD ELECTRICAL UPGRADES

that all monies due him, in accordance with the agreed upon payment schedule, have been paid

to him by _____, the Firm.

NOTARY STATEMENT
STATE OF FLORIDA COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____,

20__, by _____ who is personally known to me or who has

produced _____ as identified and who did/did not take an oath.

WITNESS my hand and official seal, this _____ day of _____, 20__.

_____
Signature of Notary

My Commission Expires _____

MONTHLY SUBCONTRACTOR UTILIZATION REPORT

INSTRUCTIONS: This form must be filed each month to report actual Subcontractor participation by SFRTA certified firms for work done the preceding month.

Contract Number: _____ Contract Name: _____ Reporting Period: _____

Prime Firm _____ Contract Amount (as Amended) $_____

Total Invoice Amount this Period: $_____

Total Invoiced to Date: $_____

Name of Subcontractor	If DBE Minority Group*	Gender M/F	Description of Work	Type of Work*	Starting Date	Completion Date

* **Minority Group Enter:** B-Black American I -Asian American H-Hispanic American N -Native American P-Asian Pacific American O-Other
* **Type of Work**: Professional Consultant/Services, Construction, Supplies, Equipment, Other

- **If prime firm is a certified DBE firm, the prime firm's quarterly activity must also be reported.**
- **This form must be completed monthly and submitted with firm's application for payment.**

MONTHLY SUBCONTRACTOR UTILIZATION REPORT

Contract Number: _____ Contract Name: _____ Reporting Period: _____

Prime Firm _____ Contract Amount (as Amended) $_____

Total Amount Invoiced for Subcontractors this Period: $_____

Total Amount Invoiced for DBE Subcontractors this Period: $_____

Total Amount Invoiced for Subcontractors to Date: $_____

Total Amount Invoiced for DBE Subcontractors to Date: $_____

Name of Subcontractor	Sub Contract Amount (as Amended)	Amount Invoiced This Period	Amount Invoiced To Date	Amount Paid This Period	Amount Paid to Date	Percentage Complete

* **Minority Group Enter:** B-Black American I -Asian American H-Hispanic American N -Native American P-Asian Pacific American O-Other

* **Type of Work:** Professional Consultant/Services, Construction, Supplies, Equipment, Other

- **If prime firm is a certified DBE firm, the prime firm's quarterly activity must also be reported.**
- **This form must be completed monthly and submitted with firm's application for payment.**

MONTHLY SUBCONTRACTOR UTILIZATION REPORT

	Circle One	
1.) Did any of the DBE subcontractors rent/lease equipment from the prime consultant or an affiliate company during the report period?	**Yes**	**No**
If yes, explain the arrangement, including a description of the equipment and the cost.		
2.) Did any of the DBE subcontractors utilize employees or former employees of the prime consultant or an affiliate company during the reporting period?	**Yes**	**No**
3.) Did any of the DBE subcontractors subcontract any portion of its work to a non-DBE during the report period?	**Yes**	**No**
If yes, explain fully.		
4.) Has the scope of work or the subcontract amount for any of the DBE subcontractors changed since the last report?	**Yes**	**No**
If yes, explain fully.		

By signing this form, the person individually and on behalf of the Firm represents to the SFRTA that the information contained on both the above forms is complete truthful, and accurate.

AUTHORIZED SIGNATURE: _____ TITLE: _____ DATE: _____

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
MONTHLY EMPLOYEE UTILIZATION REPORT

This report is required by Executive Order 11246, Sec. 203. Failure to report may result in contracts being canceled, terminated or suspended in whole or in part and the firm may be declared ineligible for further SFRTA federally funded contracts.

Reporting Period **From** _____ **To** _____ **Contract # 15-011**	**Name, Address, & Telephone No. of Consultant or Vendor**								
Classifications	Total No. of Employees	Total No. of Minority & Female Emp.	Black-Not of Hispanic Origin	Hispanic American	Asian or Pacific Islander	American Indian or Alaskan Native	Caucasian Female	Minority Percentage *	Female Percentage *
Company Official's Signature & Title						**Date Signed**		**Page** _____ **of** _____	

This item represents a percentage of the total number of hours worked on said contract for the reporting period.

PERFORMANCE BOND FORM

BOND NO._____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That _____

as Principal, and _____, as Surety, located at

_____ (Business Address) are held and firmly bound to

_____, as Obligee in the sum of

_____ ($_____) for the payment whereof we bind ourselves, our heirs, executors, personal representatives, successors and assigns, jointly and severally.

WHEREAS, Principal has entered into a contract dated as of the ___ day of_____20___,

with Obligee for

_____

in accordance with drawings and specifications, which contract is incorporated by reference and made a part hereof, and is referred to as the Contract.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the Contract at the times and in the manner prescribed in the Contract; and

2. Pays Obligee any and all losses, damages, expenses, costs and attorneys' fees, including appellate proceedings, that Obligee sustains because of any default by Principal under the Contract, including, but not limited to, all delay damages, whether liquidated or actual, incurred by Obligee; and

3. Performs the guarantee of all Work and materials furnished under the Contract for the time specified in the Contract,

then this bond is void; otherwise it remains in full force.

Any changes in or under the Contract and compliance or noncompliance with any formalities connected with the Contract or the changes do not affect Surety's obligation under this Bond.

The Surety, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or other Work to be performed hereunder, or the specifications referred to therein shall in anyway affect its obligations under

this bond, and it does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to Work or to the specifications.

This instrument shall be construed in all respects as a common law bond. It is expressly understood that the time provisions and statute of limitations under Section 255.05, Florida Statutes, shall not apply to this bond.

In no event will the Surety be liable in the aggregate to Obligee for more than the penal sum of this Performance Bond regardless of the number of suits that may be filed by Obligee.

IN WITNESS WHEREOF, the above parties have executed this instrument this _____ day of _____, 20___, the name of each party being affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Signed, sealed and delivered
in the presence of:

PRINCIPAL:

_____

_____

Witnesses as to Principal

_____

By:_____

Name:_____

Its:_____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ___ day of _____, 20___, by _____, as _____ of _____, a _____ corporation, on behalf of the corporation. He/she is personally known to me **OR** has produced _____ as identification.

My Commission Expires:

_____

Notary Public (Signature)

(AFFIX NOTARY SEAL)

_____

(Printed Name)

_____

(Title or Rank)

_____

(Serial Number, if any)

ATTEST:

SURETY:

_____

(Printed Name)

_____

_____

_____

(Business Address)

_____

_____

(Authorized Signature)

_____

Witness as to Surety

_____

(Printed Name)

OR

_____ _____

As Attorney in Fact
(Attach Power of Attorney)

_____
Witnesses

_____
_____
_____
(Business Address)

_____
(Printed Name)

_____
(Telephone Number)

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ___ day of _____, 20___, by _____, as _____of _____ Surety, on behalf of Surety. He/She is personally known to me **OR** has produced _____ as identification.

My Commission Expires:

_____
Notary Public (Signature)

(AFFIX NOTARY SEAL)

_____
(Printed Name)

_____
(Title or Rank)

_____

FORM OF PAYMENT BOND

BOND NO._____

PUBLIC PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That _____ as Principal, and _____, as Surety, located at _____ (Business Address) are held and firmly bound to _____, as Obligee in the sum of ($_____) for the payment whereof we bind ourselves, our heirs, executors, personal representatives, successors and assigns, jointly and severally.

WHEREAS, Principal has entered into a contract dated as of the ____ day of _____, 201__, with Obligee for _____
_____
_____
in accordance with drawings and specifications, which contract is incorporated by reference and made a part hereof, and is referred to as the Contract.

THE CONDITION OF THIS BOND is that if Principal:

1. Promptly makes payment to all claimants as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, services, materials or supplies, used directly or indirectly by Principal in the prosecution of the Work provided for in the Contract, then this bond is void; otherwise it remains in full force.

Any changes in or under the Contract and compliance or noncompliance with any formalities connected with the Contract or the changes do not affect Surety's obligation under this Bond.

The provisions of this bond are subject to the time limitations of Section 255.05(2). In no event will the Surety be liable in the aggregate to claimants for more than the penal sum of this Payment Bond, regardless of the number of suits that may be filed by claimants.

IN WITNESS WHEREOF, the above parties have executed this instrument this ____ day of _____, 20__, the name of each party being affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Signed, sealed and delivered in the presence of:

PRINCIPAL:

_____

_____

Witnesses as to Principal

By:_____
Name:_____
Its:_____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ___ day of _____, 20__, by _____, as _____ of _____, a _____ corporation, on behalf of the corporation. He/she is personally known to me **OR** has produced _____ as identification.

My Commission Expires:

(AFFIX NOTARY SEAL)

_____
Notary Public (Signature)

_____
(Printed Name)

_____
(Title or Rank)

_____
(Serial Number, if any)

ATTEST:

SURETY:

_____
(Printed Name)

_____

_____

_____
(Business Address)

_____

_____
(Authorized Signature)

_____
Witness as to Surety

_____
(Printed Name)

OR

_____

_____
Witnesses

_____
As Attorney in Fact
(Attach Power of Attorney)

_____
_____
_____
(Business Address)

_____
(Printed Name)

_____
(Telephone Number)

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ___ day of _____, 20__, by _____, as _____, of ___ _____. Surety, on behalf of Surety. He/She is personally known to me **OR** has produced _____ as identification.

My Commission Expires:

(AFFIX NOTARY SEAL)

_____
Notary Public (Signature)

_____
(Printed Name)

_____
(Title or Rank)

_____
(Serial Number, if any)

RELEASE AND AFFIDAVIT

STATE OF FLORIDA)
COUNTY OF_____)

Before me, the undersigned authority, personally appeared _____, who after being duly sworn, deposes and says:

(1) In accordance with the Contract Documents and in consideration of $_____ paid, _____ ("Contractor") releases and waives for itself and its subcontractors, materialperson, successors and assigns, all claims demands, damages, costs and expenses, whether in contract or in tort, against The South Florida Regional Transportation Authority existing under the laws of the State of Florida ("Owner") relating in any way to the performance of the Agreement between Contractor and Owner, dated _____, 20___, for the period from _____ to _____.

(2) Contractor certifies for itself and its subcontractors, material person, successors and assigns, that all charges for labor, materials, supplies, lands, licenses and other expenses for which Owner might be sued or for which a lien or a demand against any payment bond might be filed, have been fully satisfied and paid.

(3) Construction Contractor agrees to indemnify, defend and save harmless Owner from all demands or suits, actions, claims of liens or other charges filed or asserted against Owner arising out of the performance by Contractor of the Work covered by this Release and Affidavit.

(4) This Release and Affidavit is given in connection with Contractor's [monthly/final] Application for Payment No. _____.

Contractor:

_____

_____ By:_____
Its:_____ President

_____ Date:_____
Witnesses

[Corporate Seal]

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 20__, by _____, as _____ of _____, a _____ corporation, on behalf of the corporation. He/She is personally known to me or has produced a _____(state) driver's license no. _____ as identification.

My Commission Expires: _____
Notary Public (Signature)

(AFFIX NOTARY SEAL) _____
(Printed Name)

_____
(Title or Rank)

_____
(Serial Number, if any)

800 N.W. 33rd Street, Pompano Beach, FL 33064	**DESIGN CHANGE NOTICE** DCN No. Date:
Originator	**Project:** **Project No.**

Details and Background of Change:

Affected Drawings:	**Construction Impact** Yes ☐ No ☐ By:_____ CM&I Date:

Design Calculations Affected Yes ☐ No ☐ By:_____ Design Consultant Date:	**Engineering & Construction Approval** By:_____ Project Manager Date:	**Cost Impact** Yes ☐ No ☐ By:_____ Contractor Date:
Drawing(s) Revised or Completed By:_____ Design Consultant Date:	**Engineering & Construction Approval** By:_____ Director Date:	**Approved DCN Acknowledgement** By:_____ CM&I Date:

800 N.W. 33rd Street, Pompano Beach, FL 33064	**FIELD CHANGE NOTICE** FCN No. Date:
Originator	Project: Project No.

Details and Background of Change: Sketch Attached Yes ☐ No ☐

Justifications/Reasons for Change

Affected Drawings:		Construction Impact Yes ☐ No ☐ By:_____ CM&I Date:
Design Calculations Affected Yes ☐ No ☐ By:_____ Design Consultant Date:	Engineering & Construction Approval By:_____ Project Manager Date:	Cost Impact Yes ☐ No ☐ By:_____ Contractor Date:
Drawing(s) Revised or Completed By:_____ Design Consultant Date:	Engineering & Construction Approval By:_____ Director Date:	Approved FCN Acknowledgement By:_____ CM&I Date:

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

CONTRACT AMENDMENT

Contract No.
Amendment No.
Project:
Contractor:
Consultant:

The following changes are hereby authorized to be performed by the Contractor, for the stipulated cost and/or time extension herein, upon the signatures below by SFRTA.

Description of Changes, Reasons Therefore, and Cost and/or Time Extension for Each:

1. **Change:**
   Reason for Change:
   Cost of Change: **$**
   Time Extension for Change:

2. **Change:**
   Reason for Change:
   Cost of Change: **$**
   Time Extension for Change:

TOTAL **$**

The following changes are hereby authorized to be performed by the Contractor, for the stipulated cost and/or time extension herein, upon the signature below by the representatives of SFRTA.

It is agreed that this Amendment shall not alter or change in any manner the force and effect of the Contract Documents, including any previous amendments thereto, except insofar as the same is altered and amended by this Amendment.

SFRTA and the Contractor agree that the Contract time adjustment and the sum agreed to in this Amendment constitutes a full and complete settlement of all the matters set forth herein, including all direct cost for equipment, manpower, materials, overhead, profit, and delay relating to the issues set forth in the Amendment. Furthermore, the Contractor accepts the terms of this Amendment as related to cost determinations as full compensation for all costs of equipment, manpower, materials, overhead, profit and delay damages and for all their costs. This settlement is limited to and applies to any claims arising out of or on account of the matters described and set forth in this Amendment.

Accepted by Procurement:

Signature:_____

Name and Title:_____

Date:_____

Accepted by Project Manager:

Signature:_____

Name and Title: _____

Date:_____

Accepted by Contractor:

Signature:_____

Name and Title:_____

Date:_____

Approved by SFRTA Executive Director:

Signature:_____

Name and Title:_____

Date:_____

Approved as to form and legal sufficiency:

Signature:_____

Name and Title:_____

Date:_____

Approved by SFRTA Governing Board:

Signature: _____

Name and Title: _____

Date: _____

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

S UMMARY

Contract No.
Amendment No.
Project:
Contractor:
Consultant:

COST SUMMARY

Original Contract Amount:		$
Cost of Amendments To-Date:		$
	SUB-TOTAL COSTS	$
Cost of This Amendment:		$
	TOTAL COSTS	$

TIME SUMMARY

Original Contract Time:
Time Added / Deleted by Amendments To-Date:
Time Added / Deleted by This Amendment:

HISTORY

Amendment No.	Date	Increase (+) or Decrease (-)
1		
2		
3		

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

It is the policy of the South Florida Regional Transportation Authority (SFRTA) that Disadvantaged Business Enterprises, as defined in 49 CFR Part 26, shall have the maximum opportunity to participate in the performance of contracts. SFRTA will never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by 49 CFR Part 26 on the basis of race, color, sex, or national origin.

SFRTA has an overall Agency DBE participation goal of 9% which Contractors are encouraged to meet. SFRTA has not established a goal for this specific procurement, however, Contractors are encouraged to take all necessary and reasonable steps to ensure that DBE's have the maximum opportunity to compete for and perform services on contracts, including participation in any subsequent supplemental contracts. If the Contractors intend to subcontract a portion of the services on the project, Contractors are encouraged to seek out and consider DBE's as potential subcontractors, by soliciting their interest, capability, and qualifications.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

INVITATION TO BID NO. 15-011

HIALEAH YARD ELECTRICAL UPGRADES

ADDENDUM NO. 1

NOTE: FAILURE TO ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM SHALL BE CAUSE FOR REJECTION OF THE BID

This Addendum revises the following sections of the solicitation documents as detailed.

( )	Definition of Terms	( )	Specifications
(X)	Instructions to Bidders	( )	Drawings/Plans
( )	General Terms and Conditions	(X)	Exhibits
( )	Special Terms and Conditions	( )	Appendices/Attachments

Instructions to Bidders:

Remove Cover Page and replace with enclosed Cover Page – Addendum No. 1

Remove page IB -2 of 9 and replace with enclosed page IB -2 of 9 – Addendum No. 1

Exhibits:

Remove page EX1-1 of 3 and replace with enclosed page EX1-1 of 3 – Addendum No. 1

Date Issued: July 29, 2016

Last Day for Receipt of Questions <u>has changed</u> to 5:00 p.m. Eastern Time, August 12, 2016.

Last Day for Submission of Bids <u>has changed</u> to 4:00 p.m. Eastern Time, August 30, 2016.

Christopher C. Bross, CPPO, FCCN
Director, Procurement

INVITATION TO BID

FOR

HIALEAH YARD ELECTRICAL UPGRADES

ITB NO. 15-011

ADDRESS FOR SUBMITTAL:
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA) HEADQUARTERS
800 N.W. 33RD STREET
POMPANO BEACH, FLORIDA 33064

BID DUE DATE:
August 30, 2016 ~~August 12, 2016~~ by 4:00 P.M.
(EASTERN TIME)

THE RESPONSIBILITY FOR SUBMITTING A BID FOR THIS ITB AT THE SFRTA HEADQUARTERS ON OR BEFORE THE STATED DATE AND TIME WILL BE SOLELY AND STRICTLY THE RESPONSIBILITY OF THE BIDDER.

1.4 SCHEDULE OF EVENTS

Key milestone dates for this ITB are listed below:

ACTIVITY	DATE	TIME (EDT)
ITB Advertised	7/1/16	N/A
ITB Availability	7/5/16	9:00 a.m.
Pre-Bid Conference	7/14/16	10:00 a.m.
Last Day for Questions	~~7/27/16~~ 8/12/16	5:00 p.m.
Due Date/Bid Opening	~~8/12/16~~ 8/30/16	4:00 p.m.

1.5 PRE-BID CONFERENCE

SFRTA will conduct a Pre-Bid Conference at the date and time shown under Section 1.4. The conference will be held at the SFRTA Hialeah Maintenance Yard located at 9400 N.W. 37th Avenue, Miami, Florida, 33147. **ATTENDANCE AT THIS MEETING IS NOT MANDATORY, BUT IS RECOMMENDED**.

The purpose of the Pre-Bid Conference is to provide an open forum for SFRTA to review the ITB and the Project with the prospective Bidders and to respond to any questions on the ITB and/or the Project.

Bidders should pay particular attention to identifying any improvements, corrective measures, or other changes that should be incorporated in the ITB or the Contract Documents. Failure to submit written questions will not preclude Bidders from orally asking questions at the Pre-Bid Conference. Questions arising after the Pre-Bid Conference should be addressed in compliance with Section 1.6 of the ITB.

1.6 ORAL INSTRUCTIONS AND COMMUNICATIONS

1.6.1 Oral Instructions. No negotiations, decisions or actions shall be initiated or executed by a Bidder as a result of any oral discussions with any SFRTA Board member, employee, or consultant. No interpretation of the meaning of the Project, the Scope of Services or the Contract Documents and no correction of any apparent ambiguity, inconsistency or error therein will be made to any Bidder orally. All such interpretations and supplemental instructions will be issued to all Bidders in the form of written Addenda/Addendum. Only those communications that are in writing from the designated SFRTA Procurement staff member identified below shall be considered as a duly authorized expression on behalf of SFRTA. SFRTA will forward to all Bidders in receipt of the ITB, written responses of SFRTA to a Bidder's question in the form of Addenda, as indicated in Section 1.7.

BID FORM
ITB No. 15-011
HIALEAH YARD ELECTRICAL UPGRADES

BIDDER:_____

BIDS WILL BE OPENED AT 4:00 PM ON AUGUST 30, 2016 ~~AUGUST 12, 2016~~ AND MAY NOT BE WITHDRAWN WITHIN ONE HUNDRED EIGHTY (180) DAYS AFTER SUCH DATE.

I CERTIFY that this bid is made without prior understanding, agreement or connection with any corporation, firm, or person submitting a bid for the same contractual services and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this solicitation and certify that I am authorized to sign this bid and that the bid is in compliance with all requirements of the Invitation to Bid, including but not limited to, certification requirements.

The Bidder further declares that it has examined the solicitation documents and all addenda thereto elsewhere; and that it has satisfied itself about the work to be performed and all other required information with the bid, **including the Bidder's requirement to provide a minimum of one (1) State of Florida Licensed Journeyman Electrician present on-site at all times while work is being performed**.

The Bidder certifies neither the bidding firm nor any of its officers is on the State of Florida Comptroller General's List of Ineligible Bidders or the United States comptroller General's List of Ineligible Contractors for Federally Financed or Assisted Projects.

The Bidder agrees, if this bid is accepted, to contract with the South Florida Regional Transportation Authority, an agency of the State of Florida, to furnish all necessary labor, materials, equipment, tools, apparatus, and all other items necessary to complete, for the amount bid and within the time limits specified, the work covered by this bid and other Contract Documents for the project entitled: ITB NUMBER 15-011, HIALEAH YARD ELECTRICAL UPGRADES.

TOTAL BID AMOUNT: $ _____
Numeric Value

_____
Please write amount

Addenda: Provide signature and date for each Addenda received.

1.	2.	3.
4.	5.	6.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

INVITATION TO BID NO. 15-011

HIALEAH YARD ELECTRICAL UPGRADES

ADDENDUM NO. 2

NOTE: FAILURE TO ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM SHALL BE CAUSE FOR REJECTION OF THE BID

This Addendum revises the following sections of the solicitation documents as detailed.

( )	Definition of Terms	( )	Specifications
( )	Instructions to Bidders	( )	Drawings/Plans
( )	General Terms and Conditions	( )	Exhibits
( )	Special Terms and Conditions	( )	Appendices/Attachments

This Addendum includes:

1) Questions/Answers Matrix 1.

Date Issued: Aug 2, 2016

Last Day for Receipt of Questions remains 5:00 p.m. Eastern Time, August 12, 2016.

Last Day for Submission of Bids remains 4:00 p.m. Eastern Time, August 30, 2016.

Christopher C. Bross, CPPO, FCCN
Director, Procurement

ITB No. 15-011
Hialeah Yard Electrical Upgrades

Submittal Date	Question
8/2/16	**Question 1** What is the estimated budget? **Answer** The estimated budget is $1,200,000, inclusive of all project costs.
8/2/16	**Question 2** I would like to request a site visit. **Answer** For site visit requests contact the Project Manager, Wayne Ramnarine, at 954-605-0756. No questions pertaining to the solicitation will be answered at the site visits.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

INVITATION TO BID NO. 15-011

HIALEAH YARD ELECTRICAL UPGRADES

ADDENDUM NO. 3

NOTE: FAILURE TO ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM SHALL BE CAUSE FOR REJECTION OF THE BID

This Addendum revises the following sections of the solicitation documents as detailed.

( )	Definition of Terms	( )	Specifications
( )	Instructions to Bidders	( )	Drawings/Plans
( )	General Terms and Conditions	( )	Exhibits
( )	Special Terms and Conditions	( )	Appendices/Attachments

This Addendum includes:

1) Questions/Answers Matrix 2.

Date Issued: August 16, 2016

Last Day for Receipt of Questions remains 5:00 p.m. Eastern Time, August 12, 2016.

Last Day for Submission of Bids remains 4:00 p.m. Eastern Time, August 30, 2016.

Christopher C. Bross, CPPO, FCCN
Director, Procurement

ITB No. 15-011
Hialeah Yard Electrical Upgrades

Submittal Date	Question
8/12/16	**Question 1** Do you have the contact information for the FPL Service Representative involved with this project? **Answer** There is no FPL involvement in this project.
8/12/16	**Question 2** Are there any FPL fees associated with this project? **Answer** There are no FPL fees associated with this project.
8/12/16	**Question 3** If so, are the FPL fees to be included in our quote? **Answer** Please see the answer to Question 2.
8/12/16	**Question 4** If so,. do you know what that cost will be? **Answer** Please see the answer to Question 2.

Submittal Date	Question
8/12/16	**Question 5** If not, will you set an allowance for FPL fees? **Answer** Please see the answer to Question 2.
8/12/16	**Question 6** Can you send a list of the plan holders for this project? **Answer** The current ITB document holders list is attached.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

LIST OF DOCUMENT HOLDERS
FOR
ITB No. 15-011
"ELECTRICAL UPGRADES TO SFRTA'S HIALEAH YARD MAINTENANCE FACILITY"

1.	Contract File SFRTA	
2	Lucie Campbell Construct Connect 30 Technology Parkway South Suite 100 Norcross, GA 30092 800-364-2059 Ext. 8040 866-570-8187 FAX lcampbell@ISQFT.com	7/6/16 Regular Mail
3.	John Zelenka Kiewit 450 Dividend Dr Peachtree City, GA 30269 john.zelenka#@kiewit.com 770-487-2300 404-844-6879 CELL	7/6/16 Regular Mail
4.	Jamie Guzman Hypower 5913 NW 31st Ave Ft. Lauderdale, FL 33309 jguzman@hypowerinc.com 954-917-1488 954-703-9712 CELL	7/6/16 Pick Up
5.	John Moody (NOT ABLE TO BID) Moody Electric 3812 N 29th Ave Hollywood, FL 33020 john@moodyelectric.com 305-758-2000 305-754-1333 FAX	7/7/16 Regular Mail

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

LIST OF DOCUMENT HOLDERS
FOR
ITB No. 15-011
"ELECTRICAL UPGRADES TO SFRTA'S HIALEAH YARD MAINTENANCE FACILITY"

6.	Chase Southerland Mass Electric Construction 4790 Regent Blvd Suite 100 Irving, TX 75063 csoutherland@masselec.com 972-505-4781 972-505-4701 FAX	7/8/16 Regular Mail
7.	Brian Chierichella L.E.B.S Electric 85 Ralph Ave Copiague, NY 11726 631-842-0500 631-842-0535 FAX bc@lebelectric.com	7/13/16 Regular Mail
8.	Libia Batista Canseco Electrical Contractors 7175 SW 43rd St Miami, FL 33155 305-265-9909 305-265-9945 FAX office@cansecoelectric.com	7/13/16 Regular Mail
9.	Manny Barrera Accura Electrical 6187 NW 167th St H3 Miami Lakes, FL 33015 305-827-3827 305-822-1236 FAX mbarrera@accuraelectrical.com	7/14/16 FedEx Tracking # 776746976909

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

LIST OF DOCUMENT HOLDERS
FOR
ITB No. 15-011
"ELECTRICAL UPGRADES TO SFRTA'S HIALEAH YARD MAINTENANCE FACILITY"

10.	Keith Dobson Mardant Electrical 8967 Philips Highway Jacksonville, FL 32256 904-363-0200 904-363-0204 FAX kadobson@mardantelectrical.com	7/18/16 Regular Mail

Tracking No. 09231645 AGENDA ITEM NO. R2

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

JOINT PARTICIPATION AGREEMENT (JPA) FM #440145-1-57-01
WITH THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
FOR CAPITAL IMPROVEMENTS PROJECTS FOR THE HIALEAH YARD WWTP

REQUESTED ACTION:

MOTION TO APPROVE: Joint Participation Agreement FM #440145-1-57-01 between the South Florida Regional Transportation Authority (SFRTA) and the State of Florida Department of Transportation (FDOT), in the amount of $350,000.00 for SFRTA (JPA) to complete various capital improvements at the Hialeah Yard Wastewater Treatment Plant (WWTP).

SUMMARY EXPLANATION AND BACKGROUND:

Several capital improvements are necessary at the WWTP, which include building a shed for equipment storage, installation of a sweep tee, several valves and flanges on the aerial industrial distribution system, overhaul of exterior aerial industrial lines, installation of a passive odor venting cover, and assessment of underground collection system to determine infiltration and inflow.

The JPA provides the funds for the WWTP improvements, as more particularly outlined in the JPA (Exhibit 1). Staff recommends approval of the JPA.

Department: Engineering and Construction Department Director: Brandy Creed, P.E., D.WRE
Project Manager: Brandy Creed, P.E., D.WRE Procurement Director: N/A

FISCAL IMPACT: Funds for these capital improvements are included in SFRTA's Fiscal Year 2016-17 Capital Budget.

EXHIBITS ATTACHED: Exhibit 1 – FDOT JPA FM #440145-1-57-01, including the following exhibits:

Exhibit A – Project Description
Exhibit B – Project Budget
Exhibit C – General w/Safety Requirements
Exhibit D – Agreement WWTP

JOINT PARTICIPATION AGREEMENT (JPA) FM #440145-1-57-01
WITH THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
FOR CAPITAL IMPROVEMENTS PROJECTS FOR THE HIALEAH YARD WWTP

Recommended by: _____ 9/16/16
Department Director Date

Approved by: _____
Procurement Director Date

Authorized by: _____ 9/16/16
Executive Director Date

Approved as to Form by: _____
General Counsel Date 9-16-16

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	____Yes ____No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	____Yes ____No
Andrew Frey	____Yes ____No	Commissioner Tim Ryan	____ Yes ____ No
Frank Frione	____Yes ____ No	James A. Scott	____Yes _____No
Nick A. Inamdar	____ Yes ____ No	Beth Talabisco	____Yes _____No

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PUBLIC TRANSPORTATION JOINT PARTICIPATION AGREEMENT

Financial Project Number(s): (Item-segment-phase-sequence)	Fund: DS	FLAIR Category: 088808
	Function: 127	Object Code: 134036
440145-1-57-01	Federal Number:	Org. Code: 55042010429
	DUNS Number:	Vendor No.: VF650002789003
Contract Number: AS318	Agency DUNS Number: 786583609	
CFDA Number:		CSFA Number:
CFDA Title:		CSFA Title:

THIS AGREEMENT, made and entered into this _____ day of _____, _____, by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, an agency of the State of Florida, hereinafter referred to as the Department, and South Florida Regional Transportation Authority, 800 NW 33rd Street, Suite 100, Pompano, FL 33064 hereinafter referred to as Agency. The Department and Agency agree that all terms of this Agreement will be completed on or before 6/30/2019 and this Agreement will expire unless a time extension is provided in accordance with Section 16.00.

W I T N E S S E T H:

WHEREAS, the Agency has the authority to enter into said Agreement and to undertake the project hereinafter described, and the Department has been granted the authority to function adequately in all areas of appropriate jurisdiction including the implementation of an integrated and balanced transportation system and is authorized under Section 341, Florida Statutes, to enter into this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations herein, the parties agree as follows:

1.00 Purpose of Agreement: The purpose of this Agreement is to provide funding to perform capital improvements to the Wastewater Treatment Plant in Hialeah Yard as further described in Exhibit(s) A, attached hereto and by this reference made a part hereof, hereinafter referred to as the Project, and to provide Departmental financial assistance to the Agency and state the terms and conditions upon which such assistance will be provided and the understandings as to the manner in which the project will be undertaken and completed.

2.00 Accomplishment of the Project:

2.10 General Requirements: The Agency shall commence, and complete the project as described in Exhibit "A" attached hereto and by this reference made a part hereof this Agreement, with all practical dispatch, in a sound, economical, and efficient manner, and in accordance with the provisions herein, and all applicable laws.

2.20 Pursuant to Federal, State, and Local Law: In the event that any election, referendum, approval, permit, notice, or other proceeding or authorization is requisite under applicable law to enable the Agency to enter into this Agreement or to undertake the project hereunder, or to observe, assume or carry out any of the provisions of the Agreement, the Agency will initiate and consummate, as provided by law, all actions necessary with respect to any such matters so requisite.

2.30 Funds of the Agency: The Agency shall initiate and prosecute to completion all proceedings necessary including federal aid requirements to enable the Agency to provide the necessary funds for completion of the project.

2.40 Submission of Proceedings, Contracts and Other Documents: The Agency shall submit to the Department such data, reports, records, contracts and other documents relating to the project as the Department may require as listed in Exhibit "C" attached hereto and by this reference made a part hereof. The Department has the option

to require an activity report on a quarterly basis. The activity report will include details of the progress of the project towards completion.

3.00 Project Cost: The total estimated cost of the project is $ 350,000.00. This amount is based upon the estimate summarized in Exhibit "B" attached hereto and by this reference made a part hereof this Agreement. The Agency agrees to bear all expenses in excess of the total estimated cost of the project and any deficits involved.

4.00 Department Participation: The Department agrees to maximum participation, including contingencies, in the project in the amount of $ 350,000.00 as detailed in Exhibit "B", or in an amount equal to the percentage(s) of total cost shown in Exhibit "B", whichever is less.

4.10 Project Cost Eligibility: Project costs eligible for State participation will be allowed only from the effective date of this agreement. It is understood that State participation in eligible project costs is subject to:

(a) Legislative approval of the Department's appropriation request in the adopted work program year that the project is scheduled to be committed;

(b) Availability of funds as stated in Section 15.00 of this Agreement; Approval of all plans, specifications, contracts or other obligating documents as required by the Department, and all other terms of this Agreement;

(c) Department approval of costs in excess of the approved funding or attributable to actions which have not received the required approval of the Department and all other terms of this Agreement;

(d) Department approval of the project scope and budget (Exhibits A & B) at the time appropriation authority becomes available.

4.20 Front End Funding: Front end funding ☐ is ☒ is not applicable. If applicable, the Department may initially pay 100% of the total allowable incurred project costs up to an amount equal to its total share of participation as shown in paragraph 4.00.

5.00 Project Budget and Payment Provisions:

5.10 The Project Budget: A project budget shall be prepared by the Agency and approved by the Department. The Agency shall maintain said budget, carry out the project and shall incur obligations against project funds only in conformity with the latest approved budget for the project. No budget increase or decrease shall be effective unless it complies with fund participation requirements established in Section 4.00 of this Agreement, or Amendment thereto, and is approved by the Department Comptroller.

5.20 Payment Provisions: Unless otherwise allowed, payment will begin in the year the project or project phase is scheduled in the work program as of the date of the agreement. Payment will be made for actual costs incurred as of the date the invoice is submitted with the final payment due upon receipt of a final invoice.

6.00 Accounting Records:

6.10 Establishment and Maintenance of Accounting Records: The Agency shall establish for the project, in conformity with requirements established by Department's program guidelines/procedures and "Principles for State and Local Governments", separate accounts to be maintained within its existing accounting system or establish independent accounts. Such accounts are referred to herein collectively as the "project account". Records of costs incurred under terms of this Agreement shall be maintained in the project account and made available upon request to the Department at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to the Department upon request. Records of costs incurred include the Agency's general accounting records and the Project records, together with supporting documents and records, of the Agency and all sub-consultants performing work on the Project and all other records of the Agency and sub-consultants considered necessary by the Department for a proper audit of costs. If any litigation, claim, or audit is started before the

expiration of the five (5) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

6.30 Costs Incurred for the Project: The Agency shall charge to the project account all eligible costs of the project. Costs in excess of the latest approved budget or attributable to actions which have not received the required approval of the Department shall not be considered eligible costs.

6.40 Documentation of Project Costs: All costs charged to the project, including any approved services contributed by the Agency or others, shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers evidencing in proper detail the nature and propriety of the charges.

6.50 Checks, Orders, and Vouchers: Any check or order drawn by the Agency with respect to any item which is or will be chargeable against the project account will be drawn only in accordance with a properly signed voucher then on file in the office of the Agency stating in proper detail the purpose for which such check or order is drawn. All checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to the project shall be clearly identified, readily accessible, and, to the extent feasible, kept separate and apart from all other such documents.

6.60 Audit Authority: In addition to the requirements below, the Agency agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Department, Florida's Chief Financial Officer or Auditor General. The Agency shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of five years from the date the audit report is issued, and shall allow the Department access to such records and working papers upon request. The following requirements do not limit the authority of the Department to conduct or arrange for the conduct of additional audits or evaluations of state financial assistance or limit the authority of any state agency inspector general, the Auditor General, or any other state official.

The Agency shall comply with all audit and audit reporting requirements as specified in Exhibit "D" attached hereto and by this reference made a part hereof this Agreement.

6.61 Monitoring: In addition to reviews of audits conducted in accordance with OMB Circular A-133 as revised and Section 215.97, Florida Statutes, (see "Audits" below), monitoring procedures may include, but not be limited to, on-site visits by Department staff, limited scope audits as defined by OMB Circular A-133 as revised, and/or other procedures. The Agency agrees to comply and cooperate fully with any monitoring procedures/processes deemed appropriate by the Department. In the event the Department determines that a limited scope audit of the Agency is appropriate, the Agency agrees to comply with any additional instructions provided by the Department staff to the Agency regarding such audit. The Agency further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by FDOT's Office of Inspector General (OIG) and Florida's Chief Financial Officer (CFO) or Auditor General.

6.62 Audits:

Part I Federally Funded: If the Agency is a state, local government, or non-profit organizations as defined in OMB Circular A-133 and a recipient of federal funds, the following annual audit criteria will apply:

1. In the event that the recipient expends $500,000 or more in Federal awards in its fiscal year, the recipient must have a single or program-specific audit conducted in accordance with the provisions of OMB Circular A-133, as revised. Exhibit "D" to this agreement indicates Federal resources awarded through the Department by this agreement. In determining the Federal awards expended in its fiscal year, the recipient shall consider all sources of Federal awards, including Federal resources received from the Department. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by OMB Circular A-133, as revised. An audit of the recipient conducted by the Auditor General in accordance with the provisions OMB Circular A-133, as revised, will meet the requirements of this part.

2. In connection with the audit requirements addressed in Part I, Paragraph 1, the recipient shall fulfill the requirements relative to auditee responsibilities as provided in Subpart C of OMB Circular A-133.

3. If the recipient expends less than the amount in Part I, Paragraph 1., an audit conducted in accordance with the provisions of OMB Circular A-133, is not required. If the recipient elects to conduct such an audit, the cost of the audit must be paid from resources obtained from other than Federal entities.

4. Federal awards are to be identified using the Catalog of Federal Domestic Assistance (CFDA) title and number, award number and year, and name of the awarding federal agency.

Part II State Funded: If the Agency is a non-state entity as defined by Section 215.97(2)(m), Florida Statutes, and a recipient of state funds, the following annual audit criteria will apply:

1. In the event that the recipient expends a total amount of state financial assistance equal to or in excess of $500,000 in any fiscal year, the recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services and the CFO; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. Exhibit "D" to this agreement indicates state financial assistance awarded through the Department by this agreement. In determining the state financial assistance expended in its fiscal year, the recipient shall consider all sources of state financial assistance, including state financial assistance received from the Department, other state agencies, and other non-state entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a non-state entity for Federal program matching requirements.

2. In connection with the audit requirements addressed in Part II, Paragraph 1., the recipient shall ensure that the audit complies with the requirements of Section 215.97(8), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2)(e), Florida Statutes, and Chapter 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.

3. If the recipient expends less than the amount in Part II, Paragraph 1., such audit is not required. If the recipient elects to conduct such an audit, the cost of the audit must be paid from the recipient's resources obtained from non-state entities.

4. State awards are to be identified using the Catalog of State Financial Assistance (CSFA) title and number, award number and year, and name of the state agency awarding it.

Part III Other Audit Requirements

1. The Agency shall follow-up and take corrective action on audit findings. Preparation of a summary schedule of prior year audit findings, including corrective action and current status of the audit findings is required. Current year audit findings require corrective action and status of findings.

2. Records related to unresolved audit findings, appeals, or litigation shall be retained until the action is completed or the dispute is resolved. Access to project records and audit work papers shall be given to the Department, the Department Comptroller, and the Auditor General. This section does not limit the authority of the Department to conduct or arrange for the conduct of additional audits or evaluations of state financial assistance or limit the authority of any other state official.

Part IV Report Submission

1. Copies of reporting packages for audits conducted in accordance with OMB Circular A-133 as revised, as revised, and required by Section 6.62 Part I of this agreement shall be submitted, when required by Section .320 (d), OMB Circular A-133 as revised, by or on behalf of the recipient directly to each of the following:

a. The Department at the following address:

Florida Department of Transportation
Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0405
Email: FDOTSingleAudit@dot.state.fl.us

b. The number of copies required by Sections .320 (d)(1) and (2), OMB Circular A-133 as revised, submitted to the following address:

Federal Audit Clearinghouse
Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132

c. Other Federal agencies and pass-through entities in accordance with Sections .320 (e) and (f), OMB Circular A-133 as revised.

2. In the event that a copy of the reporting package for an audit required by Section 6.62 Part I of this Agreement and conducted in accordance with OMB Circular A-133 as revised is not required to be submitted to the Department for reasons pursuant to section .320 (e)(2), OMB Circular A-133 as revised, the recipient shall submit the required written notification pursuant to Section .320 (e)(2) and a copy of the recipient's audited schedule of expenditures of Federal awards directly to each of the following:

Florida Department of Transportation
Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0405
Email: FDOTSingleAudit@dot.state.fl.us

In addition, pursuant to Section .320 (f), OMB Circular A-133 as revised, as revised, the recipient shall submit a copy of the reporting package described in Section .320 (c), OMB Circular A-133 as revised, and any management letters issued by the auditor, to the Department at the following address:

Florida Department of Transportation
Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0405
Email: FDOTSingleAudit@dot.state.fl.us

3. Copies of financial reporting packages required by Section 6.62 Part II of this Agreement shall be submitted by or on behalf of the recipient directly to each of the following:

a. The Department at the following address:

Florida Department of Transportation
Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0405
Email: FDOTSingleAudit@dot.state.fl.us

b. The Auditor General's Office at the following address:

Auditor General's Office
Room 401, Pepper Building
111 West Madison Street
Tallahassee, Florida 32399-1450

4. Copies of reports or the management letter required by Section 6.62 Part III of this Agreement shall be submitted by or on behalf of the recipient directly to:

a. The Department at the following address:

Florida Department of Transportation
Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0405
Email: FDOTSingleAudit@dot.state.fl.us

5. Any reports, management letter, or other information required to be submitted to the Department pursuant to this Agreement shall be submitted timely in accordance with OMB Circular A-133 as revised, Section 215.97, Florida Statutes, and Chapter 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.

6. Recipients, when submitting financial reporting packages to the Department for audits done in accordance with OMB Circular A-133 as revised or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date that the reporting package was delivered to the Agency in correspondence accompanying the reporting package.

6.63 Record Retention: The Agency shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of at least five years from the date the audit report is issued, and shall allow the Department, or its designee, the CFO or Auditor General access to such records upon request. The Agency shall ensure that the independent audit working papers are made available to the Department, or its designee, the CFO, or Auditor General upon request for a period of at least five years from the date the audit report is issued, unless extended in writing by the Department.

6.64 Other Requirements: If an audit discloses any significant audit findings related to any award, including material noncompliance with individual project compliance requirements or reportable conditions in internal controls of the Agency, the Agency shall submit as part of the audit package to the Department a plan for corrective action to eliminate such audit findings or a statement describing the reasons that corrective action is not necessary. The Agency shall take timely and appropriate corrective action to any audit findings, recommendations, and corrective action plans.

6.65 Insurance: Execution of this Joint Participation Agreement constitutes a certification that the Agency has and will maintain the ability to repair or replace any project equipment or facilities in the event of loss or damage due to any accident or casualty for the useful life of such equipment or facilities. In the event of the loss of such equipment or

facilities, the Agency shall either replace the equipment or facilities or reimburse the Department to the extent of its interest in the lost equipment or facility. The Department may waive or modify this section as appropriate.

7.00 Requisitions and Payments:

7.10 Action by the Agency: In order to obtain any Department funds, the Agency shall file with the Department of Transportation, District Four Public Transportation Office 3400 W Commercial Blvd. Fort Lauderdale, FL, 33309, its requisition on a form or forms prescribed by the Department, and any other data pertaining to the project account (as defined in Paragraph 6.10 hereof) to justify and support the payment requisitions.

7.11 The Agency shall provide the following quantifiable, measurable and verifiable units of deliverables as established in Exhibit "A". Each deliverable must specify the required minimum level of service to be performed and the criteria for evaluating successful completion.

7.12 Invoices for fees or other compensation for services or expenses shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof, based on the quantifiable, measurable and verifiable units of deliverables as established in Exhibit "A". Deliverables must be received and accepted in writing by the Department's Project Manager prior to payments.

7.13 Supporting documentation must establish that the deliverables were received and accepted in writing by the Department and that the required minimum level of service to be performed based on the criteria for evaluating successful completion as specified in Section 2.00 and Exhibit "A" has been met.

7.14 Invoices for any travel expenses by the Agency shall be submitted in accordance with Chapter 112.061, F.S., and shall be submitted on the Department's ***Travel Form No. 300-000-01.*** The Department may establish rates lower than the maximum provided in Chapter 112.061, F.S.

7.15 For real property acquired, submit;

(a) the date the Agency acquired the real property,
(b) a statement by the Agency certifying that the Agency has acquired said real property, and actual consideration paid for real property.
(c) a statement by the Agency certifying that the appraisal and acquisition of the real property together with any attendant relocation of occupants was accomplished in compliance with all federal laws, rules and procedures required by any federal oversight agency and with all state laws, rules and procedures that may apply to the Agency acquiring the real property.

7.20 The Department's Obligations: Subject to other provisions hereof, the Department will honor such requisitions in amounts and at times deemed by the Department to be proper to ensure the carrying out of the project and payment of the eligible costs. However, notwithstanding any other provision of this Agreement, the Department may elect by notice in writing not to make a payment on the project if:

7.21 Misrepresentation: The Agency shall have made misrepresentation of a material nature in its application, or any supplement thereto or amendment thereof, or in or with respect to any document or data furnished therewith or pursuant hereto;

7.22 Litigation: There is then pending litigation with respect to the performance by the Agency of any of its duties or obligations which may jeopardize or adversely affect the project, the Agreement, or payments to the project;

7.23 Approval by Department: The Agency shall have taken any action pertaining to the project which, under this agreement, requires the approval of the Department or has made related expenditures or incurred related obligations without having been advised by the Department that same are approved;

7.24 Conflict of Interests: There has been any violation of the conflict of interest provisions contained herein;

7.25 Default: The Agency has been determined by the Department to be in default under any of the provisions of the Agreement; or

7.26 Federal Participation (If Applicable): Any federal agency providing federal financial assistance to the project suspends or terminates federal financial assistance to the project. In the event of suspension or termination of federal financial assistance, the Agency will reimburse the Department for all disallowed costs, including any and all federal financial assistance as detailed in Exhibit "B."

7.30 Disallowed Costs: In determining the amount of the payment, the Department will exclude all projects costs incurred by the Agency prior to the effective date of this Agreement, after the expiration date of this Agreement, costs which are not provided for in the latest approved scope and budget for the project, costs attributable to goods or services received under a contract or other arrangements which have not been approved by the Department, and costs invoiced prior to receipt of annual notification of fund availability.

7.40 Payment Offset: If, after project completion, any claim is made by the Department resulting from an audit or for work or services performed pursuant to this agreement, the Department may offset such amount from payments due for work or services done under any public transportation joint participation agreement which it has with the Agency owing such amount if, upon demand, payment of the amount is not made within sixty (60) days to the Department. Offsetting amounts shall not be considered a breach of contract by the Department.

8.00 Termination or Suspension of Project:

8.10 Termination or Suspension Generally: If the Agency abandons or, before completion, finally discontinues the project; or if, by reason of any of the events or conditions set forth in Sections 7.21 to 7.26 inclusive, or for any other reason, the commencement, prosecution, or timely completion of the project by the Agency is rendered improbable, infeasible, impossible, or illegal, the Department will, by written notice to the Agency, suspend any or all of its obligations under this Agreement until such time as the event or condition resulting in such suspension has ceased or been corrected, or the Department may terminate any or all of its obligations under this Agreement.

8.11 Action Subsequent to Notice of Termination or Suspension. Upon receipt of any final termination or suspension notice under this paragraph, the Agency shall proceed promptly to carry out the actions required therein which may include any or all of the following: (1) necessary action to terminate or suspend, as the case may be, project activities and contracts and such other action as may be required or desirable to keep to the minimum the costs upon the basis of which the financing is to be computed; (2) furnish a statement of the project activities and contracts, and other undertakings the cost of which are otherwise includable as project costs; and (3) remit to the Department such portion of the financing and any advance payment previously received as is determined by the Department to be due under the provisions of the Agreement. The termination or suspension shall be carried out in conformity with the latest schedule, plan, and budget as approved by the Department or upon the basis of terms and conditions imposed by the Department upon the failure of the Agency to furnish the schedule, plan, and budget within a reasonable time. The approval of a remittance by the Agency or the closing out of federal financial participation in the project shall not constitute a waiver of any claim which the Department may otherwise have arising out of this Agreement.

8.12 The Department reserves the right to unilaterally cancel this Agreement for refusal by the contractor or Agency to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, F.S. and made or received in conjunction with this Agreement.

9.00 Audit and Inspection: The Agency shall permit, and shall require its contractors to permit, the Department's authorized representatives to inspect all work, materials, payrolls, records; and to audit the books, records and accounts pertaining to the financing and development of the project.

10.00 Contracts of the Agency:

10.10 Third Party Agreements: The Department specifically reserves the right to review and approve any and all third party contracts with respect to the Project before the Agency executes or obligates itself in any manner requiring the disbursement of Department funds, including consultant, purchase of commodities contracts or amendments thereto. If the Department chooses to review and approve third party contracts for this Project and the Agency fails to obtain such approval, that shall be sufficient cause for nonpayment by the Department as provided in Section 7.23. The Department specifically reserves unto itself the right to review the qualifications of any consultant or contractor and to approve or disapprove the employment of the same. If Federal Transit Administration (FTA) funds are used in the project, the Department must exercise the right to third party contract review.

10.20 Procurement of Personal Property and Services:

10.21 Compliance with Consultants' Competitive Negotiation Act: It is understood and agreed by the parties hereto that participation by the Department in a project with an Agency, where said project involves a consultant contract for engineering, architecture or surveying services, is contingent on the Agency complying in full with provisions of Chapter 287.055, F.S., Consultants' Competitive Negotiation Act. At the discretion of the Department, the Agency will involve the Department in the Consultant Selection Process for all contracts. In all cases, the Agency's Attorney shall certify to the Department that selection has been accomplished in compliance with Chapter 287.055 F.S., the Consultants' Competitive Negotiation Act.

10.22 Procurement of Commodities or Contractual Services: It is understood and agreed by the parties hereto that participation by the Department in a project with an Agency, where said project involves the purchase of commodities or contractual services or the purchasing of capital equipment or the constructing and equipping of facilities, which includes engineering, design, and/or construction activities, where purchases or costs exceed the Threshold Amount for CATEGORY TWO per Chapter 287.017 F.S., is contingent on the Agency complying in full with the provisions of Chapter 287.057 F.S. The Agency's Attorney shall certify to the Department that the purchase of commodities or contractual services has been accomplished in compliance with Chapter 287.057 F.S. It shall be the sole responsibility of the Agency to ensure that any obligations made in accordance with this Section comply with the current threshold limits. Contracts, purchase orders, task orders, construction change orders, or any other agreement that would result in exceeding the current budget contained in Exhibit "B", or that is not consistent with the project description and scope of services contained in Exhibit "A" must be approved by the Department prior to Agency execution. Failure to obtain such approval, and subsequent execution of an amendment to the Agreement if required, shall be sufficient cause for nonpayment by the Department as provided in Section 7.23.

10.30 Disadvantaged Business Enterprise (DBE) Policy:

10.31 DBE Policy: The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 *et seq.*)

10.40 The Agency agrees to report any reasonable cause notice of noncompliance based on 49 CFR Part 26 filed under this section to the Department within 30 days of receipt by the Agency.

11.00 Restrictions, Prohibitions, Controls, and Labor Provisions:

11.10 Equal Employment Opportunity: In connection with the carrying out of any project, the Agency shall not discriminate against any employee or applicant for employment because of race, age, creed, color, sex or national origin. The Agency will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, age, creed, color, sex, or national origin. Such action shall include, but not be limited to, the following: Employment upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Agency shall insert the foregoing provision modified only to show the particular contractual relationship in all its contracts in connection with the development or operation of the project, except contracts for standard commercial supplies or raw materials, and shall require all such contractors to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials. When the project involves installation, construction, demolition, removal, site improvement, or similar work, the Agency shall post, in conspicuous places available to employees and applicants for employment for project work, notices to be provided by the Department setting forth the provisions of the nondiscrimination clause.

11.20 Title VI - Civil Rights Act of 1964: Execution of this Joint Participation Agreement constitutes a certification that the Agency will comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, et. seq.), the Regulations of the Federal Department of Transportation issued thereunder, and the assurance by the Agency pursuant thereto.

11.30 Title VIII - Civil Rights Act of 1968: Execution of this Joint Participation Agreement constitutes a certification that the Agency will comply with all the requirements imposed by Title VIII of the Civil Rights Act of 1968, 42 USC 3601,et seq., which among other things, prohibits discrimination in employment on the basis of race, color, national origin, creed, sex, and age.

11.40 Americans with Disabilities Act of 1990 (ADA): Execution of this Joint Participation Agreement constitutes a certification that the Agency will comply with all the requirements imposed by the ADA (42 U.S.C. 12102, et. seq.), the regulations of the federal government issued there under, and the assurance by the Agency pursuant thereto.

11.50 Prohibited Interests: The Agency shall not enter into a contract or arrangement in connection with the project or any property included or planned to be included in the project, with any officer, director or employee of the Agency, or any business entity of which the officer, director or employee or the officer's, director's or employee's spouse or child is an officer, partner, director, or proprietor or in which such officer, director or employee or the officer's, director's or employee's spouse or child, or any combination of them, has a material interest.

"Material Interest" means direct or indirect ownership of more than 5 percent of the total assets or capital stock of any business entity.

The Agency shall not enter into any contract or arrangement in connection with the project or any property included or planned to be included in the project, with any person or entity who was represented before the Agency by any person who at any time during the immediately preceding two years was an officer, director or employee of the Agency.

The provisions of this subsection shall not be applicable to any agreement between the Agency and its fiscal depositories, any agreement for utility services the rates for which are fixed or controlled by the government, or any agreement between the Agency and an agency of state government.

11.60 Interest of Members of, or Delegates to, Congress: No member or delegate to the Congress of the United States, or the State of Florida legislature, shall be admitted to any share or part of the Agreement or any benefit arising there from.

12.00 Miscellaneous Provisions:

12.10 Environmental Regulations: Execution of this Joint Participation Agreement constitutes a certification by the Agency that the project will be carried out in conformance with all applicable environmental regulations including the securing of any applicable permits. The Agency will be solely responsible for any liability in the event of non-compliance with applicable environmental regulations, including the securing of any applicable permits, and will reimburse the Department for any loss incurred in connection therewith.

12.20 Department Not Obligated to Third Parties: The Department shall not be obligated or liable hereunder to any party other than the Agency.

12.30 When Rights and Remedies Not Waived: In no event shall the making by the Department of any payment to the Agency constitute or be construed as a waiver by the Department of any breach of covenant or any default which may then exist, on the part of the Agency, and the making of such payment by the Department while any such breach or default shall exist shall in no way impair or prejudice any right or remedy available to the Department with respect to such breach or default.

12.40 How Agreement Is Affected by Provisions Being Held Invalid: If any provision of this Agreement is held invalid, the remainder of this Agreement shall not be affected. In such an instance the remainder would then continue to conform to the terms and requirements of applicable law.

12.50 Bonus or Commission: By execution of the Agreement the Agency represents that it has not paid and, also, agrees not to pay, any bonus or commission for the purpose of obtaining an approval of its application for the financing hereunder.

12.60 State or Territorial Law: Nothing in the Agreement shall require the Agency to observe or enforce compliance with any provision thereof, perform any other act or do any other thing in contravention of any applicable State law: Provided, that if any of the provisions of the Agreement violate any applicable State law, the Agency will at once notify the Department in writing in order that appropriate changes and modifications may be made by the Department and the Agency to the end that the Agency may proceed as soon as possible with the project.

12.70 Use and Maintenance of Project Facilities and Equipment: The Agency agrees that the project facilities and equipment will be used by the Agency to provide or support public transportation for the period of the useful life of such facilities and equipment as determined in accordance with general accounting principles and approved by the Department. The Agency further agrees to maintain the project facilities and equipment in good working order for the useful life of said facilities or equipment.

12.71 Property Records: The Agency agrees to maintain property records, conduct physical inventories and develop control systems as required by 49 CFR Part 18, when applicable.

12.80 Disposal of Project Facilities or Equipment: If the Agency disposes of any project facility or equipment during its useful life for any purpose except its replacement with like facility or equipment for public transportation use, the Agency will comply with the terms of 49 CFR Part 18 relating to property management standards. The Agency agrees to remit to the Department a proportional amount of the proceeds from the disposal of the facility or equipment. Said proportional amount shall be determined on the basis of the ratio of the Department financing of the facility or equipment as provided in this Agreement.

12.90 Contractual Indemnity: Insurance and indemnification provisions and liability for services performed under this Agreement shall be governed in accordance with the terms and conditions of the Operating Agreement entered into June 13, 2013 between the SFRTA and the Department.

13.00 Plans and Specifications: In the event that this Agreement involves the purchasing of capital equipment or the constructing and equipping of facilities, where plans and specifications have been developed, the Agency shall provide an Engineer's Certification that certifies project compliance as listed below, or in Exhibit "C" if applicable. For the plans, specifications, construction contract documents, and any and all other engineering, construction, and contractual

documents produced by the Engineer, hereinafter collectively referred to as "plans", the Agency will certify that:

a. All plans comply with federal, state, and professional standards as well as minimum standards established by the Department as applicable;
b. The plans were developed in accordance with sound engineering and design principles, and with generally accepted professional standards;
c. The plans are consistent with the intent of the project as defined in Exhibits "A" and "B" of this Agreement as well as the Scope of Services; and
d. The plans comply with all applicable laws, ordinances, zoning and permitting requirements, public notice requirements, and other similar regulations.

Notwithstanding the provisions of this paragraph, the Agency, upon request by the Department, shall provide plans and specifications to the Department for review and approvals.

14.00 Project Completion, Agency Certification: The Agency will certify in writing on or attached to the final invoice, that the project was completed in accordance with applicable plans and specifications, is in place on the Agency facility, that adequate title is in the Agency and that the project is accepted by the Agency as suitable for the intended purpose.

15.00 Appropriation of Funds:

15.10 The State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature.

15.20 Multi-Year Commitment: In the event this Agreement is in excess of $25,000 and has a term for a period of more than one year, the provisions of Chapter 339.135(6)(a), F.S., are hereby incorporated: "(a) The Department, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department shall require a statement from the comptroller of the Department that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding 1 year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verbatim in all contracts of the Department which are for an amount in excess of 25,000 dollars and which have a term for a period of more than 1 year."

16.00 Expiration of Agreement: The Agency agrees to complete the project on or before 6/30/2019. If the Agency does not complete the project within this time period, this Agreement will expire unless an extension of the time period is requested by the Agency and granted in writing by the Director of Development. Expiration of this Agreement will be considered termination of the project and the procedure established in Section 8.00 of this Agreement shall be initiated.

16.10 Final Invoice: The Agency must submit the final invoice on this project to the Department within 120 days after the expiration of this Agreement.

17.00 Agreement Format: All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

18.00 Execution of Agreement: This Agreement may be simultaneously executed in a minimum of two counterparts, each of which so executed shall be deemed to be an original, and such counterparts together shall constitute one in the same instrument.

19.00 Restrictions on Lobbying:

19.10 Federal: The Agency agrees that no federal appropriated funds have been paid or will be paid by or on behalf of the Agency, to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan or cooperative agreement.

If any funds other than federal appropriated funds have been paid by the Agency to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Joint Participation Agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The Agency shall require that the language of this section be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

19.20 State: No funds received pursuant to this contract may be expended for lobbying the Legislature or a state agency.

20.00 Vendors Rights: Vendors (in this document identified as Agency) providing goods and services to the Department should be aware of the following time frames. Upon receipt, the Department has five (5) working days to inspect and approve the goods and services unless the bid specifications, purchase order or contract specifies otherwise. The Department has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.

If a payment is not available within 40 days after receipt of the invoice and receipt, inspection and approval of goods and services, a separate interest penalty in accordance with Section 215.422(3)(b), F.S. will be due and payable, in addition to the invoice amount to the Agency. The interest penalty provision applies after a 35 day time period to health care providers, as defined by rule. Interest penalties of less than one (1) dollar will not be enforced unless the Agency requests payment. Invoices which have to be returned to an Agency because of vendor preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.

A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this individual include acting as an advocate for Agencies who may be experiencing problems in obtaining timely payment(s) from the Department. The Vendor Ombudsman may be contacted at (850) 413-5516 or by calling the Division of Consumer Services at 1-877-693-5236.

21.00 Public Entity Crime: A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017, F.S. for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

22.00 Discrimination: An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

23.00 E-Verify:

Vendors/Contractors:

1. shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Vendor/Contractor during the term of the contract; and
2. shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

IN WITNESS WHEREOF, the parties hereto have caused these presents be executed, the day and year first above written.

AGENCY	FDOT
South Florida Regional Transportation Authority	
	DEPARTMENT OF TRANSPORTATION
	Director of Transportation Development
SIGNATORY (PRINTED OR TYPED)	TITLE
SIGNATURE	LEGAL REVIEW DEPARTMENT OF TRANSPORTATION
TITLE	See attached Encumbrance Form for date of Funding Approval by Comptroller

Financial Project No. 440145-1-57-01

Contract No. AS318

Agreement Date

EXHIBIT "A"
PROJECT DESCRIPTION AND RESPONSIBILITIES

This exhibit forms an integral part of that certain Joint Participation Agreement between the State of Florida, Department of Transportation and South Florida Regional Transportation Authority 800 NW 33rd Street, Suite 100, Pompano, FL, 33064 referenced by the above Financial Project Number.

PROJECT LOCATION:

Hialeah Yard

PROJECT DESCRIPTION:

The project is located on the South Florida Rail Corridor within the Hialeah Yard. The project is various capital improvements to the wastewater treatment plant, listed below:

- Construct a 20'X20' onsite work structure/shed to store components, equipment, and perform on-site repairs.
- Installation of pressure release valves, butterfly valves, swing valves, check valves, and flanges on aerial industrial distribution system and mix tank.
- Install a steel cover with passive odor venting system for sludge decant basin located on the east side of the WWTP, adjacent to the residential neighborhood.
- Overhaul of exterior aerial industrial system lines outside of the WWTP.
- Install a sweep tee on aerial trunk line to eliminate water hammer and air locks that currently happen in the system.
- Assessment of underground collection system sections to determine if there is infiltration and inflow (I&I), or pipes have blockages/collapses. This does not include any repairs, and just provides a condition assessment that will be used to determine alternatives to address findings.

The Department shall be notified by SFRTA prior to any replacement activity to be performed by SFRTA forces. SFRTA shall provide, furnish, or have furnished, all necessary materials required for, and will perform at Department's expense the activities listed above.

SPECIAL CONSIDERATIONS BY AGENCY:

• The audit report(s) required in paragraph 6.62, Part II of the Agreement shall include a schedule of project assistance that will reflect the Department's contract number, Financial Project Number and the Federal Identification number, where applicable, and the amount of state funding action (receipt and disbursement of funds) and any federal or local funding action and the funding action from any other source with respect to the project.

• All work performed shall be in accordance with SFOMA and the Operating Agreement. The work shall be coordinated with Amtrak and/or CSXT to minimize any impact to their operations.

Funding is to be used only for the CAPITAL IMPROVEMENTS AS SPECIFIED ABOVE as approved by the DEPARTMENT. No work performed beyond the project scope will be reimbursed unless a supplemental agreement is entered into between the parties prior to the performance of such work.

DELIVERABLES By Agency:

1. For invoicing –
   a. Submit an invoice on the project every three (3) months. Please include three (3) hard copies of the back-up and three (3) original Invoice Summary Sheets.
   b. Include a detailed project budget with each invoice that delineates the project expenses, clearly defines the expenses associated with the project as it relates to the scope.
   c. Prepare and submit invoices and supporting documents in accordance with Sections 6.0 and 7.0 of this JPA for correct payment provisions through the Department of Transportation.
   d. Supporting documentation for each amount for which reimbursement is being claimed must indicate that the item has been paid.
   e. All invoices must be accompanied by appropriate back-up, including check and/or check numbers that paid the invoice
   f. Contact your Florida Department of Transportation Project Manager with any additional questions before invoicing.
   g. Upon Agency's submittal of final invoice, Department reserves the right to conduct a final walkthrough of the Project prior to payment.
   h. The Department reserves the right to conduct inspections on the project progress as needed.

2. A progress report shall be submitted on a monthly basis to the state project manager, identifying the work progress and completion.

3. The work must start 6 months after the execution of this agreement. If work is not started within 6 months of the execution of this agreement, DEPARTMENT reserves the right to terminate the project.

EXHIBIT "A"
PROJECT DESCRIPTION AND RESPONSIBILITIES

SPECIAL CONSIDERATIONS BY DEPARTMENT:

1. The Department project manager may periodically conduct site visits and field review to monitor the progress of the project.

2. The contact information for the Florida Department of Transportation Project Manager is as follows:

Birgit Olkuch, P.E.
Rail Administration Manager
Office of Modal Development
Florida Department of Transportation, District 4
3400 West Commercial Blvd
Fort Lauderdale, FL 33309
Tel: (954)777-4689
Fax: (954)777-4095
Birgit.Olkuch@dot.state.fl.us

Additional Contact:

Daniel Tessoff
Railroad Specialist
Florida Department of Transportation, District 4
Office of Modal Development
3400 W. Commercial Boulevard
Fort Lauderdale, FL 33309
Office: 954.777.4667
Mobile: 248.470.467
Daniel.Tessoff@dot.state.fl.us // www.dot.state.fl.us

Fin. Proj. No.: 440145-1-57-01

Contract No.: AS318

Agreement Date: _____

EXHIBIT "B"
PROJECT BUDGET

This exhibit forms an integral part of that certain Joint Participation Agreement between the State of Florida, Department of Transportation and the South Florida Regional Transportation Authority 800 NW 33rd Street, Suite 100, Pompano, FL 33064

Referenced by the above Financial Project Number.

Cost Estimate:

The total estimate cost for the equipment and services is estimated in the amount of $350,000.00 by the SFRTA Contractor's Cost Estimate.

PARTICIPATION:	FY2016 / 2017	Total
Federal Participation:		
None	$0	$0
Department Participation:		
State Funds	$350,000.00	$350,000.00
Local Participation		
SFRTA Funds	$0	$0
Total		**$350,000.00**

TOTAL PROJECT COST:	**$350,000.00**

Financial Project No. 440145-1-57-01

Contract No. AS318

Agreement Date _____

EXHIBIT "C"
(GENERAL - with Safety Requirements)

This exhibit forms an integral part of that certain Joint Participation Agreement between the State of Florida, Department of Transportation and South Florida Regional Transportation Authority 800 NW 33rd Street, Suite 100, Pompano, FL, 33064 referenced by the above Financial Project Number.

Reference statutes as applicable.

Mark the required Safety submittal or provisions for this agreement if applicable.

Safety Requirements

_ Bus Transit System - In accordance with Florida Statute 341.061, and Rule 14-90, Florida Administrative Code, the Agency shall submit, and the Department shall have on file, an annual safety certification that the Agency has adopted and is complying with its adopted System Safety and Security Program Plan pursuant to Rule Chapter 14-90 and has performed annual safety inspections of all buses operated.

_ Fixed Guideway Transportation System - (established) In accordance with Florida Statute 341.061, the Agency shall submit, and the Department shall have on file, annual certification by the Agency of compliance with its System Safety Program Plan, pursuant to Rule Chapter 14-55.

X Fixed Guideway Transportation System - (new) In accordance with Florida Statute 341.061, the Agency shall submit a certification attesting to the adoption of a System Safety Program Plan pursuant to Rule Chapter 14-55. Prior to beginning passenger service operations, the Agency shall submit a certification to the Department that the system is safe for passenger service.

Financial Project No. 440145-1-57-01

Contract No. AS318

Agreement Date

EXHIBIT "D"

FEDERAL and/or **STATE** resources awarded to the recipient pursuant to this agreement should be listed below. If the resources awarded to the recipient represent more than one Federal or State program, provide the same information for each program and the total resources awarded. **Compliance Requirements** applicable to each Federal or State program should also be listed below. If the resources awarded to the recipient represent more than one program, list applicable compliance requirements for each program in the same manner as shown here:

(e.g., What services or purposes the resources must be used for)
(e.g., Eligibility requirements for recipients of the resources)
(Etc…)

NOTE: Instead of listing the specific compliance requirements as shown above, the State awarding agency may elect to use language that requires the recipient to comply with the requirements of applicable provisions of specific laws, rules, regulations, etc. The State awarding agency, if practical, may want to attach a copy of the specific law, rule, or regulation referred to.

FEDERAL RESOURCES

Federal Agency	Catalog of Federal Domestic Assistance (Number & Title)	Amount
N/A		$

Compliance Requirements

STATE RESOURCES

State Agency	Catalog of State Assistance (Number & Title)	Amount
FDOT		$350,000.00

Compliance Requirements

Allowable activities are eligible capital expenses of a New Start project, in accordance with Section 341.051(5)(a). Eligible costs include preliminary engineering, final design, right-of-way acquisition, construction, and acquisition of capital equipment.

Planning is not an allowable activity with regards to New Starts Transit Program funding.

New Start Transit Program may fund up to ½ of the nonfederal share of eligible capital costs, in accordance with Section 341.051(5)(a). Departmental participation in the final design, right-of-way acquisition, and construction of an individual fixed-guideway project which is not approved for federal funding shall not exceed 12.5 percent of the total cost of each phase.

Matching Resources for Federal Programs

Federal Agency	Catalog of Federal Domestic Assistance (Number & Title)	Amount
N/A		$

Compliance Requirements

NOTE: Section .400(d) of OMB Circular A-133, as revised, and Section 215.97(5)(a), Florida Statutes, require that the information about Federal Programs and State Projects included in this exhibit be provided to the recipient.

Tracking No. 09231646 AGENDA ITEM NO. R3

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

JOINT PARTICIPATION AGREEMENT (JPA) FM #430458-1
WITH THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FOR
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA)
BOCA RATON II STATION

MOTION TO APPROVE: Joint Participation Agreement (JPA), FM #430458-1 between the South Florida Regional Transportation Authority (SFRTA) and the State of Florida Department of Transportation (FDOT), for State funds in the amount of $1,500,000 for the Boca Raton II Station environmental analysis, design and specifications package.

SUMMARY EXPLANATION AND BACKGROUND:

SFRTA has completed a Phase I Feasibility Study (Study) for the Boca Raton II Station in the vicinity of Glades Road and Military Trail in Boca Raton, Florida. This Study identified the impacts on ridership, cost, etc. associated with opening the proposed second station. The results of the Study determined that a second Tri-Rail station in Boca Raton is feasible. As a result, SFRTA is proceeding with the environmental analysis to add a new station to its current route along the South Florida Rail Corridor (SFRC). The new station south of Glades Road along Military Trail would be situated approximately 2 miles south of the existing Boca Raton Station at Yamato Road and approximately 3.7 miles north of the existing Deerfield Beach Station.

The funding for this Joint Participation Agreement (JPA) will be used for the work identified in Exhibit "A" of the JPA including satisfaction of the requirements of the National Environmental Policy Act (NEPA) consistent with the provisions for a Probable Categorical Exclusion (CE) identified in the Federal Transit Administration's (FTA) guidelines; the production of designs, and the associated specifications package. Additional funds are programmed by the Palm Beach Metropolitan Planning Organization (MPO) in FDOT's work program for future years to fund the construction for this project.

Staff is now requesting Board approval of the JPA (Exhibit 1) between SFRTA and FDOT to secure $1,500,000 (available FY 2016-2017) in state funds for the Boca Raton II Station project.

Department: Planning & Capital Development
Project Manager: Barbara Handrahan

Department Director: William L. Cross, P.E.
Procurement Director: N/A

FISCAL IMPACT: The state funds are currently available in the FY 2016-2017 Capital Budget

EXHIBIT ATTACHED: Exhibit 1 - Joint Participation Agreement
~~(to be provided under separate cover)~~

AGENDA ITEM NO. R3

JOINT PARTICIPATION AGREEMENT (JPA) FM #430458-1
WITH THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FOR
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA)
BOCA RATON II STATION

Recommended by: _____ 9/16/16
Department Director Date

Approved by: _____
Procurement Director Date

Authorized by: _____ 9/16/16
Executive Director Date

Approved as to Form by: _____
General Counsel Date 9/16/16

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	____Yes ____ No
Commissioner Bruno Barreiro	____Yes ____ No	F. Martin Perry	____ Yes ____ No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	____ Yes ____ No
Frank Frione	____ Yes ____ No	James A. Scott	____ Yes ____ No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	____ Yes ____ No

PUBLIC TRANSPORTATION
JOINT PARTICIPATION AGREEMENT

Financial Project Number(s): (item-segment-phase-sequence)	Fund:	GMR	FLAIR Category:	088808
43045819401	Function:	127	Object Code:	134036
	Federal Number:		Org. Code:	55310000933
Contract Number:	DUNS Number:	80-939-7102	Vendor No.:	VF650002789003
CFDA Number:	Agency DUNS No.	786583609	CSFA Number:	
CFDA Title:			CSFA Title:	

THIS JOINT PARTICIPATION AGREEMENT ("Agreement"), made and entered into this _____ day of _____ , _____ , by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, an agency of the State of Florida, ("Department"), and South Florida Regional Transportation Authority, 800 NW 33rd Street, Suite 100, Pompano, FL 33064 ("Agency"). The Department and Agency agree that all terms of this Agreement will be completed on or before June 30, 2019 and this Agreement will expire unless a time extension is provided in accordance with Section 16.00.

WITNESSETH:

WHEREAS, the Agency has the authority to enter into said Agreement and to undertake the Project hereinafter described, and the Department has been granted the authority to function adequately in all areas of appropriate jurisdiction including the implementation of an integrated and balanced transportation system and is authorized under Section 341, Florida Statutes, to enter into this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations herein, the parties agree as follows:

1.00 Purpose of Agreement. The purpose of this Agreement is to provide for the Department's participation in

providing funding for the National Environmental Policy Act (NEPA) consistent with the provisions for a Probable Categorical Exclusion (CE) identified in the Federal Transit Administration's (FTA) guidelines; and the production of 100% design plans and specifications package

and as further described in Exhibit "A" attached to and incorporated into this Agreement ("Project"), and to provide Departmental financial assistance to the Agency, state the terms and conditions upon which such assistance will be provided, and to set forth the manner in which the Project will be undertaken and completed.

1.10 Exhibits. A,B,C,D are attached and incorporated into this Agreement.

2.00 Accomplishment of the Project:

2.10 General Requirements. The Agency shall commence, and complete the Project, with all practical dispatch, in a sound, economical, and efficient manner, and in accordance with the provisions of this Agreement, and all applicable laws.

2.20 Pursuant to Federal, State, and Local Law. In the event that any election, referendum, approval, permit, notice, or other proceeding or authorization is requisite under applicable law to enable the Agency to enter into this Agreement or to undertake the Project, or to observe, assume or carry out any of the provisions of the Agreement, the Agency will initiate and consummate, as provided by law, all actions necessary with respect to any such matters so requisite.

2.30 Funds of the Agency. The Agency shall initiate and prosecute to completion all proceedings necessary, including federal aid requirements, to enable the Agency to provide the necessary funds for completion of the Project.

2.40 Submission of Proceedings, Contracts and Other Documents. The Agency shall submit to the Department such data, reports, records, contracts and other documents relating to the Project as the Department may require as listed in Exhibit "C" attached to and incorporated into this Agreement. The Department has the option to require an activity report on a quarterly basis. The activity report will include details of the progress of the Project towards completion.

3.00 Total Project Cost. The total estimated cost of the Project is $1,500,000.00. This amount is based upon the estimate summarized in Exhibit "B" attached to and incorporated into this Agreement. The Agency agrees to bear all expenses in excess of the total estimated cost of the Project and any deficits involved.

4.00 Project Costs Participation and Eligibility:

4.10 Department Participation. The Department agrees to maximum participation, including contingencies, in the Project in the amount of $1,500,000.00 as detailed in Exhibit "B", or in an amount equal to the percentage(s) of total cost shown in Exhibit "B", whichever is less.

4.11 Agency Participation (Non-State Sources). The Agency agrees to minimum participation, including contingencies, in the Project in the amount of $0.00 as detailed in Exhibit "B", or in an amount equal to the percentage(s) of the total cost shown in Exhibit "B", whichever is more.

4.12 Federal Awards. The Agency, a non-federal entity, is [X] is not a recipient of a federal award, as detailed in Exhibit "B."

4.20 Project Cost Eligibility. Project costs eligible for State participation will be allowed only from the effective date of this Agreement. It is understood that State participation in eligible Project costs is subject to:

a) Legislative approval of the Department's appropriation request in the adopted work program year that the Project is scheduled to be committed;
b) Availability of funds as stated in Section 15.00 of this Agreement; Approval of all plans, specifications, contracts or other obligating documents as required by the Department, and all other terms of this Agreement;
c) Department approval of costs in excess of the approved funding or attributable to actions which have not received the required approval of the Department and all other terms of this Agreement;
d) Department approval of the Project scope and budget (Exhibits "A" and "B") at the time appropriation authority becomes available.

4.30 Front End Funding. Front end funding is [X] is not applicable. If applicable, the Department may initially pay 100% of the total allowable incurred Project costs up to an amount equal to its total share of participation as shown in paragraph 4.10.

5.00 Project Budget and Payment Provisions:

5.10 The Project Budget. Prior to the execution of this Agreement, a Project schedule of funding shall be prepared by the Agency and approved by the Department. The Agency shall maintain said schedule of funding, carry out the Project, and shall incur obligations against and make disbursements of Project funds only in conformity with the latest approved schedule of funding for the Project, attached and incorporated into this Agreement as Exhibit "B." The schedule of funding may be revised by execution of a Supplemental Agreement between the Department and the Agency. The Agency acknowledges and agrees that funding for this Project may be reduced upon determination of the Agency's contract award amount. If revised, a copy of the Supplemental Agreement shall be forwarded to the Department's Comptroller. No increase or decrease shall be effective unless it complies with fund participation requirements of this Agreement and is approved by the Department's Comptroller.

5.20 Payment Provisions. Unless otherwise allowed, payment will begin in the year the Project or Project phase is scheduled in the work program as of the date of the Agreement. Payment will be made for actual costs incurred as of the date the invoice is submitted with the final payment due upon receipt of a final invoice. Payment shall be made only after receipt and approval of goods and services unless advance payments are authorized by the Chief Financial Officer of the State of Florida under Chapters 215 and 216, Florida Statutes. If the Department determines that the performance of the Agency is unsatisfactory, the Department shall notify the Agency of the deficiency to be corrected, which correction shall be made within a time-frame to be specified by the Department. The Agency shall, within sixty (60) days after notice from the Department, provide the Department with a corrective action plan describing how the Agency will address all issues of Agreement non-performance, unacceptable performance, failure to meet the minimum performance levels, deliverable deficiencies, or Agreement non-compliance. If the corrective action plan is unacceptable to the Department, the Agency shall be assessed a non-performance retainage equivalent to 10% of the total invoice amount. The retainage shall be applied to the invoice for the then-current billing period. The retainage shall be withheld until the Agency resolves the deficiency. If the deficiency is subsequently resolved, the Agency may bill the Department for the retained amount during the next billing period. If the Agency is unable to resolve the deficiency, the funds retained may be forfeited at the end of the Agreement's term.

6.00 Accounting Records:

6.10 Establishment and Maintenance of Accounting Records. The Agency shall establish for the Project, in conformity with requirements established by Department's program guidelines/procedures and "Principles for State and Local Governments", 2 CFR Part 225, separate accounts to be maintained within its existing accounting system or establish independent accounts. Such accounts are referred to herein collectively as the "Project account." Records of costs incurred under terms of this Agreement shall be maintained in the Project account and made available upon request to the Department at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to the Department upon request. Records of costs incurred include the Agency's general accounting records and the Project records, together with supporting documents and records, of the Agency and all sub-consultants performing work on the Project and all other records of the Agency and sub-consultants considered necessary by the Department for a proper audit of costs. If any litigation, claim, or audit is started before the expiration of the five (5) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

6.20 Costs Incurred for the Project. The Agency shall charge to the Project account all eligible costs of the Project. Costs in excess of the latest approved budget or attributable to actions which have not received the required approval of the Department shall not be considered eligible costs.

6.30 Documentation of Project Costs. All costs charged to the Project, including any approved services contributed by the Agency or others, shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers evidencing in proper detail the nature and propriety of the charges.

6.40 Checks, Orders, and Vouchers. Any check or order drawn by the Agency with respect to any item which is or will be chargeable against the Project account will be drawn only in accordance with a properly signed voucher then on file in the office of the Agency stating in proper detail the purpose for which such check or order is drawn. All checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to the Project shall be clearly identified, readily accessible, and, to the extent feasible, kept separate and apart from all other such documents.

6.50 Audits. The administration of Federal or State resources awarded through the Department to the Agency by this Agreement may be subject to audits and/or monitoring by the Department. The following requirements do not limit the authority of the Department to conduct or arrange for the conduct of additional audits or evaluations of Federal awards or State financial assistance or limit the authority of any state agency inspector general, the State of Florida Auditor General, or any other state official. The Agency shall comply with all audit and audit reporting requirements as specified below.

1. Federal Funded

a) In addition to reviews of audits conducted in accordance with 2 CFR Part 200, Subpart F — Audit Requirements, monitoring procedures may include but not be limited to on-site visits by Department staff and/or other procedures including, reviewing any required performance and financial reports, following up, ensuring corrective action, and issuing management decisions on weaknesses found through audits when those findings pertain to Federal awards provided through the Department by this Agreement. By entering into this Agreement, the Agency agrees to comply and cooperate fully with any monitoring procedures/processes deemed appropriate by the Department. The Agency further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Department, State of Florida Chief Financial Officer (CFO) or State of Florida Auditor General.

b) The Agency, a non-Federal entity as defined by 2 CFR Part 200, Subpart F — Audit Requirements, as a subrecipient of a Federal award awarded by the Department through this Agreement is subject to the following requirements:

i. In the event the Agency expends a total amount of Federal awards equal to or in excess of the threshold established by 2 CFR Part 200, Subpart F — Audit Requirements, the Agency must have a Federal single or program-specific audit conducted for such fiscal year in accordance with the provisions of 2 CFR Part 200, Subpart F — Audit Requirements. Exhibit A,B,C,D to this Agreement provides the required Federal award identification information needed by the Agency to further comply with the requirements of 2 CFR Part 200, Subpart F — Audit Requirements. In determining Federal awards expended in a fiscal year, the Agency must consider all sources of Federal awards based on when the activity related to the Federal award occurs, including the Federal award provided through the Department by this Agreement. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by 2 CFR Part 200, Subpart F — Audit Requirements. An audit conducted by the State of Florida Auditor General in accordance with the provisions of 2 CFR Part 200, Subpart F — Audit Requirements, will meet the requirements of this part.

ii. In connection with the audit requirements, the Agency shall fulfill the requirements relative to the auditee responsibilities as provided in 2 CFR Part 200, Subpart F — Audit Requirements.

iii. In the event the Agency expends less than the threshold established by 2 CFR Part 200, Subpart F – Audit Requirements, in Federal awards, the Agency is exempt from Federal audit requirements for that fiscal year. However, the Agency must provide a single audit exemption statement to the Department at FDOTSingleAudit@dot.state.fl.us no later than nine months after the end of the Agency's audit period for each applicable audit year. In the event the Agency expends less than the threshold established by 2 CFR Part 200, Subpart F – Audit Requirements, in Federal awards in a fiscal year and elects to have an audit conducted in accordance with the provisions of 2 CFR Part 200, Subpart F – Audit Requirements, the cost of the audit must be paid from non-Federal resources (*i.e.*, the cost of such an audit must be paid from the Agency's resources obtained from other than Federal entities).

iv. The Agency must electronically submit to the Federal Audit Clearinghouse (FAC) at https://harvester.census.gov/facweb/ the audit reporting package as required by 2 CFR Part 200, Subpart F – Audit Requirements, within the earlier of 30 calendar days after receipt of the auditor's report(s) or nine months after the end of the audit period. The FAC is the repository of record for audits required by 2 CFR Part 200, Subpart F – Audit Requirements. However, the Department requires a copy of the audit reporting package also be submitted to FDOTSingleAudit@dot.state.fl.us within the earlier of 30 calendar days after receipt of the auditor's report(s) or nine months after the end of the audit period as required by 2 CFR Part 200, Subpart F – Audit Requirements.

v. Within six months of acceptance of the audit report by the FAC, the Department will review the Agency's audit reporting package, including corrective action plans and management letters, to the extent necessary to determine whether timely and appropriate action on all deficiencies has been taken pertaining to the Federal award provided through the Department by this Agreement. If the Agency fails to have an audit conducted in accordance with 2 CFR Part 200, Subpart F – Audit Requirements, the Department may impose additional conditions to remedy noncompliance. If the Department determines that noncompliance cannot be remedied by imposing additional conditions, the Department may take appropriate actions to enforce compliance, which actions may include but not be limited to the following:

1. Temporarily withhold cash payments pending correction of the deficiency by the Agency or more severe enforcement action by the Department;
2. Disallow (deny both use of funds and any applicable matching credit for) all or part of the cost of the activity or action not in compliance;
3. Wholly or partly suspend or terminate the Federal award;
4. Initiate suspension or debarment proceedings as authorized under 2 CFR Part 180 and Federal awarding agency regulations (or in the case of the Department, recommend such a proceeding be initiated by the Federal awarding agency);
5. Withhold further Federal awards for the Project or program;
6. Take other remedies that may be legally available.

vi. As a condition of receiving this Federal award, the Agency shall permit the Department, or its designee, the CFO or State of Florida Auditor General access to the Agency's records including financial statements, the independent auditor's working papers and project records as necessary. Records related to unresolved audit findings, appeals or litigation shall be retained until the action is complete or the dispute is resolved.

vii. The Department's contact information for requirements under this part is as follows:

Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0450
FDOTSingleAudit@dot.state.fl.us

2. State Funded

a) In addition to reviews of audits conducted in accordance with Section 215.97, Florida Statutes, monitoring procedures to monitor the Agency's use of state financial assistance may include but not be limited to on-site visits by Department staff and/or other procedures including, reviewing any required performance and financial reports, following up, ensuring corrective action, and issuing management decisions on weaknesses found through audits when those findings pertain to state financial assistance awarded through the Department by this Agreement. By entering into this Agreement, the Agency agrees to comply and cooperate fully with any monitoring procedures/processes deemed appropriate by the Department. The Agency further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Department, the Department of Financial Services (DFS) or State of Florida Auditor General.

b) The Agency, a nonstate entity as defined by Section 215.97(2)(m), Florida Statutes, as a recipient of state financial assistance awarded by the Department through this Agreement is subject to the following requirements:

i. In the event the Agency meets the audit threshold requirements established by Section 215.97, Florida Statutes, the Agency must have a State single or project-specific audit conducted for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. Exhibit A,B,C,D to this Agreement indicates state financial assistance awarded through the Department by this Agreement needed by the Agency to further comply with the requirements of Section 215.97, Florida Statutes. In determining the state financial assistance expended in a fiscal year, the Agency shall consider all sources of state financial assistance, including state financial assistance received from the Department by this Agreement, other state agencies and other nonstate entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a nonstate entity for Federal program matching requirements.

ii. In connection with the audit requirements, the Agency shall ensure that the audit complies with the requirements of Section 215.97(8), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2)(e), Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.

iii. In the event the Agency does not meet the audit threshold requirements established by Section 215.97, Florida Statutes, the Agency is exempt for such fiscal year from the state single audit requirements of Section 215.97, Florida Statutes. However, the Agency must provide a single audit exemption statement to the Department at FDOTSingleAudit@dot.state.fl.us no later than nine months after the end of the Agency's audit period for each applicable audit year. In the event the Agency does not meet the audit threshold requirements established by Section 215.97, Florida Statutes, in a fiscal year and

elects to have an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, the cost of the audit must be paid from the Agency's resources (*i.e.*, the cost of such an audit must be paid from the Agency's resources obtained from other than State entities).

iv. In accordance with Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, copies of financial reporting packages required by this Agreement shall be submitted to:

Florida Department of Transportation
Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0405
FDOTSingleAudit@dot.state.fl.us

And

State of Florida Auditor General
Local Government Audits/342
111 West Madison Street, Room 401
Tallahassee, FL 32399-1450
Email: flaudgen localgovt@aud.state.fl.us

v. Any copies of financial reporting packages, reports or other information required to be submitted to the Department shall be submitted timely in accordance with Section 215.97, Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.

vi. The Agency, when submitting financial reporting packages to the Department for audits done in accordance with Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date the reporting package was delivered to the Agency in correspondence accompanying the reporting package.

vii. Upon receipt, and within six months, the Department will review the Agency's financial reporting package, including corrective action plans and management letters, to the extent necessary to determine whether timely and appropriate corrective action on all deficiencies has been taken pertaining to the state financial assistance provided through the Department by this Agreement. If the Agency fails to have an audit conducted consistent with Section 215.97, Florida Statutes, the Department may take appropriate corrective action to enforce compliance.

viii. As a condition of receiving state financial assistance, the Agency shall permit the Department, or its designee, DFS or the Auditor General access to the Agency's records including financial statements, the independent auditor's working papers and project records as necessary. Records related to unresolved audit findings, appeals or litigation shall be retained until the action is complete or the dispute is resolved.

3. The Agency shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of five years from the date the audit report is issued and shall allow the Department, or its designee, DFS or State of Florida Auditor General access to such records upon request. The Agency shall ensure that the audit working papers are made available to the Department, or its designee, DFS or State of Florida Auditor General upon request for a period of five years from the date the audit report is issued unless extended in writing by the Department.

6.60 Insurance. Execution of this Agreement constitutes a certification that the Agency has and will maintain the ability to repair or replace any Project equipment or facilities in the event of loss or damage due to any accident or casualty for the useful life of such equipment or facilities. In the event of the loss of such equipment or facilities, the Agency shall either replace the equipment or facilities or reimburse the Department to the extent of its interest in the lost equipment or facility. The Department may waive or modify this section as appropriate.

7.00 Requisitions and Payments:

7.10 Action by the Agency. In order to obtain any Department funds, the Agency shall file with the Department of Transportation, District Four Public Transportation Office 3400 W Commercial Blvd, Fort Lauderdale, FL, 33309, its requisition on a form or forms prescribed by the Department, and any other data pertaining to the Project account (as defined in Paragraph 6.10 hereof) to justify and support the payment requisitions.

7.11 Deliverables. The Agency shall provide the following quantifiable, measurable and verifiable units of deliverables as established in Exhibit "A." Each deliverable must specify the required minimum level of service to be performed and the criteria for evaluating successful completion.

7.12 Invoices. Invoices for fees or other compensation for services or expenses shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof, based on the quantifiable, measurable and verifiable units of deliverables as established in Exhibit "A." Deliverables must be received and accepted in writing by the Department's Project Manager prior to payments.

7.13 Supporting Documentation. Supporting documentation must establish that the deliverables were received and accepted in writing by the Department and that the required minimum level of service to be performed based on the criteria for evaluating successful completion as specified in Section 2.00 and Exhibit "A" has been met.

7.14 Travel Expenses. Invoices for any travel expenses by the Agency shall be submitted in accordance with Section 112.061, Florida Statutes, and shall be submitted on the Department's Contractor ***Travel Form No. 300-000-06***. The Department may establish rates lower than the maximum provided in Chapter 112.061, Florida Statutes.

7.15 Property Acquisition. For real property acquired, submit:

a) The date the Agency acquired the real property.
b) A statement by the Agency certifying that the Agency has acquired said real property, and actual consideration paid for real property.
c) A statement by the Agency certifying that the appraisal and acquisition of the real property together with any attendant relocation of occupants was accomplished in compliance with all federal laws, rules and procedures required by any federal oversight agency and with all state laws, rules and procedures that may apply to the Agency acquiring the real property.

7.20 The Department's Obligations. Subject to other provisions of this Agreement, the Department will honor requests for reimbursement to the Agency pursuant to this Agreement. However, notwithstanding any other provision of this Agreement, the Department may elect by notice in writing not to make a payment if:

a) The Agency shall have made misrepresentation of a material nature in its application, or any supplement or amendment to its application, or with respect to any document or data furnished with its application or pursuant to this Agreement;
b) There is any pending litigation with respect to the performance by the Agency of any of its duties or obligations which may jeopardize or adversely affect the Project, the Agreement, or payments to the Project;
c) The Agency shall have taken any action pertaining to the Project which, under this Agreement, requires the approval of the Department or has made related expenditures or incurred related obligations without having been advised by the Department that same are approved;
d) There has been any violation of the conflict of interest provisions contained in this Agreement;
e) The Agency has been determined by the Department to be in default under any of the provisions of the Agreement; or
f) Any federal agency providing federal financial assistance to the Project suspends or terminates federal financial assistance to the Project. In the event of suspension or termination of federal financial assistance, the Agency will reimburse the Department for all disallowed costs, including any and all federal financial assistance as detailed in Exhibit "B."

7.30 Disallowed Costs. In determining the amount of the payment, the Department will exclude all Project costs incurred by the Agency prior to the effective date of this Agreement, after the expiration date of this Agreement, costs which are not provided for in the latest approved scope and budget for the Project, costs attributable to goods or services received under a contract or other arrangements which have not been approved by the Department, and costs invoiced prior to receipt of annual notification of fund availability.

7.40 Payment Offset. If, after Project completion, any claim is made by the Department resulting from an audit or for work or services performed pursuant to this Agreement, the Department may offset such amount from payments due for work or services done under any public transportation joint participation agreement which it has with the Agency owing such amount if, upon demand, payment of the amount is not made within sixty (60) days to the Department. Offsetting amounts shall not be considered a breach of contract by the Department.

8.00 Termination or Suspension of Project:

8.10 Termination or Suspension Generally. If the Agency abandons or, before completion, finally discontinues the Project; or for any other reason, the commencement, prosecution, or timely completion of the Project by the Agency is rendered improbable, infeasible, impossible, or illegal, the Department will, by written notice to the Agency, suspend any or all of its obligations under this Agreement until such time as the event or condition resulting in such suspension has ceased or been corrected, or the Department may terminate any or all of its obligations under this Agreement.

8.11 Action Subsequent to Notice of Termination or Suspension. Upon receipt of any final termination or suspension notice under this Section 8, the Agency shall proceed promptly to carry out the actions required in such notice, which may include any or all of the following: (1) necessary action to terminate or suspend, as the case may be, Project activities and contracts and such other action as may be required or desirable to keep to the minimum the costs upon the basis of which the financing is to be computed; (2) furnish a statement of the Project activities and contracts, and other undertakings the cost of which are otherwise includable as Project costs; and, (3) remit to the Department such portion of the financing and any advance payment previously received as is determined by the Department to be due under the provisions of the Agreement. The termination or suspension shall be carried out in conformity with the latest schedule, plan, and budget as approved by the Department or upon the basis of terms and conditions imposed by the Department upon the failure of the Agency to furnish the schedule, plan, and budget within a reasonable time. The approval of a remittance by the Agency or the closing out of federal financial participation in the Project shall not constitute a waiver of any claim which the Department may otherwise have arising out of this Agreement.

8.12 Access to Documents and Materials. The Department reserves the right to unilaterally cancel this Agreement for refusal by the Agency, contractor, sub-contractor, or materials vendor to comply with the provisions of Chapter 119, Florida Statutes.

9.00 Audit and Inspection. The Agency shall permit, and shall require its contractors to permit, the Department's authorized representatives to inspect all work, materials, payrolls, records; and to audit the books, records and accounts pertaining to the financing and development of the Project.

10.00 Contracts of the Agency:

10.10 Third Party Agreements. The Department specifically reserves the right to review and approve any and all third party contracts with respect to the Project before the Agency executes or obligates itself in any manner requiring the disbursement of Department funds, including consultant, purchase of commodities contracts or amendments thereto. If the Department chooses to review and approve third party contracts for this Project and the Agency fails to obtain such approval, that shall be sufficient cause for nonpayment by the Department as provided in Section 7.20(c). The Department specifically reserves unto itself the right to review the qualifications of any consultant or contractor and to approve or disapprove the employment of the same. If Federal Transit Administration (FTA) funds are used in the Project, the Department must exercise the right to third party contract review.

10.20 Procurement of Personal Property and Services:

10.21 Compliance with Consultants' Competitive Negotiation Act. It is understood and agreed by the parties to this Agreement that participation by the Department in a project with an Agency, where said project involves a consultant contract for engineering, architecture or surveying services, is contingent on the Agency complying in full with provisions of Chapter 287.055, Florida Statutes, Consultants' Competitive Negotiation Act, the federal Brooks Act, 23 CFR 172, and 23 U.S.C. 112.. At the discretion of the Department, the Agency will involve the Department in the Consultant Selection Process for all projects funded under this Agreement. In all cases, the Agency's Attorney shall certify to the Department that selection has been accomplished in compliance with Chapter 287.055, Florida Statutes, the Consultants' Competitive Negotiation Act and the federal Brooks Act.

10.22 Procurement of Commodities or Contractual Services. It is understood and agreed by the parties hereto that participation by the Department in a project with an Agency, where said project involves the purchase of commodities or contractual services or the purchasing of capital equipment or the constructing and equipping of facilities, which includes engineering, design, and/or construction activities, where purchases or costs exceed the Threshold Amount for CATEGORY TWO per Chapter 287.017, Florida Statutes, is contingent on the Agency complying in full with the provisions of Chapter 287.057, Florida Statutes. The Agency's Attorney shall certify to the Department that the purchase of commodities or contractual services has been accomplished in compliance with Chapter 287.057, Florida Statutes. It shall be the sole responsibility of the Agency to ensure that any obligations made in accordance with this Section comply with the current threshold limits. Contracts, purchase orders, task orders, construction change orders, or any other agreement that would result in exceeding the current budget contained in Exhibit "B", or that is not consistent with the Project description and scope of services contained in Exhibit "A" must be approved by the Department prior to Agency execution. Failure to obtain such approval, and subsequent execution of an amendment to the Agreement if required, shall be sufficient cause for nonpayment by the Department as provided in Section 7.20(c).

10.30 Disadvantaged Business Enterprise (DBE) Policy and Obligation. It is the policy of the Department that DBE's, as defined in 49 CFR Part 26, as amended, shall have the opportunity to participate in the performance of contracts financed in whole or in part with Department funds under this Agreement. The DBE requirements of applicable federal and state laws and regulations apply to this Agreement.

The Agency and its contractors agree to ensure that DBE's have the opportunity to participate in the performance of this Agreement. In this regard, all recipients and contractors shall take all necessary and reasonable steps in accordance

with applicable federal and state laws and regulations to ensure that the DBE's have the opportunity to compete for and perform contracts. The Agency and its contractors and subcontractors shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts, entered pursuant to this Agreement.

10.40 Procurement of Construction Services. If the Project is procured pursuant to Chapter 255 for construction services and at the time of the competitive solicitation for the Project 50 percent or more of the cost of the Project is to be paid from state-appropriated funds, then the Agency must comply with the requirements of Section 255.099(1), Florida Statutes.

11.00 Restrictions, Prohibitions, Controls, and Labor Provisions:

11.10 Equal Employment Opportunity. In connection with the carrying out of any project, the Agency shall not discriminate against any employee or applicant for employment because of race, age, creed, color, sex or national origin. The Agency will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, age, creed, color, sex, or national origin. Such action shall include, but not be limited to, the following: Employment upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Agency shall insert the foregoing provision modified only to show the particular contractual relationship in all its contracts in connection with the development or operation of the Project, except contracts for standard commercial supplies or raw materials, and shall require all such contractors to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials. When the Project involves installation, construction, demolition, removal, site improvement, or similar work, the Agency shall post, in conspicuous places available to employees and applicants for employment for Project work, notices to be provided by the Department setting forth the provisions of the nondiscrimination clause.

11.20 Title VI - Civil Rights Act of 1964. Execution of this Agreement constitutes a certification that the Agency will comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, et seq.), the Regulations of the Federal Department of Transportation issued thereunder, and the assurance by the Agency pursuant thereto.

11.30 Title VIII - Civil Rights Act of 1968. Execution of this Agreement constitutes a certification that the Agency will comply with all the requirements imposed by Title VIII of the Civil Rights Act of 1968 (42 U.S.C. 3601, et seq.), which among other things, prohibits discrimination in employment on the basis of race, color, national origin, creed, sex, and age.

11.40 Americans with Disabilities Act of 1990 (ADA). Execution of this Agreement constitutes a certification that the Agency will comply with all the requirements imposed by the ADA (42 U.S.C. 12102, et seq.), the regulations of the federal government issued thereunder, and the assurance by the Agency pursuant thereto.

11.50 Prohibited Interests. The Agency shall not enter into a contract or arrangement in connection with the Project or any property included or planned to be included in the Project, with any officer, director or employee of the Agency, or any business entity of which the officer, director or employee or the officer's, director's or employee's spouse or child is an officer, partner, director, or proprietor or in which such officer, director or employee or the officer's, director's or employee's spouse or child, or any combination of them, has a material interest.

a) "Material Interest" means direct or indirect ownership of more than 5% of the total assets or capital stock of any business entity.
b) The Agency shall not enter into any contract or arrangement in connection with the Project or any property included or planned to be included in the Project, with any person or entity who was represented before the

Agency by any person who at any time during the immediately preceding two (2) years was an officer, director or employee of the Agency.

c) The provisions of this subsection shall not be applicable to any agreement between the Agency and its fiscal
depositories, any agreement for utility services the rates for which are fixed or controlled by the government, or any agreement between the Agency and an agency of state government.

11.60 Interest of Members of, or Delegates to, Congress or Legislature. No member or delegate to the Congress of the United States, or the State of Florida legislature, shall be admitted to any share or part of the Agreement or any benefit arising therefrom.

12.00 Miscellaneous Provisions:

12.10 Environmental Regulations. Execution of this Agreement constitutes a certification by the Agency that the Project will be carried out in conformance with all applicable environmental regulations including the securing of any applicable permits. The Agency will be solely responsible for any liability in the event of non-compliance with applicable environmental regulations, including the securing of any applicable permits, and will reimburse the Department for any loss incurred in connection therewith.

12.20 Department Not Obligated to Third Parties. The Department shall not be obligated or liable hereunder to any party other than the Agency.

12.30 When Rights and Remedies Not Waived. In no event shall the making by the Department of any payment to the Agency constitute or be construed as a waiver by the Department of any breach of covenant or any default which may then exist, on the part of the Agency, and the making of such payment by the Department while any such breach or default shall exist shall in no way impair or prejudice any right or remedy available to the Department with respect to such breach or default.

12.40 Severability. If any provision of this Agreement is held invalid, the remainder of this Agreement shall not be affected. In such an instance the remainder would then continue to conform to the terms and requirements of applicable law.

12.50 Bonus or Commission. By execution of the Agreement the Agency represents that it has not paid and, also, agrees not to pay, any bonus or commission for the purpose of obtaining an approval of its application for the financing hereunder.

12.60 State or Territorial Law. Nothing in the Agreement shall require the Agency to observe or enforce compliance with any provision thereof, perform any other act or do any other thing in contravention of any applicable State law: Provided, that if any of the provisions of the Agreement violate any applicable State law, the Agency will at once notify the Department in writing in order that appropriate changes and modifications may be made by the Department and the Agency to the end that the Agency may proceed as soon as possible with the Project.

12.70 Use and Maintenance of Project Facilities and Equipment. The Agency agrees that the Project facilities and equipment will be used by the Agency to provide or support public transportation for the period of the useful life of such facilities and equipment as determined in accordance with general accounting principles and approved by the Department. The Agency further agrees to maintain the Project facilities and equipment in good working order for the useful life of said facilities or equipment.

12.71 Property Records. The Agency agrees to maintain property records, conduct physical inventories and develop control systems as required by 49 CFR Part 18, when applicable.

12.80 Disposal of Project Facilities or Equipment. If the Agency disposes of any Project facility or equipment during its useful life for any purpose except its replacement with like facility or equipment for public transportation use, the Agency will comply with the terms of 49 CFR Part 18 relating to property management standards. The Agency agrees to remit to the Department a proportional amount of the proceeds from the disposal of the facility or equipment. Said proportional amount shall be determined on the basis of the ratio of the Department financing of the facility or equipment as provided in this Agreement. The Agency must remit said proportional amount to the Department within one (1) year after the official date of disposal.

12.90 Contractual Indemnity. Insurance and indemnification provisions and liability for services performed under this Agreement shall be governed in accordance with the terms and conditions of the Operating Agreement entered into June 13, 2013 between SFRTA and the Department.

13.00 Plans and Specifications. In the event that this Agreement involves the purchasing of capital equipment or the constructing and equipping of facilities, where plans and specifications have been developed, the Agency shall provide an Engineer's Certification that certifies Project compliance as listed below, or in Exhibit "C" if applicable. For the plans, specifications, construction contract documents, and any and all other engineering, construction, and contractual documents produced by the Engineer, hereinafter collectively referred to as "plans", the Agency will certify that:

a) All plans comply with federal, state, and professional standards as well as minimum standards established by the Department as applicable;
b) The plans were developed in accordance with sound engineering and design principles, and with generally accepted professional standards;
c) The plans are consistent with the intent of the Project as defined in Exhibits "A" and "B" of this Agreement as well as the Scope of Services; and
d) The plans comply with all applicable laws, ordinances, zoning and permitting requirements, public notice requirements, and other similar regulations.

Notwithstanding the provisions of this paragraph, the Agency, upon request by the Department, shall provide plans and specifications to the Department for review and approvals.

14.00 Project Completion, Agency Certification. The Agency will certify in writing on or attached to the final invoice, that the Project was completed in accordance with applicable plans and specifications, is in place on the Agency facility, that adequate title is in the Agency and that the Project is accepted by the Agency as suitable for the intended purpose.

15.00 Appropriation of Funds:

15.10 Contingency of Payment. The State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature. If the Department's funding for this Project is in multiple fiscal years, funds approval from the Department's Comptroller must be received each fiscal year prior to costs being incurred. See Exhibit "B" for funding levels by fiscal year. Project costs utilizing these fiscal year funds are not eligible for reimbursement if incurred prior to funds approval being received. The Department will notify the Agency, in writing, when funds are available.

15.20 Multi-Year Commitment. In the event this Agreement is in excess of $25,000 and has a term for a period of more than one (1) year, the provisions of Chapter 339.135(6)(a), Florida Statutes, are hereby incorporated:

> "The Department, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department shall require a statement from the comptroller of the Department that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding 1 year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verbatim in all contracts of the Department which are for an amount in excess of $25,000 and which have a term for a period of more than 1 year."

16.00 Expiration of Agreement. The Agency agrees to complete the Project on or before June 30, 2019. If the Agency does not complete the Project within this time period, this Agreement will expire unless an extension of the time period is requested by the Agency and granted in writing by the Department prior to expiration of this Agreement. Expiration of this Agreement will be considered termination of the Project and the procedure established in Section 8.00 of this Agreement shall be initiated. The cost of any work performed after the expiration date of this Agreement will not be reimbursed by the Department.

16.10 Final Invoice. The Agency must submit the final invoice on this Project to the Department within 120 days after the expiration of this Agreement.

17.00 Agreement Format. All words used in this Agreement in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

18.00 Execution of Agreement. This Agreement may be simultaneously executed in a minimum of two counterparts, each of which so executed shall be deemed to be an original, and such counterparts together shall constitute one in the same instrument.

19.00 Restrictions on Lobbying:

19.10 Federal. The Agency agrees that no federally-appropriated funds have been paid, or will be paid by or on behalf of the Agency, to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan or cooperative agreement.

If any funds other than federally-appropriated funds have been paid by the Agency to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

The Agency shall require that the language of this section be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

19.20 State. No funds received pursuant to this Agreement may be expended for lobbying the Legislature, the judicial branch or a state agency.

20.00 Vendors Rights. The Agency providing goods and services to the Department should be aware of the following time frames:

a) The Department has 20 days to deliver a request for payment (voucher) to DFS. The 20 days are measured from the latter of the date the invoice is received or the date the goods or services are received, inspected, and approved. Approval and inspection of goods or services shall take no longer than 20 days following the receipt of a complete and accurate invoice.

b) If a payment is not available within 40 days, then a separate interest penalty at a rate established pursuant to ***Section 55.03(1), Florida Statutes***, will be due and payable, in addition to the invoice amount, to the Agency. The 40 days are measured from the latter of the date the invoice is received or the date the goods or services are received, inspected, and approved. Interest penalties of less than one (1) dollar will not be enforced unless the Agency requests payment. Invoices that have to be returned to the Agency because of Agency preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department. A Vendor Ombudsman has been established within DFS. The duties of this individual include acting as an advocate for Agencies who may be experiencing problems in obtaining timely payment(s) from the Department. The Vendor Ombudsman may be contacted at (850) 413-5516.

21.00 Restrictions, Prohibits, Controls, and Labor Provisions. During the performance of this Agreement, the Agency agrees as follows, and shall require the following provisions to be included in each contract and subcontract entered into pursuant to this Agreement:

a) A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

b) In accordance with Section 287.134, Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

c) An entity or affiliate who has had its Certificate of Qualification suspended, revoked, denied or have further been determined by the Department to be a non-responsible contractor may not submit a bid or perform work for the construction or repair of a public building or public work on a contract with the Agency.

d) Neither the Agency nor any of its contractors or their subcontractors shall enter into any contract, subcontract or arrangement in connection with the Project or any property included or planned to be included in the Project in which any member, officer or employee of the Agency or the locality during tenure or for two (2) years thereafter has any interest, direct or indirect. If any such present or former member, officer or employee involuntarily acquires or had acquired prior to the beginning of tenure any such interest, and if such interest is immediately disclosed to the Agency, the Agency, with prior approval of the Department, may waive the prohibition contained in this paragraph provided that any such present member, officer or employee shall not participate in any action by the Agency or the locality relating to such contract, subcontract or arrangement. The Agency shall insert in all contracts entered into in connection with the Project or any property included or planned to be included in any Project, and shall require its contractors to insert in each of their subcontracts, the following provision:

> "No member, officer or employee of the Agency or of the locality during his tenure or for 2 years thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof."

The provisions of this paragraph shall not be applicable to any agreement between the Agency and its fiscal depositories or to any agreement for utility services the rates for which are fixed or controlled by a governmental agency.

23.00 Employment Eligibility (Using E-Verify). Agency/Vendors/Contractors:

a) Shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Agency during the term of the Agreement; and
b) Shall expressly require any contractors and subcontractors performing work or providing services pursuant to the Agreement to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the contractor or subcontractor during the Agreement term.

24.00 Inspector General Cooperation. The Parties agree to comply with Section 20.055(5), Florida Statutes, and to incorporate in all subcontracts the obligation to comply with Section 20.055(5), Florida Statutes.

25.00 Maintenance of Project. The Agency agrees to maintain any project not on the State Highway System constructed under this Agreement.

26.00 Federal Grant Number. If the Federal grant number is not available prior to execution of the Agreement, the Department may unilaterally add the Federal grant number to the Agreement without approval of the Agency and without an amendment to the Agreement. If this occurs, an updated Agreement that includes the Federal grant number will be provided to the Agency and uploaded to the Department of Financial Services' Florida Accountability Contract Tracking System (FACTS).

PUBLIC TRANSPORTATION
JOINT PARTICIPATION AGREEMENT

IN WITNESS WHEREOF, the parties hereto have caused these presents be executed, the day and year first above written.

AGENCY	DEPARTMENT
South Florida Regional Transportation Authority AGENCY NAME	DEPARTMENT OF TRANSPORTATION
SIGNATORY (PRINTED OR TYPED)	TITLE Director of Transportation Development
SIGNATURE	LEGAL REVIEW, DEPARTMENT OF TRANSPORTATION
TITLE	See attached Encumbrance Form for date of Funding Approval by Comptroller

FINANCIAL PROJECT No. 430458-1-94-01
Contract No._____
Agreement Date

EXHIBIT "A"
PROJECT DESCRIPTION AND RESPONSIBILITIES

This exhibit forms an integral part of that certain Joint Participation Agreement between the State of Florida, Department of Transportation and South Florida Regional Transportation Authority, 800 NW 33rd Street, Suite 100, Pompano Beach, FL 33064 referenced by the above Financial Project Number.

PROJECT LOCATION:

Boca Raton, FL

PROJECT DESCRIPTION:

SFRTA is adding a new station to its current route along the SFRC. It is part of the local (all stop) service running 50 trips per weekday and 30 per weekend day between Mangonia Park and Miami International Airport.

The new station south of Glades Road in Boca Raton would be situated at MP 994.7 approximately 2 miles south of the existing Boca Raton Station at Yamato Road (MP 992.7) and approximately 3.7 miles north of the Deerfield Beach Station (MP 998.4).

SCOPE OF SERVICES:

Categorical Exclusion including Metropolitan Planning and Air Quality ;Conformity Zoning Traffic Impacts, CO Hot Spots, Historic Resources, Noise Vibration, Acquisitions, and Relocations Required, Hazardous Materials, Community Disruption and Environmental Justice, Use of Public Parkland and Recreation Areas, Impacts on Wetlands, Floodplain Impacts, Impacts on Water Quality, Navigable Waterways, and Coastal Zones, Impacts on Ecologically-Sensitive Areas and Endangered Species, Impacts on Safety and Security, Impacts Caused by Construction and Public Involvement.

Conceptual Site Plan to include Potential Construction Staging Area, Limits of Construction; Vehicle Circulation Patterns, Bus Bay, Drop Off Areas, Taxi Staging Area, Pedestrian and ADA Accessible Routes, Lighting Signing, and Security Monitoring. Life Cycle Cost Analysis of the Economic Feasibility for the Proposed Use of Photo-Voltaic Panels for On-site Electrical Power Generation.

100% Design Plans to include Architectural, Civil Engineering, Landscape, Structural, Detailed Cost Estimate, Drainage/Permitting, Storm water Treatment and Attenuation Design, Drainage Report, Utility Plans and coordination, Geotechnical, Surveying, Topography, Solar Panel Design, Right of Way Mapping, Coordination Meetings, Design for LEED Certification and all Necessary Disciplines

SPECIAL CONSIDERATIONS BY AGENCY:

The audit report(s) required in paragraph 6.50 of the Agreement shall include a schedule of project assistance that will reflect the Department's contract number, Financial Project Number and the Federal Identification number, where applicable, and the amount of state funding action (receipt and disbursement of funds) and any federal or local funding action and the funding action from any other source with respect to the project.

SPECIAL CONSIDERATIONS BY DEPARTMENT:

The funding for this Joint participation Agreement (JPA) will be used for the National Environmental Policy Act (NEPA) consistent with the provisions for a Probable Categorical Exclusion (CE) identified in the Federal Transit Administration's (FTA) guidelines; and the production of 100% design plans and specifications package. No work performed beyond the project scope will be reimbursed unless a supplemental agreement is entered into between the parties prior to the performance of such work.

DELIVERABLES BY AGENCY:

1. For invoicing –
   a) Submit an invoice on the project every three (3) months. Please include three (3) hard copies of the back-up and three (3) original Invoice Summary Sheets.
   b) Include a detailed project budget with each invoice that delineates the project expenses, clearly defines the expenses associated with the project as it relates to the scope.
   c) Prepare and submit invoices and supporting documents in accordance with Sections 6.0 and 7.0 of this JPA for correct payment provisions through the Department of Transportation.
   d) Supporting documentation for each amount for which reimbursement is being claimed must indicate that the item has been paid.
   e) All invoices must be accompanied by appropriate back-up, including check and/or check numbers that paid the invoice
   f) Contact your Florida Department of Transportation Project Manager with any additional questions before invoicing.
   g) Upon Agency's submittal of final invoice, Department reserves the right to conduct a final walkthrough of the Project prior to payment.

h) The Department reserves the right to conduct inspections on the project progress as needed.

2. A progress report shall be submitted on a monthly basis to the state project manager, identifying the work progress and completion.

FINANCIAL PROJECT NO. 430458-1-94-01

EXHIBIT "B"
PROJECT BUDGET

This exhibit forms an integral part of that certain Joint Participation Agreement between the State of Florida, Department of Transportation and South Florida Regional Transportation Authority, 800 NW 33rd Street, Suite 100, Pompano Beach, FL 33064 referenced by the above Financial Project Number.

PARTICIPATION 430458-1-94-01:	FY2016 / 2017	Total
State Participation:		
GMR Funds	$1,500,000	$1,500,000
PARTICIPATION 430458-2-94-01:	**FY2017 / 2018**	**Total**
State Participation:		
TRIP Funds	0	0
Federal Participation		
SU Funds	0	0
Total		**$1,500,000**

TOTAL PROJECT COST:	**$1,500,000**

Financial Project No. 430458-1-94-01

Contract No. _____

Agreement Date _____

EXHIBIT "C"
(GENERAL - with Safety Requirements)

This exhibit forms an integral part of that certain Joint Participation Agreement between the State of Florida, Department of Transportation and South Florida Regional Transportation Authority 800 NW 33rd Street, Suite 100, Pompano, FL, 33064 referenced by the above Financial Project Number.

Reference statutes as applicable.

Mark the required Safety submittal or provisions for this agreement if applicable.

Safety Requirements

_ Bus Transit System - In accordance with Florida Statute 341.061, and Rule 14-90, Florida Administrative Code, the Agency shall submit, and the Department shall have on file, an annual safety certification that the Agency has adopted and is complying with its adopted System Safety and Security Program Plan pursuant to Rule Chapter 14-90 and has performed annual safety inspections of all buses operated.

_ Fixed Guideway Transportation System - (established) In accordance with Florida Statute 341.061, the Agency shall submit, and the Department shall have on file, annual certification by the Agency of compliance with its System Safety Program Plan, pursuant to Rule Chapter 14-55.

X Fixed Guideway Transportation System - (new) In accordance with Florida Statute 341.061, the Agency shall submit a certification attesting to the adoption of a System Safety Program Plan pursuant to Rule Chapter 14-55. Prior to beginning passenger service operations, the Agency shall submit a certification to the Department that the system is safe for passenger service.

Financial Project No. 430458-1-94-01

Contract No. _____

Agreement Date _____

EXHIBIT "D"

FEDERAL and/or **STATE** resources awarded to the recipient pursuant to this agreement should be listed below. If the resources awarded to the recipient represent more than one Federal or State program, provide the same information for each program and the total resources awarded. **Compliance Requirements** applicable to each Federal or State program should also be listed below. If the resources awarded to the recipient represent more than one program, list applicable compliance requirements for each program in the same manner as shown here:

(e.g., What services or purposes the resources must be used for)
(e.g., Eligibility requirements for recipients of the resources)
(Etc...)

NOTE: Instead of listing the specific compliance requirements as shown above, the State awarding agency may elect to use language that requires the recipient to comply with the requirements of applicable provisions of specific laws, rules, regulations, etc. The State awarding agency, if practical, may want to attach a copy of the specific law, rule, or regulation referred to.

FEDERAL RESOURCES

Federal Agency	Catalog of Federal Domestic Assistance (Number & Title)	Amount

Compliance Requirements

STATE RESOURCES

State Agency	Catalog of State Assistance (Number & Title)	Amount
FDOT (GMR)		$1,500,000

Compliance Requirements

Allowable activities are eligible capital expenses of a New Start project, in accordance with Section 341.051(5)(a). Eligible costs include preliminary engineering, final design, right-of-way acquisition, construction, and acquisition of capital equipment.

Planning is not an allowable activity with regards to New Starts Transit Program funding.

New Start Transit Program may fund up to ½ of the nonfederal share of eligible capital costs, in accordance with Section 341.051(5)(a). Departmental participation in the final design, right-of-way acquisition, and construction of an individual fixed-guideway project which is not approved for federal funding shall not exceed 12.5 percent of the total cost of each phase.

Matching Resources for Federal Programs

Federal Agency	Catalog of Federal Domestic Assistance (Number & Title)	Amount
N/A		$

Compliance Requirements

NOTE: Section .400(d) of OMB Circular A-133, as revised, and Section 215.97(5)(a), Florida Statutes, require that the information about Federal Programs and State Projects included in this exhibit be provided to the recipient.

Tracking No. 09231647 AGENDA ITEM NO. R4

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

SUBRECIPIENT AGREEMENTS WITH THE SOUTH FLORIDA REGIONAL COUNCIL AND TREASURE COAST REGIONAL PLANNING COUNCIL

REQUESTED ACTION:

A. MOTION TO APPROVE: Subrecipient Agreement between the South Florida Regional Transportation Authority (SFRTA) and the South Florida Regional Council (SFRC) for professional services relating to the Federal Transit Administration (FTA) Transit Oriented Development (TOD) Pilot Program.

B. MOTION TO APPROVE: Subrecipient Agreement between the South Florida Regional Transportation Authority (SFRTA) and the Treasure Coast Regional Planning Council (TCRPC) for professional services relating to the FTA TOD Pilot Program.

SUMMARY EXPLANATION AND BACKGROUND:

On September 15, 2015, SFRTA and its partners SFRC and TCRPC were awarded $1,250,000 through the FTA TOD Pilot Program for TOD planning activities on the Tri-Rail Coastal Link (TRCL) Corridor. SFRTA is the grant recipient. The funded activities do not duplicate any pending Project Development work on the TRCL, and have been reviewed and approved by the FTA.

In December 2015, a TOD update to the SFRTA Governing Board provided an overview of the FTA TOD Pilot Program grant.

On September 2, 2016, FTA obligated the TOD Pilot Program grant funds to SFRTA (Exhibit 1). To begin project implementation, SFRTA would like to enter into Subrecipient Agreements with SFRC and TCRPC.

(Continued on Page 2)

Department: Planning & Capital Development Department Director: William L. Cross, P.E.
Project Manager: Lynda Kompelien Westin, AICP Procurement Director: Christopher Bross

FISCAL IMPACT: Funds for the Interlocal Agreements are included in SFRTA's Fiscal Year 2016-17 Capital Improvement Budget.

EXHIBITS ATTACHED:
Exhibit 1 - FTA TOD Pilot Planning Grant
Exhibit 2 - Subrecipient Agreement with the SFRC
Exhibit 3 - Subrecipient Agreement with the TCRPC

SUBRECIPIENT AGREEMENTS WITH THE SOUTH FLORIDA REGIONAL COUNCIL AND TREASURE COAST REGIONAL PLANNING COUNCIL

SUMMARY EXPLANATION AND BACKGROUND: (Continued)

SFRTA has an existing Interlocal Agreement with SFRC and TCRPC for planning support services in the areas of transit-oriented development, land use, and station area planning. As such, they are appropriate partners for this effort. This new agreement funds extensive, additional work not contemplated under the existing interlocal agreement.

Staff recommends approval of the Subrecipient Agreements with SFRC and TCRPC for professional services relating to the FTA TOD Pilot Program (Exhibits 2 and 3).

SUBRECIPIENT AGREEMENTS WITH THE SOUTH FLORIDA REGIONAL COUNCIL AND TREASURE COAST REGIONAL PLANNING COUNCIL

Recommended by: 9/16/16
Department Director Date

Approved by: 9/16/16
Procurement Director Date

Authorized by: 9/16/16
Executive Director Date

Approved as to Form by: 9/16/16
General Counsel Date

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	____Yes ____ No
Commissioner Bruno Barreiro	____Yes ____ No	F. Martin Perry	____ Yes ____ No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	____ Yes ____ No
Frank Frione	____ Yes ____ No	James A. Scott	____ Yes ____ No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	____ Yes ____ No

EXHIBIT 3

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

FTA TOD Pilot Planning Grant: Draft Scope of Work

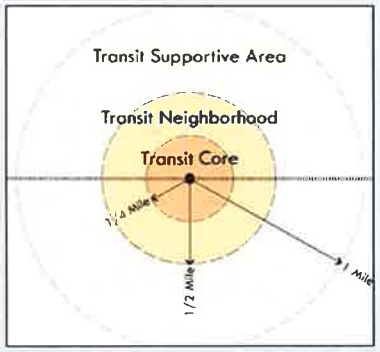
SFRTA Board of Directors
September 23, 2016

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

TOD GRANT OVERVIEW

Request (Nov. 2014):

- $1.8 Million
- $300,000 RPC Cash Match
- $135,000 In-Kind Match



Award (Sep. 2015):

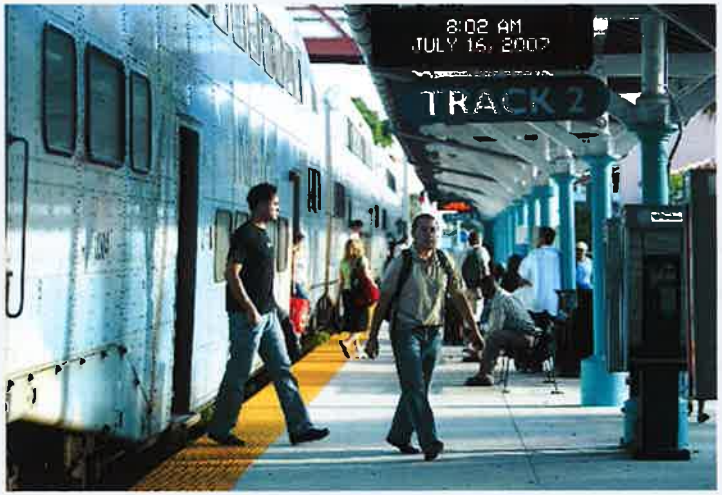
- $1.25 Million
- $218,750 RPC Cash Match
- $ 93,750 In-Kind Match

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

TOD GRANT OVERVIEW

FTA's TOD Pilot Program

- Partnership with SFRC & TCRPC
- TRCL TOD Readiness
  - Station Area Planning & Regulations
  - Station Area Bike/Ped Plan
  - Infrastructure Capacity Analysis
  - Fair Housing Assessment
  - Regional TOD Fund Study



U.S. Department of Transportation
Federal Transit Administration

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Regional TOD Initiatives

South Florida Regional Planning Council

TREASURE COAST TCRPC REGIONAL PLANNING COUNCIL "Bringing Communities Together" · Est. 1976

Under contract since 2005 to support SFRTA's TOD activity.

Agreements:

- Subrecipient Agreements with TCRPC and SFRC

Future RPC Actions:

- Request for Applications from Municipalities for Station Area Planning
- RPC Interlocal Agreements with Station Area Municipalities for Station Area Planning

Current Activity

Downtown Dadeland at
Dadeland South Metrorail Station

Grant Management

- Assigned FM Number
- Completed TIP/STIP Amendment
- Obligated September 1, 2016

FTA Coordination

- Quarterly UPWP Reports

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Next Steps

Source: SFRTA/Gulf Building

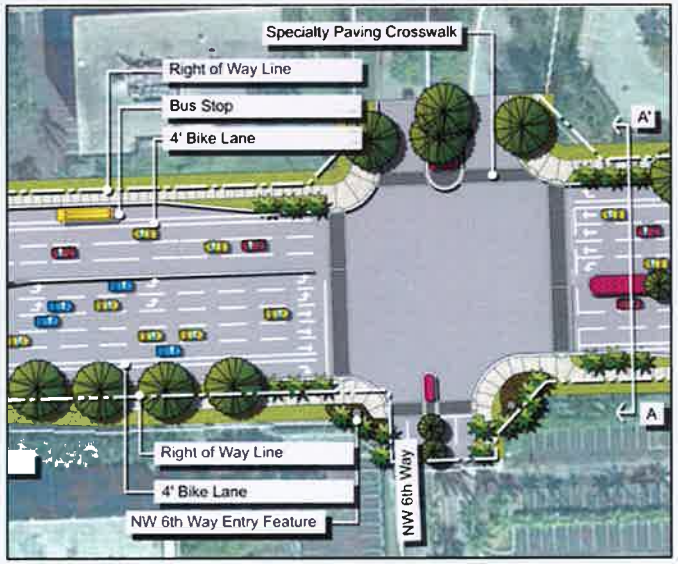
RPC Subrecipient Agreement

- September Board
- RPC Payment Milestones Defined in Scope
- Payment after Subcontractor Payment
- Payment after Cash Match Payments

Station Area Planning

- Lead: TCRPC
- Study Area: 4-5 Station Areas
- Request for Application Process to select participating station areas
- Timeframe: 21 months, sequential
- 4 Bike/Ped Plans concurrently led by SFRC.

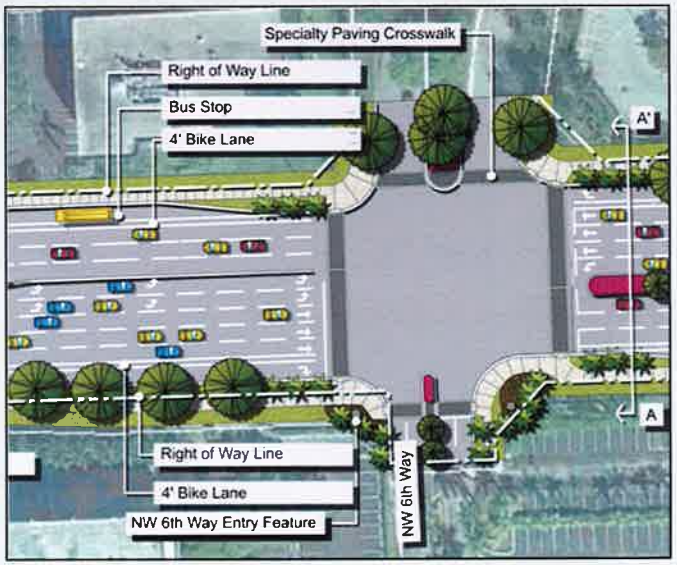
Source: SFRTA (Andrews Ave. Cypress Creek Road)



Station Area Selection Process

- Request for Applications
- Anticipated Release Fall 2016
- Planning Activity Targeted to Local Conditions

Source: SFRTA (Andrews Ave. Cypress Creek Road)



Task 2
Affordable Housing Study

Source: D.R. Horton website

Affordable Housing Study

- Lead: SFRC
- Study Area: TRCL Corridor
- Timeframe: 12 months
- Task: Required element.

Refine and update the Southeast Florida Fair Housing and Equity Assessment.

Source: SFRTA/Tri-Rail

Station Area Bicycle and Pedestrian Plans

- Lead: SFRC
- Study Area: Selected Stations
- Timeframe: 21 months
- Task: Encourage multi-modalism through the creation of Pedestrian and Bicycle Plans for selected station areas.

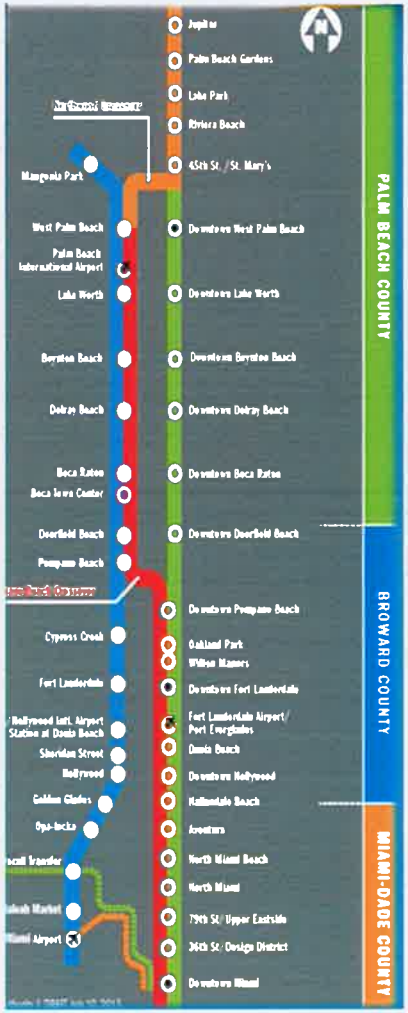
Water and Wastewater Capacity Analysis

- Lead: SFRC
- Study Area: TRCL Corridor
- Timeframe: 12 months
- Task: Conduct an infrastructure capacity analysis to evaluate water and sewer capacity along the TRCL corridor.

Source: City of Fort Lauderdale

Regional TOD Fund Business Plan

- Lead: SFRC
- Study Area: TRCL Corridor
- Timeframe: 12 months
- Task: Evaluate ways to support TOD through creation of a draft business plan for a regional TOD fund.



Task 6
Outreach Community Engagement and Equity

Source: SFRTA/Tri-Rail

Outreach Community Engagement and Equity

- Lead: SFRC
- Study Area: TRCL Corridor
- Timeframe: Throughout Study
- Task: Coordinate public and agency participation, dialogue, and input for the South Florida Regional TOD Pilot Program.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

Station Area Planning

EVALUATION OF MUNICIPAL SELECTION METHODS

(1) Request for Applications (RFA):

- Increased Transparency but Longer Process
- Established Grant Timeframe
- Local Commitments Described in Grant Application
- Locals Identify Needs

(2) Administrative Selection:

- Faster Selection but Less Perceived Transparency
- Flexible Grant Timeframe
- Local Commitment Described in Interlocal Agreement

RECOMMENDATION:

Initiate RFA Process (April/May2016)
Selection of Participating Municipalities (June 2016)

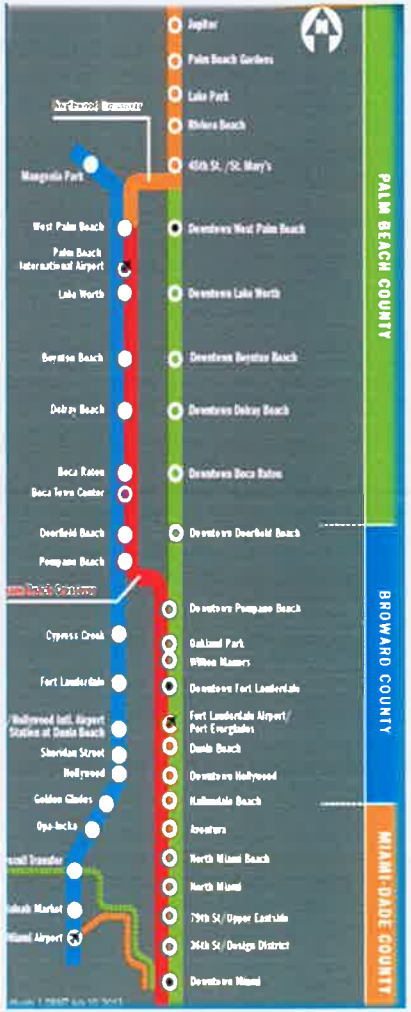


EXHIBIT 2

SUBRECIPIENT AGREEMENT

Subrecipient: South Florida Regional Council		Grant Number: D2015–TODP–0008
Address: 3440 Hollywood Boulevard, Suite 140, Hollywood, FL 33021		
Project Description: South Florida Transit Oriented Development Pilot Project		
Project Activity Period: October 2016 to December 2018		
Estimated Project Amount:	$ 433,312	SFRTA Action
FTA MAP-21 Funds:	$ 340,000	Item No:
Local Match:	$ 93,312	Date:
Federal Grant No:	FL-2016-017-00	
CFDA No. :	20.500	

AGREEMENT

THIS AGREEMENT is made and entered into by and between the South Florida Regional Transportation Authority ("SFRTA") and the South Florida Regional Council ("Subrecipient"), each acting by and through its duly authorized officers.

WHEREAS:

1. SFRTA submitted an application to the Federal Transit Administration ("FTA") for federal grant funds under the FTA's Pilot Program for Transit-Oriented Development (TOD) Planning pursuant to Section 20005(b) of the Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, July 6, 2012, which included the Subrecipient's project as described herein.

2. The FTA's Pilot Program aims to augment FTA's Fixed Guideway Capital Investment Grants (CIG) Program by supporting comprehensive planning associated with new fixed guideway and core capacity improvement projects that will help the projects develop information to address the CIG Program's evaluation criteria and thus be more competitive for that program's funding.

3. SFRTA received grant funds from the FTA under the Pilot Program pursuant to grant number FL-2016-017-00.

4. This Agreement is intended to memorialize the terms under which the Subrecipient is to receive the FTA grant funds.

NOW, THEREFORE, SFRTA and the Subrecipient agree as follows:

ARTICLE I. SUBRECIPIENT WORKSCOPE: APPROVED BUDGET AND MATERIAL REPRESENTATIONS

1.01 Workscope. The Subrecipient agrees to perform and complete in a satisfactory and proper manner the Workscope specified on **Exhibit A** (FTA Grant Information) in accordance with the terms and conditions of this Agreement. The Workscope details the activities to be completed by the Subrecipient and a proposed schedule for the completion of the Workscope. All Workscope activities must be consistent with the approved Workscope and the Approved Budget detailed below. Any proposed change in the Workscope is not effective until the Subrecipient receives written approval from the SFRTA's Project Manager.

1.02 Approved Budget. The Subrecipient agrees to complete the Workscope in accordance with the Approved Budget specified on **Exhibit A**. The Approved Budget details the cost associated with each Workscope activity. Any request for re-budgeting in excess of twenty percent (20%) of the Approved Budget must be in writing and approved in writing by the SFRTA's Project Manager. Re-budgeting of project funds among the existing Approved Budget items of the Workscope are allowable without prior approval if the amount of project funds to be transferred is less than twenty percent (20%) of the Approved Budget. However, re-budgeting to items not in the Workscope is not allowable.

1.03 Material Representations. The Subrecipient agrees that all representations contained in its application for grant assistance are material representations of fact upon which the SFRTA relied in awarding this grant and are incorporated by reference into this Agreement.

ARTICLE II. AUTHORIZED USE OF GRANT AND MATCHING FUNDS; ELIGIBILITY OF COST

2.01. Authorized Use of Grant and Matching Funds. The Subrecipient is only authorized to use the grant funds subject to this Agreement for costs directly incurred for the performance of the Workscope during the Project Activity Period as specified in section 6.01, and in accordance with the Approved Budget.

2.02 Eligibility of costs. All expenses are subject to FTA regulations including:

- *FTA Master Agreement* (22) https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/sample-fta-agreements-october-1-2015
- *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,* 49 CFR Part 18 (http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr18_06.html)
- Urbanized Area Formula Program: Program Guidance and Application Instructions, 49 U.S.C. 5307 (https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FINAL_FTA_circular9030.1E.pdf)
- *Grant Management Requirements,* FTA Circular 5010.1D (http://www.fta.dot.gov/documents/C_5010_1D_Finalpub.pdf)

- *Third Party Contracting Requirements, FTA Circular 4220.1F,* () (See also paragraph 10.05) https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/third-party-contracting-guidance
- *FTA Pilot Program for Transit-Oriented Development Planning Project Selections,* Federal Register Award Notification with Requirements (https://www.gpo.gov/fdsys/pkg/FR-2015-09-15/pdf/2015-23154.pdf)

The Subrecipient acknowledges that the federal requirements in this Article and throughout this Agreement are subject to change and agrees that the most recent of these requirements shall govern this Agreement at any particular time.

The listed documents are incorporated by reference into this Agreement. Copies of these documents are available at the internet websites indicated or, upon request by the Subrecipient, from the SFRTA.

ARTICLE III. GRANT AMOUNT, MATCH AND PAYMENT

3.01 Estimated Project Amount. The total estimated cost of the Workscope is **$433,312** consisting of the Maximum Federal Grant amount and the Subrecipient's required match.

3.02 Maximum Federal Grant Amount. SFRTA awards to the recipient a grant of up to **$340,000** for the Workscope. In no event will SFRTA's obligation under this Agreement exceed the Maximum Federal Grant Amount.

SFRTA shall bear no responsibility for cost overruns that may be incurred by the Subrecipient in performance of the Workscope. If it appears likely that additional funds will be needed to complete the Workscope, the parties will meet to discuss the possibility of amending this Agreement.

3.03 Subrecipient Match. The Subrecipient has an obligation under this Agreement to share in the costs of project by providing a local match from sources other than from FTA funds, i.e. not less than **$93,312** against the Maximum Grant Amount. The cash match will be **$67,812**. The in-kind match will be **$25,500**. The eligibility and use of matching funds shall be governed by applicable federal law, regulations and guidance. If the final expenses for the Workscope exceed the Estimated Project Amount, the Subrecipient is responsible for providing the funds to cover the final costs and expenses.

3.04 Reimbursement. Expenses will be reimbursed by SFRTA based on submission of an invoice from the Subrecipient using form attached hereto as **Exhibit B**. Invoices should be submitted in triplicate on the approved form with the following attachments on each copy:

A. Copies of all receipts for expenses paid during the period; and

B. Monthly Disadvantaged Business Enterprise ("DBE") report for each third party contract using the approved form attached hereto as **Exhibit C** (see section 5.04).

SFRTA shall advise the Subrecipient no later than ten (10) days after receipt of the reimbursement request if the SFRTA requires any additional documentation to process the reimbursement request. If requested by the SFRTA, the Subrecipient shall submit any additional data and information requested by SFRTA to support the Subrecipient's reimbursement request and shall submit any additional data and information that may be required by the federal government for reporting to the FTA.

Upon SFRTA's review and approval of the Subrecipient's request, SFRTA will distribute to the Subrecipient the approved reimbursement amount. The SFRTA's approval of the reimbursement request and the issuance of the funds to the Subrecipient shall occur no later than thirty (30) days after receipt of all documentation necessary to process the reimbursement request. SFRTA may deny part of any reimbursement request if it reasonably believes that it is not a supportable Workscope expense. No reimbursement request will be made which would cause the distribution of grant funds to exceed, cumulatively, through such payment, the limits in Article III. Distribution of any funds or approval of any report is not to be construed as SFRTA's waiver of any Subrecipient noncompliance with this Agreement.

3.05 Repayment of Unauthorized Use of Grant Funds. Upon a finding by SFRTA that the Subrecipient has made an unauthorized or undocumented use of grant funds, and upon a written demand for repayment issued by SFRTA, the Subrecipient shall promptly repay such amounts to SFRTA.

3.06 Reversion of Unexpended Grant Funds. All funds granted by SFRTA under this Agreement that have not been expended for Workscope activities during the Project Activity Period shall revert to SFRTA.

3.07 Grant Contingent on Federal Funding. SFRTA shall not be liable to Subrecipient, its contractors or subcontractors for any claim or expense arising out of or incidental to the FTA's disallowance of any Workscope expense. Subrecipient shall include this language in all contracts with contractors being paid with grant funds provided under this agreement.

ARTICLE IV. ACCOUNTING AND RECORDKEEPING REQUIREMENTS

4.01 Documentation of Workscope Costs. All costs charged to the Workscope, whether paid with grant funds or charged as the Subrecipients's match, must be supported by proper documentation, including properly executed payrolls, time records, invoices, contracts, receipts for expenses, or vouchers, evidencing in detail the nature and propriety of the charges.

4.02 Establishment and Maintenance of Workscope Information. The Subrecipient agrees to establish and maintain accurate, detailed and complete separate book, accounts, financial records, documentation, and other evidence relating to: (a) Subrecipient's match under this Agreement, and (b) the receipt and expenditure of all grant funds. These documents shall include the property records required by Article VIII of this Agreement. The Subrecipient shall establish and maintain all such information in accordance with generally accepted accounting principles and practices and shall retain intact all Workscope information until the latest of:

A. Six (6) years following the term of this Agreement; or

B. If any litigation claims, or audit is commenced during either such period, when all such litigation, claims or audits have resolved.

4.03 Audit. The accounts and records of the parties relating to this Agreement shall be audited in the same manner as all other accounts and records of the Subrecipient are audited. During the time of maintenance of information under paragraph 4.02, authorized representatives of SFRTA, the Legislative Auditor and or State Auditor. The United States Secretary of Transportation, the FTA Administrator, and the United States Comptroller General will have access to all such books, records, documents, accounting practices and procedures, and other information for the purpose of inspection, audit, and copying during normal business hours. The parties will provide facilities for such access and inspection.

ARTICLE V. REPORTING AND MONITORING REQUIREMENTS

5.01 Quarterly Milestone Progress Reports. The Subrecipient shall submit quarterly milestone progress reports to SFRTA. SFRTA shall provide the Subrecipient with an electronic version of the milestone progress report that the Subrecipient must complete. Each quarterly progress report must include a detailed summary of the completed Workscope activities and a report on the Workscope schedule. Both SFRTA and the Subrecipient must approve each quarterly milestone progress report. The Quarterly progress reports are due as follows:

- **January 15 for quarter October 1 – December 31**
- **April 15 for quarter January 1 – March 30**
- **July 15 for quarter April 1 – June 30**
- **October 15 for quarter July 1 – September 30**

5.02 Final Reports. Upon completion of the Workscope and not later than sixty (60) calendar days after the end of the Project Activity Period, the Subrecipient must submit a final progress report and a final financial status report of expenditures for the full Workscope that contains a final accounting of the grant matching expenditures. If outstanding claims related to work occurring during the Project Activity Period still exist sixty (60) days following the end of the Project Activity Period, the submission of the Final Report shall automatically extend until all outstanding claims have been resolved.

5.03 Contents of Reports. The Subrecipient agrees to report completely and to provide SFRTA with any additional or follow-up information as may be requested by SFRTA.

5.04 DBE Reporting Requirements. The Subrecipient shall provide the SFRTA with reports on all DBE activity (see section 10.05 E) for each third party agreement in the form attached hereto as **Exhibit C** and based on the procurement process established for the Subrecipient in the *Federal Transit Administration Master Agreement (22) Section 15 Procurement.* (See section 2.02 for weblink.).

5.05 Other Monitoring Activities. To assist SFRTA in monitoring compliance with this Agreement, the Subrecipient agrees to attend Subrecipient meetings as requested by SFRTA and to permit site visits by SFRTA staff, during business hours, upon reasonable notice. The Subrecipient agrees to submit to SFRTA a copy of any promotional information regarding the Workscope disseminated by the Subrecipient during the term of this Agreement.

5.06 Changed Conditions. The Subrecipient agrees to notify SFRTA immediately of any change in conditions, law, ordinance, or regulation, or any other event that may affect the Subrecipient's ability to perform the Workscope in accordance with the terms of this Agreement.

5.07 Special Reporting Requirements. SFRTA is required to report to the FTA regarding activities. Accordingly, the Subrecipient agrees to provide SFRTA with any additional follow-up information reasonably requested by the SFRTA, in order to meet SFRTA's FTA reporting requirements. Specific reporting requirements are included in the *Federal Transit Administration Master Agreements (22) Section 8 Reporting, Record Retention and Access* (see section 2.02 for weblink).

ARTICLE VI. PROJECT ACTIVITY PERIOD; TERM; TERMINATION

6.01 Project Activity Period. The Subrecipient agrees to complete all Workscope activities during the period from July 1, 2016, to July 31, 2018 ("Project Activity Period"). Grant funds may not be used to reimburse costs for any Workscope activities taking place before the beginning or after the end of the Project Activity Period.

6.02 Term. The term of this Agreement shall extend from the effective date of this Agreement to a date sixty (60) calendar days following the end of the Project Activity Period to permit close out of this Agreement. If outstanding claims related to work occurring during the Project Activity Period still exist sixty (60) calendar days following the end of the Project Activity Period, the Term of this Agreement shall automatically extend for an additional ninety (90) calendar days in order to resolve any and all outstanding claims.

6.03 Termination by SFRTA for Convenience. Termination of this agreement by either party shall be governed by the provisions of the Uniform Administrative Requirements for Grants and Agreements with Institution of Higher Education, Hospitals, and other Non-Profit Organizations, 49 CFR Part 19.

6.04 Effect of Workscope Closeout or Termination. The Subrecipient agrees that Workscope closeout or termination of this Agreement does not invalidate continuing obligations imposed on the Subrecipient by this Agreement. Project closeout or termination of this Agreement does not alter SFRTA's authority to disallow costs and recover funds on the basis of a later audit or other review, and does not alter the Subrecipient's obligation to return any funds to SFRTA as a result of later refunds, corrections, or other transactions.

ARTICLE VII. CONTACT PERSONS; PROJECT MANAGER

7.01 Contact Persons. The authorized contact persons for receipts of notices, reports, invoices and approvals under this Agreement are the following:

SFRTA:
Lynda Kompelien Westin
Transportation Planning Manager, Real Estate
800 NW 33rd St.
Pompano Beach, FL 33064
Phone: 954.788.7923
Email: westinl@sfrta.fl.gov

South Florida Regional Council:
Isabel Cosio Carballo
Executive Director
3440 Hollywood Boulevard, Suite 140
Hollywood, FL 33021
Phone: 954.985-4416
Email: isabelc@sfrpc.com

or such other person as may be designated in writing for itself by either party.

7.02 SFRTA Project Manager. For purposes of administration of the Agreement, the contact person listed in section 7.01, or such other person as may be designated in writing by SFRTA's Executive Director shall be the Project Manager. Nothing, however, in this Agreement will be deemed to authorize SFRTA's Project Manager to execute amendments to this Agreement on behalf of SFRTA.

7.03 Subrecipient Project Manager. For purposes of administration of this Agreement, the contact person listed in section 7.01, or such other person as may be designated in writing by the Subrecipient, shall be the Project Manager. The Subrecipient Project Manager shall coordinate Workscope activity with SFRTA's Project Manager and complete the project manager training provided by the SFRTA to ensure compliance with all federal requirements.

ARTICLE VIII. GRANT PROPERTY

The title, acquisition, use, management, and disposition of all property acquired or constructed with grant funds under this Agreement shall be governed by applicable federal law, rule, and guidance including without limitation, the provisions of:

- *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,* 49 CFR Part 18 (http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr18_06.html)

- *Grant Management Requirements, FTA Circular 5010.1D (http://www.fta.dot.gov/documents/C_5010_1D_Finalpub.pdf)*

The listed documents are incorporated by reference into this Agreement. Copies of these documents are available at the internet websites indicated or, upon request by the Subrecipient, from the SFRTA.

The Subrecipient acknowledges that the federal requirements in this Article and throughout this Agreement are subject to change and agrees that the most recent requirements shall govern the Agreement at any particular time.

ARTICLE IX. GENERAL CONDITIONS

9.01 Amendments. The terms of this Agreement may be changed only by mutual agreement of the parties. Such changes shall be effective only upon the execution of written amendments signed by authorized officers of the parties to this Agreement.

9.02 Assignment Prohibited. The Subrecipient shall not assign, subgrant or transfer any Workscope activities without receiving the express written consent of the SFRTA. The SFRTA may condition such consent on compliance by the Subrecipient with terms and conditions specified by the SFRTA.

9.03 Indemnification. Subject to the limitations contained in Section 768.28, Florida Statutes, the Subrecipient assumes liability for and agrees to defend, indemnify and hold harmless SFRTA, its officers, employees and agents from and against all losses, damages, expense, liability, claims, suits, or demands including, without limitation, attorney's fees, arising out of, resulting from, or relating to the Subrecipient's negligence with respect to the performance of the Grant Project by Subrecipient or Subrecipient's employees, agents or subcontractors. Nothing herein shall constitute a waiver of either party's entitlement to sovereign immunity.

9.04 Workscope Data. The Subrecipient agrees that the results of the Workscope, the reports submitted, and any new information or technology that is developed with the assistance of this grant is in the public domain and may not be copyrighted or patented by Subrecipient. The Subrecipient shall allow public access to all documents, records, reports or other material subject to the applicable provisions for Chapter 119, Florida Statutes, and made or received by the Subrecipient in connection with this Agreement. Failure of Subrecipient to grant such public access may be grounds for termination of the Agreement by SFRTA.

9.05 Nondiscrimination. The Subrecipient shall agree to comply with all applicable laws relating to nondiscrimination and affirmative action. The Subrecipient agrees to not discriminate against employee, applicant for employment, or participant in the Workscope because of race, color, creed, religion, national origin, sex, marital status with regard to public assistance, membership or activity in a local civil rights commission, disability, or age; and further agrees to take action to ensure that applicants and employees are treated equally with respect to all aspects of employment, including selection for training, rates of pay, and other forms of compensation.

9.06 Acknowledgement. The Subrecipient shall appropriately acknowledge the grant assistance made by SFRTA and the FTA under this agreement in any promotional materials, reports, and publications relating to the Workscope.

9.07 Compliance with Law; Obtaining Permits, Licenses, and Authorizations. The Subrecipient agrees to conduct the Workscope in compliance with all applicable provisions of federal and state laws, rules or regulations. The Subrecipient is responsible for obtaining and complying with all federal or state permits, licensed, and authorizations necessary for performing the Workscope.

9.08 Incorporation of Exhibits. All Exhibits attached to this Agreement will be deemed incorporated into this Agreement.

ARTICLE X. GENERAL FEDERAL REQUIREMENTS

10.01 Federal Requirements. The requirements in this Article X are in addition to and, unless inconsistent and irreconcilable, do not supplant requirements found elsewhere in this Agreement. If any requirement in this Article is inconsistent with a provision found elsewhere in this Agreement and is irreconcilable with such provision, the requirement in this Article shall prevail. When performing work or expanding funds for Project activities, the Subrecipient agrees to comply with all applicable terms and conditions referenced herein. **The Subrecipient acknowledges that the federal requirements in this Article X are subject to change and agrees that the most recent requirements shall govern this Agreement at any particular time.**

10.02 Incorporation of Specific Federal Requirements. Specifically, and without limitation, the Subrecipient agrees to comply with the federal requirements set forth in *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Goverments, 49 CFR Part 22* (see section 2.02 for weblink) and agrees to require, unless specifically exempted, subrecipients (if authorized) and third party contractors at every tier to comply with the same. These requirements include, but are not limited to the following:

Debarment and Suspension. The Subrecipient agrees to comply, and assures the compliance of each subrecipient, lessee, or third party contractor at any tier, with Executive Order Nos. 12549 and 12689, "Debarment and Suspension" 31 U.S.C.§ 6101 note, and U.S. DOT regulations, "Government-wide Debarment and Suspension (Nonprocurement)," 49 C.F.R. Part 29. The Subrecipient agrees to and assures that its subrecipients, lessees, and third party contractors will review the "excluded Parties Listing System" at http://epls.gov/ before entering into any third party sub agreement, lease or third party contract [U.S. DOT issued a new amendment to these regulations adopting the optional lower tier coverage for tiers lower than the first tier below a covered nonprocurement transaction. *See,71 Fed. Reg. 62394, October 25,2006.*

Integrity Certification. By signing this Agreement, the Subrecipient certifies that neither it nor its participants is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in this Agreement by any Federal department or agency. This certification is a material representation of fact upon which SFRTA relies in entering this Agreement. If it is later determined that the Subrecipient

knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. The Subrecipient shall provide to SFRTA immediate written notice if at any time the Subrecipient learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Certification of Restrictions on Lobbying Disclosure. The provisions of this section apply only if the amount of this Agreement (including the value of any amendments thereto) is equal to, or exceeds $100,000.

The Subrecipient certifies that no federal appropriated funds have been paid or will be paid by or on behalf of the Subrecipient for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant loan, or cooperative agreement. The certification of this compliance ("Lobbying Restriction Certification") submitted by the Subrecipient in connection with this project is incorporated in, and made a part of, this Agreement.

The Subrecipient further certifies that, if any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the projects funded by the funds allocated to the Subrecipient in this Agreement, the Subrecipient shall complete and submit to SFRTA, Standard Form-LLL, "*Disclosure Form to Report Lobbying,*" in accordance with its instructions.

The Subrecipient certifies that it will require that the language of this certification be included in the award documents for any subcontracts equal to or in excess of $100,000 under this Agreement, and that all subcontracts shall certify and disclose accordingly to the Subrecipient. All certifications and disclosures shall be forwarded to SFRTA by the Subrecipient.

The certifications referred to in this section (including the "Lobbying Restriction Certification" submitted by the Subrecipient in connection with this project and incorporated in, and made a part of, this Agreement) are material representations of fact upon which SFRTA relies when this contract is made.

10.03 Federal Certification and Assurances (C & A); Execution and Incorporation. The Subrecipient agrees to comply with and to certify compliance with the current Federal *Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements ("C & A")* attached hereto and incorporated herein as **Exhibit D**. The Subrecipient must certify compliance with the applicable provisions by signing the appropriate certification(s) and returning the signed certification(s) as part of the execution of this Agreement. During the terms of this Agreement,

the Subrecipient shall annually execute the most current C & A document and provide the same to SFRTA.

10.04 Compliance with Federal Requirements; Incorporation of Specific Documents by Reference. The Subrecipient agrees to comply with all federal statutes, rules, FTA Circulars, Executive Orders, guidance, and other requirements that may be applicable to this grant. In particular, and without limitation, the Subrecipient agrees to comply with the terms and conditions of the following documents when performing work or expending funds for Workscope activities.

- *FTA Master Agreement (22) https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/sample-fta-agreements-october-1-2015*
- *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, 49 CFR Part 18 (http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr18_06.html)*
  Grant Management Requirements, FTA Circular 5010.1D (http://www.fta.dot.gov/documents/C_5010_1D_Finalpub.pdf

The listed documents are incorporated by reference into this Agreement. Copies of these documents are available at the internet websites indicated or, upon request by the Subrecipient, from SFRTA.

10.05 Compliance with Federal Procurement Requirement. Subrecipient will comply with all applicable federal law, rule, and guidance relating to procurement including, without limitation, the provisions of *Third Party Contracting Requirements,* FTA Circular 4220.1F, which document is incorporated by reference into this agreement. A copy of this document is available at the FTA internet website, http://www.fta.dot.gov/laws/circulars/leg_reg_8641.html or upon request by the Subrecipient, from the SFRTA.

A. **Certification of Subrecipient's Procurement System.** Subrecipient certifies that its procurement system complies with the standards described in the previous paragraph.

B. **SFRTA Approval of Contracts.** The Subrecipient shall not execute any third party contract or otherwise enter into a binding agreement until it has first received written approval from SFRTA's Project Manager.

C. **Inclusion of Provisions in Lower Tier Contracts.** The Subrecipient agrees to include adequate provisions to ensure compliance with applicable federal requirements in each lower tier third party contract financed in whole or in part with financial assistance under this agreement including all applicable provisions of this Agreement.

D. **Disadvantaged Business Enterprise Requirements.** Subrecipient agrees to comply with the requirements of SFRTA's "Disadvantaged Business Enterprise (DBE) Program" document, which is attached to and incorporated into this Agreement as **Exhibit E**.

10.06 No Federal Obligation. This grant is financed by federal funds. However, payments to the Subrecipient will be made by SFRTA. The United States is not a party to this Agreement and no

reference in this Agreement, to the United States, USDOT, FTA, or any representatives of the federal government makes the United States a party to this Agreement. The Subrecipient shall include this clause in any contracts or agreements under this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have caused this agreement to be executed by their duly authorized officers on the dates set forth below. This agreement is effective upon final execution by both parties.

SOUTH FLORIDA REGIONAL COUNCIL

Date _____

By _____
Councilmember Tim Daubert, Vice Chair

Approved as to form:

_____ 9/12/16
Samuel S. Goren, Esq.
General Counsel

ATTEST:

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

BY:_____
Jack L. Stephens
Executive Director

BY:_____
Commissioner Tim Ryan, Chair

Approved by General Counsel as to legal form and sufficiency:

_____
Teresa J. Moore, Esq.
General Counsel

EXHIBITS LIST

Exhibit A	FTA Grant Information (Workscope and Approved Budget)
Exhibit B	Expense Reimbursement Form
Exhibit C	DBE Reporting Form
Exhibit D	Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreement
Exhibit E	The SFRTA USDOT Approved Disadvantaged Business Enterprise Requirements

EXHIBIT 3

SUBRECIPIENT AGREEMENT

Subrecipient: Treasure Coast Regional Planning Council	Grant Number: D2015–TODP–0008
Address: 421 SW Camden Avenue, Stuart, Florida 34994	
Project Description: South Florida Transit Oriented Development Pilot Project	
Project Activity Period: October 2016 to December 2018	
Estimated Project Amount: $ 1,075,437 FTA MAP-21 Funds: $ 860,000 Local Match: $ 215,437 Federal Grant No: FL-2016-017-00 CFDA No. : 20.500	SFRTA Action Item No: Date:

AGREEMENT

THIS AGREEMENT is made and entered into by and between the South Florida Regional Transportation Authority ("SFRTA") and the Treasure Coast Regional Planning Council ("Subrecipient"), each acting by and through its duly authorized officers.

WHEREAS:

1. SFRTA submitted an application to the Federal Transit Administration ("FTA") for federal grant funds under the FTA's Pilot Program for Transit-Oriented Development (TOD) Planning pursuant to Section 20005(b) of the Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, July 6, 2012, which included the Subrecipient's project as described herein.

2. The FTA's Pilot Program aims to augment FTA's Fixed Guideway Capital Investment Grants (CIG) Program by supporting comprehensive planning associated with new fixed guideway and core capacity improvement projects that will help the projects develop information to address the CIG Program's evaluation criteria and thus be more competitive for that program's funding.

3. SFRTA received grant funds from the FTA under the Program pursuant to grant number FL-2016-017-00.

4. This Agreement is intended to memorialize the terms under which the Subrecipient is to receive the FTA grant funds.

NOW, THEREFORE, SFRTA and the Subrecipient agree as follows:

ARTICLE I. SUBRECIPIENT WORKSCOPE: APPROVED BUDGET AND MATERIAL REPRESENTATIONS

1.01 Workscope. The Subrecipient agrees to perform and complete in a satisfactory and proper manner the Workscope specified on **Exhibit A** (FTA Grant Information) in accordance with the terms and conditions of this Agreement. The Workscope details the activities to be completed by the Subrecipient and a proposed schedule for the completion of the Workscope. All Workscope activities must be consistent with the approved Workscope and the Approved Budget detailed below. Any proposed change in the Workscope is not effective until the Subrecipient receives written approval from the SFRTA's Project Manager.

1.02 Approved Budget. The Subrecipient agrees to complete the Workscope in accordance with the Approved Budget specified on **Exhibit A**. The Approved Budget details the cost associated with each Workscope activity. Any request for re-budgeting in excess of twenty percent (20%) of the Approved Budget must be in writing and approved in writing by the SFRTA's Project Manager. Re-budgeting of project funds among the existing Approved Budget items of the Workscope are allowable without prior approval if the amount of project funds to be transferred is less than twenty percent (20%) of the Approved Budget. However, re-budgeting to items not in the Workscope is not allowable.

1.03 Material Representations. The Subrecipient agrees that all representations contained in its application for grant assistance are material representations of fact upon which the SFRTA relied in awarding this grant and are incorporated by reference into this Agreement.

ARTICLE II. AUTHORIZED USE OF GRANT AND MATCHING FUNDS; ELIGIBILITY OF COST

2.01. Authorized Use of Grant and Matching Funds. The Subrecipient is only authorized to use the grant funds subject to this Agreement for costs directly incurred for the performance of the Workscope during the Project Activity Period as specified in section 6.01, and in accordance with the Approved Budget.

2.02 Eligibility of costs. All expenses are subject to FTA regulations including:

- *FTA Master Agreement* (22) https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/sample-fta-agreements-october-1-2015
- *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,* 49 CFR Part 18 (http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr18_06.html)
- Urbanized Area Formula Program: Program Guidance and Application Instructions, 49 U.S.C. 5307 (https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FINAL_FTA_circular9030.1E.pdf)

- *Grant Management Requirements,* FTA Circular 5010.1D (http://www.fta.dot.gov/documents/C_5010_1D_Finalpub.pdf)
- *Third Party Contracting Requirements, FTA Circular 4220.1F,* () (See also paragraph 10.05) https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/third-party-contracting-guidance
- *FTA Pilot Program for Transit-Oriented Development Planning Project Selections,* Federal Register Award Notification with Requirements (https://www.gpo.gov/fdsys/pkg/FR-2015-09-15/pdf/2015-23154.pdf)

The Subrecipient acknowledges that the federal requirements in this article and throughout this Agreement are subject to change and agrees that the most recent of these requirements shall govern this Agreement at any particular time.

The listed documents are incorporated by reference into this Agreement. Copies of these documents are available at the internet websites indicated or, upon request by the Subrecipient, from the SFRTA.

ARTICLE III. GRANT AMOUNT, MATCH AND PAYMENT

3.01 Estimated Project Amount. The total estimated cost of the Workscope is **$1,075,437** consisting of the Maximum Federal Grant amount and the Subrecipient's required match.

3.02 Maximum Federal Grant Amount. SFRTA awards to the recipient a grant of up to **$860,000** for the Workscope. In no event will SFRTA's obligation under this Agreement exceed the Maximum Federal Grant Amount.

SFRTA shall bear no responsibility for cost overruns that may be incurred by the Subrecipient in performance of the Workscope. If it appears likely that additional funds will be needed to complete the Workscope, the parties will meet to discuss the possibility of amending this Agreement.

3.03 Subrecipient Match. The Subrecipient has an obligation under this Agreement to share in the costs of project by providing a local match from sources other than from FTA funds, i.e. not less than **$215,437** against the Maximum Grant Amount. The cash match will be **$150,937**. The in-kind match will be **$64,500.** The eligibility and use of matching funds shall be governed by applicable federal law, regulations and guidance. If the final expenses for the Workscope exceed the Estimated Project Amount, the Subrecipient is responsible for providing the funds to cover the final costs and expenses.

3.04 Reimbursement. Expenses will be reimbursed by SFRTA based on submission of an invoice from the Subrecipient using form attached hereto as **Exhibit B**. Invoices should be submitted in triplicate on the approved form with the following attachments on each copy:

A. Copies of all receipts for expenses paid during the period; and

B. Monthly Disadvantaged Business Enterprise ("DBE") report for each third party contract using the approved form attached hereto as **Exhibit C** (see section 5.04).

SFRTA shall advise the Subrecipient no later than ten (10) days after receipt of the reimbursement request if the SFRTA requires any additional documentation to process the reimbursement request. If requested by the SFRTA, the Subrecipient shall submit any additional data and information requested by SFRTA to support the Subrecipient's reimbursement request and shall submit any additional data and information that may be required by the federal government for reporting to the FTA.

Upon SFRTA's review and approval of the Subrecipient's request, SFRTA will distribute to the Subrecipient the approved reimbursement amount. The SFRTA's approval of the reimbursement request and the issuance of the funds to the Subrecipient shall occur no later than thirty (30) days after receipt of all documentation necessary to process the reimbursement request. SFRTA may deny part of any reimbursement request if it reasonably believes that it is not a supportable Workscope expense. No reimbursement request will be made which would cause the distribution of grant funds to exceed, cumulatively, through such payment, the limits in Article III. Distribution of any funds or approval of any report is not to be construed as SFRTA's waiver of any Subrecipient noncompliance with this Agreement.

3.05 Repayment of Unauthorized Use of Grant Funds. Upon a finding by SFRTA that the Subrecipient has made an unauthorized or undocumented use of grant funds, and upon a written demand for repayment issued by SFRTA, the Subrecipient shall promptly repay such amounts to SFRTA.

3.06 Reversion of Unexpended Grant Funds. All funds granted by SFRTA under this Agreement that have not been expended for Workscope activities during the Project Activity Period shall revert to SFRTA.

3.07 Grant Contingent on Federal Funding. SFRTA shall not be liable to Subrecipient, its contractors or subcontractors for any claim or expense arising out of or incidental to the FTA's disallowance of any Workscope expense. Subrecipient shall include this language in all contracts with contractors being paid with grant funds provided under this agreement.

ARTICLE IV. ACCOUNTING AND RECORDKEEPING REQUIREMENTS

4.01 Documentation of Workscope Costs. All costs charged to the Workscope, whether paid with grant funds or charged as the Subrecipients's match, must be supported by proper documentation, including properly executed payrolls, time records, invoices, contracts, receipts for expenses, or vouchers, evidencing in detail the nature and propriety of the charges.

4.02 Establishment and Maintenance of Workscope Information. The Subrecipient agrees to establish and maintain accurate, detailed and complete separate book, accounts, financial records, documentation, and other evidence relating to: (a) Subrecipient's match under this Agreement, and (b) the receipt and expenditure of all grant funds. These documents shall include the property records required by Article VIII of this Agreement. The Subrecipient shall establish and maintain all

such information in accordance with generally accepted accounting principles and practices and shall retain intact all Workscope information until the latest of:

A. Six (6) years following the term of this Agreement; or

B. If any litigation claims, or audit is commenced during either such period, when all such litigation, claims or audits have resolved.

4.03 Audit. The accounts and records of the parties relating to this Agreement shall be audited in the same manner as all other accounts and records of the Subrecipient are audited. During the time of maintenance of information under paragraph 4.02, authorized representatives of SFRTA, the Legislative Auditor and or State Auditor. The United States Secretary of Transportation, the FTA Administrator, and the United States Comptroller General will have access to all such books, records, documents, accounting practices and procedures, and other information for the purpose of inspection, audit, and copying during normal business hours. The parties will provide facilities for such access and inspection.

ARTICLE V. REPORTING AND MONITORING REQUIREMENTS

5.01 Quarterly Milestone Progress Reports. The Subrecipient shall submit quarterly milestone progress reports to SFRTA. SFRTA shall provide the Subrecipient with an electronic version of the milestone progress report that the Subrecipient must complete. Each quarterly progress report must include a detailed summary of the completed Workscope activities and a report on the Workscope schedule. Both SFRTA and the Subrecipient must approve each quarterly milestone progress report. The Quarterly progress reports are due as follows:

- **January 15 for quarter October 1 – December 31**
- **April 15 for quarter January 1 – March 30**
- **July 15 for quarter April 1 – June 30**
- **October 15 for quarter July 1 – September 30**

5.02 Final Reports. Upon completion of the Workscope and not later than sixty (60) calendar days after the end of the Project Activity Period, the Subrecipient must submit a final progress report and a final financial status report of expenditures for the full Workscope that contains a final accounting of the grant matching expenditures. If outstanding claims related to work occurring during the Project Activity Period still exist sixty (60) days following the end of the Project Activity Period, the submission of the Final Report shall automatically extend until all outstanding claims have been resolved.

5.03 Contents of Reports. The Subrecipient agrees to report completely and to provide SFRTA with any additional or follow-up information as may be requested by SFRTA.

5.04 DBE Reporting Requirements. The Subrecipient shall provide the SFRTA with reports on all DBE activity (see section 10.05 E) for each third party agreement in the form attached hereto as **Exhibit C** and based on the procurement process established for the Subrecipient in the *Federal Transit Administration Master Agreement (22) Section 15 Procurement.* (See section 2.02 for weblink.).

5.05 Other Monitoring Activities. To assist SFRTA in monitoring compliance with this Agreement, the Subrecipient agrees to attend Subrecipient meetings as requested by SFRTA and to permit site visits by SFRTA staff, during business hours, upon reasonable notice. The Subrecipient agrees to submit to SFRTA a copy of any promotional information regarding the Workscope disseminated by the Subrecipient during the term of this Agreement.

5.06 Changed Conditions. The Subrecipient agrees to notify SFRTA immediately of any change in conditions, law, ordinance, or regulation, or any other event that may affect the Subrecipient's ability to perform the Workscope in accordance with the terms of this Agreement.

5.07 Special Reporting Requirements. SFRTA is required to report to the FTA regarding activities. Accordingly, the Subrecipient agrees to provide SFRTA with any additional follow-up information reasonably requested by the SFRTA, in order to meet SFRTA's FTA reporting requirements. Specific reporting requirements are included in the *Federal Transit Administration Master Agreements (22) Section 8 Reporting, Record Retention and Access* (see section 2.02 for weblink).

ARTICLE VI. PROJECT ACTIVITY PERIOD; TERM; TERMINATION

6.01 Project Activity Period. The Subrecipient agrees to complete all Workscope activities during the period from July 1, 2016, to July 31, 2018 ("Project Activity Period"). Grant funds may not be used to reimburse costs for any Workscope activities taking place before the beginning or after the end of the Project Activity Period.

6.02 Term. The term of this Agreement shall extend from the effective date of this Agreement to a date sixty (60) calendar days following the end of the Project Activity Period to permit close out of this Agreement. If outstanding claims related to work occurring during the Project Activity Period still exist sixty (60) calendar days following the end of the Project Activity Period, the Term of this Agreement shall automatically extend for an additional ninety (90) calendar days in order to resolve any and all outstanding claims.

6.03 Termination by SFRTA for Convenience. Termination of this agreement by either party shall be governed by the provisions of the Uniform Administrative Requirements for Grants and Agreements with Institution of Higher Education, Hospitals, and other Non-Profit Organizations, 49 CFR Part 19.

6.04 Effect of Workscope Closeout or Termination. The Subrecipient agrees that Workscope closeout or termination of this Agreement does not invalidate continuing obligations imposed on the Subrecipient by this Agreement. Project closeout or termination of this Agreement does not alter SFRTA's authority to disallow costs and recover funds on the basis of a later audit or other review, and does not alter the Subrecipient's obligation to return any funds to SFRTA as a result of later refunds, corrections, or other transactions.

ARTICLE VII. CONTACT PERSONS; PROJECT MANAGER

7.01 Contact Persons. The authorized contact persons for receipts of notices, reports, invoices and approvals under this Agreement are the following:

SFRTA:
Lynda Kompelien Westin
Transportation Planning Manager, Real Estate
800 NW 33rd St.
Pompano Beach, FL 33064
Phone: 954.788.7923
E-mail: westinl@sfrta.fl.gov

Treasure Coast Regional Planning Council:
Michael Busha
Executive Director
421 SW Camden Avenue
Stuart, Florida 34994
Phone: (772) 221-4060
mbusha@tcrpc.org

or such other person as may be designated in writing for itself by either party.

7.02 SFRTA Project Manager. For purposes of administration of the Agreement, the contact person listed in section 7.01, or such other person as may be designated in writing by SFRTA's Executive Director shall be the Project Manager. Nothing, however, in this Agreement will be deemed to authorize SFRTA's Project Manager to execute amendments to this Agreement on behalf of SFRTA.

7.03 Subrecipient Project Manager. For purposes of administration of this Agreement, the contact person listed in section 7.01, or such other person as may be designated in writing by the Subrecipient, shall be the Project Manager. The Subrecipient Project Manager shall coordinate Workscope activity with SFRTA's Project Manager and complete the project manager training provided by the SFRTA to ensure compliance with all federal requirements.

ARTICLE VIII. GRANT PROPERTY

The title, acquisition, use, management, and disposition of all property acquired or constructed with grant funds under this Agreement shall be governed by applicable federal law, rule, and guidance including without limitation, the provisions of:

- *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,* 49 CFR Part 18 (http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr18_06.html)

- *Grant Management Requirements, FTA Circular 5010.1D (http://www.fta.dot.gov/documents/C_5010_1D_Finalpub.pdf)*

The listed documents are incorporated by reference into this Agreement. Copies of these documents are available at the internet websites indicated or, upon request by the Subrecipient, from the SFRTA.

The Subrecipient acknowledges that the federal requirements in this Article and throughout this Agreement are subject to change and agrees that the most recent requirements shall govern the Agreement at any particular time.

ARTICLE IX. GENERAL CONDITIONS

9.01 Amendments. The terms of this Agreement may be changed only by mutual agreement of the parties. Such changes shall be effective only upon the execution of written amendments signed by authorized officers of the parties to this Agreement.

9.02 Assignment Prohibited. The Subrecipient shall not assign, subgrant or transfer any Workscope activities without receiving the express written consent of the SFRTA. The SFRTA may condition such consent on compliance by the Subrecipient with terms and conditions specified by the SFRTA.

9.03 Indemnification. Subject to the limitations contained in Section 68.28, Florida Statutes, the Subrecipient assumes liability for and agrees to defend, indemnify and hold harmless SFRTA, its officers, employees and agents from and against all losses, damages, expense, liability, claims, suits, or demands including, without limitation, attorney's fees, arising out of, resulting from, or relating to the Subrecipient's negligence with respect to the performance of the Grant Project by Subrecipient or Subrecipient's employees, agents or subcontractors. Nothing herein shall constitue a waiver of either party's entitlement to sovereign immunity.

9.04 Workscope Data. The Subrecipient agrees that the results of the Workscope, the reports submitted, and any new information or technology that is developed with the assistance of this grant is in the public domain and may not be copyrighted or patented by Subrecipient. The Subrecipient shall allow public access to all documents, records, reports or other material subject to the applicable provisions for Chapter 119 Florida Statutes, and made or received by the Subrecipient in connection with this Agreement. Failure of Subrecipient to grant such public access may be grounds for termination of the Agreement by SFRTA.

9.05 Nondiscrimination. The Subrecipient shall agree to comply with all applicable laws relating to nondiscrimination and affirmative action. The Subrecipient agrees to not discriminate against employee, applicant for employment, or participant in the Workscope because of race, color, creed, religion, national origin, sex, marital status with regard to public assistance, membership or activity in a local civil rights commission, disability, or age; and further agrees to take action to ensure that applicants and employees are treated equally with respect to all aspects of employment, including selection for training, rates of pay, and other forms of compensation.

9.06 Acknowledgement. The Subrecipient shall appropriately acknowledge the grant assistance made by SFRTA and the FTA under this agreement in any promotional materials, reports, and publications relating to the Workscope.

9.07 Compliance with Law; Obtaining Permits, Licenses, and Authorizations. The Subrecipient agrees to conduct the Workscope in compliance with all applicable provisions of federal and state laws, rules or regulations. The Subrecipient is responsible for obtaining and complying with all federal or state permits, licensed, and authorizations necessary for performing the Workscope.

9.08 Incorporation of Exhibits. All Exhibits attached to this Agreement will be deemed incorporated into this Agreement.

ARTICLE X. GENERAL FEDERAL REQUIREMENTS

10.01 Federal Requirements. The requirements in this Article X are in addition to and, unless inconsistent and irreconcilable, do not supplant requirements found elsewhere in this Agreement. If any requirement in this Article is inconsistent with a provision found elsewhere in this Agreement and is irreconcilable with such provision, the requirement in this Article shall prevail. When performing work or expanding funds for Project activities, the Subrecipient agrees to comply with all applicable terms and conditions referenced herein. **The Subrecipient acknowledges that the federal requirements in this Article X are subject to change and agrees that the most recent requirements shall govern this Agreement at any particular time.**

10.02 Incorporation of Specific Federal Requirements. Specifically, and without limitation, the Subrecipient agrees to comply with the federal requirements set forth in *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Goverments, 49 CFR Part 22* (see section 2.02 for weblink) and agrees to require, unless specifically exempted, subrecipients (if authorized) and third party contractors at every tier to comply with the same. These requirements include, but are not limited to the following:

Debarment and Suspension. The Subrecipient agrees to comply, and assures the compliance of each subrecipient, lessee, or third party contractor at any tier, with Executive Order Nos. 12549 and 12689, *"Debarment and Suspension"* 31 U.S.C.§ 6101 note, and U.S. DOT regulations, *"Government-wide Debarment and Suspension (Nonprocurement),"* 49 C.F.R. Part 29. The Subrecipient agrees to and assures that its subrecipients, lessees, and third party contractors will review the "excluded Parties Listing System" at http://epls.gov/ before entering into any third party sub agreement, lease or third party contract [U.S. DOT issued a new amendment to these regulations adopting the optional lower tier coverage for tiers lower than the first tier below a covered nonprocurement transaction. *See,71 Fed. Reg. 62394, October 25,2006.*

Integrity Certification. By signing this Agreement, the Subrecipient certifies that neither it nor its participants is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in this Agreement by any Federal department or agency. This certification is a material representation of fact upon which SFRTA relies in entering this Agreement. If it is later determined that the Subrecipient knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. The Subrecipient shall

provide to SFRTA immediate written notice if at any time the Subrecipient learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Certification of Restrictions on Lobbying Disclosure. The provisions of this section apply only if the amount of this Agreement (including the value of any amendments thereto) is equal to, or exceeds $100,000.

The Subrecipient certifies that no federal appropriated funds have been paid or will be paid by or on behalf of the Subrecipient for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant loan, or cooperative agreement. The certification of this compliance ("Lobbying Restriction Certification") submitted by the Subrecipient in connection with this project is incorporated in, and made a part of, this Agreement.

The Subrecipient further certifies that, if any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the projects funded by the funds allocated to the Subrecipient in this Agreement, the Subrecipient shall complete and submit to SFRTA, Standard Form-LLL, "*Disclosure Form to Report Lobbying,*" in accordance with its instructions.

The Subrecipient certifies that it will require that the language of this certification be included in the award documents for any subcontracts equal to or in excess of $100,000 under this Agreement, and that all subcontracts shall certify and disclose accordingly to the Subrecipient. All certifications and disclosures shall be forwarded to SFRTA by the Subrecipient.

The certifications referred to in this section (including the "Lobbying Restriction Certification" submitted by the Subrecipient in connection with this project and incorporated in, and made a part of, this Agreement) are material representations of fact upon which SFRTA relies when this contract is made.

10.03 Federal Certification and Assurances (C & A); Execution and Incorporation. The Subrecipient agrees to comply with and to certify compliance with the current Federal *Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements ("C & A")* attached hereto and incorporated herein as **Exhibit D**. The Subrecipient must certify compliance with the applicable provisions by signing the appropriate certification(s) and returning the signed certification(s) as part of the execution of this Agreement. During the terms of this Agreement, the Subrecipient shall annually execute the most current C & A document and provide the same to SFRTA.

10.04 Compliance with Federal Requirements; Incorporation of Specific Documents by Reference. The Subrecipient agrees to comply with all federal statutes, rules, FTA Circulars, Executive Orders, guidance, and other requirements that may be applicable to this grant. In particular, and without limitation, the Subrecipient agrees to comply with the terms and conditions of the following documents when performing work or expending funds for Workscope activities.

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- *Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, 49 CFR Part 18 (http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr18_06.html)*
- *Grant Management Requirements,* FTA Circular 5010.1D (http://www.fta.dot.gov/documents/C_5010_1D_Finalpub.pdf)

The listed documents are incorporated by reference into this Agreement. Copies of these documents are available at the internet websites indicated or, upon request by the Subrecipient, from SFRTA.

10.05 Compliance with Federal Procurement Requirement. Subrecipient will comply with all applicable federal law, rule, and guidance relating to procurement including, without limitation, the provisions of *Third Party Contracting Requirements,* FTA Circular 4220.1F, which document is incorporated by reference into this agreement. A copy of this document is available at the FTA internet website, https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/third-party-contracting-guidance or upon request by the Subrecipient, from the SFRTA.

A. **Certification of Subrecipient's Procurement System.** Subrecipient certifies that its procurement system complies with the standards described in the previous paragraph.

B. **SFRTA Approval of Contracts.** The Subrecipient shall not execute any third party contract or otherwise enter into a binding agreement until it has first received written approval from SFRTA's Project Manager.

C. **Inclusion of Provisions in Lower Tier Contracts.** The Subrecipient agrees to include adequate provisions to ensure compliance with applicable federal requirements in each lower tier third party contract financed in whole or in part with financial assistance under this agreement including all applicable provisions of this Agreement.

D. **Disadvantaged Business Enterprise Requirements.** Subrecipient agrees to comply with the requirements of SFRTA's "Disadvantaged Business Enterprise (DBE) Program" document, which is attached to and incorporated into this Agreement as **Exhibit E**

10.06 No Federal Obligation. This grant is financed by federal funds. However, payments to the Subrecipient will be made by SFRTA. The United States is not a party to this Agreement and no reference in this Agreement, to the United States, USDOT, FTA, or any representatives of the federal

government makes the United States a party to this Agreement. The Subrecipient shall include this clause in any contracts or agreements under this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have caused this agreement to be executed by their duly authorized officers on the dates set forth below. This agreement is effective upon final execution by both parties.

TREASURE COAST REGIONAL PLANNING COUNCIL

Date _____

By _____
Chair Michael L. Davis

Approved as to form:

_____
Treasure Coast Regional Planning Council

ATTEST:

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

BY: _____
Jack Stephens
Executive Director

BY: _____
Commissioner Tim Ryan, Chair

Approved by General Counsel as to legal form and sufficiency:

_____
Teresa J. Moore, Esq.
General Counsel

EXHIBITS LIST

Exhibit A	FTA Grant Information (Workscope and Approved Budget)
Exhibit B	Expense Reimbursement Form
Exhibit C	DBE Reporting Form
Exhibit D	Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements
Exhibit E	SFRTA USDOT Approved Disadvantaged Business Enterprise Requirements

REVISED 09/19/16

Tracking No. 09231648 AGENDA ITEM NO. R5

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

TRI-RAIL TRACKAGE IMPROVEMENTS AGREEMENT

REQUESTED ACTION:

MOTION TO APPROVE: A delegation to Commissioner Abrams to negotiate, finalize and execute the Tri-Rail Trackage Improvements Agreement between SFRTA and All Aboard Florida – Operations LLC, consistent with the concepts and principles that are included in the terms and conditions set forth therein.

SUMMARY EXPLANATION AND BACKGROUND:

SFRTA and AAF, along with Florida East Coast Railway, LLC ("FECR"), entered into that certain Tri-Rail Downtown Miami Link Access, Operating and Funding Agreement dated August 8, 2016 (the "Operating Agreement") that provides, for the design and construction of the Tri-Rail Trackage Improvements required in order to allow SFRTA access to the FECR Corridor and the Viaduct/Station Segment (which includes the Miami Central Station), as those terms were defined in the Operating Agreement.

The new Tri-Rail Downtown Miami Link Service requires certain track-related improvements (the "Tri-Rail Trackage Improvements") be made to the FECR Corridor and the Viaduct/Station Segment. The Operating Agreement contemplates that AAF and SFRTA would enter into an agreement related to the design and construction of the Tri-Rail Trackage Improvements within ninety (90) days of the execution of the Operating Agreement. Because AAF has the exclusive control over FECR corridor and the Viaduct/Station Segment (for the purposes of allowing the Tri-Rail Downtown Miami Link Service), which together will provide access to the Tri-Rail service from the IRIS on the South Florida Rail Corridor into the Miami Central Station, Staff has negotiated, as a sole source procurement, the Trackage Improvements Agreement with AAF. This Agreement provides for the procurement of the design and construction of the Tri-Rail Trackage Improvements necessary to allow Tri-Rail to access the rail corridors and the Tri-Rail portion of the Miami Central Station. The cost of the Tri-Rail Trackage Improvements is $16.19 million. Pursuant to the Operating Agreement, upon completion and acceptance of the Tri-Rail Trackage Improvements by SFRTA, AAF will grant a perpetual easement to SFRTA for use of the improvements for Tri-Rail.

Department: Executive- Jack L. Stephens
Project Manager: N/A

Department: Legal - Teresa J. Moore
Procurement Director: N/A

FISCAL IMPACT: Fiscal Year 2016-2017 Capital budget will be amended to reflect the Tri-Rail Trackage Improvements Capital Program Costs and the available Bank United Loan for these Costs.

EXHIBITS ATTACHED: Exhibit 1 - Tri-Rail Trackage Improvements Agreement
~~(to be provided under separate cover)~~
Exhibit 2 – Outline of Tri-Rail Trackage Improvements Agreement

TRI-RAIL TRACKAGE IMPROVEMENTS AGREEMENT

Recommended by: _____ Approved by: _____
Department Director Date Procurement Director Date

Authorized by: _____ 9/14/14 Approved as to Form by: _____ 9-16-16
Executive Director Date General Counsel Date

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	_____ Yes ____ No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	_____Yes _____No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	_____Yes _____No
Frank Frione	____ Yes ____ No	James A. Scott	_____Yes _____No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	_____Yes _____No

EXHIBIT 1

TRI-RAIL TRACKAGE IMPROVEMENTS AGREEMENT

BETWEEN

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

AND

ALL ABOARD FLORIDA - OPERATIONS LLC

THIS TRI-RAIL TRACKAGE IMPROVEMENTS AGREEMENT ("Trackage Agreement") dated as of September ___, 2016, is made by and between the SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY, a body politic and corporate, a public instrumentality and an agency of the State of Florida pursuant to Florida Statutes, Chapter 343, having an office at 800 NW 33rd Street, Pompano Beach, Florida, 33064 ("SFRTA"), and All Aboard Florida - Operations LLC, a Delaware limited liability company, having an office at 2855 LeJeune Road, 4th Floor, Coral Gables, Florida ("AAF").

RECITALS

A. SFRTA and AAF, along with Florida East Coast Railway, LLC ("FECR"), have entered into that certain Tri-Rail Downtown Miami Link Access, Operating and Funding Agreement dated August 8, 2016 (the "Operating Agreement") that provides, inter alia, for the design and construction of the Tri-Rail Trackage Improvements required in order to allow SFRTA access to the MiamiCentral Station and contemplates that AAF and SFRTA shall enter into an agreement which shall govern the arrangements between AAF and SFRTA related to the design and construction of the Tri-Rail Trackage Improvements and any other work that SFRTA and AAF agree in writing shall be completed by design consultants and contractors engaged by AAF pursuant to a fully-executed Change Order or Change Directive (as such terms are defined herein) (collectively, the "SFRTA Work"), SFRTA's inspection rights related to the SFRTA Work to be performed by AAF's design consultants, and contractors on behalf of SFRTA and any other necessary provisions.

B. Intentionally omitted.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, SFRTA and AAF agree as follows:

1. RECITALS – The above-stated Recitals are true and correct and hereby incorporated by reference.

2. DEFINITIONS – The definitions contained in the Operating Agreement are hereby incorporated by reference and the defined terms used in the Trackage Agreement shall have the meanings ascribed to them in the Operating Agreement, unless a term is expressly defined in this Trackage Agreement, in which case the term defined in the Trackage Agreement shall control.

3. CONDITIONS SUBSEQUENT - This Trackage Agreement is not intended to be and shall not be deemed to be a binding contract, and will not create any right or obligations based on any legal or equitable theory, until the achievement of the transaction milestones set forth in Section I.2. of the Operating Agreement (the "Effective Date").

4. SOLE SOURCE PROCUREMENT – SFRTA hereby contracts with AAF for the design and construction of the SFRTA Work, including the Tri-Rail Trackage Improvements, as more fully defined in Section 6 below, which is to be part of the Miami Central Station. AAF has

entered into an Agreement dated March 29, 2016, with Alstom Signaling Operation, LLC, the successor in interest to GE Transportation Systems Global Signaling, LLC ("Alstom" or "Contractor"), as amended to date, including Amendment No. 1, and as may be amended in the future, for the design, supply of signaling products, and software and services for the All Aboard Florida intercity rail passenger service and the Tri-Rail Trackage Improvements (the "Design/Materials Contract" or "Alstom Contract"). AAF has also entered into an Agreement dated May 26, 2015, with Archer Western Construction, LLC ("Archer" or "Contractor"), as amended to date, including Amendment Nos. 1 through 7, and as may be amended in the future, for the construction of rail line (s) and certain ancillary facilities between Miami and West Palm Beach Florida and a vehicle maintenance facility at West Palm Beach, for the All Aboard Florida Project, which includes the Tri-Rail Trackage Improvements (the Construction Contract" or "Archer Contract"). AAF has also entered into an Agreement dated _____with URS Corporation Southern (which subsequently merged with AECOM _____, as amended to date, including Amendment No. 6, and as may be amended in the future, for the design of the Tri-Rail Trackage Improvements (the "Design Contract" or "AECOM Contract"). The AECOM, Alstom and Archer Contracts are collectively referred to herein as the "Design and Construction Contracts."

As AAF shall have exclusive control over the design and construction of the Miami Central Station, SFRTA has no other option than to contract with AAF for the design and construction of the Tri-Rail Trackage Improvements that are to be part of the Tri-Rail Downtown Miami Link Service and the Miami Central Project. This sole source justification has been noticed in accordance with the requirements of s. 287.057(3)(c), F.S.

5. JOINDER – Concurrently with the execution of this Trackage Agreement, SFRTA, AAF, and Archer shall enter into the Joinder to the Archer Construction Contract (the "Joinder") in the form attached to this Trackage Agreement as Exhibit A, which among other things, provides that SFRTA shall be a dual obligee on Archer's surety bond which shall meet the requirements of s. 255.05, F.S. ("255.05 Bond") as to the SFRTA Work and the execution by AAF, Archer and its surety of a dual obligee rider adding SFRTA as an additional obligee to the Performance and Payment Bond in substantially the form attached to the Archer Joinder and General Purpose Rider No 2 in substantially the form attached to the Joinder. Although a separate instrument, the terms of the Joinder are a material part of this Trackage Agreement. The Joinder shall not be effective until the Effective Date. AAF shall ensure that the Section 255.05 bond has been recorded in the public records of Miami-Dade County prior issuance of a notice of commencement for the Trackage Improvements.

6. SFRTA WORK – The work for the Tri-Rail Trackage Improvements shall include the work identified in the plans and concept plans described on Exhibit F attached hereto and made a part hereof (the "Approved Plans and Specifications") and the costs identified in the document titled "Cost of the Tri-Rail Trackage Improvements," which is attached as Exhibit B to the Operating Agreement. The Parties acknowledge that the design and material purchases under the AECOM and Alstom Contracts for the Tri-Rail Trackage Improvements has commenced. The Parties agree that invoices may be submitted to SFRTA for payment applicable for such work on the Tri-Rail Trackage Improvements performed to date, including prior to the Effective

Date, after the Effective Date. The Parties acknowledge and agree that SFRTA shall not be liable to pay for any work not included in the Approved Plans and Specifications performed by or through AAF, unless such work would be documented through a Change Order executed by SFRTA and AAF or a Change Directive for which a Change Order has not been executed pursuant to Section 7 below. For the purposes of this Trackage Agreement, the term "Approved Plans and Specifications" shall include any fully executed Change Orders or Change Directives.

Within _____ days of execution of this Trackage Agreement, AAF will provide SFRTA with any known or proposed changes to the Approved Plans and Specifications for the Tri-Rail Trackage Improvements and will provide SFRTA notice of any future change. SFRTA will respond to the proposed amendments within ten (10) business days of receipt thereof. The Parties specifically agree that SFRTA may object to any change to the Approved Plans and Specifications only when such change affects in any material respect the functionality, capacity, operations or maintenance costs of the Corridor, the Viaduct/Station Segment and Joint Infrastructure and SFRTA exclusive areas of the MiamiCentral Station. If SFRTA disputes any change or proposed changes and costs associated therewith, SFRTA may withhold payment of any portion of any invoice related to such amendment until that dispute is resolved in accordance with this Trackage Agreement.

7. CHANGE ORDERS.

(a) Request for Change Orders/Change Orders. If SFRTA desires any change in the Approved Plans and Specifications, such changes may be requested by the delivery to AAF by SFRTA of a proposed written request for change order ("Request for Change Order") specifically setting forth the requested change. The Request for Change Order shall be subject to the reasonable approval of AAF, which approval AAF will not unreasonably withhold or delay, unless the Request for Change Order would (i) detrimentally affect or not be consistent with the base structural components or systems of the MiamiCentral Project, (ii) affect safety, (iii) affect the schedule of completion of the MiamiCentral Project, or (iii) in AAF's reasonable judgment, be inconsistent with quality and character of the MiamiCentral Project. AAF (and AECOM, Alstom and/or Archer, as applicable) shall have five (5) business days from receipt of Request for Change Order to review and approve the Request for Change Order or state any objections in writing. The failure of AAF to respond within the five (5) business day period shall be deemed approval of the Request for Change Order. If AAF (and AECOM, Alstom and/or Archer, as applicable) approves the proposed change, or it is deemed to have approved the change, AAF (through AECOM, Alstom and/or Archer, as applicable) shall promptly thereafter provide information to SFRTA regarding the following items: (i) a summary of any increase in the cost caused by such change and all additional expenses related thereto (including additional design professional services and insurance and bond premium costs attributable thereto which are incurred by AAF) that are associated with the requested change(s) (the "Change Order Cost"), (ii) a statement of the estimated number of days, if any, that the proposed change order will extend the target date for completion of the Tri-Rail Trackage Improvements (the "Change Order Delay"), and (iii) a statement of the cost of the Change Order Delay (the "Change Order Delay Expense"). Any Change Order Delay Expense shall be the product of the number of days of delay multiplied by $1,000, all as liquidated and agreed damages on account of such delay, with

it understood and agreed that the amounts set forth herein as liquidated damages are agreed by SFRTA and AAF to be reasonable liquidated damages for any loss that AAF may incur as a result of any such delay as it is difficult if not impossible to ascertain what AAF's damages may actually be in such event. SFRTA shall then have fifteen (15) business days to approve the Change Order Cost, the Change Order Delay and the Change Order Delay Expense. If SFRTA approves these items, SFRTA must (a) execute a change order to this Trackage Agreement to document its acceptance of an approved Request for Change Order (each, a "Change Order") and (b) pay to AAF the Change Order Cost and Change Order Delay Expense (if applicable) within thirty (30) days after SFRTA's approval thereof, both as express conditions precedent to AAF's obligation to execute the Change Order and cause the appropriate changes to the Approved Plans and Specifications and to the Tri-Rail Trackage Improvements to be made, which AAF shall do promptly following receipt of such executed Change Order and payment. If SFRTA fails to respond to AAF within said fifteen (15) business day period, or fails to pay the Change Order Cost and/or the Change Order Delay Expense (if applicable) within the foregoing period with respect to any Change Order that increases the cost of the MiamiCentral Project and/or results in a Change Order Delay, the Change Order shall be deemed disapproved by SFRTA, and AAF shall have no further obligation to perform any work set forth in the proposed Change Order, provided, however, that SFRTA shall be liable for any actual delay resulting from the review of any and all Requests for Change Orders that do not result in an approved Change Order pursuant to the terms hereof. The Change Order Cost shall include all costs associated with the Change Order, including, without limitation, architectural fees, engineering fees and construction costs, as reasonably determined by the AAF; provided, further, that, with respect to any Change Order Cost of $50,000.00 or more per Change Order, or $500,000.00 or more in the aggregate for all Change Orders, SFRTA shall pay AAF a five percent (5%) fee of such costs as reimbursement for the expense of administration and coordination of such Change Order(s) by AAF's representative. The Change Order Delay shall include all delays caused by the Change Order, including, without limitation, all design and construction delays, as reasonably determined by the AAF.

(b) Change Order Directives. In the event that SFRTA requests a change to the SFRTA Work required for life safety or other regulatory requirement and AECOM, Alstom and Archer, as applicable, are not able to provide the change in the contract time or the contract sum within ten (10) business days from such request, SFRTA may request that AAF issue a "Change Directive" (as such term is defined in the Design and Construction Contracts) to AECOM, Alstom and Archer, as applicable, to direct a change in the applicable SFRTA Work prior to an agreement on the adjustment, if any, in the change in the contract time or the contract sum (a "Request for CCD"). Upon receipt of the Request for CCD, AAF shall issue a corresponding Change Directive to AECOM, Alstom and/or Archer, as applicable, pursuant to the Design and Construction Contracts to direct AECOM, Alstom and/or Archer, as applicable, to promptly proceed with the change in the SFRTA Work ("Change Directive"). If AECOM, Alstom and/or Archer, as applicable, agree with and sign the Change Directive, such agreement shall be effective immediately and recorded as a Change Order to the applicable Design and Construction Contracts pursuant to Section ___of such Design and Construction Contracts, in which event SFRTA shall execute a Change Order to this Trackage Agreement and pay to AAF the Change Order Cost and Change Order Delay Expense (if applicable) within the time frame set forth on Exhibit E to the Operating Agreement (the "Invoice Review Process") after SFRTA's

approval thereof, both as express conditions precedent to AAF's obligation to execute the Change Order and cause the appropriate changes to the Approved Plans and Specifications and to the Tri-Rail Trackage Improvements to be made, which AAF shall do promptly following receipt of such executed Change Order and payment. If, however, AECOM, Alstom and/or Archer, as applicable, shall disagree with the method of determining an adjustment in contract time or the contract sum involved, AECOM, Alstom and/or Archer, as applicable, shall be entitled to payment for the change effected by such Change Directive pursuant to Sections ___ of the Design and Construction Contracts and pending final determination of the total cost of a Change Directive, AECOM, Alstom and/or Archer, as applicable may request payment for SFRTA Work completed under the Change Directive pursuant to Sections ___ of the applicable Design and Construction Contracts. SFRTA shall reimburse AAF all such costs pending execution of the Change Order regarding such Change Directive within the time frame set forth in the Invoice Review Process after its receipt of any Invoice therefor. Upon final determination of the total cost of a Change Directive pursuant to the terms of the Design and Construction Contracts through the execution of a change order, SFRTA shall be responsible for such costs unpaid to date by SFRTA to AAF for same and SFRTA shall execute a Change Order to this Trackage Agreement and pay to AAF the Change Order Cost and Change Order Delay Expense (if applicable) for same within the time frame set forth in the Invoice Review Process after SFRTA's approval thereof, both as express conditions precedent to the continuation of the SFRTA Work covered by such Change Order. When AAF (on behalf of SFRTA and with SFRTA's input) and AECOM, Alstom and/or Archer, as applicable, agree to the adjustments the contract time or the contract sum, the Change Directive shall be effective immediately upon the execution of a Change Order. Notwithstanding the foregoing, SFRTA shall be responsible for the cost resulting from the change in the contract time or the contract sum involved on account of each Change Directive issued by AAF on account of a Request for CCD provided by SFRTA. A copy of Sections ___ of the Design and Construction Contracts is attached hereto as Exhibit C.

(c) Dispute Resolution. In the event of any dispute regarding compliance with the Approved Plans and Specifications, Change Directives, Change Orders, or SFRTA delays, which is not mutually resolved by the Parties working together in good faith within ten (10) business days, then the Parties hereto shall each act reasonably to attempt to select one (1) expert to resolve such dispute (the "Expert"). In the event that the Parties hereto cannot mutually agree upon the Expert within five (5) business days after written request from one Party hereto to the other, then within five (5) days after the expiration of such period, SFRTA and AAF shall each select their own expert. Such experts shall then select the Expert by no later than five (5) business days after the expiration of such period and the Expert shall render a decision within an additional five (5) business days thereafter, unless such time frame is mutually extended by SFRTA and AAF. The Expert and each expert chosen by AAF and SFRTA to choose the Expert, if applicable, pursuant to this section, shall be a licensed architect that has no interest in the project, has never been engaged by either SFRTA or AAF and has at least ten (10) years' experience in the State of Florida with respect to projects of a magnitude similar to the development contemplated by this Trackage Agreement. All fees, costs and expenses incurred in connection with obtaining and hiring the Expert shall be shared equally by SFRTA and AAF; however, SFRTA and AAF shall each bear their own attorneys' fees incurred with respect to this procedure and for the costs of retaining each expert, if applicable, to choose the Expert. If accepted by the Parties, the decision rendered by the Expert shall be binding on the Parties and

shall be documented, in writing, as an amendment to this Trackage Agreement. If either Party disputes the decision rendered by the Expert, either Party may exercise all rights and remedies available at law and in equity in connection with the dispute and this Trackage Agreement pursuant to the terms hereof. Written notice sent pursuant to this Section by electronic mail shall not require an alternative delivery of the notice for it to be deemed delivered.

8. MEETINGS. AAF shall hold progress meetings with SFRTA's designated representative (the "SFRTA Project Manager") and AECOM, Alstom and Archer to be held on a bi-weekly basis to discuss such matters as procedures, progress, problems and scheduling.

9. INSPECTION. AAF shall provide forty-eight (48) hours' prior written notice to the SFRTA Project Manager of scheduled inspections by the Florida East Coast Railway inspector (FECR inspector) or those required by applicable regulatory authorities, including Federal Railroad Administration ("FRA") inspectors of the SFRTA Work. If SFRTA notices defects or deficiencies in the SFRTA Work, SFRTA shall promptly provide written notice to AAF regarding the same. AAF shall provide written notice to AECOM, Alstom and Archer of the noted defects or deficiencies and cause AECOM, Alstom and/or Archer, as applicable, to correct the defects or deficiencies in the SFRTA Work noted by SFRTA that have not been constructed in substantial accordance with the Approved Plans and Specifications. Any dispute with regard to the defects or deficiencies shall be resolved pursuant to the Dispute Resolution Process as defined in the Operating Agreement. Written notice sent pursuant to this Section by electronic mail shall not require an alternative delivery of the notice for it to be deemed delivered.

10. SUBSTANTIAL COMPLETION.

(a) Definition. "Substantial Completion" shall mean the completion by AAF (by and through AECOM, Alstom, Archer and other consultants and professionals) of the construction of the Tri-Rail Trackage Improvements in substantial accordance with the Approved Plans and Specifications, as modified by AAF's Change Orders and SFRTA's Change Orders and/or Change Directives, in a good and workmanlike manner, as evidenced by confirmation by the FECR inspector and non-objection by the FRA inspector, subject to the pending completion of the Punch List Items, as hereinafter defined. The foregoing definition is not intended to modify the definition of "Substantial Completion" in the applicable Sections of the Design and Construction Contracts or modify AECOM's, Alstom's and Archer's obligations pursuant thereto. The above definition is only intended to govern how AAF and SFRTA interact with each other and AECOM, Alstom and Archer with respect to achieving Substantial Completion of the Tri-Rail Trackage Improvements. In the event the provisions of this Section 10 create a conflict with the obligations of AECOM, Alstom and Archer under the Design and Construction Contracts, the provisions of the Design and Construction Contracts shall apply as to AECOM, Alstom and Archer.

(b) Notice of Substantial Completion. AAF shall notify SFRTA in writing upon Substantial Completion (the "Notice of Substantial Completion"). SFRTA shall have the right to inspect the SFRTA Work and provide AAF notice of any defects in the condition of the Tri-Rail Trackage Improvements within thirty (30) days after receipt of the Notice of Substantial Completion specifying such details with reasonable particularity (the "Response Period").

(c) Final Acceptance.

(i) If SFRTA notifies AAF in writing during or at the end of the Response Period that the Tri-Rail Trackage Improvements are in satisfactory condition, except for any minor or insubstantial defects of design, construction, mechanical adjustment or decoration which remain to be performed, the non-performance of which do not materially interfere with SFRTA's use of the Tri-Rail Trackage Improvements (the "Punch List Items"), then SFRTA shall give a written notice of final acceptance no later than five (5) business days following delivery of the Punch List Items to AAF ("Final Acceptance"). AAF shall cause Alstom and Archer to correct the Punch List Items in a timely fashion.

(ii) If SFRTA notifies AAF in writing during or at the end of the Response Period that the defects include material defects of design, construction, mechanical adjustment or decoration which remain to be performed, the non-performance of which materially interfere with SFRTA's use of the Tri-Rail Trackage Improvements (the "Material Defects"), AAF shall cause AECOM, Alstom and/or Archer, as applicable, to correct such Material Defects immediately and provide SFRTA an opportunity to inspect the same. AAF shall notify SFRTA in writing the correction of the Material Defects (the "Notice of Correction"). SFRTA shall have the right to inspect the corrected SFRTA Work and either accept or provide AAF notice of any defects in the condition of corrected SFRTA Work within ten (10) days after receipt of the Notice of Correction specifying such details with reasonable particularity. Upon SFRTA's acceptance of the corrections as to the Material Defects, SFRTA shall provide the written notice of Final Acceptance. If AAF disagrees with the Material Defects or disputes the condition of the corrected SFRTA Work, the dispute shall proceed under the Dispute Resolution Process.

11. DESIGNATED REPRESENTATIVE. – The SFRTA Project Manager shall have the right to take part in the inspection of the SFRTA Work that immediately precedes Substantial Completion. AAF shall provide prior written notice to SFRTA with respect to the proposed date for such inspection. That notice and any other communications with SFRTA regarding the SFRTA Work and all documentation required to be provided to SFRTA shall be through the SFRTA Project Manager. SFRTA shall notify AAF in writing of name and contact information for the SFRTA Project Manager within ten (10) days following execution of this Trackage Agreement. All communications with SFRTA regarding the SFRTA Work and all documentation required to be provided to SFRTA shall be through the SFRTA Project Manager. Written notice sent pursuant to this Section by electronic mail and facsimile transmission shall not require an alternative delivery of the notice for it to be deemed delivered.

12. PERMITS AND APPROVALS – AAF, on behalf of SFRTA, shall obtain or cause AECOM, Alstom and Archer to obtain, any and all necessary permits and public agency approvals, inspections and reviews required by applicable law to complete the design and the construction of the SFRTA Work.

13. Intentionally omitted.

14. INVOICES – A proper invoice as defined by s. 218.72(8), F.S., must be submitted by AAF with each payment request ("Invoice"). Only expenses incurred that are directly related to the SFRTA Work are eligible for reimbursement by SFRTA ("Eligible Costs"), with it being understood that SFRTA has agreed the cost of the Tri-Rail Trackage Improvements is the Cost of Tri-Rail Trackage Improvements, plus the costs related to any Change Order and/or Change Order Directive. All Invoices submitted to SFRTA for SFRTA Work shall be pursuant to the agreed-upon invoice format provided for in Exhibit B-1 of this Trackage Agreement and the documentation listed in Exhibit B, which outlines what will be considered sufficient backup documentation with respect to showing each funding party's requested contribution to the subject invoice amount ("Improvements Invoice Format"). AAF shall submit two (2) notarized original copies of its monthly Invoice to the SFRTA Project Manager which shall be processed pursuant to the payment procedures set forth on Exhibit E of the Operating Agreement (the "Funding Procedures") with it being agreed that any disputed amounts shall be addressed in accordance with SFRTA's Dispute Resolution Process. SFRTA shall be entitled to dispute an Invoice pursuant to the terms of the Invoice Review Process and any amounts so disputed shall not require repayment until resolved in accordance with the Invoice Review Process.

Notwithstanding the foregoing, SFRTA shall not receive access to the Station Element or use of the Easement or the Lease until the conditions of Station/Track Availability, as defined and outlined in the Operating Agreement, are satisfied.

15. DISADVANTAGED BUSINESS ENTERPRISES. AAF shall provide a copy of the report on the disadvantaged business enterprises within ten (10) days of its receipt, but no more often than quarterly. An example of the report is attached as Exhibit D.

16. CHANGES IN SFRTA WORK - Except in an emergency endangering life or property requiring immediate additions or changes to the SFRTA Work, which emergency was not caused by any act or omission of AECOM, Archer, Alstom or AAF, no addition or changes to the SFRTA Work shall be made except upon a written Change Order or Change Directive of SFRTA, and SFRTA shall not be liable to AAF or AECOM, Alstom and/or Archer, as applicable, for any increased compensation or adjustment to the Contract Time without such written Change Order or Change Directive. NO OFFICER, EMPLOYEE OR AGENT OF SFRTA IS AUTHORIZED TO DIRECT AECOM, ALSTOM OR ARCHER TO PERFORM ANY ADDITIONS OR CHANGES TO THE WORK OR SFRTA WORK ORALLY AND SFRTA SHALL NOT PAY AAF OR AECOM OR ALSTOM OR ARCHER FOR ANY SFRTA WORK WHICH IT CLAIMS WAS AUTHORIZED BY VERBAL DIRECTION OF SFRTA'S REPRESENTATIVE. AAF, AECOM, ALSTOM AND ARCHER SHALL IMMEDIATELY REPORT ANY ATTEMPT TO AUTHORIZE ANY ADDITION OR CHANGE TO THE WORK OR SFRTA WORK BY VERBAL DIRECTION TO SFRTA'S DIRECTOR OF PROCUREMENT. If AAF asserts that an addition or change to the SFRTA Work was due to an emergency, AAF shall notify the SFRTA Project Manager in writing within forty-eight (48) hours of receiving notice from AECOM, Alstom and/or Archer pursuant to the terms of the Design and Construction Contracts, which require immediate written notice by AECOM, Alstom and Archer. The notice shall include the conditions resulting in the emergency and any increase

in compensation that will be owed by SFRTA, if any. SFRTA shall have the right to dispute such additions or changes through the dispute resolution process in Section 7(c) above. Written notice sent pursuant to this Section by electronic mail and facsimile transmission shall not require an alternative delivery of the notice for it to be deemed delivered.

17. DISPUTE RESOLUTION - If the SFRTA Project Manager identifies a matter that it believes needs to be brought to the attention of AECOM, Alstom and/or Archer, as applicable, or that requires that AECOM, Alstom and/or Archer, as applicable, be directed to take some action regarding the SFRTA Work and, after requesting that AAF direct AECOM, Alstom and/or Archer, as applicable, to take such action, AAF refuses to bring the issue to the attention of AECOM, Alstom and/or Archer, as applicable, or to provide the requested direction, SFRTA shall have the right to elevate the matter to a meeting between the SFRTA's Executive Director and AAF's President for a resolution of the matter notwithstanding the dispute resolution process outlined in Section 7(c). Such meeting shall be held as soon as both parties' schedules permit, but no later than seven (7) calendar days from when the meeting is requested in writing by SFRTA. If the matter is critical and could lead to construction delays, the Parties shall meet as soon as practicable, or may discuss the matter by telephone. Following the meeting and/or telephone discussion, AAF's President shall issue a written decision.

18. Except as provided for in Paragraphs 7, 11, and 12 above, SFRTA shall not be responsible for any claims for increased costs or monetary damages related to the SFRTA Work. For the avoidance of doubt, SFRTA shall be responsible for the payment of all costs of all Change Orders and Change Directives. SFRTA shall not obtain access to the Tri-Rail Trackage Improvements until the conditions of Station/Track Availability have been met.

19. GOVERNING LAW, JURISDICTION, VENUE AND WAIVER OF JURY TRIAL -

This Trackage Agreement shall be interpreted under and its performance governed by the laws of the State of Florida.

Any litigation between SFRTA and AAF (which for the purposes of this section shall include Alstom's and Archer's surety, if applicable), whether arising out of any Claim or arising out of the Trackage Agreement or any breach thereof, shall be brought, maintained and pursued only in the appropriate courts of the State of Florida. Venue of any such litigation between the SFRTA and AAF shall lie and be only in the appropriate courts of the State of Florida in Broward County, Florida. SFRTA and AAF consent and submit to the jurisdiction of any such court and agree to accept service of process outside the State of Florida in any matter to be submitted to any such court pursuant hereto, AND, AAF AND SFRTA EXPRESSLY WAIVE ALL RIGHTS TO TRIAL BY JURY REGARDING ANY DISPUTE RELATING TO THIS TRACKAGE AGREEMENT THAT RESULTS IN LITIGATION.

20. NO WAIVER - The failure of either party to enforce at any time or for any period of time any one or more of the provisions of this Trackage Agreement shall not be construed to be and shall not be a waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision unless provided for in writing by such party.

21. JOINT PREPARATION - The preparation of this Trackage Agreement has been a joint effort of the parties, and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

22. SEVERABILITY - In the event any term or provision of this Trackage Agreement shall be determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be given its nearest legal meaning or be construed or deleted as such authority determines, and the remainder of this Trackage Agreement shall be construed to be in full force and effect.

23. ATTORNEY'S FEES - In the event it shall become necessary for either party to this Trackage Agreement to institute legal proceedings against the other party for recovery of any amounts due and owing under this Trackage Agreement, then in such event, it is expressly agreed that the prevailing party in any such action shall be entitled to recover from the non-prevailing party all costs, including reasonable attorneys' fees, of pre-suit collection attempts, suit, and post judgment or settlement collection, including those incurred on appeal.

24. RELATIONSHIP OF THE PARTIES - Except as set forth herein, no party to this Trackage Agreement shall have any responsibility whatsoever with respect to services provided or contractual obligations assumed by the other party. AAF is, and shall be, in the performance of its services and activities under this Trackage Agreement independent, and not an employee, agent, or servant of SFRTA and SFRTA shall have no discretion, supervision or control over AAF. It is the express intention of the parties that AAF is an independent contractor and not an employee, agent, joint venturer or partner of SFRTA.

25. CONTINGENT FEE - AAF warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the AAF, to solicit or secure this Trackage Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for AAF any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the making of this Trackage Agreement. For the breach or violation of this provision, SFRTA shall have the right to terminate the Trackage Agreement without liability at its discretion, to deduct from the contract price or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

26. MODIFICATION AND AMENDMENTS - This Trackage Agreement may not be changed, altered, or modified except by an instrument in writing signed by all parties against whom enforcement of such change would be sought.

27. CONFLICT OF INTEREST - SFRTA shall not enter into a contract or arrangement in connection with the SFRTA Work or any property included or planned to be included in the SFRTA Work, with any officer, director or employee of SFRTA, or any business entity of which the officer, director or employee or the officer's, director's or employee's spouse or child is an officer, partner, director, or proprietor or in which such officer, director or employee or the officer's director's or employee's spouse or child, or any combination of them,

has a material interest. Material interest means direct or indirect ownership of more than 5 percent of the total assets or capital stock of any business entity.

SFRTA shall not enter into any contract or arrangement in connection with the SFRTA Work or any property included or planned to be included in the SFRTA Work, with any person or entity who was represented before SFRTA by any person who at any time during the immediately preceding two years was an officer, director or employee of SFRTA.

28. PUBLIC ENTITY CRIMES - Execution of this Trackage Agreement is certification that AAF is in compliance with the provisions of s. 287.133 (2)(a), F.S., which reads as follows:

> Pursuant to section 287.133, F.S., a "A person or Affiliate who has been placed on the State's convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a firm, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being on the convicted vendor list.

NOTICES - All notices required or made pursuant to this Trackage Agreement shall be in writing and delivered as set forth in the Operating Agreement (unless provisions of this Trackage Agreement expressly allows for a specific alternative method of notice delivery); provided however, notices to SFRTA should be sent to the Attention of SFRTA's Project Manager. Either party may change its address by giving written notice to the other party in accordance with the requirements of the Operating Agreement.

29. FORCE MAJEURE - The performance by either Party to this Trackage Agreement of its obligations (except the payment sums of money) shall be excused by delays attributable to events beyond that Party's reasonable control for a period of time that is sufficient for the Party to perform its obligations after the cessation of the Force Majeure event acting in a diligent, commercially reasonable manner. Such events of "Force Majeure" shall include events beyond a Party's reasonable control and shall include, but are not limited to, acts of the other Party, acts of God (including reasonable preparation therefor), war, civil commotion, labor disputes, strikes, fire, flood or other casualty, failure of power, shortages of labor or material, government action, regulation or restriction (including extraordinary delay in the issuance of any permit, permit approval or building permit inspection not resulting from the negligence or inaction of the Party responsible to obtain such permit, approval or inspection) and unusually inclement weather conditions. Events beyond a Party's control shall not include changes in economic or market conditions, or financial or internal problems of the non-performing Party, or problems that can be satisfied by the payment of money.

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have made and executed this Trackage Agreement on the respective date under each signature: **ALL ABOARD FLORIDA - OPERATIONS, LLC,** signing by and through its _____, duly authorized to execute same and **SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY**, signing by and through its Board Member, authorized to execute same by Board action on the ____ day of _____, 2016.

SFRTA

ATTEST:

SOUTH FLORIDA REGIONAL
TRANSPORTATION AUTHORITY

_____
JACK L. STEPHENS
EXECUTIVE DIRECTOR

By:_____
COMMISSIONER STEVEN ABRAMS,
SFRTA BOARD MEMBER

_____ DAY OF _____, 2016

(SFRTA SEAL)

Approved as to form by:

_____
CHRIS BROSS, Director

_____
TERESA MOORE, General Counsel

[THE OWNER'S SIGNATURES APPEAR ON THE FOLLOWING PAGE]

AGREEMENT NO. ___ DEVELOPMENT AGREEMENT BETWEEN SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY AND ALL ABOARD FLORIDA - OPERATIONS, LLC

OWNER:

ALL ABOARD FLORIDA – OPERATIONS LLC

By:_____

Name:_____

Title:_____

_____

Print Name:_____

_____

Print Name:_____

EXHIBIT A

Joinder Form

EXHIBIT B

Documents Required for Submittal of Construction Invoices

- Actual invoice from AAF on percentage of completion basis (including form in attached Exhibit B-1)
- Current Schedule
- Schedule of values with percentages complete – identifying monthly design and construction progress and the anticipated construction expenditures payout schedule for such progress
- Copies of the executed Contractor Waiver and Release Upon Progress Payment Form and the Subcontractor Waiver and Release Upon Progress Payment Form received by AAF for the Previous Periodic Payment to the Contractor and Subcontractors (using forms in attached Exhibit B-2)

EXHIBIT C
SECTIONS OF DESIGN AND CONSTRUCTION CONTRACTS

EXHIBIT D

FORM OF REPORT FOR DISADVANTAGED BUSINESS ENTERPRISES

OUTLINE OF TRI-RAIL TRACKAGE IMPROVEMENTS AGREEMENT

The Tri-Rail Trackage Improvements Agreement controls the design and construction of the Trackage Improvements by AAF in the same manner that the Development Agreement controls the design and construction of the Station Improvements by AAF. The agreement provides for SFRTA's rights to participate in meetings with AAF and its Contractor and inspections. It outlines the process for SFRTA to request Change Orders and request issuance of Change Directives.

The Agreement provides any change orders requested by SFRTA would be subject to delay costs and an administrative fee (5% if Change Order/Directive greater than $50,000 or cumulatively greater than $500,000).

The Agreement also provides for AAF and its Contractor to enter into a "Joinder" that will provide SFRTA with certain rights under AAF's construction contract, including indemnification from the contractor and being named as an additional insured on the contractor's insurance policies. It also provides for the Contractor and Surety to obtain a surety bond that complies with s. 255.05, F.S. and to include SFRTA as an additional obligee (a party able to assert rights under a surety bond) on that bond, which is required for public projects under State law. The Agreement also provides the process by which Final Acceptance by SFRTA of the Trackage Improvements will occur.

Station/Track Availability – This Agreement mirrors the Operating Agreement in stating that SFRTA cannot obtain access to the Trackage Improvements until the conditions for Station/Track Availability (as contained in the Operating Agreement) have been satisfied. The conditions are provided below:

- The MiamiCentral Station has obtained a temporary certificate of occupancy from the applicable governmental entity(ies) with jurisdiction
- SFRTA has issued Final Acceptance of the Station Improvements
- SFRTA has approved invoices equal to the Cost of the Tri-Rail Station Improvements ($50.4 million)
- SFRTA has paid the entire Cost of the Tri-Rail Trackage Improvements ($16.2 million) and has issued Final Acceptance for them
- SFRTA has paid the $1 million Access Fee into Escrow
- All FRA issues regarding SFRTA's service within AAF's control have been resolved

- SFRTA has paid closing costs under Loan Agreement (if it elects to enter into it)
- SFRTA has provided evidence of the SFRTA Insurance Program
- SFRTA has received and paid to AAF $31 million in monies received from the local government funding partners ("Partners") under the Revenue Agreements, via cash or letter(s) of credit.
  - If this has not occurred, but SFRTA has received $30 million from the Partners, then SFRTA agrees to assist AAF in obtaining the $1 million remaining monies from the applicable Partner(s) (except for litigation). If unsuccessful after 120 days and all other Station/Track Availability conditions are met, SFRTA will be granted access and agrees to continue to work with AAF to resolve issue with applicable Partner(s).
  - The 120 days will not begin to toll until SFRTA receives $30 million, even if the other conditions are satisfied, i.e. no access.
  - Letters of credit cannot be for more than $5 million of the overall $30 million and must survive for at least 1 year after Final Acceptance.

RISKS:

AAF Default - in the event AAF defaults prior to completing the Trackage Improvements under the Trackage Improvements Agreement, and another entity does not proceed with construction in AAF's place, SFRTA and the local finding partners will lose any monies they have paid to AAF (this is also true in the Development Agreement as it relates to the Station Improvements). AAF has refused to provide SFRTA with a letter of credit in the event of its bankruptcy during construction and cannot, due to restrictions in its loan documents, provide a parent guarantee. In addition, in the current language of several of the revenue agreements (City agreements totaling about $12 million), SFRTA would be in breach of those agreements if the construction is not completed and revenue service initiated.

Station/Track Availability - Same as for the Development Agreement for the Station Improvements, SFRTA gets no access to the Trackage Improvements if it doesn't receive $30 million under Revenue Agreements, regardless of other monies paid to AAF.

Tracking No. 09231649 AGENDA ITEM NO. R6

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

RESOLUTION NO. 16-05 FOR A REVISED INTERLOCAL AGENCY AGREEMENT BETWEEN SOUTHEAST OVERTOWN/PARK WEST COMMUNITY REDEVELOPMENT AGENCY, CITY OF MIAMI AND SFRTA FOR DESIGN AND CONSTRUCTION OF THE TRI-RAIL DOWNTOWN MIAMI LINK STATION IMPROVEMENTS

REQUESTED ACTION:

MOTION TO APPROVE: Resolution No. 16-05 approving a Revised Interlocal Agency Agreement between Southeast Overtown/Park West Community Redevelopment Agency, City of Miami and SFRTA for design and Construction of The Tri-Rail Downtown Miami Link Station Improvements in the not-to-exceed amount of $17,528,059

SUMMARY EXPLANATION AND BACKGROUND:

The Governing Board at its May 27, 2016, meeting approved the Interlocal Agency Agreement between the Southeast Overtown/Park West Community Redevelopment Agency, City of Miami and SFRTA for the Design and Construction of the Tri-Rail Downtown Miami Link Station Improvement (the "CRA/City Agreement"). The CRA/City Agreement is for a funding contribution of $17,528,059 by the SEOPW CRA/City of Miami towards the design and construction of the station improvements necessary for the Tri-Rail Downtown Miami Link Service at the Miami Central Station.

At its December 11, 2015 meeting, the Board had approved the CRA/City Agreement in substantially the form then provided, but there had been substantive changes since then that require further approval by the Board at its May meeting.

(Continued on Page 2)

Department: Executive- Jack L. Stephens
Project Manager: N/A

Department: Legal - Teresa J. Moore
Procurement Director: N/A

FISCAL IMPACT: Funds will be programmed in the FY 2017-2018 Capital Budget

EXHIBITS ATTACHED: (All to be provided under separate cover)
Exhibit 1 - Resolution 16-05 and CRA/City of Miami Agreement
Exhibit 2 - Redline version of CRA/City of Miami Agreement
Exhibit 3 - Summary of Changes

RESOLUTION NO. 16-05 FOR A REVISED INTERLOCAL AGENCY AGREEMENT BETWEEN SOUTHEAST OVERTOWN/PARK WEST COMMUNITY REDEVELOPMENT AGENCY, CITY OF MIAMI AND SFRTA FOR DESIGN AND CONSTRUCTION OF THE TRI-RAIL DOWNTOWN MIAMI LINK STATION IMPROVEMENTS

SUMMARY EXPLANATION AND BACKGROUND: (Continued)

After the Board approved the agreement at its May 27th meeting the CRA and the City continued to negotiate certain items.

The CRA and City have reached agreement on the outstanding issues, making it necessary for the Board to consider a revised agreement and new resolution approving the revised agreement, which are provided in Exhibit 1. A redlined version of the revised agreement is provided in Exhibit 2.

A summary of changes made to the agreement since it was last considered by the Board at its May 27, 2016, meeting is provided in Exhibit 3.

RESOLUTION NO. 16-05 FOR A REVISED INTERLOCAL AGENCY AGREEMENT BETWEEN SOUTHEAST OVERTOWN/PARK WEST COMMUNITY REDEVELOPMENT AGENCY, CITY OF MIAMI AND SFRTA FOR DESIGN AND CONSTRUCTION OF THE TRI-RAIL DOWNTOWN MIAMI LINK STATION IMPROVEMENTS

Recommended by: _____ Approved by: _____
Department Director Date Procurement Director Date

Authorized by: _____ 9/16/16 Approved as to Form by: _____
Executive Director Date General Counsel Date 9/16/16

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	_____ Yes ____ No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	_____Yes _____No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	_____Yes _____No
Frank Frione	____ Yes ____ No	James A. Scott	_____Yes _____No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	_____Yes _____No

Tracking No. 09231650 AGENDA ITEM NO. R7

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

FISCAL YEAR 2016-2017
CAPITAL BUDGET AMENDMENT NUMBER 2

REQUESTED ACTION:

MOTION TO APPROVE: Amendment No. 2 to the South Florida Regional Transportation Authority (SFRTA) Capital Budget to increase the overall 5 year Capital Budget by $22,253,328 to provide for the following:

1. Addition of Tri-Rail Downtown Miami Link project of $20,290,000 for trackage improvements of $16,190,000, positive train control equipment of $3,100,000, and the corridor access fee of $1,000,000.

2. Repayment of a commercial loan secured in order to provide trackage improvements, positive train control equipment, and the corridor access fee for the Tri-Rail Downtown Miami Link project in the amount of $20,290,000 in principal and approximately $1,963,328 in interest.

   Repayment also includes closing costs for commitment fees and legal counsel fees of $55,000 and $27,500, respectively and interest payments on the required reserve fund amount of $1,000,000.

SUMMARY EXPLANATION AND BACKGROUND:

The Tri-Rail Downtown Miami Link project will allow Tri-Rail service into Downtown Miami on the 8.5 mile rail connection between the South Florida Rail Corridor and the MiamiCentral Station. The Tri-Rail Downtown Miami Link project will establish a direct connection between Downtown Miami and 17 existing Tri-Rail stations located on the South Florida Rail Corridor in Miami-Dade and throughout the northern communities of both Broward and Palm Beach County.

(continued on page 2)

Department: Finance
Project Manager: Elizabeth Walter-Ebersole

Department Director: Richard D. Chess
Procurement Director: N/A

FISCAL IMPACT: Funding will be added to the SFRTA Fiscal Year 2016-2017 Capital Budget.

EXHIBITS ATTACHED: Exhibit 1 – FY 2016-2017 Amended Capital Projects Budget & Five Year Plan
Exhibit 2 – FY 2016-2017 Amended Capital Revenue Budget & Five Year Plan

FISCAL YEAR 2016-2017
CAPITAL BUDGET AMENDMENT NUMBER 2

SUMMARY EXPLANATION AND BACKGROUND: (continued)

BankUnited has offered SFRTA a loan through a taxable, non-revolving line of credit in an aggregate principal amount not to exceed $22,000,000 to pay for the needed trackage improvements, positive train control equipment and the access fee.

AGENDA ITEM NO. R7

FISCAL YEAR 2016-2017
CAPITAL BUDGET AMENDMENT NUMBER 2

Recommended by: 9/16/16
Department Director Date

Approved by:
Procurement Director Date

Authorized by: 9/16/16
Executive Director Date

Approved as to Form by:
General Counsel Date 9/16/16

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	____Yes ____ No
Commissioner Bruno Barreiro	____Yes ____ No	F. Martin Perry	____ Yes ____ No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	____ Yes ____ No
Frank Frione	____ Yes ____ No	James A. Scott	____ Yes ____ No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	____ Yes ____ No

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
FY 2016-2017
CAPITAL PROJECTS BUDGET AND FIVE YEAR PLAN

	PRIOR ALLOCATION	FY 2016-2017 CAPITAL BUDGET	FIVE YEAR PLAN FY 2017-2018 PROJECTED	FY 2018-2019 PROJECTED	FY 2019-2020 PROJECTED	FY 2020-2021 PROJECTED	FY 2021-2022 PROJECTED	TOTAL
Project Support/Administration	$ 5,150,000	$ -	$ 1,300,000	$ -	$ 1,300,000	$ -	$ 1,300,000	$ 9,050,000
Computer/Office Equipment/Software	1,417,674	650,000	200,000	200,000	300,000	150,000	150,000	3,067,674
New Furniture and Replacement Program	402,352	-		200,000		200,000		802,352
New Rolling Stock (Rotem Cars)	45,719,000	-						45,719,000
Corridor Flagging	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	10,500,000
Planning & Capital Development	8,325,000	-	1,000,000	1,000,000	1,000,000	2,000,000	1,673,930	14,998,930
Rail Yard Improvements	1,130,000	-	100,000		100,000			1,330,000
Passenger Information System	6,756,450	-						6,756,450
Add Passenger Wi-Fi to Fleet	247,091	-						247,091
Non-Revenue Fleet Vehicles	408,292	100,000	100,000	100,000	100,000	100,000	100,000	1,008,292
Pompano Beach/Delray Beach Sta Improve	18,346,556	-						18,346,556
General Engineering Consultants	3,750,000	1,500,000	1,500,000	1,500,000	1,200,000	1,000,000	1,000,000	11,450,000
New Locomotives	61,742,893	-						61,742,893
Coach Wraps & Cameras	1,900,000	-						1,900,000
Hialeah Yard Electric Rewiring	1,474,000	-						1,474,000
Passenger Emergency Intercom	825,000	-						825,000
Transit Oriented Development (TOD II)	1,400,000	100,000	100,000	100,000	100,000	287,775	212,225	2,300,000
Heavy Station Maintenance/Construction	1,503,782	300,000			100,000	100,000	100,000	2,103,782
Station Beautification	597,844	-						597,844
Opa Locka Parking Lot Improvements	2,313,612	-						2,313,612
Northern Layover Facility	4,050,000	13,065,944	7,000,000	12,034,056				36,150,000
Station Improvements	950,000	100,000			100,000	200,000		1,350,000
Miami River Intermodal Center (MR-MICCI)	4,200,000	9,718,383	5,513,105	415,884				19,847,372
Positive Train Control	6,617,550	36,115,626						42,733,176
Preventive Maintenance	45,009,777	22,443,308	22,500,000	22,500,000	22,500,000	22,500,000	22,500,000	179,953,085
Boca II	-	1,500,000	17,000,000					18,500,000
Passenger Car Spare Parts	4,760,000	-						4,760,000
Wayfinding	3,069,216	183,333						3,252,549
TVMs & Networking	4,192,785	-	268,000	150,000	150,000			4,760,785
SFOMA Transition	2,842,072	-						2,842,072
Northwood & Iris Crossovers	6,348,023	-						6,348,023
Mold Mitigation	223,000	-						223,000
Operations Center	31,355,694	-						31,355,694
Dispatch Center	11,546,037	500,000						12,046,037
New Rolling Stock-TRCL	-	-			4,000,000	4,000,000		8,000,000
Service on FEC-TRCL	208,105	3,746,310	1,348,155	4,608,535				9,911,105
Environmental Mitigation	500,000	-						500,000
Boardroom Audio-visual Equipment	1,055,257	-						1,055,257
New River Draw Bridge	889,000	-						889,000
TRCL Locomotive Rehab	-	-				1,000,000	1,000,000	2,000,000
MIC Rail Corridor	1,350,000	-						1,350,000
Portable Radios	-	50,000					62,000	112,000
PBIA Station Study	-	-	250,000					250,000
Capacity Improvements at Boca Raton	-	108,394	352,280					460,674
Transit Oriented Development Planning	-	1,250,000						1,250,000
West Palm Beach Parking	-	-	-	-	1,000,000	1,000,000	1,000,000	3,000,000
Waste Water Treatment Plant	-	350,000						350,000
Corridor Construction Projects	-	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	9,000,000
Downtown Miami Station	2,097,650	44,291,743	2,513,356	-				48,902,749
Wave	154,050,150	11,235,665						165,285,815
Northern Loop	7,544,568	-						7,544,568
SFRC Scrap Rail Cleanup	1,627,509	-						1,627,509
Hialeah Yard Admin Building	119,579	-						119,579
Debt Service-Downtown Miami Station		-	20,046,225					20,046,225
Transfer to Operating	3,296,895	1,896,895	1,896,895	1,896,895	1,896,895	1,896,895	1,896,895	14,678,265
Debt Service-Administration Building	3,535,117	5,483,278	5,608,641	5,474,692				20,101,728
Federal Funds Unallocated	-	-		151,949	3,174,796	2,487,021	5,926,641	11,740,407
County Gas Tax Funds Unallocated	-	-		115,401	313,105	413,105	413,105	1,254,716
AMENDMENT # 2								
Downtown Miami Link		13,158,334	7,131,666	-				20,290,000
Debt Service-Downtown Miami Link	1,081,550	1,218,450	220,618	3,829,382	4,700,000	4,700,000	4,700,000	20,450,000
Total Capital Fund allocation by Project:	$ 467,429,080	$ 172,065,663	$ 98,948,941	$ 57,276,794	$ 45,034,796	$ 45,034,796	$ 45,034,796	$ 930,824,866

Total Prior Year Funds Expended $ 218,351,074

Remaining Prior Year Funds $ 249,078,006

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
FY 2016-2017
CAPITAL REVENUE BUDGET AND FIVE YEAR PLAN

	PREVIOUS FUNDING	FY 2016-2017 CAPITAL BUDGET	FIVE YEAR PLAN FY 2017-2018 PROJECTED	FY 2018-2019 PROJECTED	FY 2019-2020 PROJECTED	FY 2020-2021 PROJECTED	FY 2021-2022 PROJECTED	TOTAL
FTA Section 5307 - Formula Funds	$84,458,277	$17,448,155	$17,448,155	$17,448,155	$17,448,155	$17,448,155	$17,448,155	$ 189,147,207
FTA Section 5307 - STP Flex Funds	4,728,800							4,728,800
FTA Section 5307 - CIG Program		1,250,000						1,250,000
FTA Section 5309 - Rail Mod.	12,736,000							12,736,000
FTA Section 5309 - Safetea (Earmark)	595,000							595,000
FTA Section 5337 - State of Good Repair	40,792,866	16,576,641	16,576,641	16,576,641	16,576,641	16,576,641	16,576,641	140,252,712
FTA Section 5308 - Tigger Funds	5,713,549							5,713,549
FTA Section 5317 - New Freedom	2,573,007							2,573,007
American Recovery & Reinvestment Act	16,059,215							16,059,215
FDOT GMR Funds		9,439,400	5,900,000					15,339,400
FDOT PTO	500,000							500,000
FDOT JPA'S	25,302,728							25,302,728
FDOT JPA-PTC		11,100,000						11,100,000
FDOT Railroad Reimbursement Agreements	2,700,000	3,350,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	21,050,000
FDOT Trip Funds	15,481,674	108,394	9,102,280	207,942				24,900,290
FDOT FHWA Flex Funds			1,100,000					1,100,000
PBMPO Funds	4,050,000	14,565,944	8,500,000	12,034,056				39,150,000
Rotem Credit	2,460,000							2,460,000
SIB Loan	19,300,000							19,300,000
Undertermined Funding Source for PTC		23,515,626						23,515,626
All Aboard Florida Loan		17,528,049	2,167,575					19,695,624
Omni CRA		3,750,000						3,750,000
City of Miami		5,929,455						5,929,455
Bayfront Park Trust		250,000						250,000
Miami DDA		950,000	317,000					1,267,000
Miami Dade County		13,900,000						13,900,000
FDOT JPA	35,540,150							35,540,150
FTA Small Starts Request	49,650,000							49,650,000
Broward MPO	3,911,200							3,911,200
City of Ft. Lauderdale-Wave	10,500,000	90,753						10,590,753
TIGER Grant	18,000,000							18,000,000
Taxing District	20,590,000							20,590,000
Broward County Betterment Funding	5,815,000							5,815,000
FDOT Match	5,815,000							5,815,000
TBD		11,144,912						11,144,912
City of Ft. Lauderdale-Northern Loop	7,544,568							7,544,568
FDOT JPA 97	1,627,509							1,627,509
FDOT JPA 96	119,579							119,579
SEOPW CRA/City of Miami			19,695,624					19,695,624
County Gas Tax	70,864,958	8,010,000	8,010,000	8,010,000	8,010,000	8,010,000	8,010,000	118,924,958
AMENDMENT # 2								
Downtown Miami Link Loan		13,158,334	7,131,666					20,290,000
Total Capital Revenues	**$ 467,429,080**	**$ 172,065,663**	**$ 98,948,941**	**$ 57,276,794**	**$ 45,034,796**	**$ 45,034,796**	**$ 45,034,796**	**$ 930,824,866**
Total Prior Year Funds Expended	**$ 218,351,074**							
Remaining Prior Year Funds	**$ 249,078,006**							

Tracking No. 09231651 AGENDA ITEM NO. R8

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2014

AGENDA ITEM REPORT

☐ Consent ☒ Regular

FISCAL YEAR 2015-2016 OPERATING BUDGET AMENDMENT NO. 1

REQUESTED ACTION:

MOTION TO APPROVE: Amendment No. 1 to the South Florida Regional Transportation Authority (SFRTA) FY 2015-2016 Operating Budget to transfer $2,000 to the Legal Department in order to balance the department's budget. This transfer is necessary to provide the remaining monies to fund the increase in Purchase Order No. 16-000037 with Kaplan, Kirsch and Rockwell, LLP, which is requested in a separate agenda item.

SUMMARY EXPLANATION AND BACKGROUND:

SFRTA staff will transfer $2,000 from the Executive Departments Business Travel account to the Legal Department appropriation account. The transfer of $2,000 will in effect increase the amount of PO No. 16-000037. The Legal Department is over budget due to a catchup payment of Deferred Compensation in FY 2015-2016.

The Executive Department's Business Travel account is part of the SFRTA total General and Administrative Expenses appropriation.

Department: Finance
Project Manager: Elizabeth Walter-Ebersole

Department Director: Richard D. Chess
Procurement Director: N/A

FISCAL IMPACT: No fiscal impact to the overall budget as funds are being moved from one appropriation line to the other.

EXHIBITS ATTACHED: Exhibit 1: Revised FY 2015-2016 Appropriations

AGENDA ITEM NO. R8

FISCAL YEAR 2015-2016 OPERATING BUDGET AMENDMENT NO. 1

Recommended by: _____ 9/16/16
Department Director Date

Approved by: _____
Procurement Director Date

Authorized by: _____
Executive Director Date

Approved as to Form by: _____ 9-16-16
General Counsel Date

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	____Yes ____ No
Commissioner Bruno Barreiro	____Yes ____ No	F. Martin Perry	____ Yes ____ No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	____ Yes ____ No
Frank Frione	____ Yes ____ No	James A. Scott	____ Yes ____ No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	____ Yes ____ No

Exhibit 1

SOUTH FLORIDA
REGIONAL TRANSPORTATION AUTHORITY

	2015-2016 APPROVED BUDGET	1st BUDGET AMENDMENT	REVISED 2015-2016 BUDGET
TRAIN REVENUE			
Train Service Revenue	13,272,273		13,272,273
Interest Income/Other Income	325,000		325,000
TOTAL TRAIN REVENUE	**13,597,273**		**13,597,273**
OPERATING ASSISTANCE			
Statutory Dedicated Funding	13,300,000		13,300,000
Statutory Operating Funding	17,300,000		17,300,000
Statutory Maintenance of Way	25,722,054		25,722,054
FTA-Planning Grant	1,100,000		1,100,000
FTA-Preventive Maintenance	19,922,912		19,922,912
Designated Recipient Fee	150,000		150,000
JARC/NF Program Fee	10,000		10,000
JARC/NF Program Match	375,890		375,890
FHWA	4,000,000		4,000,000
FDOT JPA-Hialeah Station	129,344		129,344
FDOT Flagging Reimbursement Agreement	500,000		500,000
City of Boca Raton-Shuttle Service	110,734		110,734
Miami-Dade Operating Assistance	1,565,000		1,565,000
Broward Operating Assistance	1,565,000		1,565,000
Palm Beach Operating Assistance	1,565,000		1,565,000
Other Local Funding	279,535		279,535
Gas Tax Transfer	1,896,895		1,896,895
SFRTA Reserves	2,599,893		2,599,893
		-	
TOTAL ASSISTANCE	**92,092,257**	**-**	**92,092,257**
TOTAL REVENUE	**$ 105,689,530**	**$ -**	**$105,689,530**

SOUTH FLORIDA
REGIONAL TRANSPORTATION AUTHORITY

	2015-2016 APPROVED BUDGET	1st BUDGET AMENDMENT	REVISED 2015-2016 BUDGET
APPROPRIATIONS			
Operations	71,149,568		71,149,568
Train & Station Maintenance	19,922,912		19,922,912
Personnel Expense	11,294,866		11,294,866
General & Administrative	2,433,828	(2,000)	2,431,828
Corporate & Community Outreach	598,500		598,500
Professional Fees	1,037,900		1,037,900
Legal	826,956	2,000	828,956
Expenditures Transferred to Capital Budget	(1,575,000)	-	(1,575,000)
TOTAL APPROPRIATIONS	**$ 105,689,530**	**$ -**	**$105,689,530**

Tracking No. 09231652 AGENDA ITEM NO. R9

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☐ Consent ☒ Regular

LEGAL PURCHASE ORDER INCREASE

REQUESTED ACTION:

MOTION TO APPROVE: Approval of an additional amount of $11,127.06 for Kaplan, Kirsch and Rockwell, LLP Purchase Order No. 16-000037 ("PO") for the Tri-Rail Downtown Miami Link for a total PO not-to-exceed amount of $131,127.06.

SUMMARY EXPLANATION AND BACKGROUND:

At its May 27, 2016 meeting, the Board approved increasing the PO No. 16-000037 with Kaplan, Kirsch and Rockwell, LLP ("KKR") by $70,000 for a total not-to-exceed amount of $120,000 for work on the Tri-Rail Downtown Miami Link transaction during FY 16.

Subsequently, KKR has discovered it inadvertently failed to send an invoice during FY 16 and also exceeded the approved PO amount of $120,000 for a total overage of $11,127.06 (see KKR's letter in Exhibit 1).

General Counsel is requesting an increase of $11,127.06, for a total PO maximum not-to-exceed amount of $131,127.06.

Department: Legal
Project Manager: Teresa J. Moore

Department Director: Teresa J. Moore
Procurement Director: N/A

FISCAL IMPACT: No fiscal impact to the overall budget as funds are being moved from one appropriation line to the other.

EXHIBITS ATTACHED: Exhibit 1 - KKR Letter

AGENDA ITEM NO. R9

LEGAL PURCHASE ORDER INCREASE

Recommended by: _____ Approved by: _____
Department Director Date Procurement Director Date

Authorized by: _____ Approved as to Form by: _____
Executive Director Date General Counsel Date 9/14/16

Board Action:

Approved: _____Yes _____No

Vote: _____ Unanimous

Amended Motion:

Commissioner Steven L. Abrams	____Yes ____ No	Gerry O'Reilly	_____ Yes ____ No
Commissioner Bruno Barreiro	____Yes ____No	F. Martin Perry	_____Yes _____No
Andrew Frey	____Yes ____ No	Commissioner Tim Ryan	_____Yes _____No
Frank Frione	____ Yes ____ No	James A. Scott	_____Yes _____No
Nick A. Inamdar	____ Yes ____No	Beth Talabisco	_____Yes _____No

Exhibit 1

KAPLAN KIRSCH ROCKWELL

August 29, 2016

Teresa J. Moore, Esq.
South Florida Regional Transportation Authority
800 N.W. 33rd Street
Suite 1000
Pompano Beach, FL 33064

RE: PO# 16-000037

Dear Teresa:

As we have discussed, I am requesting that you seek an increase in the amount authorized for payment to my firm during the past fiscal year by a total of $11,127.06. The prior maximum amount payable for this purchase order was $120,000.00 and I am requesting an increase to $131,127.06. You have explained that if the Board approves this increase, the funds will be paid out of current year's funding.

There are two reasons that I am requesting this increase. First, as we have been attempting to reconcile our accounts for the past fiscal year, I have discovered that Invoice No. 19820 in the amount of $9,874.06 covering fees and expenses incurred during December 2015 was never sent to you. While we finalized the invoice in due course, my assistant at that time (who is no longer employed by this firm) failed to send the invoice to you. I am attaching a copy of that invoice to this letter. Second, during the month of June 2016, we incurred fees and expenses that, if the amount had been billed in its entirety, would have been in excess of the $120,000 budget cap. As a result, there is a supplemental invoice for June 2016 in the amount of $1,253.00. That invoice (No. 21569) is attached to this letter as well.

I will very much appreciate your requesting authorization to pay these two invoices. If you have any questions please feel free to give me a call.

Yours very truly,

Charles A. Spitulnik

Enclosures

Attorneys at Law
Denver • Washington, DC

Kaplan Kirsch & Rockwell LLP
1001 Connecticut Ave., N.W., Suite 800
Washington, DC 20036

tel: 202.955.5600
fax: 202.955.5616
www.kaplankirsch.com

Kaplan Kirsch & Rockwell LLP

1675 Broadway
Suite 2300
Denver, CO 80202
(303) 825-7000

Statement as of December 31, 2015
Statement No. 19820

South Florida Regional Transportation Authority

Teresa J. Moore, Esq.
800 N.W. 33rd Street
Suite 100
Pompano Beach, FL 33064

Client Matter ID:
1917-13 FEC Issues - PO #16-000037

Current Fees:	9,535.40
Current Expenses:	338.66
Total Current Billing:	9,874.06
Total Due This Statement	**9,874.06**

Due From Previous Billing **0.00**

I certify that all costs and fees claimed for payment are accurate and were performed in furtherance of the Agreement between Kaplan Kirsch & Rockwell and South Florida Regional Transportation Authority.

Signed: _____

Kaplan Kirsch & Rockwell LLP

1675 Broadway
Suite 2300
Denver, CO 80202
(303) 825-7000

EIN 05-0573472
Statement as of December 31, 2015
Statement No. 19820

South Florida Regional Transportation Authority
Teresa J. Moore, Esq.
800 N.W. 33rd Street
Suite 100
Pompano Beach, FL 33064

1917-13: FEC Issues - PO #16-000037

Professional Fees			Hours	Rate	Amount
12/1/2015	CAS	Telephone conference with SFRTA and FEC/AAF legal teams, follow up e-mails and review of documents	2.40	353.00	847.20
12/2/2015	CAS	Review current draft term sheet and discuss and exchange e-mails with T. Moore and J. Olson; telephone conference with SFRTA and FEC legal teams to discuss current draft of term sheet; follow up conversations and e-mails with T. Moore and J. Olson	3.30	353.00	1,164.90
12/3/2015	CAS	Reviewing J. Olson draft of term sheet, send comments, telephone conference with T. Moore and J. Olson, telephone conference with J. Stephens, M. Ogelsby, D. Mazza, T. Moore, J. Olson, J. Quinty re: revised term sheet; e-mail exchange re: revisions and list of "business issues"; e-mail exchange with J. Cline re: liability cap increase	4.00	353.00	1,412.00
12/4/2015	CAS	E-mail exchange and telephone conferences with T. Moore re: term sheet; participate in telephone conference with T. Moore, J. Olson, K. Cobb, R. Ledoux, M. Tobin, F. Ilias and reviewing documents related to description of improvements as Station or Trackage improvements	3.00	353.00	1,059.00
12/7/2015	CLA	Research and retrieve Chatsworth Metrolink Collision decision to confirm absence of substatute discussion of statutory liability cap, and discuss same with C. Spitulnik	0.30	250.00	75.00
12/7/2015	CAS	Numerous telephone calls and e-mail exchanges with client team and with AAF/FECR team re: draft	5.50	353.00	1,941.50

		of Term Sheet, drawings showing embankment and viaduct and reaching precise description of which work and which track is included in Station Improvements vs. Track Improvements, reviewing and commenting on summary of term sheet and Board item			
12/8/2015	CAS	Reviewing final documents circulated to SFRTA Board	0.60	353.00	211.80
12/11/2015	CAS	Review final PPT and review of transaction documents in preparation for Board meeting, discussion with T. Moore, then with J. Stephens to prepare for Board meeting, attend Board meeting, travel to Washington, DC	8.00	353.00	2,824.00
		Sub-total Hours:	27.10	Sub-total Fees:	9,535.40

Expenses

12/10/2015	Air fare to Florida 12/11/2015 (CAS)	297.60
12/11/2015	Car Rental (National) - Trip to Florida 12/11/2015 (CAS)	35.33
12/13/2015	Meal - Trip to Florida 12/11/2015 (CAS)	5.73
	Sub-total Expenses:	338.66

Rate Summary

Christian L. Alexander	0.30	hours at 250.00 /hr
Charles A. Spitulnik	26.80	hours at 353.00 /hr

0.00	Total Current Billing	9,874.06
	Total Due This statement	**9,874.06**

Due From Previous Billing **0.00**

Kaplan Kirsch & Rockwell LLP

1675 Broadway
Suite 2300
Denver, CO 80202
(303) 825-7000

Statement as of June 30, 2016
Statement No. 21569

South Florida Regional Transportation Authority

Teresa J. Moore, Esq.
800 N.W. 33rd Street
Suite 100
Pompano Beach, FL 33064

Client Matter ID:			
1917-13	FEC Issues - PO #16-000037	Current Fees:	1,253.00
		Current Expenses:	0.00
		Total Current Billing:	1,253.00
		Total Due This Statement	**1,253.00**

I certify that all costs and fees claimed for payment are accurate and were performed in furtherance of the Agreement between Kaplan Kirsch & Rockwell and South Florida Regional Transportation Authority.

Signed: _____

Kaplan Kirsch & Rockwell LLP

1675 Broadway
Suite 2300
Denver, CO 80202
(303) 825-7000

EIN 05-0573472
Statement as of June 30, 2016
Statement No. 21569

South Florida Regional Transportation Authority
Teresa J. Moore, Esq.
800 N.W. 33rd Street
Suite 100
Pompano Beach, FL 33064

1917-13: FEC Issues - PO #16-000037

Professional Fees			Hours	Rate	Amount
6/24/2016	LMZ	Check pin cites in Tri-Rail Downtown Miami Link Access, Operating and Funding Agreement; conference with C. Quintana re: revisions to Agreement	3.60	250.00	900.00
6/28/2016	CAS	Telephone conference with T. Moore, J. Stephens, Commissioner Abrams, and J. Olson re: changes to Operating Agreement since May Board meeting and re: next steps	1.00	353.00	353.00
		Sub-total Hours:	4.60	Sub-total Fees:	1,253.00

Rate Summary

Charles A. Spitulnik	1.00	hours at 353.00 /hr
Lee M. Zarzecki	3.60	hours at 250.00 /hr

49,900.85

Total Current Billing	1,253.00
Total Due This statement	**1,253.00**

REMITTANCE COPY
Return with Payment

South Florida Regional Transportation Authority
Teresa J. Moore, Esq.
800 N.W. 33rd Street
Suite 100
Pompano Beach, FL 33064

Statement Number:	21569
Statement Date:	June 30 2016
Matter ID:	1917-13

Amount Due: 51,153.85

PLEASE REMIT TO:

Kaplan Kirsch & Rockwell LLP
1675 Broadway #2300
Denver, Co 80202

Payments via ACH are welcome!
Recipient: Kaplan Kirsch & Rockwell LLP
Routing #021052053, Account #88668756

AGENDA ITEM NO. I-1

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Information Item ☒ Presentation

TRI-RAIL COASTAL LINK ON THE FEC CORRIDOR

SUMMARY EXPLANATION AND BACKGROUND:

The South Florida Regional Transportation Authority (SFRTA) continues to work with its partner agencies on plans to expand Tri-Rail service onto the Florida East Coast (FEC) Railway corridor, known as "Tri-Rail Coastal Link" (TRCL). The project proposes a system of fully integrated and complementary Tri-Rail services that would create extensive mobility benefits and significant new economic development opportunities throughout the region.

SFRTA's Governing Board has directed staff to provide monthly TRCL updates on overall project information, schedule, costs, and SFRTA's identified roles in the TRCL Memorandum of Understanding (MOU).

TRCL MOU

In May 2013 eight project partners adopted the MOU, which clarifies the project's next steps and partner responsibilities. The MOU formalized four regional committees to guide the project: the Executive Steering Committee, Technical Committee, Financial Committee, and Public Information and Outreach Committee.

Project (Executive) Steering Committee:

The Project (Executive) Steering Committee, led by the Florida Department of Transportation (FDOT), is coordinating efforts for the overall TRCL project. A meeting of the TRCL Project Steering Committee was last held on April 29, 2015. The schedule for the next Project Steering Committee meeting is uncertain, pending official notification to the FTA for the start of the TRCL Project Development and Environmental phase. There has been no recent activity.

Public Involvement/Outreach (PIO) Sub-Committee:

The PIO Sub-Committee, led by the Regional Planning Councils, has provided valuable guidance on outreach activities and optimal coordination strategies. The schedule for the next PIO Sub-Committee meeting is uncertain, pending official notification for the start of the TRCL Project Development (PD) phase. There has been no recent activity.

(Continued on Page 2)

EXHIBITS ATTACHED: Exhibit 1: TRCL Station Location Refinement Overview

SUMMARY EXPLANATION AND BACKGROUND: (Continued)

Financial Sub-Committee:
The Financial Sub-Committee, led by SFRTA, has provided valuable guidance on the challenging issue of obtaining new funds to build and operate region-wide TRCL service. The schedule for the next Financial Sub-Committee is uncertain, pending official notification for the start of the TRCL Project Development phase. There has been no recent activity.

Technical Sub-Committee:
The schedule for the next meeting of the Technical Sub-Committee, led by FDOT, is uncertain, pending official notification for the start of the TRCL Project Development phase. There has been no recent activity.

Award of FTA Grant - Pilot Program for Transit Oriented Development (TOD)
In September 2015, SFRTA and the TRCL project were one of the 21 nationwide recipients of FTA grant funds for a pilot program for TOD. The award amount is $1,250,000.

As stated in the official FTA announcement, SFRTA will receive funding to promote TOD along the TRCL, a proposed 85-mile commuter rail line connecting Jupiter and Miami. A market and economic analysis has identified billions of dollars in potential station area residential and commercial development spurred by the TRCL. The TOD work will provide the region with suggestions on how to realize that economic potential and increase the livability and quality of life in South Florida. The plan will provide comprehensive station area planning for several stations, an infrastructure assessment, a station-area bicycle and pedestrian plan, an affordable housing analysis and regional business plan.

The FTA grant was obligated on September 1, 2016. It is anticipated that sub-recipient agreements between SFRTA and the Regional Planning Councils will be approved at the September 23, 2016 Board Meeting and the pilot program will kick off in Fall 2016.

Other
At the August 26, 2016 SFRTA Governing Board Meeting, Board Members requested a presentation on the TRCL station location process be given at the September 23, 2016 meeting. FDOT staff will update the Board on station evaluation criteria, spacing criteria, and ongoing coordination and outreach activities.

TRI-RAIL COASTAL LINK ON THE FEC CORRIDOR

Recommended by: for 9/16/16
Department Director Date

Approved
Procurement Director Date

Authorized by: 9/16/16
Executive Director Date

Approved as to Form
General Counsel Date 9-16-16

EXHIBIT 1

Tri-Rail Coastal Link

Broward Metropolitan Planning Organization
Florida Department of Transportation
Miami-Dade Metropolitan Planning Organization
Palm Beach Metropolitan Planning Organization
Southeast Florida Transportation Council
South Florida Regional Planning Council
South Florida Regional Transportation Authority
Treasure Coast Regional Planning Council

Miami-Dade
Broward
Palm Beach

Tri-Rail Coastal Link: Station Location Refinement Overview

Presented to:

SFRTA Board

September 23, 2016

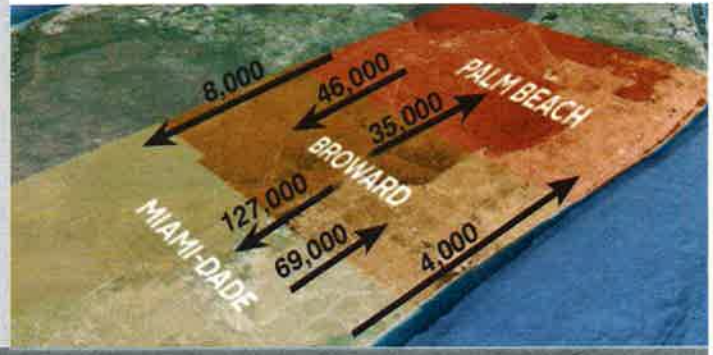
Getting Southeast Florida to Work

Tri-Rail Coastal Link

Southeast Florida's Regional Core

- Densest ***urban corridor*** in Florida
  - Exceeds 13,000 people per square mile by 2040
  - Sustainability, regional connectivity, economic development are highest priorities
- The region's ***economic*** core
  - 1 million jobs, 1.6 million people
  - 3 CBDs, 3 international airports, 3 seaports
  - Extensive rail, truck, and marine freight
- The region's ***transportation*** core
  - 3 million daily trips, 17% of region's travel
  - Trips growing steadily
  - Highways are at capacity

Commuting Trends in Southeast Florida

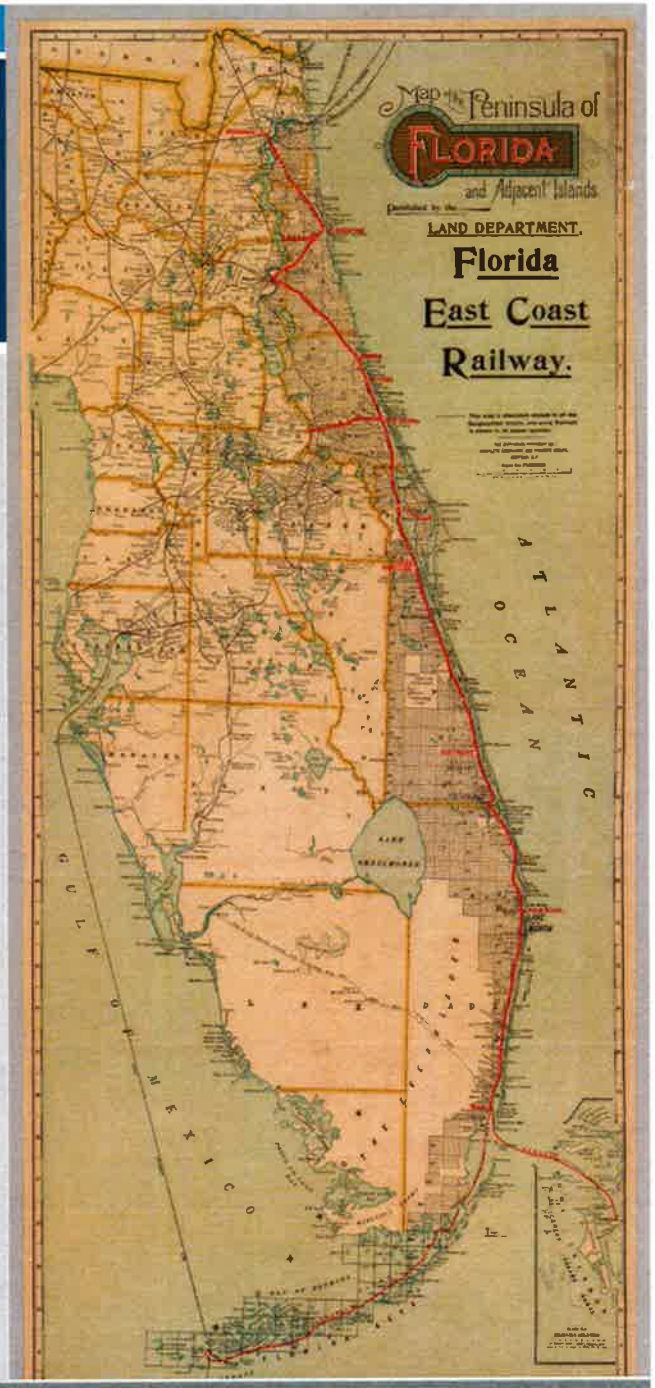


Tri-Rail Coastal Link

Miami-Dade
Broward
Palm Beach

Project History

- 2004: MPOs and FEC requested regional FDOT SFECC Study
- 2005 - 2009: System Master Plan & Alternatives Analysis finalized by FDOT with over 400 public meetings
- 2010: Resolutions of support from Broward and Palm Beach MPOs and Cities along the corridor
- 2010 - 2012: Refinement of the Master Plan to address operational and implementation issues
- *2012: FECI announces AAF's service from Miami to Orlando - becomes a game changer for the Study*
- 2012: Partners develop Memorandum of Understanding (MOU) for TRCL
- 2013: MPOs approve Entry into Project Development (PD) with FTA
- 2014: FDOT requests Entry into PD
  - *Due to public confusion with AAF service, the Project partners, FTA and FRA agree to put PD entry request on hold*



Tri-Rail Coastal Link

Project Description

- New 85-mile commuter rail service from Miami to Jupiter as an integrated extension of Tri-Rail
- 25 stations identified for further evaluation during Project Development phase
- Shared tracks with FEC freight and All Aboard Florida (AAF) - Brightline Intercity Passenger Service
- Co-located stations with AAF in Miami, Ft. Lauderdale and West Palm Beach (under construction)
- Phased project implementation likely based on availability of local matching funds
- Project governed by partnership *Memorandum of Understanding* executed in May 2013

Purpose of this Phase of the Project:

Develop a "cost-effective" system
for the 85-mile corridor
that can be approved by FTA
to move into the next phase
of the project (Project Development)

GOAL:

A BALANCE of ACCESS and TRAVEL TIME

Purpose of this Phase of the Project:

Develop a "cost-effective" system
for the 85-mile corridor
that can be approved by FTA
to move into the next phase
of the project (Project Development)

- Ongoing coordination with SFRTA and FEC
- Over 20 Project Steering Committee meetings
- Nearly 200 MPO Board and elected officials meetings
- Almost 100 meetings and workshops with municipalities and counties
- Over 200 Public meetings, workshops, and station planning meetings

FEEDBACK from PUBLIC MEETINGS, WORKSHOPS, and STATION PLANNING MEETINGS:

- Strong local support for project
- Refine System Master Plan to be more cost-effective
- Identify phasing for accelerated implementation
- Coordinate passenger rail improvements with FECI where possible (e.g., quiet zones, grade crossing improvements)

PHASE 3 REFINEMENT PROCESS

Phase 1 + 2 Station Evaluation

>>52 Stations

Fatal Flaw Screening

Local coordination

Initial ridership modeling and operations simulations

Early Phase 3 Station Evaluation

>> 36 Stations

Initial Evaluation Criteria Screening

Local coordination

More detailed ridership modeling and operations simulations

20-25 Recommended Stations

Key Refinement Factors:

- High preliminary ridership to support implementation, cost feasibility, and mobility benefits
- Provides optimal station spacing for service operations (2.5 – 5 mi)
- Minimize proximity to existing Tri-Rail Stations
- Direct access to regional or sub-regional transportation network (car, bus, other rail)
- Supportive surrounding land use and future land use designations

Future Infill Stations

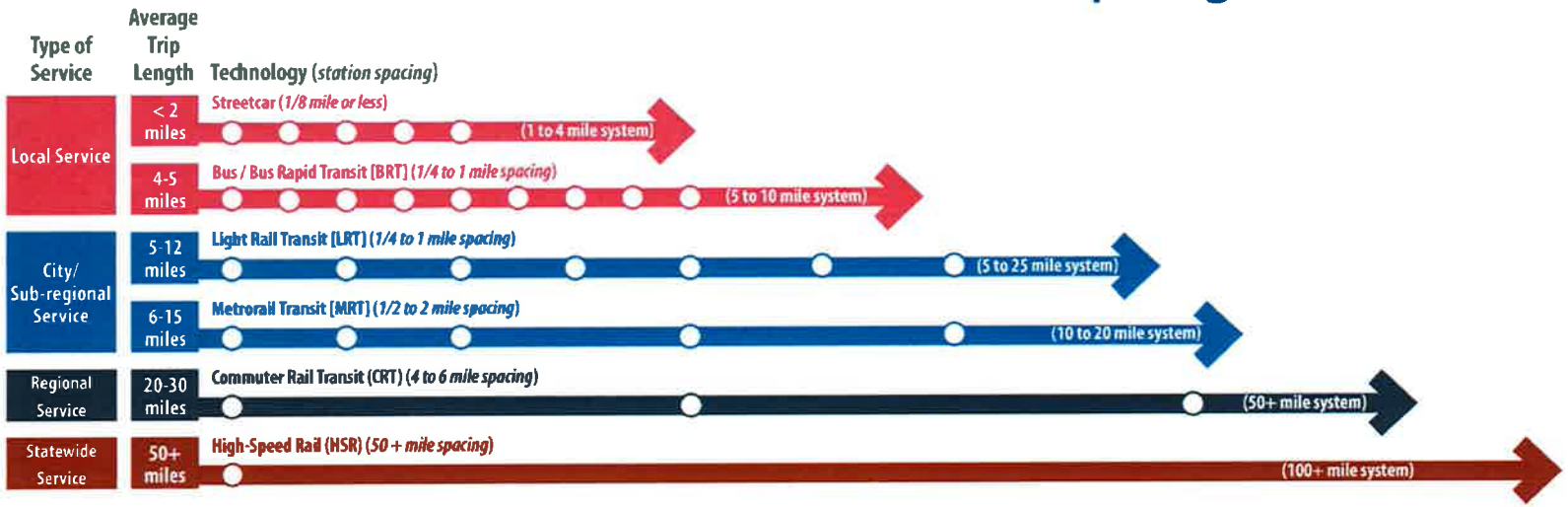
Potential infill implementation

Extensive System (Local + Express)

Future System (Startup + Future Infill)

Station Spacing Criteria:

20-25 Stations AND 2.5 to 5-Mile Spacing



Why?

This is the "sweet spot" for cost-effective

COMMUTER RAIL TRANSIT

that maximizes the efficiency of the technology

while capturing necessary ridership.

STATION EVALUATION CRITERIA

STATION CHARACTERISTICS
- Typology
- Distance to adjacent stations

PURPOSE AND NEED
- Projected weekday ridership
- Transit dependent households
- Population density within ½ mile
- Employment density within ½ mile
- Area within 10-minute driveshed
- Intermodal connectivity

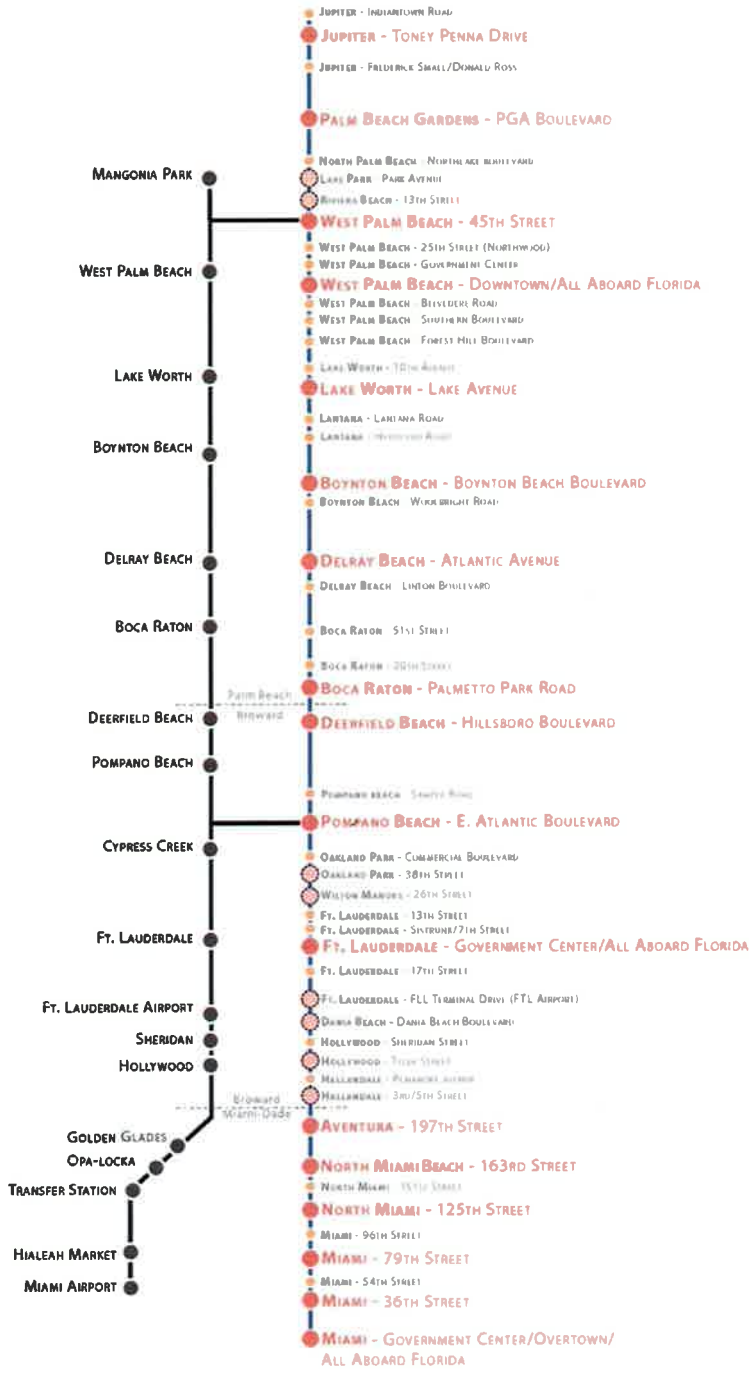
SUPPORTIVE LAND USE + TOD POTENTIAL
- Acres within 10-minute walkshed
- Future Land Use compatibility
- FLU/Acres of potential TOD change
- SF of potential TOD change
- Market trends ranking
- CRA
- Recent/approved development
- Comp plan / zoning support

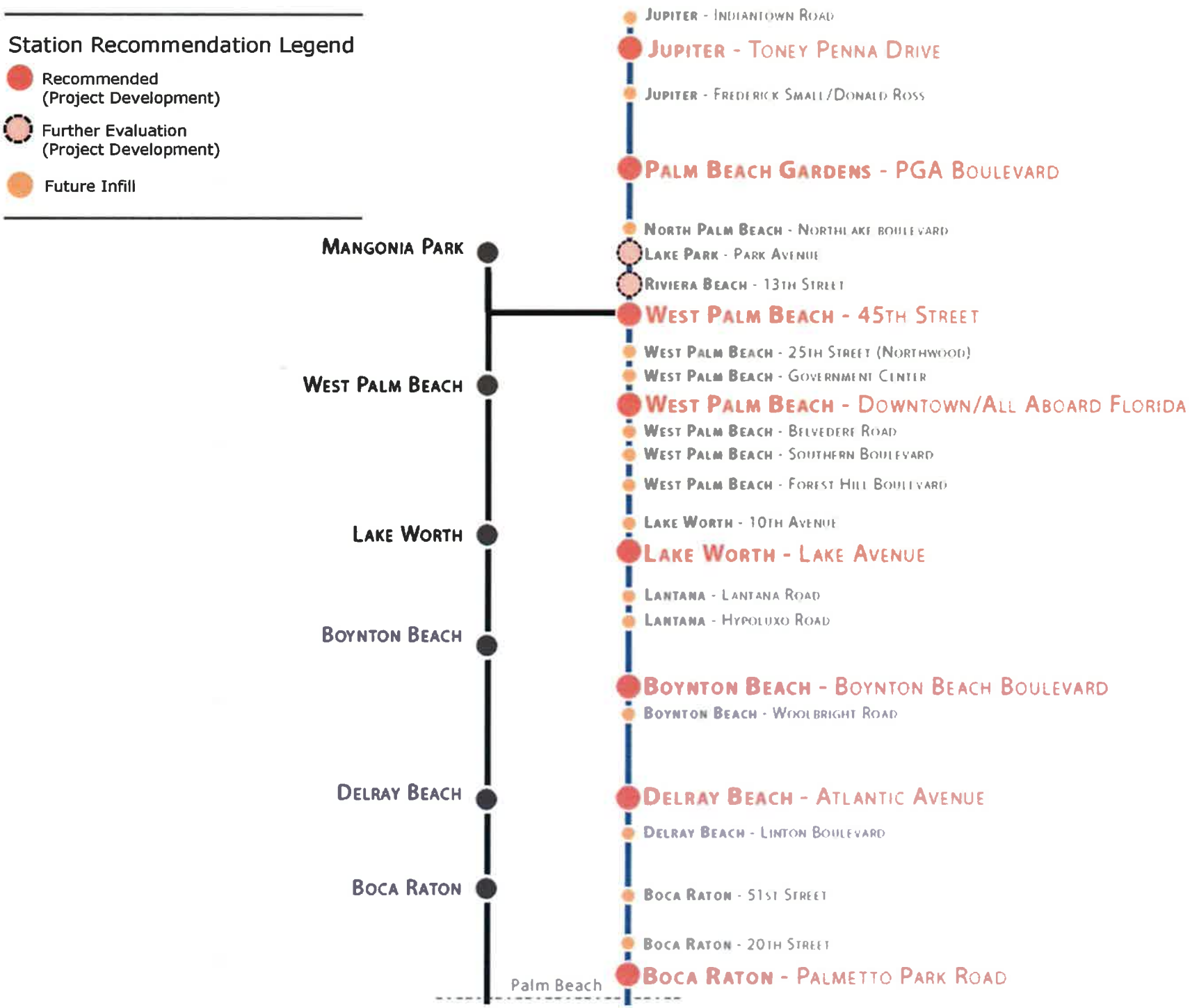
STATION COST AND FEASIBILITY
- Existing grade crossing
- Station access constraints
- Grade separation for station anticipated
- FEC owned/local jurisdiction property
- Impaces FEC exist/plan freight ops
- Available ROW for station/parking
- Substantial environmental impact
- Estimated station cost
- Local funding commitments
- Other considerations

Consistently and Fairly Applied to All Stations Throughout Evaluation

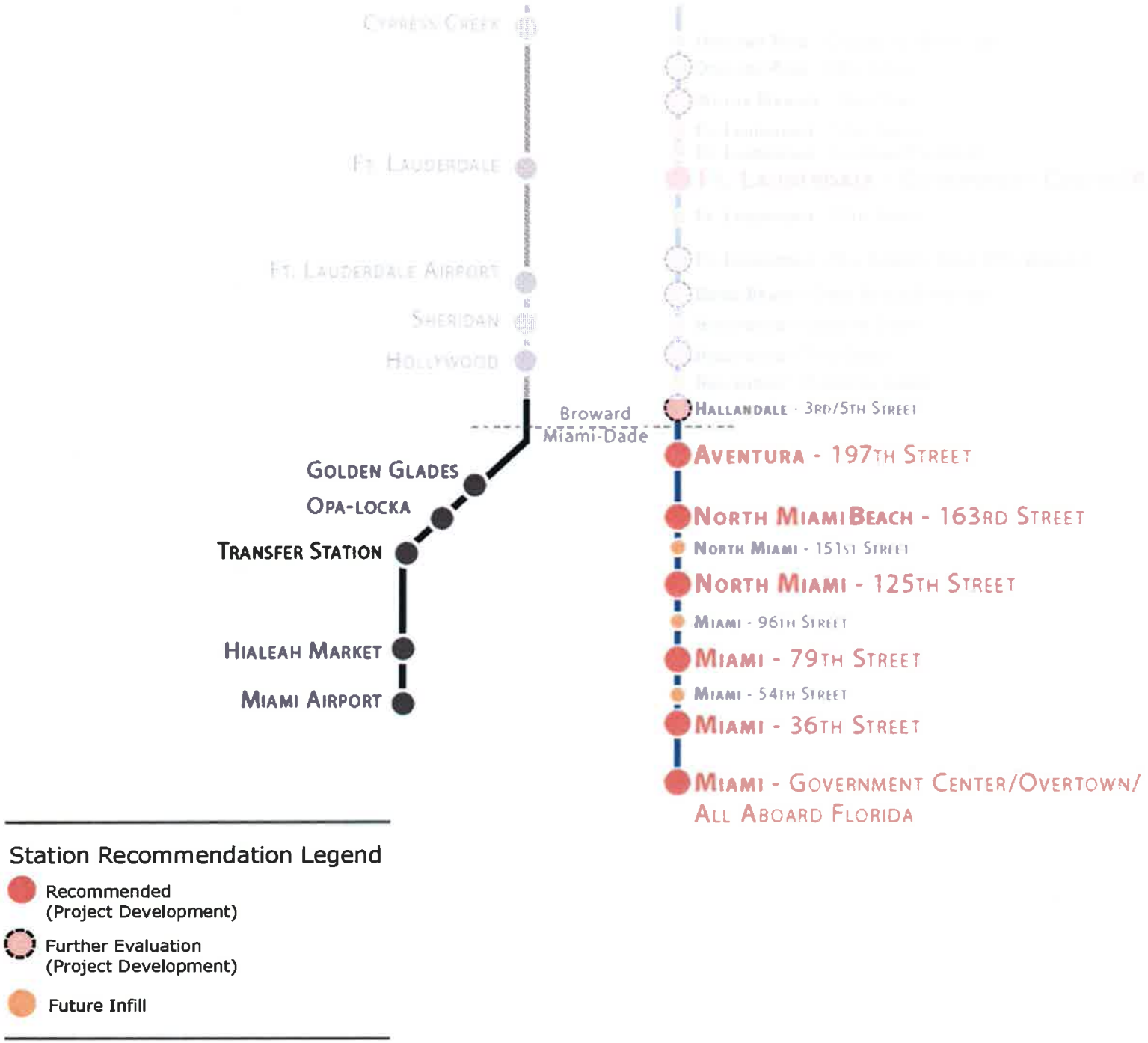
Station Recommendation Legend

- Recommended (Project Development)
- Further Evaluation (Project Development)
- Future Infill




Station Recommendation Legend
Recommended (Project Development)
Further Evaluation (Project Development)
Future Infill
Mangonia Park
West Palm Beach
Lake Worth
Boynton Beach
Delray Beach
Boca Raton
Palm Beach
Jupiter - Indiantown Road
Jupiter - Toney Penna Drive
Jupiter - Frederick Small/Donald Ross
Palm Beach Gardens - PGA Boulevard
North Palm Beach - Northlake Boulevard
Lake Park - Park Avenue
Riviera Beach - 13th Street
West Palm Beach - 45th Street
West Palm Beach - 25th Street (Northwood)
West Palm Beach - Government Center
West Palm Beach - Downtown/All Aboard Florida
West Palm Beach - Belvedere Road
West Palm Beach - Southern Boulevard
West Palm Beach - Forest Hill Boulevard
Lake Worth - 10th Avenue
Lake Worth - Lake Avenue
Lantana - Lantana Road
Lantana - Hypoluxo Road
Boynton Beach - Boynton Beach Boulevard
Boynton Beach - Woolbright Road
Delray Beach - Atlantic Avenue
Delray Beach - Linton Boulevard
Boca Raton - 51st Street
Boca Raton - 20th Street
Boca Raton - Palmetto Park Road

Station Recommendation Legend
Recommended (Project Development)
Further Evaluation (Project Development)
Future Infill
Palm Beach
Broward
Deerfield Beach
Pompano Beach
Cypress Creek
Ft. Lauderdale
Ft. Lauderdale Airport
Sheridan
Hollywood
Broward
Miami-Dade
Boca Raton - Palmetto Park Road
Deerfield Beach - Hillsboro Boulevard
Pompano Beach - Sample Road
Pompano Beach - E. Atlantic Boulevard
Oakland Park - Commercial Boulevard
Oakland Park - 38th Street
Wilton Manors - 26th Street
Ft. Lauderdale - 13th Street
Ft. Lauderdale - Sistrunk/7th Street
Ft. Lauderdale - Government Center/All Aboard Flo
Ft. Lauderdale - 17th Street
Ft. Lauderdale - FLL Terminal Drive (FTL Airport)
Dania Beach - Dania Beach Boulevard
Hollywood - Sheridan Street
Hollywood - Tyler Street
Hallandale - Pembroke Avenue
Hallandale - 3rd/5th Street
Golden Glades
Opa-Locka
Transfer Station


Cypress Creek
Ft. Lauderdale
Ft. Lauderdale Airport
Sheridan
Hollywood
Broward
Miami-Dade
Golden Glades
Opa-locka
Transfer Station
Hialeah Market
Miami Airport
Hallandale - 3rd/5th Street
Aventura - 197th Street
North Miami Beach - 163rd Street
North Miami - 151st Street
North Miami - 125th Street
Miami - 96th Street
Miami - 79th Street
Miami - 54th Street
Miami - 36th Street
Miami - Government Center/Overtown/
All Aboard Florida
Station Recommendation Legend
Recommended
(Project Development)
Further Evaluation
(Project Development)
Future Infill

Purpose of this Phase of the Project:

Develop a "cost-effective" system
for the 85-mile corridor
that can be approved by FTA
to move into the next phase
of the project (Project Development)

- Long process – Three Phases 1, 2 and 3 – Project was re-cast a start-up, affordable system
- Extensive and continual outreach to jurisdictions with incorporation of feedback into the station preferences and locations
- Applied a consistent and fair process in station selection that will meet FTA standards (Opening day performance) and industry standards
- Need to keep the project streamlined moving into NEPA and the mandated two year time frames

Remember: Identifying start-up service and future infill stations will be added over time as the ridership grows and the system can support them with a more localized service plan

GOAL:
A BALANCE of ACCESS and TRAVEL TIME

Purpose of this Phase of the Project:
Develop a "cost-effective" system
for the 85-mile corridor
that can be approved by FTA
to move into the next phase
of the project (Project Development)

- Long process – Three Phases 1, 2 and 3 – Project was re-cast a start-up, affordable system
- Extensive and continual outreach to jurisdictions with incorporation of feedback into the station preferences and locations
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Remember: Identifying start-up service and future infill stations will be added over time as the ridership grows and the system can support them with a more localized service plan

Tri-Rail Coastal Link

Miami-Dade · Broward · Palm Beach

Process & Agency Roles as per Memorandum of Understanding

MPO & FTA APPROVAL PROCESS

MPO Action: Concurrence to Enter PD
COMPLETED

FTA Decision Point: Approval to enter PD
ON HOLD

MPO Action: Approve LPA

FTA Decision Point: Issuance of FONSI

MPO Action: Include Project in Cost-Feasible Plan

FTA Decision Point: Approval to enter next phase

MPO Action: Program Project Funds in TIP

FTA Decision Point: Approval of *Funding Agreement*

PROJECT PROCESS

Pre-Project Development Phase (formerly Alternatives Analysis)

Project Development (PD) Phase (2 years per MAP-21)

Engineering/Construction Phase

Operations & Maintenance Phase

LEAD AGENCY

FDOT

RTA SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

FINANCE PLAN

General Framework

Financial Plan

Preliminary Funding Commitments

Final Funding Commitments

FDOT | SFRTA

Tri-Rail Coastal Link

Project Status

- Project Development remains on hold
- FDOT has fully funded Project Development (PD) with State funds
- FDOT performed Preliminary environmental work to ensure PD can be completed in 18 to 24 months
- SFRTA financial plan on hold

Tri-Rail Coastal Link

Key Activities in Project Development (PD) Phase with FTA

Project Development with FTA must be completed within 2 years

FDOT:

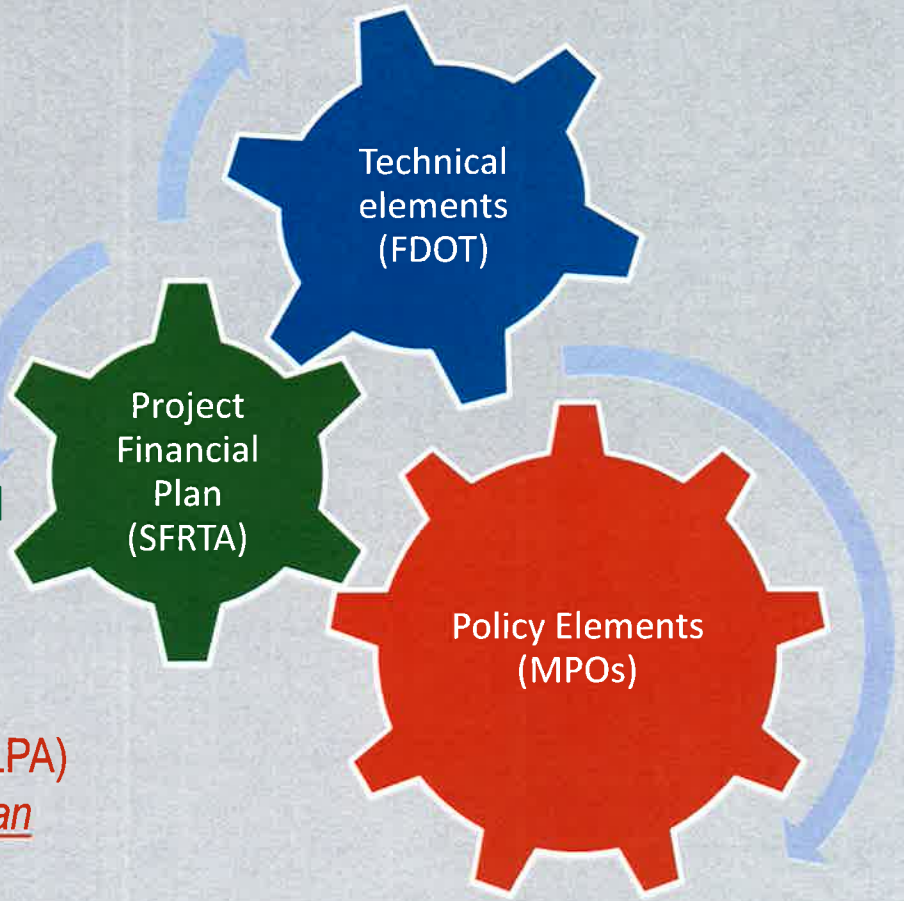
- Environmental analysis and documentation
- Ridership forecast
- Costs - *Developed preliminary estimates for Construction and O&M only*

SFRTA:

- *Financial Plan - Identify Funding Sources*
  - Capital Costs – split Federal/State/Local
  - O&M Costs – local funds
  - *Track Access Fee*

MPOs:

- Selection of Locally Preferred Alternative(s) (LPA)
- *Inclusion of Project(s) in the Cost Feasible Plan*



Tri-Rail Coastal Link

Miami-Dade
Broward
Palm Beach

TRCL Project Costs

- Total Project Costs for 85 miles:
  - Capital (2013$): $800 million
  - O&M (2013$): $38 - $43M annually
  - Track Access Fee: To be determined

Palm Beach County

Segment Length:	45 miles
No. of Stations:	8-10
Average Spacing:	4.9 miles

Broward County

Segment Length:	25 miles
No. of Stations:	6-9
Average Spacing:	3.3 miles

Miami-Dade County

Segment Length:	15 miles
No. of Stations:	6
Average Spacing:	2.5 miles

Tri-Rail Coastal Link

Miami-Dade
Broward
Palm Beach

Critical Project Issues to Advance Project Development

- Development of Financial Plan & Identification of Local Funding
- Track Access Agreement and Cost with FEC
- Indemnification/Liability release for TRCL trains
  - FEC will require this release prior to access
  - Legislative changes required
- Project Approach for the Region
  - Full project versus segment approach based on local funds

Tri-Rail Coastal Link

Questions?

FDOT

RTA SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

SFRC South Florida Regional Council

TREASURE COAST TCRPC REGIONAL PLANNING COUNCIL "Bringing Communities Together" Est. 1976

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

broward MPO metropolitan planning organization

metropolitan PALM BEACH MPO planning organization

SEFTC Southeast Florida Transportation Council

MIAMI-DADE COUNTY TRANSIT

Palm Tran

BROWARD COUNTY Transit

AGENDA ITEM NO. I-2

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Information Item ☐ Presentation

TAX INCREMENTAL FINANCING OPPORTUNITIES

SUMMARY EXPLANATION AND BACKGROUND:

At the August 26, 2016 Governing Board Meeting, Board Member Andrew Frey discussed potential Tax Incremental Financing (TIF) opportunities available along the Florida East Coast (FEC) railway and the South Florida Rail Corridor (SFRC).

At the September 23, 2016 Governing Board Meeting, staff will provide a more in-depth presentation of the TIF structure and other funding opportunities available to SFRTA.

EXHIBITS ATTACHED: Exhibit 1 – TIF Presentation (to be provided under separate cover).

TAX INCREMENTAL FINANCING OPPORTUNITIES

Recommended by: 9/16/16
Department Director Date

Approved by:
Procurement Director Date

Authorized by: 9/16/16
Executive Director Date

Approved as to Form by:
General Counsel Date

AGENDA ITEM NO. I-3

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Information Item ☒ Presentation

DRAFT SFRTA TOD POLICY

SUMMARY EXPLANATION AND BACKGROUND:

At the May 27, 2016 South Florida Regional Transportation Authority (SFRTA) Governing Board meeting, the Governing Board expressed interest in pursuing a Transit Oriented Development (TOD) strategy.

The request is consistent with this SFRTA Goal: "Promote a responsible transportation system supported by transit-oriented, pedestrian-friendly strategies."

It is also consistent with this supporting SFRTA Objective: "Coordinate with government, communities and private partners to encourage smart-growth strategies."

An important step toward a TOD strategy is agreeing upon a TOD policy. Attached for review and comment is a draft SFRTA TOD Policy.

EXHIBITS ATTACHED: Exhibit 1 – Draft SFRTA TOD Policy
Exhibit 2 – SFRTA TOD Policy Presentation

DRAFT SFRTA TOD POLICY

Recommended by: _____ 9/16/16
for Department Director Date

Approved: _____
Procurement Director Date

Authorized by: _____ 9/16/16
Executive Director Date

Approved as to Form: _____
General Counsel Date 9/16/16

DRAFT South Florida Regional Transportation Authority (SFRTA) Transit Oriented Development Policy

Definition

SFRTA defines Transit Oriented Development (TOD) as moderate to high-density development, new or redevelopment, located within an easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians and transit, without excluding the auto.

Purpose

SFRTA's mission is to provide transit service, and it recognizes that other public agencies and private developers are responsible for the region's built environment. However, SFRTA believes that increased coordination among public and private organizations in promoting TOD through land use planning, zoning, and the development process will result in higher-quality sustainable communities that meet the varying objectives of all parties.

The South Florida Regional Transportation Authority (SFRTA) operates the Tri-Rail commuter rail service, and owns land around several Tri-Rail stations. Future expansion of the Tri-Rail commuter rail system is also being planned. Transit Oriented Development (TOD) can leverage South Florida's investment in existing and future Tri-Rail commuter rail service by directing development toward Tri-Rail stations along the system.

TOD along the existing and future Tri-Rail system supports SFRTA's organizational mission of providing a viable regional transportation system that provides for the movement of people, goods, and services. It further supports various federal (USDOT, EPA, HUD) and state (FDOT Florida Transportation Plan) policies.

TOD Goals and Strategies

SFRTA will focus on the following four key goals and strategies in order to achieve success, while recognizing there is no one-size-fits-all approach to TOD.

Goal 1: Promote multi-sector, cross-jurisdictional partnerships. SFRTA will foster relationships with local jurisdictions, county government, county transit agencies, regional agencies, private developers, local residents, businesses, and other stakeholders to support TOD planning and implementation around both existing and future Tri-Rail stations.

Strategies to achieve this goal include:

- Provide SFRTA input to local jurisdictions regarding station area planning and zoning.
- Support efforts to encourage TOD by South Florida Regional Council (SFRC) and Treasure Coast Regional Planning Council (TCRPC), which include conducting research, sharing information, and providing planning assistance to connect Tri-Rail service expansion to economic and community development that supports sustainable growth consistent with the Seven50 plan.
- Support efforts to implement the South Florida Regional TOD Pilot Program, funded by and Federal Transit Administration (FTA) TOD Pilot Program grant to SFRTA in partnership with SFRC and TCRPC.

- Work with trade and advocacy organizations – such as the Urban Land Institute (ULI) – to promote TOD education and best practices.
- Promote and develop partnerships with private developers, public agencies and other stakeholders to advance TOD beyond planning to implementation.

Goal 2: Encourage local and county governments to adopt TOD supportive policies, which may include "livable communities" and "sustainable development" policies..

Strategies to achieve this goal include:

- Collaborate with local jurisdictions on station area planning and development of appropriate parking standards for TOD targeted at areas within a 10-minute walk of existing and future stations or a ½ mile distance.
- Advocate for new development which general meets the following characteristics in support of Federal livability principles:
    - It is denser than existing development patterns in the surrounding area.
    - It contains a mix of uses.
    - It has a compact and attractive urban design.
    - It promotes multimodal access so individuals need not rely on single occupant vehicles and allows easy pedestrian access to Tri-Rail facilities.
    - It supports a diversity of housing choices, including choices for low and moderate income individuals and families.
    - It incorporates sustainable development strategies such as renewable energy, sustainable building materials, stormwater management, and comprehensive parking management.
- Promote the development of "transit oriented communities" which embrace livability principles and truly integrate Tri-Rail facilities with the surrounding community.
- Encourage local jurisdiction to adopt TOD supportive policies, plans and zoning for areas within a 10-minute walk of existing and future Tri-Rail stations within their jurisdiction that provide a flexible framework for TOD and prevent development which does not support transit.
- Participate in joint development projects which provide the opportunity to preserve ridership, build or improve infrastructure to support transit, have local jurisdiction support and embrace the principles of livable communities.

Goal 3: Develop, with our partners, strong multimodal access to the existing and future Tri-Rail stations.

Strategies to achieve this goal include:

- Support a hierarchy of access to existing and future Tri-Rail stations which considers the following modes in order of priority: pedestrians, bus riders, bicyclists, vehicles (short-term parking).

- Consider access needs beyond SFRTA property in the planning and design of existing and future Tri-Rail stations, including:
    - Pedestrian connection to destinations within a 10-minute walk or ½ mile distance.
    - Bus and bicycle connections.
    - Vehicular access for the station catchment area.
- Strategically manage the use and construction of Tri-Rail parking facilities to provide the right mix of vehicular access, TOD sites, and pedestrian connections.
- Optimize Tri-Rail parking by considering proximity to highly developed areas, transit hubs, and pedestrian oriented communities.

Goal 4: Protect and enhance SFRTA's existing and future assets and investments by maximizing ridership potential.

Strategies to achieve this goal include:

- Where appropriate, pursue TOD at SFRTA owned land near stations to increase ridership.
- Encourage local jurisdictions to support TOD by:
    - Utilizing best practices in TOD planning and implementation around Tri-Rail stations.
    - Encouraging station area planning early in the transit planning process, consistent with Federal Transit Administration (FTA) New Starts guidance for transit-supportive land uses.
- Leverage federal investment in the regional Tri-Rail system, recognizing that there is significant competition among regions throughout the country for federal transit support.
- Where appropriate consider transitioning surface parking to structure parking, other transit related facilities, or TOD.
- Utilize shared and joint use parking when available to reduce parking costs and add ridership, including purchase of parking in parking facilities, or long term leases.
- Favor the retention of permanent rights (i.e. ground leases instead of outright sale).
- Utilize joint development as a means to protect and enhance station ridership and build livable communities.
- Where land sales are pursued for joint development projects, ensure that there will be continuing utilization of the land for TOD purposes.
- Recognize that SFRTA will only acquire property that supports transit purposes.

EXHIBIT 2

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

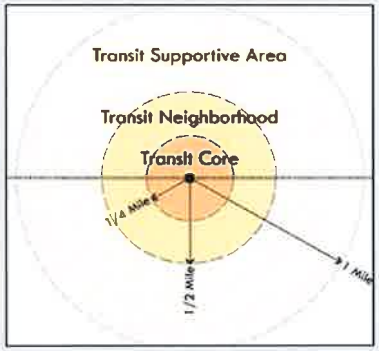
DRAFT SFRTA TOD POLICY

SFRTA Board of Directors
September 23, 2016

DRAFT SFRTA TOD Policy Overview

Overview

- TOD supports many organizational missions
  - FTA/EPA/HUD
  - FDOT
  - SFRTA
- SFRTA provides transit service
- Others are responsible for the region's built environment.
- Increased coordination helps promote TOD.
- A TOD Policy assists in coordination.

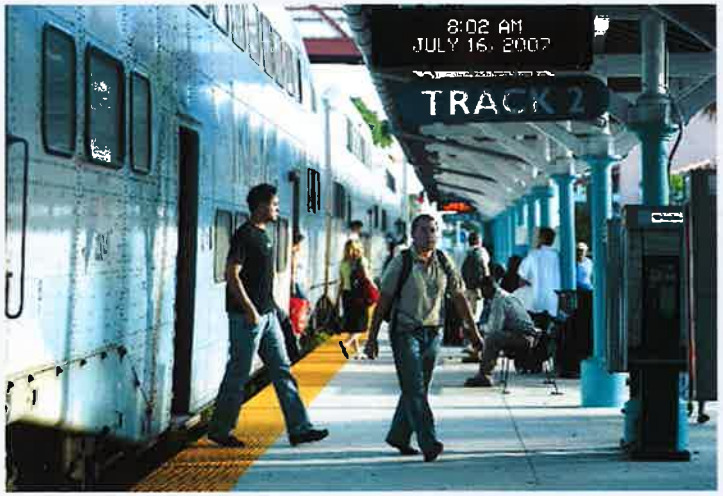


SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

TOD Definition

The Policy Begins with SFRTA's TOD Definition

SFRTA defines Transit Oriented Development (TOD) as moderate to high-density development, new or redevelopment, located within an easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians and transit, without excluding the auto.



U.S. Department of Transportation
Federal Transit Administration

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

DRAFT TOD Goals

South Florida Regional Planning Council

TREASURE COAST TCRPC REGIONAL PLANNING COUNCIL "Bringing Communities Together" • Est. 1976

Under contract since 2005 to support SFRTA's TOD activity.

The Draft Policy Focuses on Four Goals

- Goal 1: Promote multi-sector, cross-jurisdictional partnerships.
- Goal 2: Encourage local and county governments to adopt TOD supportive policies, which may include "livable communities" and "sustainable development" policies.
- Goal 3: Develop, with our partners, strong multimodal access to the existing and future Tri-Rail stations.
- Goal 4: Protect and enhance SFRTA's existing and future assets and investments by maximizing ridership potential.

Possible Next Steps

Downtown Dadeland at
Dadeland South Metrorail Station

Next Steps

- Continue to Refine Draft SFRTA TOD Policy
- Adopt SFRTA TOD Policy
- Implement SFRTA FTA TOD Pilot Program Grant
- Utilize the strategies provided in the policy to achieve TOD goals.

AGENDA ITEM NO. I-4

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Information Item ☒ Presentation Item

DOWNTOWN BOCA RATON TRANSIT FEASIBILITY STUDY

SUMMARY EXPLANATION AND BACKGROUND:

On June 26, 2015, the South Florida Regional Transportation Authority (SFRTA) Governing Board approved the Downtown Boca Raton Transit Feasibility Study to be conducted and funded by the SFRTA. The study request was initially made by the City of Boca Raton Business Improvement District (BID) Steering Committee at the March 27, 2015 Governing Board Meeting.

The objective of the Study was to complete a feasibility analysis for a Downtown Boca Raton transit system that is connected and/or feeds into shuttle bus services to and from the Tri-Rail station at Yamato Road in Boca Raton. In addition, the City of Boca Raton (City) and SFRTA were interested in how a Downtown Boca transit system and connecting services could serve the proposed new Boca Raton Tri-Rail station at Military Trail/Glades Road, and the current Deerfield Beach Tri-Rail station.

The Study began on October 8, 2015 and was completed in August 2016. Input from City staff was provided via monthly progress meetings with SFRTA and its Consultants. On August 24, 2016, SFRTA and its Consultants presented the Study recommendations to the City of Boca Raton BID Steering Committee.

Study recommendations will be presented at the September 23, 2016 SFRTA Governing Board Meeting.

EXHIBITS ATTACHED: Exhibit 1 – Downtown Boca Raton Transit Feasibility Study Presentation

DOWNTOWN BOCA RATON TRANSIT FEASIBILITY STUDY

Recommended by: _____ Approved by: _____
for Department Director Date Procurement Director Date

Authorized by: _____ 9/16/16 Approved as to Form by: _____
Executive Director Date General Counsel Date 9/16/16

EXHIBIT 1

Downtown Boca Raton Transit Feasibility Study

SFRTA Board Meeting
September 23, 2016

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

T·Y·LIN INTERNATIONAL

DOWNTOWN BOCA

Presentation Outline

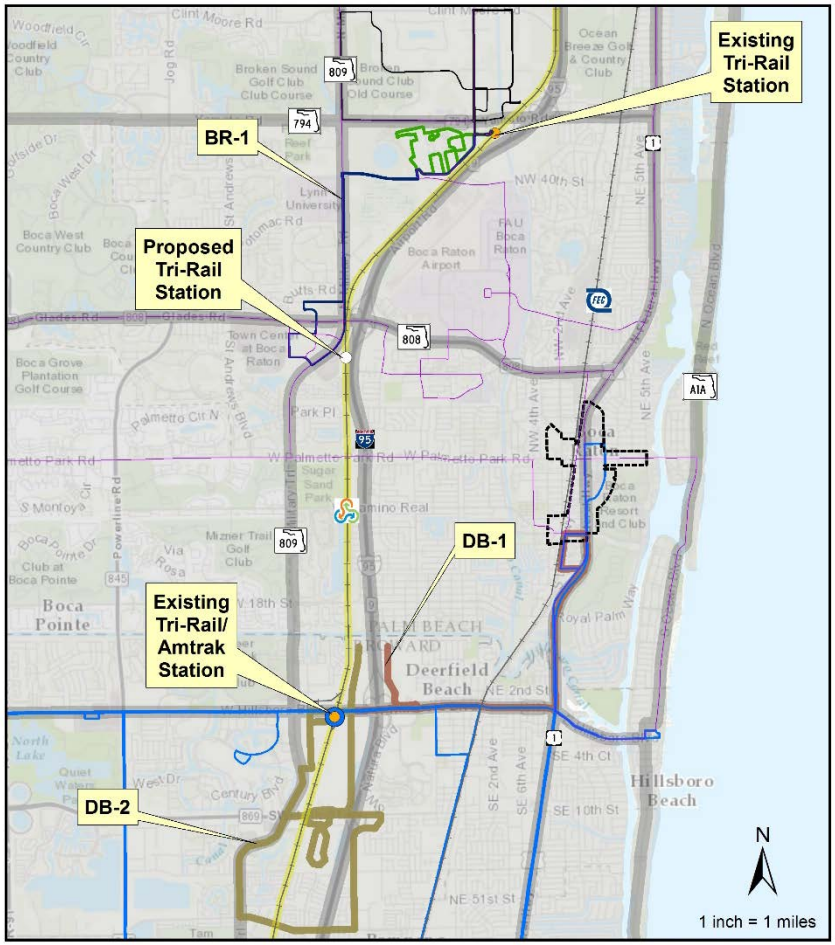
- Project Overview
- Alignments Considered
- Plan Recommendations
- Future Actions

- Project Overview
- Alignments Considered
- Plan Recommendations
- Future Actions

Project Overview

Project History

- February 2009: Boca Raton Transit Feasibility & Funding Study
- July 2013 SFRTA's On-Board Survey: Transit Market and Shuttle Ridership
- March 2015: SFRTA Board Meeting Business Improvement District Steering Committee



Regional Setting

Project Overview

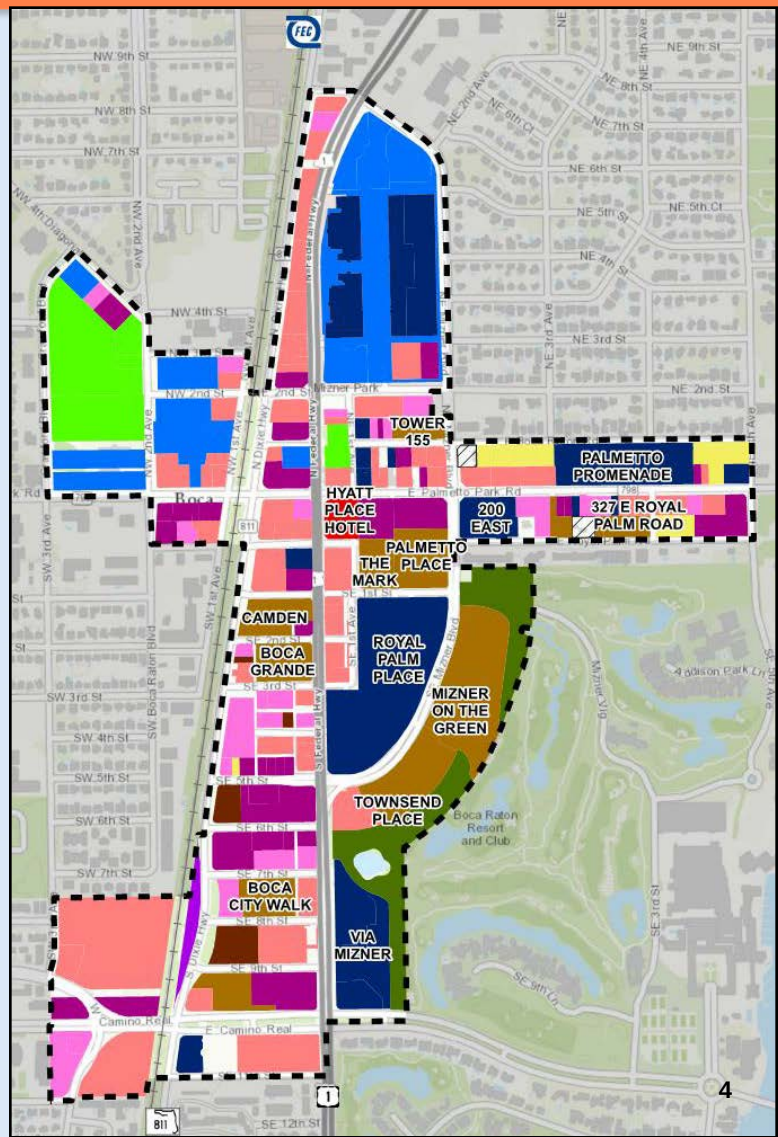
Planning Context

1. **Dynamic** real estate market

2. Demand for improved **regional** mobility and accessibility
   a. High # transfers at existing Boca Raton Tri-Rail Station
   b. Proposed Glades Rd/Military Trail Tri-Rail Station
   c. Enhanced connectivity to existing Deerfield Beach Tri-Rail Station

3. Demand for **enhanced** mobility and **accessibility** in Downtown Boca Raton
   a. Several private sector initiatives
   b. Quality of life – livable communities

4. **Community Vision**



Project Overview

Project Goals

- To provide a blue-print for transit service improvements for enhancing local and regional mobility and accessibility for residents, business owners, and visitors in Downtown Boca Raton.

- To provide a foundation for determining potential funding mechanisms/sources to support transit operations, capital costs, and maintenance needs.

Plan Development Process

We are here

Analysis
Transit & Traffic Data Collection

Identify
Transit Markets

Develop
Different Transit Service Plans

Evaluate
Transit Networks & Service Plans

Select
Recommended Plan

Through Partnerships
Study Partners + Community

- ✓ **Project Kick-off Meeting (Oct. 8, 2015)**
- ✓ **BID Steering Committee Meeting (Nov. 18, 2015)**
- ✓ **Progress Meetings (Dec. 2015 – June 2016)**
- ✓ **Boca Raton BID Meeting (Aug. 24, 2016)**
- ✓ **PTAC and SFRTA Board Meetings (Sept. 14 and Sept. 23, 2016)**

Project Overview

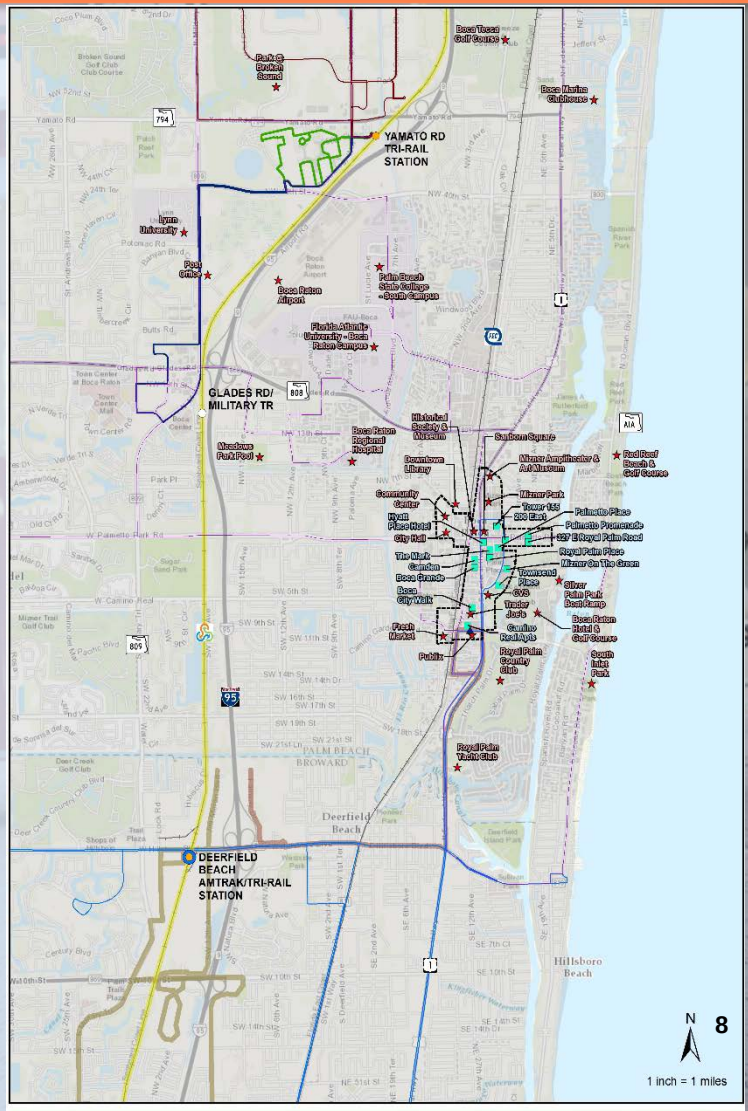
Alignments Considered

Plan Recommendations

Future Actions

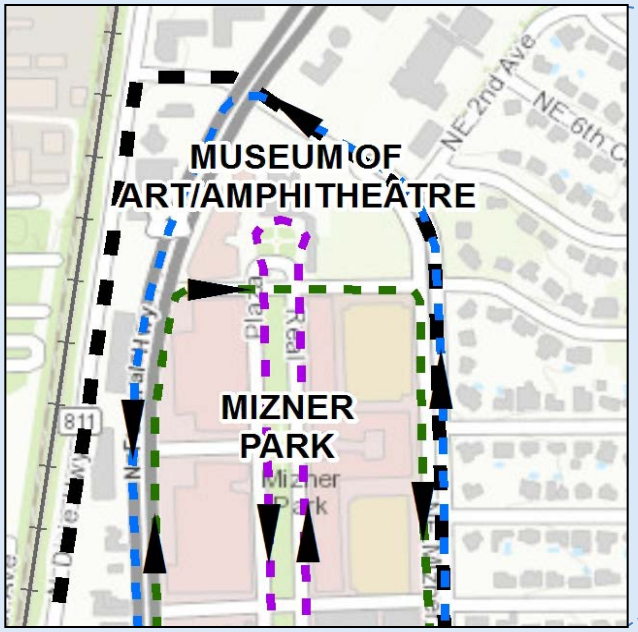
Transit Markets

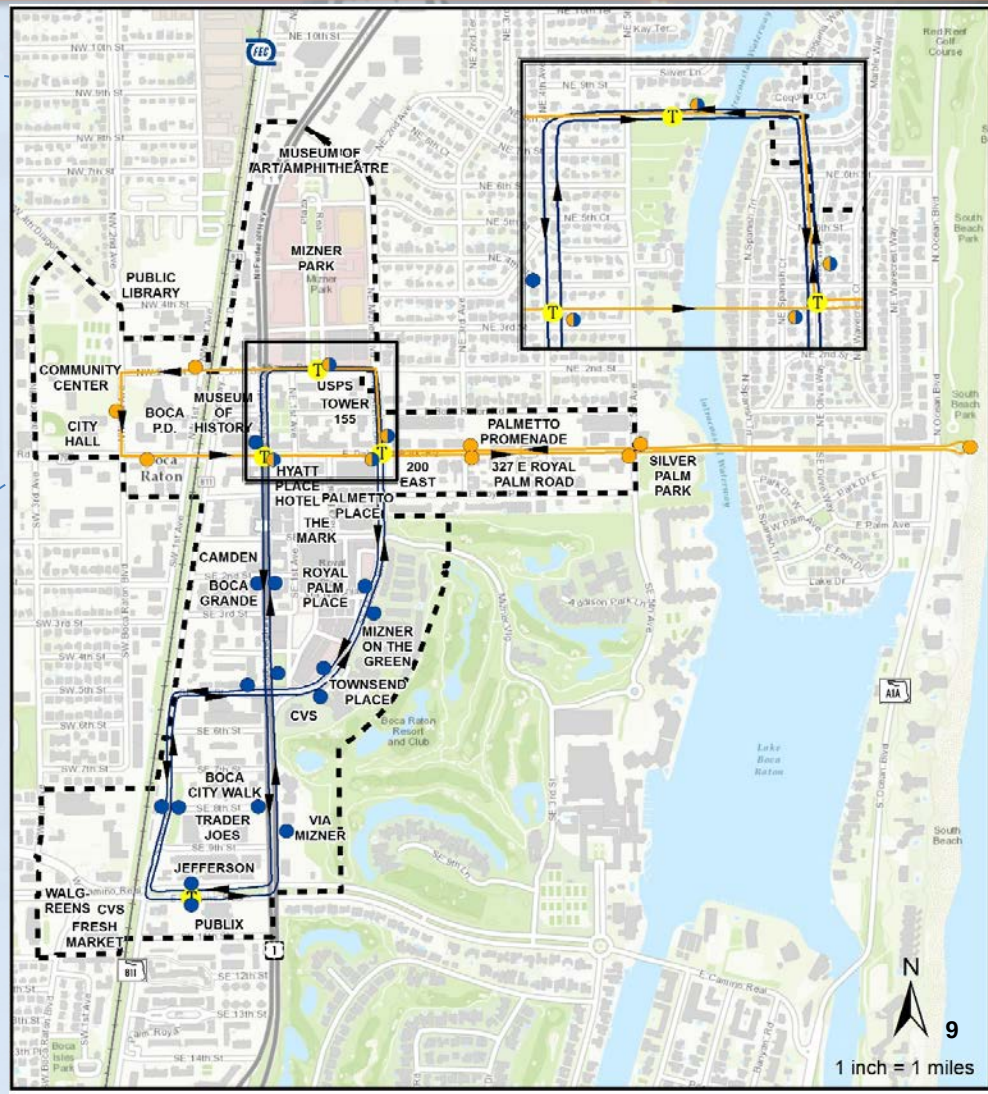
- Downtown Circulator
- Downtown Boca Raton to Tri-Rail
  - Yamato Rd. Tri-Rail Station
  - Deerfield Beach Tri-Rail Station
  - Future Glades Rd./Military Tr. Tri-Rail Station



Regional Activity Centers

Downtown Circulator System: Alignments Considered





North-South Alignment

East-West Alignment

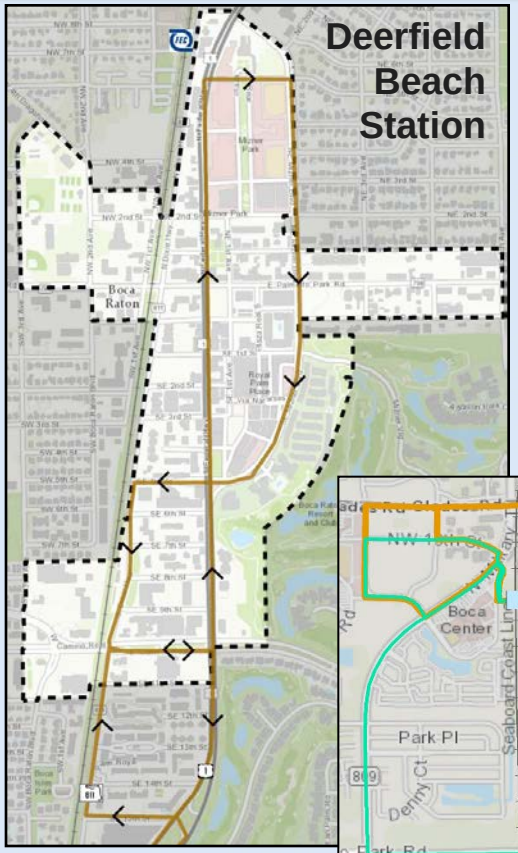
Mizner Park Option 1 Clockwise

Mizner Park Option 2 Counterclockwise

Mizner Park Option 3

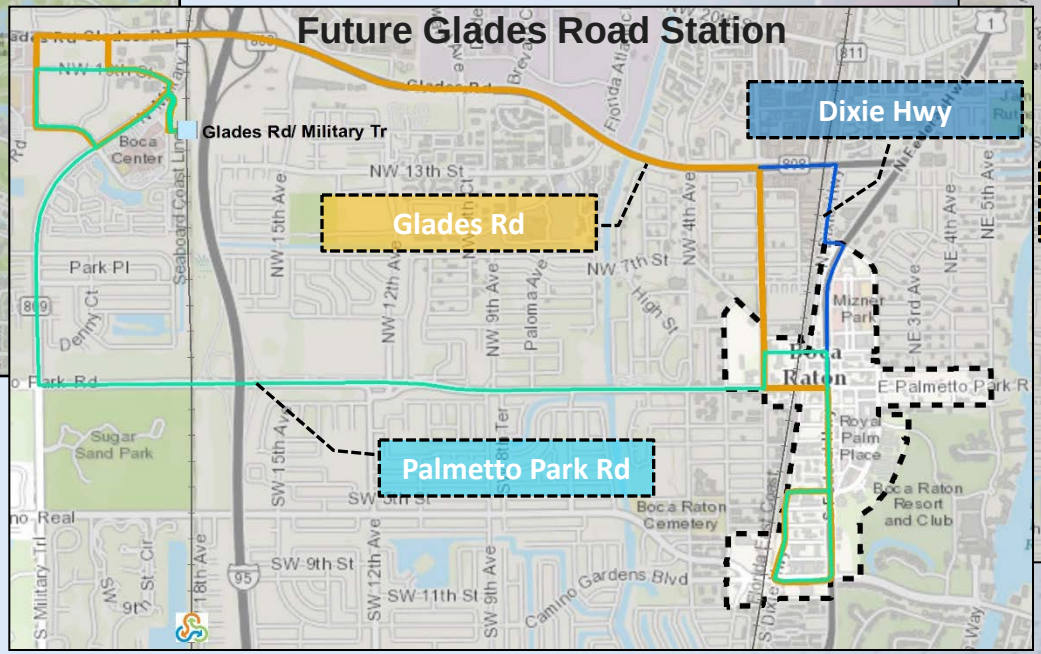
T Transfer Location

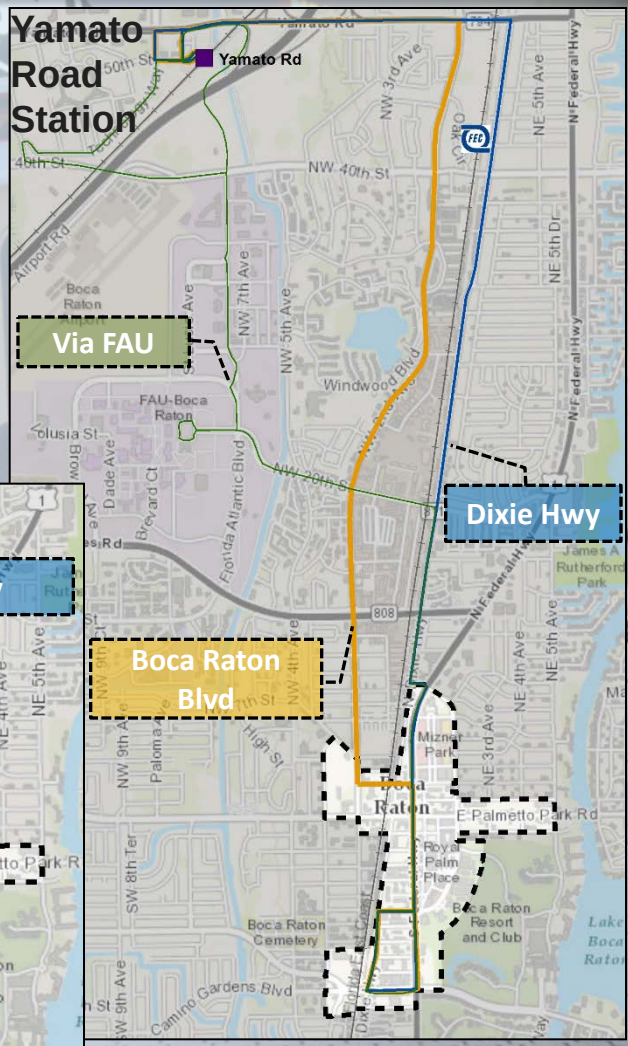
Downtown Shuttle Service to Tri-Rail Stations : Alignments Considered



Factors Considered

- ✓ Transit Markets
- ✓ Capital Cost
- ✓ O&M Cost
- ✓ Travel Time
- ✓ Service Duplication





Project Overview

Alignments Considered

Plan Recommendations

Future Actions

Downtown Circulator System: Plan Recommendation

OPENING YEAR 2019 ESTIMATE

Capital Cost

- $1.9M to $2.7M (7 vehicles)
- $430K to $530K (27 bus stops)

Annual O&M Cost

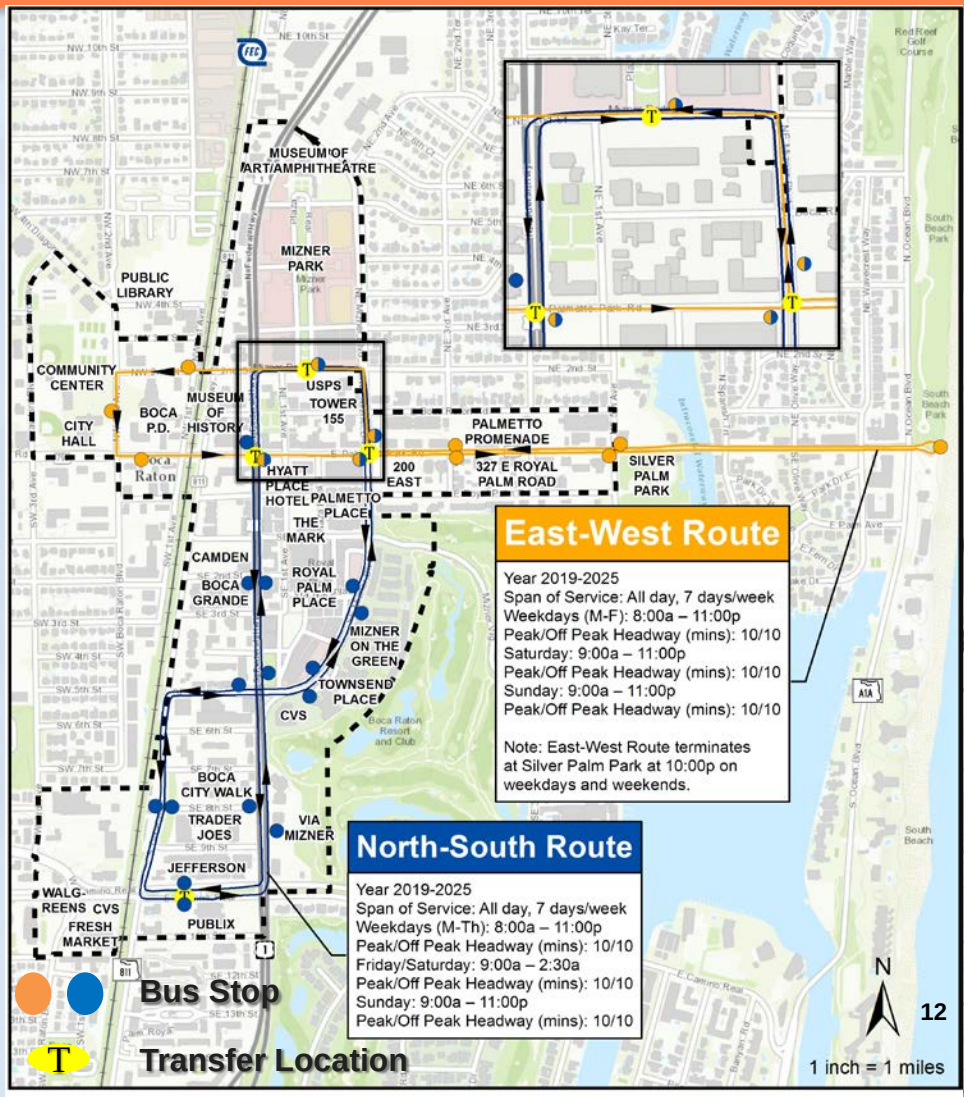
- $1.7M (City owned vehicles)
- $1.9M (Turnkey operation)

Ridership

- 1,400 to 1,800 boardings/day

Operating Characteristics

- 10 minute peak/off-peak service
- 24,060 annual revenue hours



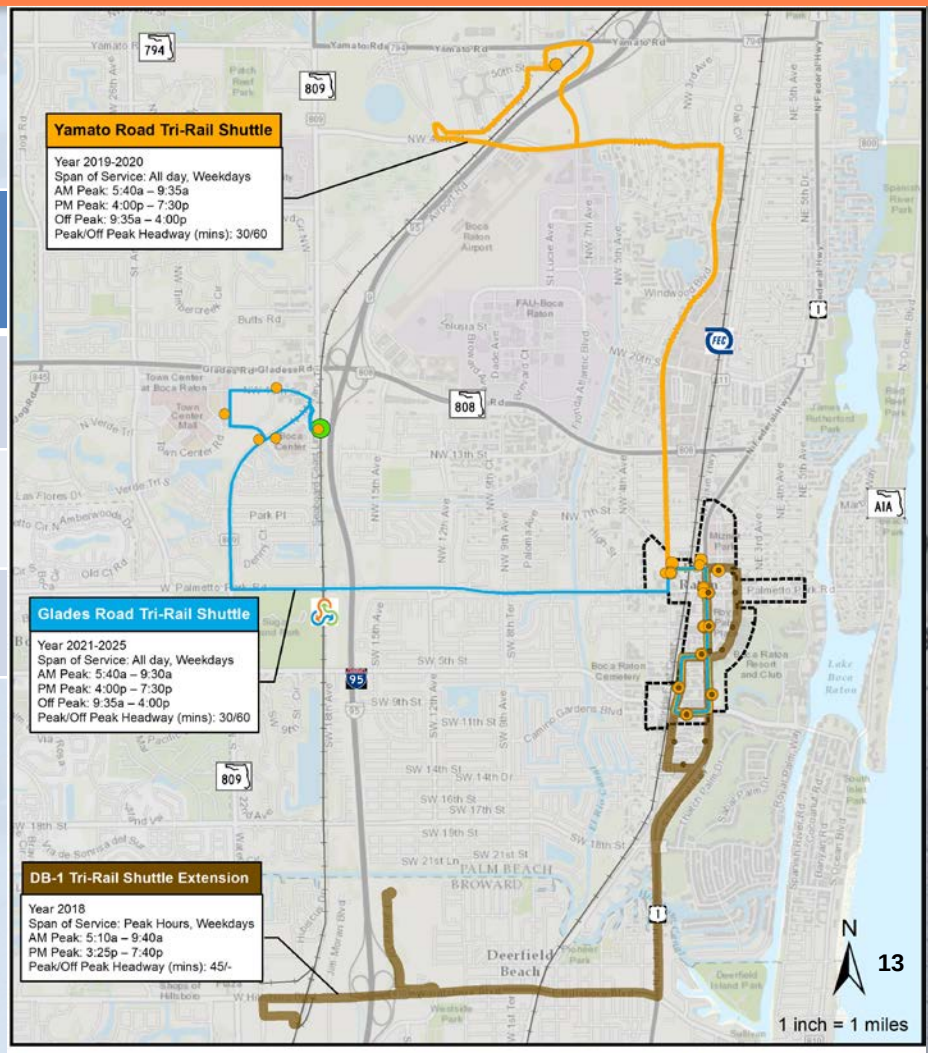
Preferred Transit Network – Downtown Circulator System

Downtown to Tri-Rail Shuttle Service: Plan Recommendation

RIDERSHIP AND O&M COST ESTIMATE

Tri-Rail Shuttle Service	Timeframe	Annual O&M $	Daily Boardings	Operating Characteristics
DB-1 Extension	2017-2018	$348K	220 - 430	Peak Hours, Weekdays
Yamato Rd. Shuttle	2019-2020	$442K	390 - 740	All day, Weekdays
Glades Rd. Shuttle	2021-2025	$456K	810 - 1,400	All day, Weekdays

Incremental O&M Cost:
DB-1 Tri-Rail shuttle Extension is approximately $178K in the opening year



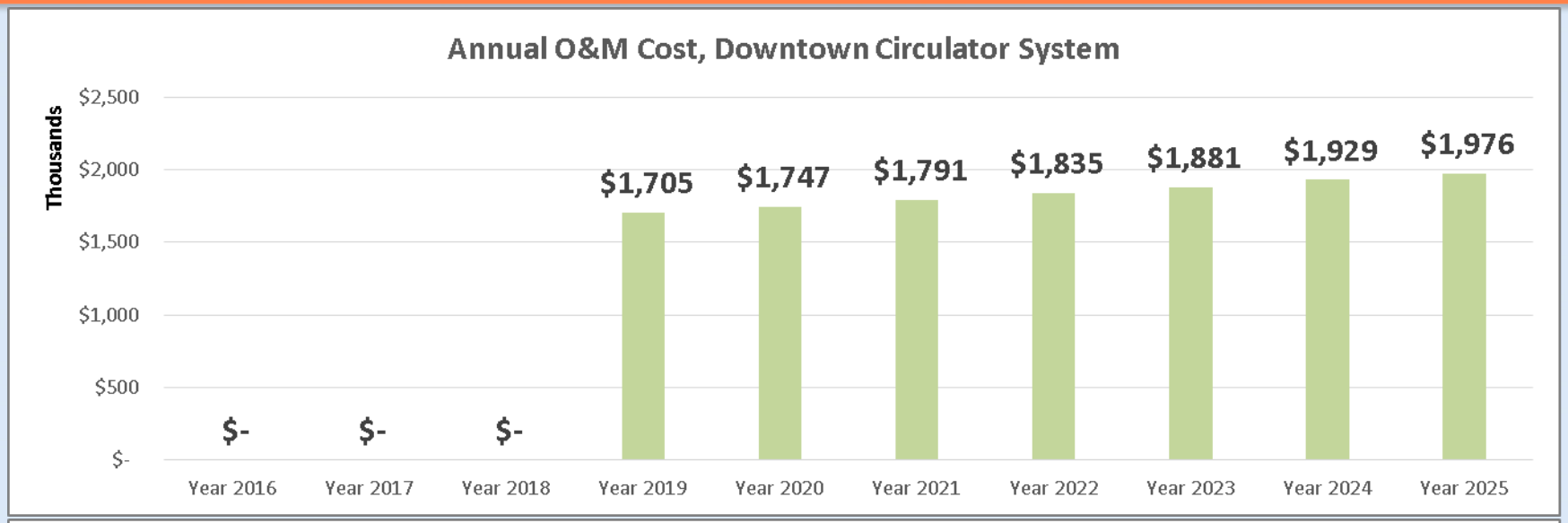
Preferred Transit Network - Tri-Rail Shuttle Service

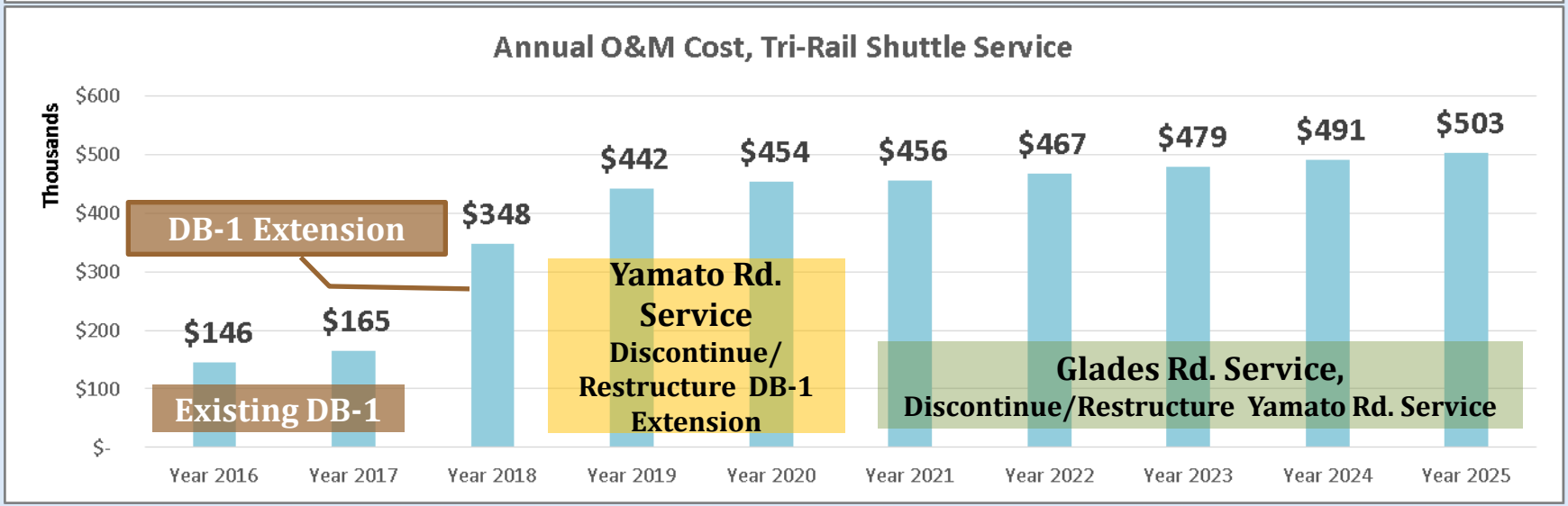
Bus Stop

Recommended Phasing Plan

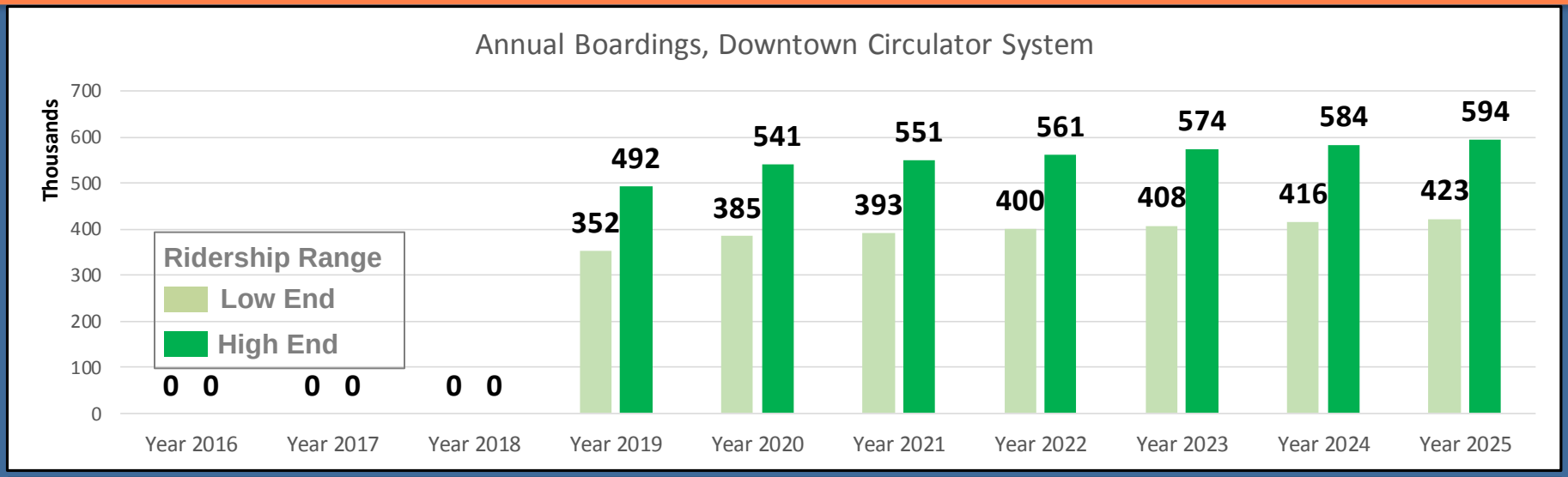
Transit Service	Short-Term (2017-2018)	Mid-Term (2019-2020)	Long Term (2021-2025)
Deerfield Beach (DB-1) Tri-Rail Shuttle Extension	Peak Hours, Weekdays	Restructure/ Discontinue	
Yamato Road Tri-Rail Shuttle	<No Service>	All day, Weekdays	Restructure/ Discontinue
Downtown Circulator System (North-South & East-West Routes)	<No Service>	All day, 7-days/week	
Glades Road Tri-Rail Shuttle	<No Service>		All day, weekdays

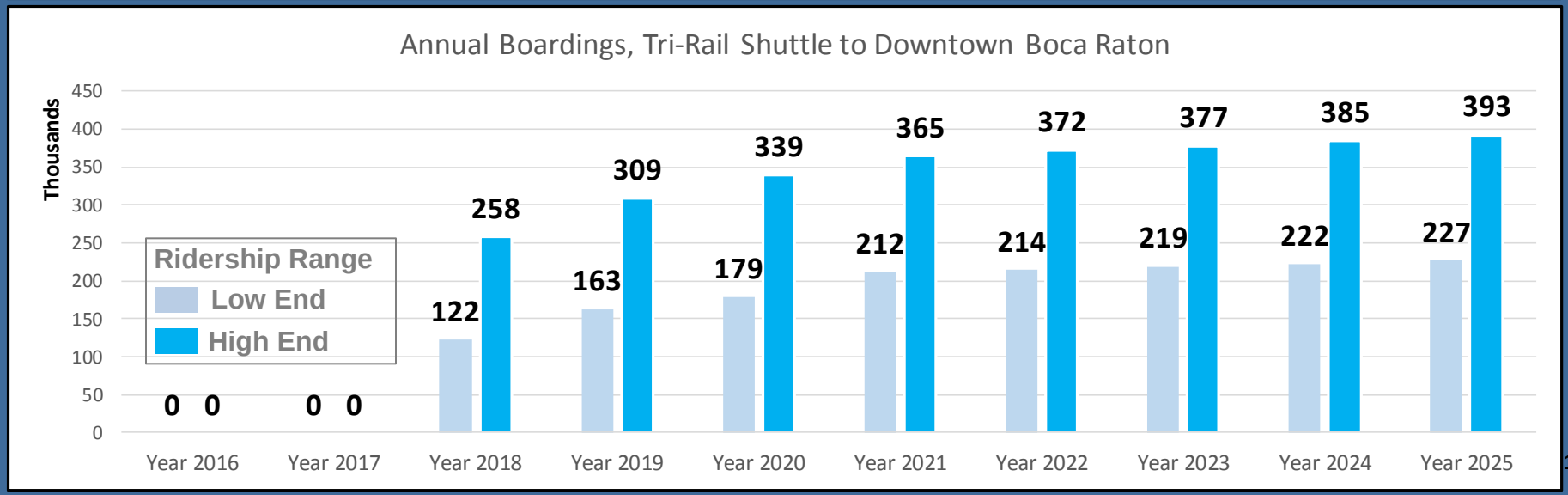
Annual O&M Cost





Annual Ridership (Boardings)





Project Overview

Alignments Considered

Plan Recommendations

Future Actions

Future Actions

- Create a financing plan for development of the preferred transit network , as well as a corresponding asset acquisition and maintenance schedule.
- Conduct due diligence of preferred transit network to refine operations and service levels.
- Develop refined cost estimates.
- Implement and monitor services.

Thank You!

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

T·Y·LIN INTERNATIONAL

DOWNTOWN BOCA

BOCA RATON FLORIDA

AGENDA ITEM NO. I-5

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016

AGENDA ITEM REPORT

☒ Information Item ☐ Presentation

RAILROAD SAFETY TECHNOLOGY GRANT APPLICATION
FOR TRI-RAIL POSITIVE TRAIN CONTROL IMPLEMENTATION

SUMMARY EXPLANATION AND BACKGROUND:

The South Florida Regional Transportation Authority (SFRTA) has submitted a Fiscal Year (FY) 2017 Positive Train Control Grant application for the Tri-Rail Positive Train Control (PTC) Implementation Project. If awarded, these funds will enable the installation of the entire PTC project for the South Florida Rail Corridor (SFRC) and fill the existing project funding gap.

The Grant Request included:

Federal Railroad Administration (FRA) Grant Request	$ 31,633,176 (74%)
Florida Department of Transportation (FDOT) Funds	$ 11,100,000 (26%)
Total Project Capital Cost	$ 42,733,176 (100%)

The FY 2017 Positive Train Control Grant application will be submitted to the FRA on or before September 27, 2016.

EXHIBITS ATTACHED: None.

RAILROAD SAFETY TECHNOLOGY GRANT APPLICATION
FOR TRI-RAIL POSITIVE TRAIN CONTROL IMPLEMENTATION

Recommended by: for 9/16/16
Department Director Date

Approved
Procurement Director Date

Authorized by: 9/16/16
Executive Director Date

Approved as to Form
General Counsel Date 9-16-16

MINUTES
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
PLANNING TECHNICAL ADVISORY COMMITTEE (PTAC) MEETING
AUGUST 17, 2016

The Planning Technical Advisory Committee (PTAC) meeting was held at 10:30 A.M. on Wednesday, August 17, 2016 in the Board Room of the South Florida Regional Transportation Authority (SFRTA) located at 800 NW 33rd Street, Pompano Beach, FL 33064.

COMMITTEE MEMBERS/ALTERNATES PRESENT:

Mr. William L. Cross, SFRTA
Ms. Kim DeLaney, Treasure Coast Regional Planning Council (RPC), Committee Chair
Mr. Paul Flavien, Broward Metropolitan Planning Organization (MPO)
Mr. Ken Jeffries, FDOT, District 6
Mr. Larry Merritt, FDOT District 4
Ms. Christina Miskis, South Florida Regional Planning Council (SFRPC)
Ms. Valerie Nielson, Palm Beach MPO
Mr. Jonathan Roberson, Broward County Transit
Mr. Fred Stubbs, Palm Tran

ALSO PRESENT:

Ms. Anna Bielawska, SFRTA
Mr. Paul Calvaresi, Broward MPO
Ms. Loraine Cargill, SFRTA
Ms. Vicki Gatanis, SFRTA
Ms. Barbara Handrahan, SFRTA
Ms. Brittany Hubbard, SFRTA
Ms. Darci Mayer, SFRTA
Ms. Natalie Yesbeck Pustizzi, SFRTA

CALL TO ORDER

Chair Ms. Kim Delaney called the meeting to order at 10:36am.

ROLL CALL

Ms. Delaney requested the pledge of allegiance and Roll Call was taken.

PLEDGE OF ALLEGIANCE

AGENDA APPROVAL – Additions, Deletions, Revisions

DRAFT

Mr. Fred Stubbs made a motion to approve the agenda. The motion was seconded by Mr. Larry Merritt. The motion was called to a vote and carried unanimously.

DISCUSSION ITEMS:

MATTERS BY THE PUBLIC – None

CONSENT AGENDA
Those matters included under the Consent Agenda are self-explanatory and are not expected to require review or discussion. Items will be enacted by one motion in the form listed below. If discussion is desired by any Committee Member, however, that item may be removed from the Consent Agenda and considered separately.

C1 – MOTION TO APPROVE: Minutes of Planning Technical Advisory Committee Meeting of June 23, 2016.

Mr. Larry Merritt made a motion to approve the meeting minutes. The motion was seconded by Mr. William Cross. The motion was called to a vote and carried unanimously.

REGULAR AGENDA
Those matters included under the Regular Agenda differ from the Consent Agenda in that items will be voted on individually. In addition, presentations will be made on each motion, if so desired.

R1 – MOTION TO APPROVE: SFRTA Transit Development Plan (TDP)

Ms. Vicki Gatanis presented this item. She highlighted key elements of the TDP Annual draft update and then entertained questions. There was discussion about the opening date of the new SFRTA Operation Center. Mr. William Cross mentioned that the new building should be operational by December 2016 and that the move will occur in stages, with dispatch transferring first. Mr. Larry Merritt commended the SFRTA for its regional leadership. He suggested that the SFRTA should be the leader for regional connections and Transit Oriented Development (TOD). Mr. Larry Merritt motioned to approve the TDP Plan and Mr. Ken Jeffries seconded. The motion was called to a vote and carried unanimously.

INFORMATION / PRESENTATION ITEMS
Action not required, provided for information purposes only.

I1 – INFORMATION: Quiet Zone Safety Measures

Mr. Paul Calvaresi with the Broward MPO gave a brief presentation on this item. He explained that Quiet Zones, a portion of rail where the train horn does not sound at crossings, allows for a higher quality of life. Implementing Quiet Zones require using Supplemental Safety Measures (SSM) to replace the horn, so that overall safety is not compromised. Some of these SSM Features include: raised medians, four (4) quadrant gate systems, and gates with medians. Quiet Zones are designed using a specialized

calculator, which uses an algorithm to compute risk areas. Mr. Calvaresi also explained that Pompano and Dania Beach are the only two (2) Broward County cities who will not receive Quiet Zone upgrades. He entertained questions and mentioned that Broward County will have the largest quiet zone area in the country.

I2 – INFORMATION: Tri-Rail Downtown Miami Link (TRDML) Update

Mr. William Cross presented the Tri-Rail Downtown Miami Link Project. There was discussion on how pedestrian friendly the area and the station would be. Mr. Cross explained that the designs focused on the pedestrian connection and that there would be walkways between the buildings. Another exciting addition is a grocery store in Overtown, since that area has been without one for some time. Ms. Delaney proposed taking a tour of the area after the September 14th PTAC Meeting.

OTHER BUSINESS: Mr. Larry Merritt informed the committee that there is a notice of proposed rule-making for the MPOs, which include regional collaborations. He continued by suggesting that SFRTA should lead regional transportation efforts starting with SFRTA being represented on the SEFTC Board. Ms. Delaney proposed looking at other regions such as Tampa, Central Florida, and Jacksonville to see how other regions are organized. This discussion led to questions about how other regions fund Operation and Maintenance (O&M) of their transit systems.

PTAC MEMBER COMMENTS: None.

NEXT MEETING DATE: September 14, 2016.

ADJOURNMENT: The meeting adjourned at 12:19pm

South Florida Regional Transportation Authority
September 2016 Legislative Report

Indemnification Language: The lobby team began working with Miami-Dade County staff on drafting liability language for the 2017 Legislative Session. The team has also continued conversations with both the Governor's deputy chief of staff, Brad Piepenbrink, and FDOT chief of staff Mike Dew, to keep them informed on the liability legislation.

Northern Layover Facility: Members of the lobby team attended meetings with SFRTA staff and worked with cities on the Northern Layover Facility. This facility touches land in Riviera Beach, Mangonia Park and West Palm Beach. Work with each of these cities has been on going leading up to this project.

Positive Train Control FRA Grant: Members of the lobby team collected letters of support to include in SFRTA's grant application for Positive Train Control technology funding to the Federal Rail Administration.

Conferences: Members of the lobbying team attended the Florida Association of Counties Policy Conference and the Florida Association of Professional Lobbyists Annual Conference, where Senator Brandes discussed his views on upcoming transportation issues, and the Florida League of Cities (in August), which included a Florida Association of Intergovernmental Relations meeting attended by SFRTA staff.

Elections: Members of the lobbying team have continued to attend various candidate forums and interviews and educate candidates for State & Local offices on public transportation topics as well as the topic of indemnification language in addition to assessing candidate support for Tri-Rail issues and viability of their candidacy. The team also reported on the outcomes of pertinent State and Local primary races, which determined much of the make-up of the Legislature as well as County Commission seats.

Education and Outreach: Members of the lobbying team have participated in various discussions and interviews with Local elected officials and staff members and candidates for State office throughout

the Tri-County region. The primary topics of conversation have been about SFRTA's interaction with AAF (Brightline).

Broward County Surtax Advocacy Campaign: The lobby team continued to closely monitor discussions on the surtax ballot initiative in Broward County as well as monitored the kick-off of the advocacy campaign, which included many County and city officials.

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MEMORANDUM

TO: South Florida Regional Transportation Authority
FROM: FTI Consulting Government Affairs
RE: Governmental Affairs Report – August 2016
DATE: 9 September 2016

Congress recessed for approximately seven weeks this summer, the bulk of which overlapped with the month of August. As a result, no new legislation was introduced this month. However, despite the impending presidential and congressional elections, Congress was not completely silent. A number of big-ticket policy items, like tax reform and funding the government past the September 30 funding deadline, were discussed. In addition, lawmakers contemplated other noncontroversial measures that could be passed upon their return after the Labor Day holiday.

Activities on Behalf of SFRTA in August 2016

FAST Act Implementation – The Department of Transportation and the Federal Transit Administration continued their efforts to implement new policies and regulations resulting from passage of the FAST Act. The new Transit Asset Management Final Rule is a good example of this. FTI has prepared a comprehensive review and summary of the rule and its impact.

Member Communications –FTI is maintaining ongoing communications with Members regarding its requests for PTC funding and other capital improvement funding ("CRISI Grants").

The following sections provide an update on congressional action this summer and proposed post-recess action:

Appropriations and Government Funding - So far, no spending bills have made it to the president's desk, as policy riders have weighed down appropriations action. Now, all eyes will turn to Speaker Ryan to see how he approaches the politics of getting stopgap spending approved. Lawmakers want to avoid a government shutdown in this pivotal election year when constituents are paying especially close attention to their elected representatives. However, while extending a continuing resolution into spring would satisfy some factions in Congress (the conservative Freedom Caucus in particular), a debt limit increase, the beginning of the FY 2018 budget process and other potentially provocative legislation would have to be considered at the same time the continuing resolution would expire.

Further, if the Democrats retake the Senate, Republicans would lose leverage and would be better off having utilized a lame duck session. Alternatively, Congress could push a stopgap measure through December, which would allow lawmakers to focus on the upcoming elections and write an omnibus spending bill to the $1.07 trillion cap that both political parties agreed in last year's budget deal, with a year-end omnibus to follow.

As was the case with the appropriations process this year, the House – where spending decisions traditionally originate – appears to be playing second fiddle. In the House, Speaker Paul Ryan has not yet begun official discussions with his own party about a potential continuing resolution. If the Senate were to reach an agreement and pass a continuing resolution in the first weeks of September, the Senate could potentially adjourn early for the October recess and election period, forcing the House to accept the Senate's spending stopgap or shutdown the government.

The transportation funding measure in the House has passed the full Appropriations Committee but has not been brought to the House floor for a vote, due to political considerations. In the Senate, the transportation appropriations bill has passed.

Tax Reform - At the end of last year Congress dealt with its annual (or close to annual) extenders package by making some long-term decisions. Many of the extenders were made permanent or given an expiration date in 2019. A dozen or more extenders, however, are still set to expire at the end of this year including a number of renewable energy provisions, a nuclear energy incentive, some clean coal provisions, and a handful of the more publicly controversial tax provisions.

There is an ongoing disagreement between Senate and House tax committee leaders about the exact fate of some of the green energy provisions, with some claiming both parties agreed to include them in last year's December agreement and others claiming they were left out on purpose. Senator Reid strongly supports these credits and has said he plans to ensure they are renewed before he leaves the Senate in the first week of January. One of the problems up until now is that those Republicans who do not support these provisions as strongly have not had a corresponding tax priority that would smooth the way to an agreement. If a tax package comes together in the lame duck, these green energy provisions will be the driver.

Over the summer the Senate Finance Committee leaders sent out a letter to members of the Committee asking for them to gather items for a potential tax package to be put together this fall or early next year. The prerequisites for consideration for the package were:

1. Bipartisan
2. Minimal cost (this has ranged from less than $50 million over 10 years to less than $100 million over 10 in previous packages)
3. Non-controversial – not opposed by the Administration or other Members

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Additional Measures - The Senate is scheduled to be in session for just 23 days in September and October, while the House will work for only 17 days, exiting at September's end. This expedited legislative calendar was designed to accommodate the elections, but it could make passing important legislation difficult. Lawmakers also still have a chance this fall to pass some important measures. An extension of various expiring tax breaks – particularly related to energy, emergency assistance to combat the Zika virus and a package aimed at improving mental health care may all yet be considered. Also, both chambers are still working to conference defense authorization legislation before October. However, criminal justice overhaul legislation and the Trans-Pacific Partnership ratification appear to have taken a back seat to spending action and other less contentious measures.

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Transit Asset Management Final Rule - On July 26, 2016, the FTA completed its almost three-year rulemaking on transit asset management (TAM) by issuing the final rule establishing the National TAM System, as required under §20019 of MAP-21 (49 U.S.C. §5326). The Final Rule (effective October 1, 2016), which establishes a new part 625 in 49 C.F.R., defines state of good repair (SGR) and establishes minimum federal TAM requirements applicable to all chapter 53 recipients and subrecipients that own, operate, or manage public transportation capital assets. The Final Rule does not make substantial changes to the 2015 NPRM.

Under the Final Rule public transportation providers must develop and implement TAM plans, which must include an asset inventory, condition assessments of inventoried assets, and a prioritized list of investments to improve the SGR of capital assets. The Final Rule also establishes SGR standards and four SGR performance measures. The Final Rule requires transit providers to set performance targets for capital assets based on the SGR measures and report their targets, as well as information related to the condition of capital assets, to the National Transit Database (NTD). The Final Rule also makes conforming changes to part 630. While FTA discusses the technical assistance (TA) requirements of §5326 throughout the preamble to the Final Rule, the Final Rule itself does not contain any TA provisions.

FTA states that: "The purpose of the final rule is to provide a proactive strategic framework for transit providers to balance competing needs and limited funds in an informed decision making process to reduce the SGR backlog." FTA's points of emphasis concerning the TAM requirements include: FTA's intent to adopt a "scalable and flexible approach to transit asset management and safety;" the nexus between SGR and safety; use of an "aspirational" level of performance as the objective standard for determining a capital asset's SGR; and the requirement to achieve and maintain SGR, leading to the applicability of TAM requirements to all providers, even those whose entire capital asset inventory is in SGR.

Transportation Related Bills

Bill Number	Title/Subject	Sponsor/ Cosponsors	Summary	Last Major Action
S.206	Local Transportation Infrastructure Act	Sen. Kelly Ayotte, 0	A bill to amend title 23, United States Code, to reauthorize the State infrastructure bank program.	01/21/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.
H.R. 198	MOVE Freight Act of 2015	Rep. Albio Sires, 4	To amend titles 23 and 49, United States Code, to establish national policies and programs to	01/08/2015: Referred to the Subcommittee

			strengthen freight-related infrastructure, and for other purposes.	on Water Resources and Environment.
S. 304	Motor Vehicle Safety Whistleblower Act	Sen. John Thune, 7	Prescribes certain whistleblower incentives and protections for motor vehicle manufacturer, part supplier, or dealership employees or contractors who voluntarily provide the Secretary of Transportation information relating to any motor vehicle defect, noncompliance, or any violation of any notification or reporting requirement, which is likely to cause unreasonable risk of death or serious physical injury.	07/14/2016: Message on House action received in Senate and at desk: House amendment to Senate bill.
S.373	Vessel Incidental Discharge Act	Sen. Marco Rubio, 27	A bill to provide for the establishment of nationally uniform and environmentally sound standards governing discharges incidental to the normal operation of a vessel	07/29/2015: Placed on Senate Legislative Calendar under General Orders. Calendar No. 171.
H.R. 819	To require the Administrator of the Federal Aviation Administration to use the definitions in section 40125 of title 49, United States Code, in determining whether an unmanned aircraft conducting aeronautical research flights qualifies for public aircraft status under that section, and for other purposes.	Rep. Don Young, 0	This bill requires the Administrator of the Federal Aviation Administration, for purposes of determining whether an unmanned aircraft (drone) used for aeronautical research qualifies as a public aircraft, to use definitions under federal aviation safety law for determining whether the aircraft is used for: a commercial purpose, and aeronautical research and platform-based research.	02/10/2015: Referred to the Subcommittee on Aviation.
S.371	A bill to remove a limitation on a prohibition relating to	Sen. Lisa Murkowski, 6	N/A	02/04/2015: Read twice and referred to the

	permits for discharges incidental to normal operation of vessels.			Committee on Environment and Public Works.
H.R. 625	Infrastructure 2.0 Act	Rep. John Delaney, 23	To eliminate the incentive for corporations to continue to hold accumulated earnings offshore, to invest in domestic infrastructure, to provide for international tax reform, and for other purposes.	02/02/2015: Referred to the Subcommittee on Water Resources and Environment.
S. 268	Rebuild America Act of 2015	Sen. Bernie Sanders, 1	A bill to improve the infrastructure of the United States, and for other purposes.	01/27/2015: Read twice and referred to the Committee on Banking, Housing, and Urban Affairs.
H.R.127	Transportation for Heroes Act of 2015	Rep. Al Green, 2	Transportation for Heroes Act of 2015 Revises urbanized area formula grant recipient requirements to require a recipient to certify that it will ensure a fare of no more than 50% of the peak hour fare will be charged to a U.S. veteran during non-peak hours for transportation using or involving a facility or equipment of a project financed by the grant.	01/07/2015: Referred to the Subcommittee on Highways and Transit.
H.R.354	To impose a civil penalty against a railroad carrier when a shift change of train employees causes a blockage of vehicular traffic at a grade crossing.	Rep. Sean Duffy, 2	This bill directs the Secretary of Transportation to assess a civil penalty of $10,000 against a railroad carrier for each complete hour in which a shift change of rail carrier employees causes a blockage of vehicular traffic at a grade crossing.	01/15/2015: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials.
H.R.365	To direct the Secretary of Transportation to conduct a notice and comment rulemaking before implementing	Rep. Steve Cohen, 4	Authorizes the Secretary of Transportation (DOT) to implement the policy set forth in the notice of proposed policy entitled "Proposal To Consider the Impact of One Engine	01/15/2015: Referred to the Subcommittee on Aviation.

	certain policies relating to obstruction evaluation aeronautical studies, and for other purposes.		Inoperative Procedures in Obstruction Evaluation Aeronautical Studies" published by the Department of Transportation (DOT) on April 28, 2014, only if the policy is adopted pursuant to notice and comment rulemaking.	
H.R.413	Partnership to Build America Act of 2015	Rep. John Delaney, 41	Establishes the American Infrastructure Fund (AIF) as a wholly-owned government corporation to provide bond guarantees and make loans to state and local governments, non-profit infrastructure providers, private parties, and public-private partnerships for state or local government sponsored transportation, energy, water, communications, or educational facility infrastructure projects (Qualified Infrastructure Projects [QIPs]). Authorizes AIF also to make equity investments in QIPs.	01/21/2015: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials.
H.R.749	Passenger Rail Reform and Investment Act of 2015	Rep. Bill Shuster, 12	Authorizes appropriations for FY2016-FY2019 to the Secretary of Transportation for the National Railroad Passenger Corporation (Amtrak)	03/09/2015: Received in the Senate and Read twice and referred to the Committee on Commerce, Science, and Transportation.
S.769	Track, Railroad, and Infrastructure Network Act	Sen. Roy Blunt, 3	N/A	03/18/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.
S.762	Innovation in Surface Transportation Act of 2015	Sen. Roger Wicker, 3	Directs the Secretary of Transportation, in coordination with state transportation	03/17/2015: Read twice and referred to the

			departments, to establish an innovation in surface transportation program. Requires states to make competitive grants for innovative surface transportation projects to eligible entities, including local governments, metropolitan planning organizations, regional transportation authorities, transit agencies, tribal governments, private providers of public transportation, nonprofit transportation organizations, port authorities, joint power authorities, freight rail providers, and local rail authorities. Requires each state (including the governor and state department of transportation) to establish an innovation in surface transportation selection panel to formulate criteria for selecting projects. Requires a state to reserve certain percentages of federal funds apportioned for the national highway performance, the highway safety improvement, the congestion mitigation and air quality improvement, surface transportation, and transportation alternatives programs in order to fund related projects under state innovative surface transportation grants. Authorizes states to reserve a certain percentage of such funds for a fiscal year to meet specific requests for project application support from eligible rural local governments.	Committee on Environment and Public Works.
S.766	Driver Privacy Act of	Sen. John	Declares that any data in an	09/28/2015:

	2015	Hoeven, 3	event data recorder required to be installed in a passenger motor vehicle (as provided for under Department of Transportation [DOT] regulations concerning the collection, storage, and retrievability of onboard motor vehicle crash event data) is the property of the owner or lessee of the vehicle in which the recorder is installed, regardless of when the vehicle was manufactured. Prohibits a person, other than the owner or lessee of the motor vehicle, from accessing data recorded or transmitted by such a recorder unless: • a court or other judicial or administrative authority authorizes the retrieval of such data subject to admissibility of evidence standards; • an owner or lessee consents to such retrieval for any purpose, including vehicle diagnosis, service, or repair; • the data is retrieved pursuant to certain authorized investigations or inspections of the National Transportation Safety Board or DOT; • the data is retrieved to determine the appropriate emergency medical response to a motor vehicle crash; or • the data is retrieved for traffic safety research, and the owner's or	Placed on Senate Legislative Calendar under General Orders. Calendar No. 239.

			lessee's personally identifiable information and the vehicle identification number are not disclosed. Directs the National Highway Traffic Safety Administration, after completing a study and submitting a report to Congress, to promulgate regulations concerning the amount of time event data recorders installed in passenger motor vehicles may capture and record vehicle-related data to provide accident investigators with pertinent crash-related information.	
S.712	Passenger Fee Restructuring Exemptions Act of 2015	Rep. Mazie Hirono, 3	Revises aviation security service fee requirements. Makes an exception to the $5.60 per one-way trip fee for certain passengers for domestic flights that originate at a U.S. airport. Limits such fees to $2.50 per enplanement, with the total not to exceed $5.00 per one-way trip, for any passengers: (1) boarding to an eligible small community for which essential air service compensation is paid; or (2) on flights, including flight segments, between two or more points in Hawaii or two or more points in Alaska.	03/11/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.
S.654	A bill to exempt certain class A CDL drivers from the requirement to obtain a hazardous material endorsement while operating a service vehicle with a fuel tank containing 3,785 liters (1,000 gallons)	Sen. Pat Roberts, 4	Directs the Secretary of Transportation to exempt from the requirement to obtain a hazardous material endorsement all class A commercial driver's license holders who are custom harvesters, agricultural retailers, agricultural business employees, agricultural cooperative employees, or agricultural	03/04/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.

	or less of diesel fuel.		producers who operate a service vehicle with a fuel tank containing 3,785 liters (1,000) gallons or less of diesel fuel if the tank is clearly marked with a placard reading "Diesel Fuel."	
S.650	Railroad Safety and Positive Train Control Extension Act	Sen. Roy Blunt, 13	Revises the railroad safety risk reduction program. Extends from December 31, 2015, to December 31, 2020, the deadline for submission to the Secretary of Transportation by each Class I railroad carrier and each entity providing regularly scheduled intercity or commuter rail passenger transportation of a plan for implementing a positive train control (PTC) system on certain of its tracks. Authorizes the Secretary to extend the implementation deadline, upon application, in one-year increments, if specified circumstances exist. Directs the Secretary to revise federal regulations requiring a Class II or III railroad (including a tourist or excursion railroad) to equip its locomotives with an onboard PTC system to operate in PTC territory. Extends for five years the time for such railroad to meet the deadline for equipping its locomotives with a PTC system.	03/25/2015: Committee on Commerce, Science, and Transportation. Ordered to be reported with an amendment in the nature of a substitute favorably.
S.685	Autocycle Safety Act	Sen. David Vitter, 0	This bill defines "autocycle" as a motor vehicle with three wheels, an enclosed occupant compartment, and a steering wheel, which meets applicable federal motor vehicle safety standards. Specified interim automotive	03/10/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.

			and motorcycle safety standards apply to autocycles until at most three years after enactment of this Act, by which time the Secretary of Transportation shall issue appropriate final rules, interpretations, and test procedures. Automotive fuel standards also apply to autocyles.	
S.637	Short Line Railroad Rehabilitation and Investment Act of 2015	Sen. Mike Crapo, 54	Amends the Internal Revenue Code, with respect to the tax credit for railroad track maintenance, to: (1) expand the types of maintenance expenditures eligible for such credit, and (2) extend such credit through 2016.	03/03/2015: Read twice and referred to the Committee on Finance.
S.546	RESPONSE Act of 2016	Sen. Heidi Heitkamp, 7	Amends the Homeland Security Act of 2002 to direct the Administrator of the Federal Emergency Management Agency to establish the Railroad Emergency Services Preparedness, Operational Needs, and Safety Evaluation Subcommittee of the National Advisory Council. Directs the Subcommittee to evaluate various topics and develop recommendations, as appropriate, for improving emergency responder training and resource allocation for hazardous materials incidents involving railroads. Terminates the Subcommittee not later than four years after this Act's enactment, subject to one year extensions.	05/10/2016: Referred to the House Committee on Transportation and Infrastructure.

H.R.1043	RESPONSE Act of 2015	Rep. Ron Kind, 6	Amends the Homeland Security Act of 2002 to direct the Administrator of the Federal Emergency Management Agency to establish the Railroad Emergency Services Preparedness, Operational Needs, and Safety Evaluation Subcommittee of the National Advisory Council. Directs the Subcommittee to evaluate various topics and develop recommendations, as appropriate, for improving emergency responder training and resource allocation for hazardous materials incidents involving railroads. Terminates the Subcommittee not later than four years after this Act's enactment, subject to one year extensions.	02/25/2015: Referred to the Subcommittee on Economic Development, Public Buildings and Emergency Management.
S. 808	Surface Transportation Board Reauthorization Act of 2015	Sen. John Thune, 1	Removes the Surface Transportation Board from the Department of Transportation (DOT) to establish it as an independent U.S. agency. Increases Board membership from three to five members. Prescribes requirements for discussions at Board meetings not open to the public. Reauthorizes appropriations for FY2016-FY2020 for the Board. Grants the DOT Inspector General authority to review only the financial management, property management, and business operations of the Board to determine its compliance with federal laws, rules, and regulations. Prescribes time limits for Board review of rail rate reasonableness cases.	12/18/2015: Became Public Law 114-110

			Repeals certain rail service contract limitations involving the transportation of agricultural commodities. Authorizes the Board to investigate rail carrier and pipeline carrier violations on its own initiative as well as on complaint (as under existing law). Prescribes requirements for investigations commenced on the Board's own initiative. Requires the Board to establish a voluntary binding arbitration process to resolve rail rate and practice disputes. Directs the Government Accountability Office to study rail rate contract proposals containing multiple origin-to-destination movement.	
H.R.844	To require a plan approved by the Surface Transportation Board for the long-term storage of rail cars on certain railroad tracks.	Rep. John Kline, 0	Requires a rail carrier to have a storage plan, meeting specified requirements and approved by the Surface Transportation Board, for any of its rail cars that it stores for three or more years, and continues to store, on tracks (except rail yard or storage yard tracks) that pass through a commercial- or residential-zoned area that were designed or previously used for through transportation of trains.	02/11/2015: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials.
S.1043	Invest in American Jobs Act of 2015	Rep. Jeff Merkley, 3	Revises Buy American requirements with respect to federal-aid highways, capital investment grants to support intercity passenger rail service (rail grants), and Amtrak, particularly the handling of waiver requests. Revises similar Buy American requirements with respect to public	04/22/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.

			transportation, particularly rolling stock. Requires the cost of rolling stock components and subcomponents produced in the United States to increase from 60% in FY2015 by 10% annual increments up to 100% for FY2019 and ensuing fiscal years. Revises waiver requirements as well to mirror those for federal-aid highways. Applies the rail grant Buy American requirements under this Act to recipients of rail loans and loan guarantees with respect to railroad rehabilitation and improvement. Prescribes Buy American requirements for procurement of a facility or equipment under federal aviation programs similar to those for rolling stock. Requires the Secretary of Transportation to report annually to Congress on: (1) each project for which a waiver of Buy American requirements was issued; and (2) the country of origin and product specifications for steel, iron, or manufactured goods acquired pursuant to each waiver. Amends the Safe Drinking Water Act to prescribe Buy American requirements for steel, iron, and manufactured goods used in the construction of a public water system. Adds similar Buy American requirements to the Public Works and Economic Development Act of 1965, with respect to economic development programs, and to the Robert T. Stafford Disaster	

			Relief and Emergency Assistance Act, with respect to the Federal Emergency Management Agency Hazard Mitigation Grant Program. Amends the Truman-Hobbs Act to prescribe Buy American requirements for steel, iron, and manufactured goods used in the alteration of a bridge over U.S. navigable waters.	
S.1006	A bill to incentivize early adoption of positive train control, and for other purposes.	Sen. Dianne Feinstein, 7	N/A	04/16/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.
S.900	Used Car Safety Recall Repair Act	Sen. Richard Blumenthal, 1	Prohibits a dealer from selling or leasing a used passenger motor vehicle until a defect of the motor vehicle or motor vehicle equipment or noncompliance with a federal motor vehicle safety standard has been remedied.	04/13/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.
H.R.1620	414 Plan Act of 2015	Rep. Randy Forbes, 0	Declares that federal laws and regulations (including prevailing rate of wage requirements under the Davis-Bacon Act) shall not apply to any federal-aid highway or highway safety construction project, except those relating to: (1) the safety or durability of a highway facility, or (2) public or workplace safety.	03/26/2015: Referred to the Subcommittee on Highways and Transit.
H.R.1405	RAILS Act	Rep. Daniel Lipinski, 8	This bill revises the railroad safety technology grants program. The program shall also provide for advanced communication methods for conveying hazard information between all parties in the	03/18/2015: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials.

			transportation chain, spectrum acquisition, multifrequency broadband connectivity equipment, implementation and interoperability testing. The program is extended for FY2015-FY2020.	
S.532	Highway-Rail Grade Crossing Safety Act of 2015	Sen. Richard Blumenthal, 3	This bill authorizes appropriations for FY2016-FY2019 for the highway safety improvement program, with $50 million set aside for each fiscal year for the Railway-Highway Crossings Program.	02/23/2015: Read twice and referred to the Committee on Commerce, Science, and Transportation.
H.R.705	Rail Crossings Safety Improvement Act	Rep. Sean Patrick Maloney, 1	This bill reauthorizes appropriations to the Secretary of Transportation for FY2016-FY2019, at levels reduced from those for FY2006-FY2009, for capital grants to states for rail line relocation and improvement projects.	02/05/2015: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials.
H.R.354	To impose a civil penalty against a railroad carrier when a shift change of train employees causes a blockage of vehicular traffic at a grade crossing.	Rep. Sean Duffy, 2	This bill directs the Secretary of Transportation to assess a civil penalty of $10,000 against a railroad carrier for each complete hour in which a shift change of rail carrier employees causes a blockage of vehicular traffic at a grade crossing.	01/15/2015: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials.
S.1732	Comprehensive Transportation and Consumer Protection Act of 2015	Sen. John Thune, 2	To authorize elements of the Department of Transportation, and for other purposes.	05/23/2016: Committee on Commerce, Science, and Transportation. Ordered to be reported with amdt in nature of a substitute favorably.

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Cleared for the President: 0 of 12 | Signed into Law: 0 of 12										
Bill	House			Senate			Conference			President
	Subcom.	Comm.	Passage	Subcom.	Comm	Passage	Report	House	Senate	
Agriculture HR 5054 S 2956	April 13 voice vote	April 19 voice vote		May 17 voice vote	May 19 roll call 30-0					
Commerce-Justice-Science HR 5393 S 2837	May 18 voice vote	May 24 voice vote		April 19 voice vote	April 21 roll call 30-0					
Defense HR 5293 S 3000	May 11 voice vote	May 17 voice vote	June 16 roll call 282-138	May 24 voice vote	May 26 roll call 30-0					
Energy-Water HR 5055 S 2804	April 13 voice vote	April 19 voice vote	May 26 roll call 112-305	April 13 voice vote	April 14 roll call 30-0	May 12 roll call 90-8				
Financial Services HR 5485 S 3067	May 25 voice vote	June 9 roll call 30-17	July 7 roll call 239-185	June 15 voice vote	June 16 roll call 30-0					
Homeland Security HR 5634 S 3001	June 9 voice vote	June 22 voice vote		May 24 voice vote	May 26 roll call 30-0					
Interior-Environment HR 5538 S 3068	May 25 voice vote	June 15 roll call 31-18	July 14 roll call 231-196	June 14 voice vote	June 16 roll call 16-14					
Labor-HHS-Education HR 5926 S 3040	July 7 voice vote	July 14 roll call 31-19		June 7 voice vote	June 9 roll call 29-1					
Legislative Branch	April 20 voice	May 17 voice	June 10 roll call		May 19 roll call					

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HR 5325 S 2955	vote	vote	233-175		30-0					
Military Construction-VA HR 4974 S 2806	March 23 voice vote	April 13 voice vote	May 19 roll call 295-129	April 13 voice vote	April 14 roll call 30-0	May 19 roll call 89-8	June 22 H Rept 114-640	June 23 roll call 239-171		
State-Foreign Operations HR 5912 S 3117	July 6 voice vote	July 12 voice vote		June 28 voice vote	June 29 roll call 30-0					
Transport-HUD HR 5394 S 2844	May 18 voice vote	May 24 voice vote		April 19 voice vote	April 21 roll call 30-0	May 19 roll call 89-8				
Budget Resolutions H Con Res 125 Senate draft		Mar. 16 roll call 20-16								

Updated - August 9, 2016

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Pompano Beach Station Improvements and SFRTA's Operations Center:

The SFRTA Board approved the selected contractor (Gulf Building, LLC.) on December 5, 2014. A Kick-off meeting was held on January 6, 2015. The team is meeting weekly to coordinate all station construction and Operations Center design aspects.

The Design Build contractor obtained early work permits from the City of Pompano Beach, and site work began on May 18, 2015. Two time-lapse cameras have been installed. Temporary utilities and construction trailers have been installed. Auger cast pile, pile caps and foundation activities for the Ops building have been completed. The City of Pompano Beach issued a Building Permit on August 4, 2015. The contractor has completed the installation of the pre-cast wall panels for the Ops building. The interior columns and walls for the first level are completed as well. Formwork, reinforcement and the 2nd level slab was poured and completed on November 16, 2015. Formwork, reinforcement and the 3rd level slab were poured December 22, 2015. Roof slab was poured between January 26, 2016 and February 2, 2016.

Formwork and reinforcement for pile caps and grade beams for the parking garage were completed in early September 2015. Pre-cast panels for the parking garage are 100% completed, and the stair and elevator towers were completed by the end of January 2016. The plumbing and drainage work in the garage is complete with mechanical and electrical rough-in at 95% complete. The ground level slab on grade is complete and wash pours for the 2nd, 3rd, and 4th floors are approximately 75% complete. The base layer of striping is complete on the first floor with striping on the other floors pending completion of the wash pours. The generator exhaust was completed in August.

The Operations Center interior frame work is complete on the 2nd floor, and 50% complete on the 1st and 3rd floors. Perimeter windows have been installed on all levels. Exterior Doors and the main center storefront window installations are complete on all floors. The work on the 2nd floor is complete including the HVAC installation, drywall, painting, and tiling of the bathrooms. The 3rd floor dry wall is installed and painting is still in progress. Exterior stairs and the main stair have been poured and interior painting of stairwells has begun. The transformer for the Operations Center and Parking Garage has been energized and the building and garage have power. The contractor has completed the ceiling framing on all floors and completion is pending ceiling tile installation. Additionally, the lighting is complete on all floors. Concrete pavement for the bus loop is 75% complete and limerock is compacted for asphalt placement

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on the other roadways. The HVAC system has been started up. Exterior light posts were installed around the site as well. The service elevator is 95% complete and main elevators installation is in progress. Bathroom fixture installation has begun on all floors and is approximately 25% complete. Anticipated completion of the Operations Center is November 2016.

Shop drawings for Station construction continue to be submitted. A temporary platform and ramp were built on the south end of the east platform to provide direct access to passengers from the sidewalk. Partial platform shut-down for the north ends of both platforms took place on December 1, 2015. Canopy foundations for both platforms as well as platform slabs have been poured. Installation of station pre-cast began in mid-January 2016 and is 100% complete. Steel platform canopy poles have been installed on both north ends of the platforms. Roof installation began in the month of June and is 90% complete on the elevator towers. Windows in the elevator towers have been installed, and the west platform elevator installation began in August 2016.

The pedestrian bridge was installed on March 17, 2016. The wire mesh is completed on the bridge with pouring of the bridge topping scheduled for September. The bridge roof was completed in August. The north section of the station is continuing to be worked on with the platform slab completed at this time. The platform canopy roofing is approximately 50% complete on the north side of the east and west platforms. Platform canopy light fixtures have been installed on the north side of both platforms as well. The electrical conduit installation and connection of lights is currently in progress. Painting of the bus loop canopy steel is 100% complete with the bus canopy roof installation 100% complete. The north end of the station is scheduled to be opened in September 2016 to allow work on the south end to begin. The station is anticipated to be complete in November 2016.

Opa-Locka Station Parking Expansion:

Expand parking at Tri-Rail's Opa-Locka Station, inclusive of adding forty five (45) new parking spaces to the south of the station; increase bus bay areas in the existing parking lot; install a continuous pedestrian canopy over the bus waiting areas and improve landscape and hardscape.

SFRTA executed a work order with Kimley-Horn and Associates, Inc. for the final 100% design plans, permitting and bidding phase assistance for the project. The design kick-off meeting was held on August 21, 2013 and the final 100% design is complete. SFRTA submitted the 100% design

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plans to the City of Opa-Locka for review and comments. The City of Opa-Locka Building Department has reviewed and approved the final design plans and issued a master building permit. The project is currently going through the SFRTA procurement process and it is expected to be advertised within the third quarter of 2016. Once bids are received and a Contractor is selected, the Contractor will have to pull the individual permits from each discipline from the City prior to beginning construction. The estimated timeframe to begin construction is by the winter of 2016.

Wave Modern Streetcar:

Design, Construction and Management of a 2.7 mile modern streetcar in Downtown Fort Lauderdale with passenger, solar powered stations, which will operate in mixed traffic with signal priority. Project includes the procurement of five (5) vehicles and the construction of a storage and maintenance yard. Project Partners include The Federal Transit Administration (FTA), Florida Department of Transportation (FDOT), Broward County, Broward Metropolitan Planning Organization (MPO), City of Fort Lauderdale, Fort Lauderdale Downtown Development Authority (DDA) and SFRTA. An Interlocal Partnership Agreement has been executed by all parties on April 26, 2013. The Project Management Consultant (PMC) contract was awarded to HDR Engineering, Inc. to provide services throughout the project. The NTP was issued on May 9, 2013 for the 1.47-mile starter line (Phase 1A).

Technical Advisory Group (TAG) meetings were held on March 2nd and 16th. A Value Engineering workshop was led by the PMC team, and took place on July 15-17, 2015. A draft report was submitted by the PMC on July 31, 2015 and a revised report was shared with the FTA at the 10-14-15 Quarterly Progress Meeting.

The PMC continues to work with public and private utility companies regarding relocation of infrastructure, and updating the Operating Plan and the Maintenance and Operations cost estimate.

A procurement package was advertised to select a streetcar vehicle manufacturer, which was advertised on May 29, 2015. A pre-proposal meeting was held on June 11, 2015 at SFRTA's headquarters office. Addenda #1 through #16 have been issued. Addendum #16 cancels the vehicle procurement as per FDOT's request. The project is in the process of being transferred to the FDOT District 4.

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South Florida Rail Corridor Dispatch System:

Dispatch Project

SFRTA has completed negotiations with Ansaldo STS regarding a previously submitted claim package, system warranty, and relocation services to the new Operations Center. The contract amendment is on its final internal review, and it is expected to be executed by the end of September 2016. A maintenance agreement was executed to extend the CAD system maintenance services thru October 31, 2016.

Positive Train Control

SFRTA has resolved the indemnification issue, as reported to Federal Railroad Administration (FRA) during our last meeting. SFRTA has successfully advertised our "Intent to Sole Source" with Wabtec/XoRail to be SFRTA's PTC Contractor. SFRTA has provided Wabtec/XoRail with the Procurement Package (including General Terms and Conditions, Special Terms and Conditions, and the Technical Specifications) as well as details of SFRTA specific programs, plans, procedures, drawings, etc. for review and comment.

SFRTA is currently in negotiations with Wabtec/XoRail, and has addressed Wabtec/XoRail's comments on the Procurement Package. Once responses have been accepted by Wabtec/XoRail, a price proposal will be submitted for the work.

SFRTA prepared and submitted a Q1 and Q2 quarterly report to the FRA on July 31, 2016.

SFRTA had a meeting with the FRA to discuss progress to date on Wednesday, August 17, 2016 in Orlando. The next FRA quarterly update meeting will take place in November 2016.

VTMI

For the month of August 2016 VTMI monthly reports refer to Exhibit 1.

VTMI

VTMI is a Transdev Company transdev

August 2016

VTMI Monthly Report

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1. Material Control Information

There is (0) Material Control Information

2. Material Usage (Track)

QTY		Description
8	each	6x1 bolt
1	each	14 inch Bolt
1	each	17 inch Bolt
1	each	18 inch Bolt
2	each	Floating Heel Block Bolts
1	each	136 lb. Floating Heel Block
272	each	E-Clips
78,142	each	Spikes
12	each	Washers
1	each	115 lb. Joint Bar
8	bags	Cold Patch
31	bucket	Curve Grease
2	each	Guard Rail Shims
1538	each	115 lb. Rail Anchors
281	each	136 lb. Rail Anchors
42	each	136 lb. Tie Plates
47	each	115 lb. Tie Plates
2	Sets	136lb Joint Bar
1	each	40ft 136lb Insulated Joint
1	each	115 lb. Weld Kit
10	each	Gauge Rods

Material Usage (Signal)

QTY		Description
4		385 Amp Batteries
1		40 Amp Rectifier
18		Mid-Section
17		Base Section
9		Gate Tip
96		Shear Bolts
15		Gate Light Set
2		Gate Light Chord (Pigtail)
1		Gate Flashing Cord
3		Eyelets
5		Surge Arrestors
1		S-60 Green board
2		GCP 3000
3		VSB Boards
2		Fuse
1		3A Fuse
1		80013 Card
1		VGP IO Card
1		Western Cullen Hayes Motor Brush
1		Contact Cam
1		Power Up Cam
2		Bonds
1		Bond Wire
4		Powders
1		Dimes
1		120 V Pancake
3		Gate Light
2		50 lb. Weight Plates
1		Ratchet Wheel
2		Kingpin
1		Power Up Cam
8		Conductors from 6 conductor 7 wire
1		Emerson Link
1		CSX Switch Lock
1		Conversion Bracket
1		Head Bond
1		Fan
1		Marine Battery
2		Bulb

1		Elbow Bracket
1		Chicken Head
3		Wire Clamps
1		RYD Card
1		35 Amp Breaker
2		GNB 160 Amp Hour Battery Cells

3. Scrap Sales

There have been (0) scrap sales

4. Rail, Ballast, Tie & Switch Ties

QTY		Description
Total		**Yard Ties**
0		
Total		**Mainline Ties**
11,197		
Total Ties	**Total YTD**	
11,197	23,798	
		Switch Ties
4		9ft
31		10ft
5		11ft
12		12ft
6		13ft
8		14ft
7		15ft
5		16ft
4		16.6ft
Total Ties	**Total YTD**	
82	964	

4. Engineering/Maintenance Work: Plan/Performance

Track
08/01/2016 -Installed (8) Switch Ties at SX 1003.4 -Welded a Frog at SX 1025.0 Plantation -Tie Gang-Installed (411) ties at SX 1006.3 to SX 1005.9 and surfaced 1291ft of Track **08/02/2016** -Installed (8) Switch Ties at SX 1008.1 on TRK#2 Waterworks Switch -Welded a Frog at SX 968.7 CP Coral and at SX 1031.6 Tompkins **08/03/2016** -Grounded Frog at Sunshine Lead & Golden Glades -Welded Frog at Hardy **08/04/2016** -Installed (8) Switch Ties 966.3/ Tamped Mud Spot -Welded Frog at Coral and Mission Spur -Installed (501) ties and (5) 10ft Switch Ties from SX 1005.9 to SX 1005.7 and from SX 1005.3 to SX 1005.0 -Surfaced 5286ft from SX 1005.9 to SX 1005.7 and from SX 1005.3 to SX 1005.0 **08/05/2016** -Tie Gang-Installed (1350) Ties at SX 1005.2 to SX 1003.7 & Surfaced 4556 ft. **08/06/2016** -Surfaced 3226 ft. from SX 1003.5 to SX 1004.1 TRK #2 **08/07/2016** -Installed (33) Concrete Ties at SX 967.0 -Installed (709) ties at SX 1003.5 to SX 1002.9 and surfaced 1720ft TRK #2 **08/08/2016** -Installed (10) concrete ties at 45th St -Welded Frog at SX 1027.7 South end of Hortis and at SX 1031.6 Amtrak Lead -Installed (540) Ties and Surfaced 1087 ft. from SX 1002.3 to SX 1003.5 on TRK#2 **08/09/2016** -Installed (20) Concrete ties at CP Coral on TRK#1 -Welded a Frog at Amtrak Lead -Sprayed vegetation at Hialeah Yard/ Ft Lauderdale Yard **08/10/2016** -Installed (20) concrete ties at Coral on TRK#1 -Welders changed (4) bolts at Iris & Grinded all the tips -Welded Frog at Sheridan on TRK#2 -Spray truck applied chemicals at Mission Spur, Chenney Bros., Gas Track, and Racetrack Rd. **08/11/2016** -Installed 20 Concrete Ties at CP Coral SX 968.7 -Welded Frog at CP Sheridan SX 1017.3 -Installed New IJ at SAS Cypress TRK#1 & Made (1) Weld 136lb. **08/12/2016** -Lubed all Switches at Hialeah Yard Placed pads under Rail at Concrete Switches at SX 1002.8 to SX 1002.6 Installed (914) Ties & (3) 10ft. Switch Ties & Surfaced 4,892ft from SX 1014.7 – SX 1015.7 on TRK #3 **08/13/2016** Sprayed weeds at Deerfield Beach, Mac Lead, Plantation, Sunshine, Oleander, Part of Hortis Bros. **Tie Gang-** Installed (788) Ties Surfaced 7,382ft from SX 1013.1– SX 1013.7 & SX 1014.0 – SX 1014.7 including (1) # 20 at SX 1015.8; surfaced (1) #10 @ SX MP 1015.4 on TRK #3 **08/14/2016** **Tie Gang-** Installed (479) Ties & (4) 10 ft Switch ties from SX 1005.8 – SX 1016.2 on TRK #1. No surfacing due to equipment malfunctioning **08/15/2016** Welded Frog at 15th St on TRK#2 and changed insulation in #1 Rod Welded Frog at Pineapple Tamped off concrete ties at Coral om TRK#1 to prevent surface issue Grounded Frogs at Hardy, Tompkins, Sunshine Lead, Golden Glades Installed (650) and (6) 10ft switch ties and surfaced (1) #10 turnout from SX 1005.0 - SX 1006.2 on TRK#1

08/16/2016
Installed (18) concrete ties at SX 968.7 on TRK#1
Filled Greasers- Homestead, Hialeah Yard, Tiger tail Rd, SX 1027.7, Junkyard Switch
08/17/2016
Installed (35) concrete ties at Coral on TRK#1
Welded (2) Frogs at Hialeah Yard-South end of TRK#17 and North end of Freight Lead TRK#1
Welded Switch point at North end of TRK#17
Sprayed at SX 992.3 to SX 996.4 on TRK#2
08/18/2016
Installed (18) Concrete ties at Coral
Welded Frog at Manatee & 46th St
Tie Gang-Installed (720) ties and (4) 10ft transition ties at SX 1005.0 to SX 1004.0 on TRK#1
Surfaced 2312 ft.
08/19/2016
Installed (11) concrete ties at SX 986.7
Welded Frog at SXZ 1017.3
Worked on Greasers and clips
Installed (510) Ties at SX1004.0 to SX 1003.7 on TRK#1 & Surfaced 5889ft
08/20/2016
Installed (692) ties and (4) 10ft transition ties at SX 1003.7 to SX 1003.1 on TRK#1 & Surfaced 3882 ft
08/21/2016
Installed (591) ties at SX 994.6 to SX 994.2 and surfaced 3850 ft
Grounded (10) Frogs at Hillsboro Team Track, Rankin, Pineapple, and Parker
-1. SX 971.2 Greaser on TRK#2 working
-2. SX 1015.8 Tightened Bolts & Hardened Spikes (Frog needed attention)
-3. SX 1017.3 Sheridan Frog TRK#2 South needs grinding
-4. SX 1018.6 Tightened Wedges
-5. SX 1021.5 Hallandale TRK#2 Joint bar before the Frog has one bolts needs to be cut
-6. SX 1025.4 Hardy (1) E-Clip
-7. SX 1027.7 Tightened wedges
-8. SX 1031.8 Tompkins (2) E-Clips
-9. SX 1034.5 71st St Hardened Spikes & tightened bolts
-10. 46th St SX 1036.0 Hardened Spikes (2) E-clips
08/22/2016
Jacked (4) rough spots
Inspected Switches
Spray truck completed 15 miles
Installed (650) ties from SX987.6 to SX 986.6 on TRK #2 and surfaced 3135ft
08/23/2016
Welders Adjusted Rail at SX 985.3
Jacked and Tamped Spots at Johnson St, 19th St, and Codadad
08/24/2016
Installed (18) switch ties at Fun Track SX 1818.4 on TRK#2
Cut trees out to make a path at Food Storage Cold Storage
Welded Don Green Switch at SX 1031.5 TRK#1
8/25/2016
Installed (14) Switch Ties at SX 1018.4 Sheridan on TRK#2
Welded Frog at Cypress on TRK#1
Installed (50) Rubber Pads at Home Depot Switch
8/26/2016
Installed (8) Switch Ties at SX 1026.7 on TRK#2 CKS Packaging
Welded Frog at SX 993.3
Surfaced 3949 ft. at SX 1036.8 to SX 1013.8 on TRK#3
Begin New River Bridge Track Shift
8/29/2016
Installed (30) ties at Homestead
Welded Frog at Orange Blossom TRK#2 and Coconut TRK#2
Installed (881) ties and Surfaced 4200 ft. at SX 986.0 to SX 986.6
Completed Track Shift at New River Bridge.
8/30/2016

Installed (10) Switch ties at Hialeah Yard
Welded Frog at SX 1017.3 Sheridan
Welded Frog at #1 Freight Lead
08/31/2016
Installed (23) ties at SX 1018.7 on TRK#2
Installed (10) Gage Rods at Publix Lead
Welded (1) Frog at SX 1017.3
Installed (785) ties and Surfaced 3927ft at SX 986.0 to SX 985.2 on TRK#2

Engineering/Maintenance Work: Plan/Performance

Signal

8/1/2016
SW 10th ST: C=0100 A=0120 R=0125 -- Blown Transformer
Caroline Ave: C=0633 A=0700 R=1145 -- Gates down (Replaced batteries)
NW N River Dr: C=0923 A=0945 R=1031 -- Broken Gate (Repaired)
NW 62nd St: C=1038 A=1054 R=1142 -- Broken Gate (Repaired)
NW 62nd St: C=1257 A=1324 R=1437 -- Broken Gate (Realigned/Rebuilt)
NW N River Dr: C=1658 A=1714 R=1726 --Broken Gate (Rehung)
NW 46th St: C=1903 A=1917 R=1946 -- Broken Gate (Replaced)
NW 62nd St: C=1922 A=1925 R=1929 -- Broken Gate (Clear on Arrival)
Oakland Park Blvd: C=1612 A=1634 R=1641 -- Broken Gate (Rehung)
Carolina St: C=0632 A=0731 R=0731 -- Gates down /Lights Flashing (Changed batteries)
08/02/2016
Racetrack Rd: C=0742 A=0805 R=0950 -- Gates down (Replaced fuses)
Hillsboro Blvd: C=0957 A=1034 R=1305 -- Gates down (Replaced)
57th Ave: C=0946 A=1015 R=1130 -- Gates down/Lights flashing (Cleaned)
Hammondville Rd: C=1831 A=1855 R=1931 -- Xing activated(Working as intended)
Prospect Rd: C=1422 A=1450 R=1516 -- Broken Gate (Rehung)
Okeechobee Blvd: C=1228 A=1302 R=1320 -- Gate stuck down (Replaced)
NW 135th St: C=0241 A=0320 R=0400 -- Gates up and down/ No train (Ops check)
08/03/2016
135th St: C=0246 A=0310 R=0400 -- Gates going up and down
NW N River Dr.: C=1328 A=1335 R=1405 -- Broken Gate (Repaired)
NW 135th St: C=1310 A=1319 R=1500 -- Xing down (Replaced)
Hammondville Rd: C=1417 A=1425 R=1600 -- Xing Malfunction
Sample Rd: C=1852 A=1904 R=1923 -- Gate broken/ Gate not going down (Rehung Gate)
08/04/2016
Palm Beach Lakes Blvd: C=0840 A=0845 R=0846 -- Gate Misaligned (Realigned)
NW 27th: C=0830 A=0835 R=0930 -- Gates down/ Lights
MLK Blvd: C=1231 A=1248 R=1301 --Broken Gate (Rehung)
NW 15th St: C=1320 A=1335 R=1342 -- Gates down
NW 79th St: C=1040 A=1058 R=0000 -- Broken gate (Rehung)
Oakland Park Blvd: C=0947 A=1015 R=1600 -- Gate Broken (Replaced)
NW 27th Ave: C=1239 A=1239 R=1445 -- Bad bond/ Bad shunt (Repaired)
Hialeah Yard: C=1921 A=1945 R=2145 -- Hydro switches #15 and #16 (Disable)
08/05/2016
S.Dania-Whalen: C=1043 A=1105 R=1255 -- TKO #3 TRK (Replaced)
NW N River Dr.: C=1703 A=1705 R=1717 -- Gate Broken (Rehung)
Australian Ave: C=1901 A=2040 R=1700 -- Derailment (Repair/ Replace)
08/06/2016
CP Cypress: C=1010 A=1025 R=1110 -- Xover would not go reverse
Hammondville Rd: C=1902 A=1945 R=2020 --Gates down / Lights Flashing (Working as intended)
15th St: C=1902 A=1945 R=2020 -- Gate down/ Xing activated
36th St: C=1717 A=1824 R=1829 -- Gate not going down (Aligned)
Bonsal Switch: C=0945 A=1030 R=1300 -- Track Light (Adjusted)
CP Golden Glades: C=1830 A=1900 R=2300 -- Power out indication (Replaced)
Iris: C=2300 A=2340 R=0300 -- Track Light (Replaced)
08/07/2016
NW 33rd St: C=0630 A=0743 R=0800 -- Gate in up Position (Cleaned/ Adjusted)
Race Track Rd: C=1011 A=1109 R=1126 -- One Gate Down/ One Gate Up (Cleared on arrival)
Hollywood Blvd: C=0845 A=0959 R=1124 -- Gates down (Clear on arrival)
Griffin Rd: C=1706 A=1759 R=1814 -- Broken Gate (Stretched out)
15th St: C=1342 A=1403 R=1546 -- Gates down/ Xing activated (Clear on arrival)
08/08/2016
No issues.
08/09/2016
NW 135th St: C=0801 A=0820 R=0830 -- Xing Lights Flashing/ Gates up (Realigned)

NW 79th St: C=0953 A=1009 R=1014 -- Xing Malfunction (Repaired)
CP 79th #1 Switch: C=1140 A=1200 R=1235 -- Will not reverse (Lubed plates)
NW 36th St: C=2155 A=2216 R=2239 -- Gate stuck up (Tightened)
NW 36th St: C=1923 A=1941 R=2046 -- Broken Gate (Replaced)
08/10/2016
Sample Rd: C=1450 A=1500 R=1700 -- Gates down (Added weight)
NW 135th St: C=1553 A=1625 R=1719 -- Gates down (Repaired)
NW 22nd Ave: C=1810 A=1824 R=1854 -- Lights Flashing (COA)
NW 22nd Ave: C=1932 A=1951 R=2023 -- Gates down (Repaired/Replaced)
Stirling Rd: C=1834 A=1920 R=2038 -- Gates down Lights Flashing (Adjusted)
Hillsboro Blvd: C=1835 A=1842 R=1854 -- Gate broken (Rehung)
NW 22nd Ave: C=2215 A=2237 R=2323 -- Gate hit (Rehung Gate)
08/11/2016
NW 71st St: C=0530 A=0600 R=1030 -- Gates down (Repaired)
NW 62nd St: C=0620 A=0650 R=1050 -- Gates down (Repaired)
NW 79th St: C=0513 A=0554 R=1036 -- Gate Malfunction (Repaired)
CP Hardy: C=1208 A=1305 R=1447 -- Light Out (Replaced)
NW 15th St: C=1916 A=2000 R=2048 -- Gate hit (Rehung)
Camino Real Rd: C=1310 A=1330 R=1400 --Broken Gate (Replaced)
Cypress Creek: C=1516 A=1544 R=0200 -- Switch would not throw over (Adjusted)
08/12/2016
Griffin Rd: C=0758 A=0820 R=1000 -- Broken Gates (Replaced)
NW 15th St: C=1045 A=1052 R=1440 -- Xing down (Replaced)
Taft St: C=1925 A=1946 R=2236 -- (Repair/Replace)
Commercial Blvd: C=1755 A=1825 R=1932 -- Broken Gate (Replaced)
NW 15th St: C=1915 A=1959 R=2048 -- Broken Gate (Rehung/Replaced)
08/13/2016
NW N River Dr.: C=1508 A=1600 R=1632 -- Gates down (COA)
08/14/2016
South Dania: C=1320 A=1340 R=1705 -- TKE on TRK#3 (Repair)
Hialeah Yard: C=1942 A=2025 R=2212 --#12 Hydro Switch Fail (Adjusted)
NW 62nd St: C=1340 A=1515 R=1527 -- Gate stuck Up (Adjusted)
08/15/2016
CP Tompkins: C=0950 A=1021 R=1210 -- Track Light (Replaced)
CP Hardy: C=0800 A=0840 R=0923 -- North Xover did not get on reverse
Pineapple: C=1720 A=1721 R=0100 -- Power out (Removed)
Yamato Rd: C=1720 A=1721 R=2118 -- Xing activated / Gates down (Replaced)
NW 22nd Ave: C=1155 A=1215 R=1228 -- Gate stuck up/ Lights flashing (Realigned)
NW 46th ST: C=1805 A=1827 R=1842 -- Gate broken (Rehung)
NW 37th Ave: C=2054 A=2115 R=2115 -- Gate broken (Working as intended)
08/16/2016
Mc Nab Rd: C=1420 A=1435 R=1800 -- Gates down (Reset)
NW 22nd Ave: C=1842 A=1857 R=1920 -- Broken Gate (Repair/Replace)
08/17/2016
Iris: C=0638 A=0705 R=0750 -- Track Light (Link Card)
NW 71st St: C=0750 A=0758 R=0813 -- Broken Gate (Replaced)
NW 62nd St: C=1054 A=1124 R=1149 --Broken Gate (Replaced)
CP Plantation: C=1843 A=1852 R=1857 -- TKE on TRK #1 (Rectifier Fuse)
Commercial Blvd: C=1441 A=1532 R=1553 -- Broken Gate (Rehung)
Mc Nab Rd: C=1808 A=1818 R=1829 -- Broken gate (Cleaned contact)
08/18/2016
NW 22nd Ave: C=1407 A=1430 R=1508 -- Broken Gate (Rehung)
08/19/2016
Griffin Rd: C=1952 A=2011 R=2018 -- Gate fouling Track (Ops test)
NW 36th St: C=1718 A=1745 R=1757 --Gate Broken (Ops test)
Electric Lock #1 Xover: C=1443 A=1453 R=1652 -- Track Light (Adjust Switch)
Griffin Rd: C=1400 A=1400 R=1525 -- Gate Broken (Replaced)
8/20/2016
95th St: C=0021 A=0053 R=0146 -- Switch Lock (Replaced)
NW N River Dr.: C=1630 A=1700 R=1850 -- Gates down (Replaced)

08/21/2016
No issues.
08/22/2016
NW 36th St: C=1445 A=1510 R=1513 -- Broken Gate
NW 36th St: C=1802 A=1836 R=1903 -- Broken Gate (Replaced)
Yamato Rd: C=1915 A=1943 R=2030 -- Gate hit by vehicle (Adjusted)
SW 3rd St: C=1710 A=1730 R=1855 --Track Light (Replaced)
08/23/2016
NW 62nd St: C=1732 A=1800 R=1818 -- Gate stayed Up (Cleaned)
Home Depot Switch: C=1437 A=1505 R=1850 -- Track Light (Replaced)
NW 22nd Ave: C=0715 A=0747 R=0754 -- Gates Up / Lights Flashing (Ops checks)
NW N River Dr.: C=0836 A=0849 R=1419 -- Broken Gate (Replaced)
NW 79th St: C=1120 A=1202 R=1207 -- Gates down/ Lights Flashing (Ops check)
NE N River Dr.: C=0830 A=0900 R=1030 -- Gate lights (Replaced)
08/24/2016
Commercial Blvd: C=1301 A=1326 R=1335 -- Gates Up/ Lights Flashing (Repaired)
CP Pineapple: C=0620 A=0715 R=1520 -- Track Light (Adjusted)
Sheridan S. Dania: C=0803 A=0830 R=0815 -- TKO (Installed Battery)
NW 79th St: C=1703 A=1724 R=1819 -- Broken Gate (Ops check)
08/25/2016
CP Tompkins: C=0722 A=0807 R=0833 -- Light Out (Replaced)
Tiger tail Rd: C=1235 A=1248 R=1253 -- Gate down (Ops check)
Yamato Rd: C=1742 A=1813 R=1845 -- Gate Broken (Replaced)
SAS Parker SIG: C=1320 A=1350 R=1420 -- Track Light (Replaced)
Yamato Rd: C=1812 A=1813 R=0100 -- Lightning Strike
SW 3rd St: C=0039 A=0259 R=0305 -- Gate bent (Realigned)
08/26/2016
Sample Rd: C=0810 A=0841 R=0915 -- Broken Gate (Rehung)
Sistrunk Blvd: C=0916 A=0935 R=1038 -- Gate Broken (Replaced)
NW N River Dr.: C=0757 A=0811 R=0829 -- Gates down / Lights flashing (Working as intended)
Forest Hill Blvd: C=2216 A=2243 R=2250 -- Damaged gates (Ops test)
NW 36th St: C=1615 A=1627 R=1631 -- Xing Malfunction (Realigned Gate)
New River Draw Bridge Cut Over with Zoe Rail
08/27/2016
No Production.
08/28/2016
No Production.
08/29/2016
Hillsboro Blvd: C=1253 A=1342 R=1415 -- Gates down (Adjusted)
CP Parker: C=1133 A=1146 R=1325 -- Switch will not throw reverse (Greased)
NW 62nd St: C=1255 A=1255 R=1340 -- Broken Gate (Repaired)
36th St: C=0610 A=0650 R=0739 -- Gates down / Lights Flashing (Replaced)
NW N River Dr.: C=1646 A=1654 R=1938 -- Xing Malfunction, Gates down/ No Train (Replaced)
Forest Hill Blvd: C=1608 A=1623 R=1729 -- Gate hit by vehicle (Replaced)
New River Bridge: C=2144 A=2215 R=0000 -- Indication Malfunction (Replaced)
NW 57th Ave: C=2215 A=2244 R=0300 -- Gates down/ Lights Flashing (Replaced)
08/30/2016
NW 57th Ave: C=0130 A=0215 R=0300 -- Gates down/ Lights Flashing (Replaced)
NW 36th St: C=1642 A=1715 R=1750 -- Broken Gate (Replaced)
NW 36th St: C=1344 A=1404 R=1404 -- Gate Turned (Realigned)
08/31/2016
NW 79th St: C=0754 A=0808 R=1050 -- Xing did not recover after train (COA)
CP Tompkins: C=1304 A=1330 R=1545 -- Light out indication (Repaired)
NW 135th St: C=1743 A=1826 R=1842 -- Gate in up position (Re-Aligned)
NW 36th St: C=1700 A=1730 R=1829 -- Broken Gate (Replaced)
NW 62nd St: C=0807 A=0820 R=1130 -- Gate down (Working as intended)
NW 71st St: C=0830 A=0840 R=1130 -- Gates down (Repaired)
Race Track Rd: C=1905 A=1950 R=0203 -- Gates down (Bonded)
NW 62nd St: C=0842 A=0922 R=1035 -- Broken gate (Replaced)
NW 54th St: C=0906 A=0922 R=1115 -- Gate stuck down (Replaced)

Oakland Park Blvd: C=1817 A=1911 R=2036 -- Broken Gate (Replaced)
SW 3rd St: C=1859 A=1950 R=0203 -- Gates down (Replaced)
LeJune Rd: C=0020 A=0102 R=0104 -- Gate up other gate down/ Lights Flashing (Repaired)

Engineering/Maintenance Work: Plan/Performance

Facilities
08/01/2016 Repair and re-surface sinkhole along roadway in Hialeah Facility Yard Replace locks at Signal manager's office at Admin building in Hialeah Clear rocks and debris from roadways inside Hialeah Facility Yard Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/02/2016** Fence repair at Commercial Blvd SX 1007.35 Fence repair at Miami Gardens Dr overpass SX 1025.4 Bruch Cleaning at NW 15th St Pompano SX 10032 Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/03/2016** Clean up rocks from roadways at Hialeah Facility Yard Trash and debris at Miami Canal Bridge House SX 1036.7 Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/04/2016** Replaced damaged ceiling tiles upstairs Admin Building at Hialeah Facility Yard Serviced door closers, hinges, and locksets throughout Admin Building in Hialeah Facility Yard Daily Janitorial duties **08/05/2016** Brush removal cleanup at Mc Nab Rd crossing SX 1005.7 Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/06/2016** Repair 157 linear ft of fence at Cypress Creek Station North end SX 1006.45 Provide temporary lighting at employee parking in Hialeah Facility Yard **08/07/2016** Provide temporary lighting at employee parking in Hialeah Facility Yard **08/08/2016** Service AC unit upstairs Admin building at Hialeah Facility Yard Clear brush from Miami water supply station lot in Hialeah Yard Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/09/2016** Patch potholes along roadways throughout Hialeah Facility Yard Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/10/2016** Installed (2) new emergency push bars at Admin building in Hialeah Repair broken speed bump sign at Hialeah Rail Yard compound in Hialeah Replace burnt receptacle circuits at Admin building in Hialeah Facility Yard Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/11/2016** Fence repair at Golden Glades overpass SX 1026.32 Clean storm drains at Hialeah Facility Yard Daily Janitorial duties Provide temporary lighting at employee parking in Hialeah Facility Yard **08/12/2016** Repair yellow remote control locomotive sign at South entrance gate in Hialeah Facility Yard Patch and repair potholes along roadways in Hialeah Facility Yard Daily Janitorial duties **08/13/2016** Provide temporary lighting at Employee Parking lot in Hialeah

08/14/2016
Provide temporary lighting at Employee Parking Lot in Hialeah
08/15/2016
Graffiti cleanup at Clint Moore Rd SX 991.5
Graffiti cleanup at Hypoluxo Rd SX 979.81
Graffiti cleanup at Lantana Rd SX 987.78
Daily Janitorial duties
Electrical repair at Track dept. storage container in Hialeah Yard
Electrical repair at New River Bridge Tender house for Ice Machine
Broward Blvd office restroom renovations
08/16/2016
Bathroom renovation at Broward Blvd offices installation of new ceramic tiles and toilet etc.
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/17/2016
32 Linear ft. of fence repair at East 47th St SX 1033.3 in Hialeah
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/18/2016
Electrical repairs for Ice Machine at New River Bridge Tender House in Ft Lauderdale
Provide temporary lighting at Employee Parking Lot in Hialeah
Daily Janitorial duties at Facilities
08/19/2016
Patch and repair potholes along roadways inside Hialeah Facility Yard
Clean up debris from material storage lot in Hialeah Facility Yard
Provide temporary lighting at Employee Parking Lot in Hialeah
Daily Janitorial duties at Facilities
08/20/2016
Provide temporary lighting at Employee Parking Lot in Hialeah
Daily Janitorial duties at Facilities
08/21/2016
Provide temporary lighting at Employee Parking Lot in Hialeah
Daily Janitorial duties at Facilities
08/22/2016
Trash and debris cleanup at Broward Facility Yard
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/23/2016
Remove dead animal carcass from North River Dr. Railroad crossing SX 1036.6 in Miami
Furniture assembling at Admin building in Hialeah Yard
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/24/2016
11 Linear ft. of chain link fence repair at SX 1012.8 in Ft Lauderdale
Serviced AC unit on roof at Admin Building in Hialeah Yard
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/25/2016
Clean and paint interior walls at Admin Building in Hialeah Yard
Repair door closer at Admin Building in Hialeah Yard
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/26/2016
Patch and repair pot holes at Hialeah Facility Yard
Greased and clean all roll up garage doors at Hialeah Facility Yard
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah
08/27/2016
Provide temporary lighting at Employee Parking Lot in Hialeah
08/28/2016

Provide temporary lighting at Employee Parking Lot in Hialeah

08/29/2016

Paint metal doors at Admin Building in Hialeah Yard Facility
Replace light fixture at fuel station in Hialeah Yard
Daily Janitorial duties at Facilities
Provide temporary lighting at Employee Parking Lot in Hialeah

08/30/2016

Graffiti Clean up at Boynton Beach Blvd.
Daily Janitorial duties at Facilities

08/31/2016

Graffiti cleanup at Wool bright Rd. underpass
Graffiti cleanup at CP Coconut SX 982.8
Cut grass at NW 36th Ave at Hialeah Facility Yard
Cut grass at Flagpole in Hialeah Facility Yard
Daily Janitorial duties at Facilities

Plan for Next Month:

Signal

Support Tie Gang
Support MOW
Continue with Blitz
And Gate Project
Cut over at NW 27th Ave
Changing S60 Mechanism Boards

Track

Switch ties at Sheridan
CKS Packaging
Switch ties at AmeriGas
Hallandale North and South end
Junkyard Switch
Finish Switch ties from SX 1030.1 to SX 1028.6 on TRK#2

Production
Complete timbering program from Clune to Dyer
Install pedestrian Xing at Ft Lauderdale Station

Facilities

Roof replacement at Admin Building in Hialeah Yard
Door installation at Amtrak buildings in Hialeah facility Yard
Graffiti cleanup along corridor
Fence repair and installation along corridor
Maintenance throughout facilities along corridor
Reinstall 4,600 linear ft. of fence at Hialeah Facility Yard
Electrical repairs on MDP box at Admin building in Hialeah Yard
Cleanup trash and debris at Broward Yard

6. Curve Lubricator Report

Date	Milepost	Name /Location	Amount of Grease	Status-Action
08/16/2016	SXH 40.1	A.Daniels		Not connected; Almost full
08/16/2016	SXH 37.1	A.Daniels/ Le June	6 Buckets	Full & Pumping
08/16/2016	SX 1033.8	A.Daniels/ Yard (South End)	6 Buckets	Full & Pumping
08/16/2016	SX 1032.0	A.Daniels		Left hose busted/ Right hose is working
08/16/2016	SX 1030.9	A.Daniels/Junkyard Switch	8 buckets	Motor working on both hoses but no grease on TRK 1 & 2
08/16/2016	SX 1027.7	A.Daniels	2 buckets	Barley Working & Needs Attention
08/16/2016	SX 1023.5	A.Daniels		TRK #2 pump broken/ TRK #1 working
08/16/2016	SX 1016.8	A.Daniels/ Tiger Tail Rd	8 Buckets	Full & Pumping
08/16/2016	SX 1005.8	A.Daniels		Not Working
08/16/2016	SX 972.0	A.Daniels		Full & Pumping
08/16/2016	SX 971.1	A.Daniels		Not working
08/16/2016	SX 969.4	A.Daniels		Only TRK 1 Side Working
08/16/2016	SX 967.0	A.Daniels		Not Working

7. In-Service Rail Failures

Date	Milepost	Location	Track No.	Weight	Measurements	Action Taken
08/31/2016	SX 985.3	Boynton Beach	2	115lb		Drilled & Applied Joint Bars

8. Vegetation Removal

Date	Milepost	Location	Action Taken	Area Covered	Directed by/ Reason
08/02/2016	SX 1003.2	NW 15th St	Brush Cleaning		
08/05/2016	SX 1005.7	Mc Nab Rd	Brush Removal		
08/08/2016		Hialeah Yard	Cleared Brush		
08/9/2016		Hialeah Yard	Sprayed Vegetation		
08/9/2016		Ft Lauderdale Yard	Sprayed Vegetation		
08/10/2016		Mission Spur	Sprayed Vegetation		
08/10/2016		Chenney Bros	Sprayed Vegetation		
08/10/2016		Gas Track	Sprayed Vegetation		
08/10/2016		Race Track Rd	Sprayed Vegetation		
08/13/2016		Deerfield Beach	Sprayed Vegetation		
08/13/2016		Mac Lead	Sprayed Vegetation		
08/13/2016		Plantation	Sprayed Vegetation		
08/13/2016		Sunshine	Sprayed Vegetation		
08/13/2016		Oleander	Sprayed Vegetation		
08/13/2016		Hortis Bros.	Sprayed Vegetation		
08/17/2016	SX 992.3 to SX 996.4 on TRK#2		Sprayed Vegetation		
08/22/2016			Sprayed vegetation	15 miles	
08/24/2016		Food/Cold Storage	Cut Trees out		
08/31/2016		NW 36th Ave	Cut Grass		
08/31/2016		Hialeah Facility Yard	Cut Grass at Flagpole		

9. Fencing Repairs

Date	Milepost	Location	Type	Measurements	Directed by
08/02/2016	SX 1007.35	Commercial Blvd			
08/02/2016	SX 1025.4	Miami Gardens Dr.			
08/06/2016	SX 1006.45	Cypress Creek		157 linear ft.	
08/11/2016	SX 1026.32	Golden Glades			
08/17/2016	SX 1033.3	East 47th St	Chain link	32 linear ft.	
08/24/2016	SX 1012.8	Ft Lauderdale	Chain link	11 Linear ft.	

New Fencing

Date	Milepost	Location	Type	Measurements	Directed by

Inter-Track Fencing

Date	Milepost	Location	Status	Inspector
08/29/2016	SX 1036.3	Hialeah Market	Good	
08/29/2016	SX 1033.9	Metrorail	Good	
08/29/2016	SX 1030.1	Opa-Locka	Fair	
08/29/2016	SX 1026.3	Golden Glades	N/A	
08/29/2016	SX 1019.7	Hollywood	Fair	
08/29/2016	SX1018.4	Sheridan	Fair-Fence Leaning	
08/29/2016	SX 1016.3	Ft Lauderdale Airport	Good-Needs wire keepers	
08/29/2016	SX 1012.2	Ft Lauderdale Station	Good	
08/29/2016	SX 1006.4	Cypress Creek	Good	
08/29/2016	SX 1001.5	Pompano Beach	North end needs Re-strapping rail	
08/29/2016	SX 998.3	Deerfield Beach	Good	
08/29/2016	SX 992.5	New Boca	Good	
08/29/2016	SX 988.1	Delray Beach	Good	
08/29/2016	SX 981.2	Boynton Beach	Good	
08/29/2016	SX 976.8	Lake Worth	Good	
08/29/2016	SX 969.9	WPB Station	Good	
08/29/2016	SX 966.3	Mangonia Station	Good-Gate needs chain & Lock	

10. Right-of-Way Signage Report

There have been (0) Signage installed

Location	Reason	QTY	Item	Comments

11. Clean Up Activities

Date	Milepost	Location	Action Taken	Reported by
08/01/2016		Hialeah Facility Yard	Cleared rocks/debris from roadway	
08/03/2016		Hialeah Facility Yard	Cleared rocks/debris from roadway	
08/03/2016	SX 1036.7	Miami Canal Bridge	Trash & Debris cleanup	
08/15/2016	SX 991.5	Clintmoore Rd	Graffiti Clean up	
08/15/2016	SX 979.81	Hypoluxo Rd	Graffiti Clean up	
08/15/2016	SX 987.78	Lantana Rd	Graffiti Clean up	
08/19/2016		Hialeah Yard	Debris clean up	
08/22/2016		Broward Facility Yard	Trash & Debris Clean up	
08/23/2016	SX 1036.6	North River Dr.	Removed Dead Animal Carcass	
08/30/2016		Boynton Beach Blvd	Graffiti Clean up	
08/31/2016		Wool bright Rd	Graffiti Cleanup	
08/31/2016	SX 982.8	CP Coconut	Graffiti Cleanup	

12. Surfacing Report

Date	Milepost	Location	Track No.	Action Taken	Distance
08/01/2016	SX 1006.3 to SX 1005.9	Cypress Creek		Surfaced	1291 ft.
08/04/2016	SX 1005.9 to SX 1005.7 and SX 1005.3 to SX 1005.0	Cypress Creek		Surfaced	5286 ft.
08/05/2016	SX 1005.2 to SX 1003.7	Pompano/Cypress		Surfaced	4556 ft.
08/06/2016	SX 1003.5 to SX 1004.1			Surfaced	3226 ft.
08/07/2016	SX 1003.5 to SX 1002.9	Pompano Beach		Surfaced	1720 ft.
08/08/2016	SX 1002.3 to SX 1002.9			Surfaced	1087 ft.
08/12/2016	SX 1014.7 to SX 1015.7		3	Surfaced	4,892ft.
08/13/2016	SX 1013.1 SX 1013.7 SX 1014.0 – SX 1014.7			Surfaced	7,382ft
08/15/2016	SX 1005.0 - SX 1006.2		1	Surfaced	5544ft
08/18/2016	SX 1005.0 to SX 1004.0		1	Surfaced	2312ft
08/19/2016	SX1004.0 to SX 1003.7		1	Surfaced	5889ft
08/20/2016	SX 1003.7 to SX 1003.1		1	Surfaced	3882ft
08/21/2016	SX 994.6 to SX 994.2			Surfaced	3850ft
08/22/2016	SX987.6 to SX 986.6			Surfaced	3135ft
08/26/2016	SX 1036.8 to SX 1013.8		3	Surfaced	3949ft
08/29/2016	SX 986.0 to SX 986.6			Surfaced	5100ft
08/31/2016	SX 986.0 to SX 985.2		2	Surfaced	3927ft
					Total
					67,028 ft

13. Efficiency Testing

August - Efficiency Tests

Dept.	Total Tests	Cardinal Safety Rule Tests	Instructed (Verbal Warning /Written Reprimand / Formal Charges)	Out Of Hrs. Between 17:00-05:00am
Track Maintenance	35	9	1	4
Track Construction	12	10	0	12
Signal & Comms	66	26	3	38

14. Employee Injury Statistics

Month of August 2016 = No – Injuries.

Department	Date	Location	Description	Corrective Action
Track - Maintenance.	***	***	***	***
Track - Construction	***	***	***	***
Signal & Communications	***	***	***	***
HQ/Facilities	***	***	***	***

Below are the 2016 YTD VTMI injuries.

Dept.	Date	Location	Description	Corrective Action
Track (Maintenance)	1/31/16	MP 1005.5 Cypress Creek	Due to long hours worked during service restoration due to derailment employee got sore muscles – **Non Reportable Injury** (No Lost Time/Meds)	Employee received coaching, lifting handout, by Safety Director. (Reported internally and to RTA).

Below are the 2016 YTD VTMI injuries.

15. Service Property Damages

There has been (0) Property Damage

Date	Milepost	Location	Track No.	Description of Damage	Reason for Damages	Action Taken

AGENDA ITEM NO. B

AGENDA REPORT
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING
September 23, 2016

AUGUST RIDERSHIP

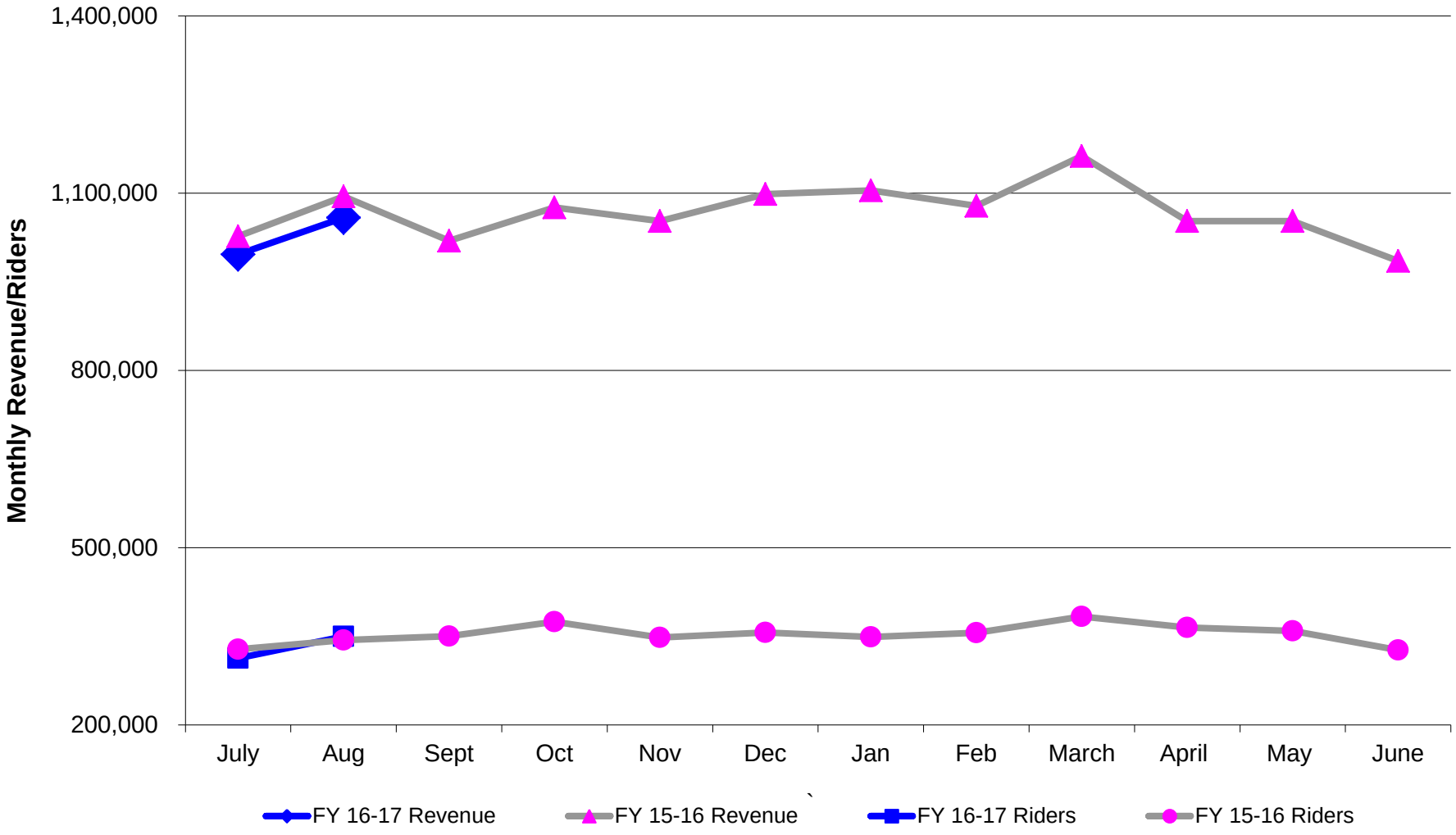
Total monthly ridership for August has increased 1.8% when compared to August of last year. Weekday ridership has increased by 5.9%, while the average weekday ridership in August 2015 was 13,642 per day versus 13,187 per day for 2016. Total weekend ridership for the fiscal year has increased by 7.7% when compared to last year. Total fiscal year ridership is down by 1.3% over the prior year.

Revenue is shown in Chart 3. Chart 2 shows ridership month-to-month and Chart 1 combines revenue and ridership month-to-month.

Riders	Actual August 2016	Actual August 2015	August '16 vs.'15 %	FY '17 Rider ship To Date	FY '16 Rider ship To Date	FYTD '17 vs '16 %
M-F	303,293	286,490	5.9%	552,063	568,959	-3.0%
Saturday	24,614	31,408	-21.6%	56,193	55,144	1.9%
Sunday	21,696	25,472	-14.8%	48,924	47,269	3.5%
Holidays	0	0	0.0%	5,240	0	100.0%
	349,603	343,370	1.8%	662,420	671,372	-1.3%

Note: Ridership figures are based on daily reports from Transdev

Chart 1 - SFRTA Riders and Revenue Trends



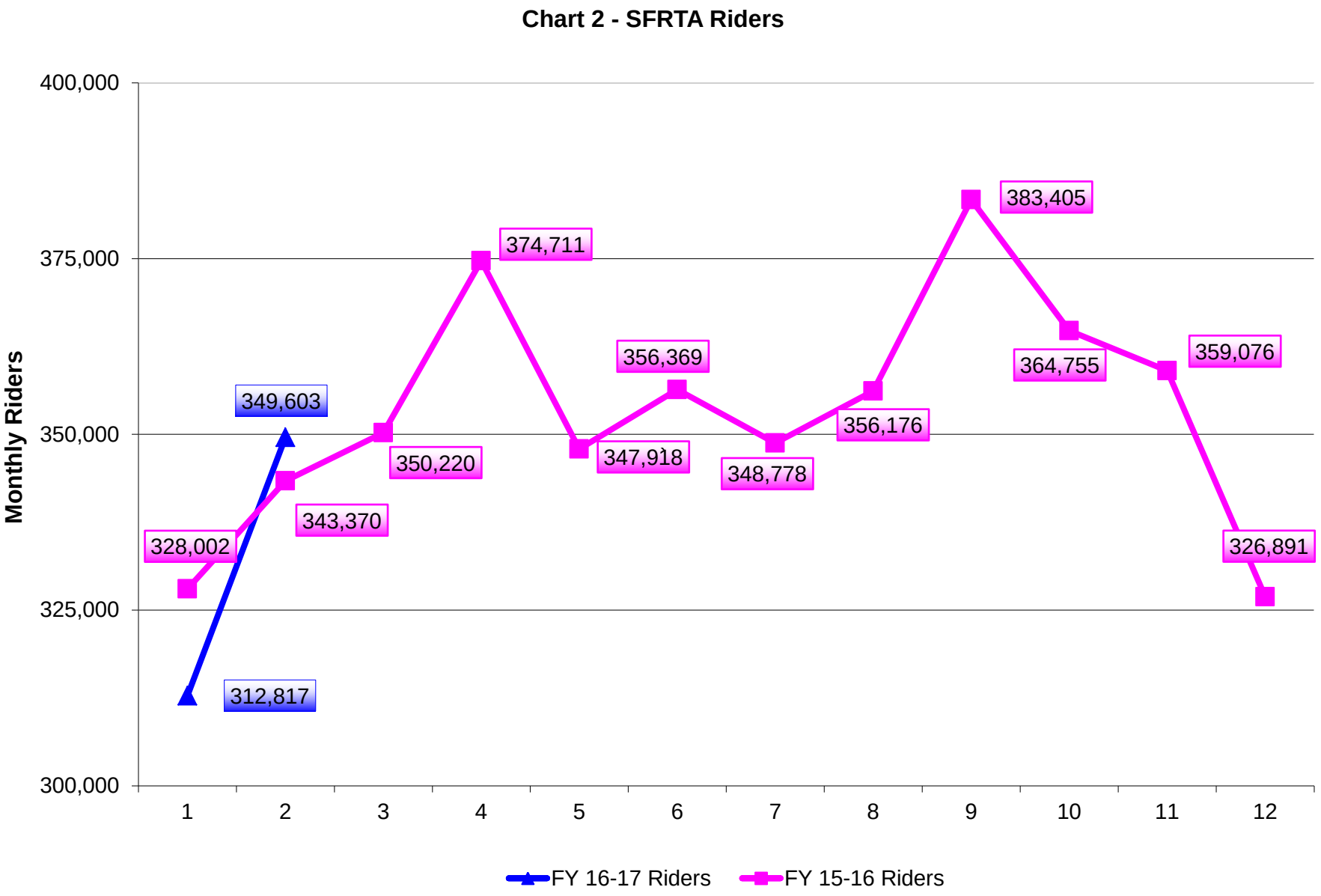


Chart 2 - SFRTA Riders
Monthly Riders
400,000
375,000
350,000
325,000
300,000
1
2
3
4
5
6
7
8
9
10
11
12
349,603
312,817
328,002
343,370
350,220
374,711
347,918
356,369
348,778
356,176
383,405
364,755
359,076
326,891
FY 16-17 Riders
FY 15-16 Riders

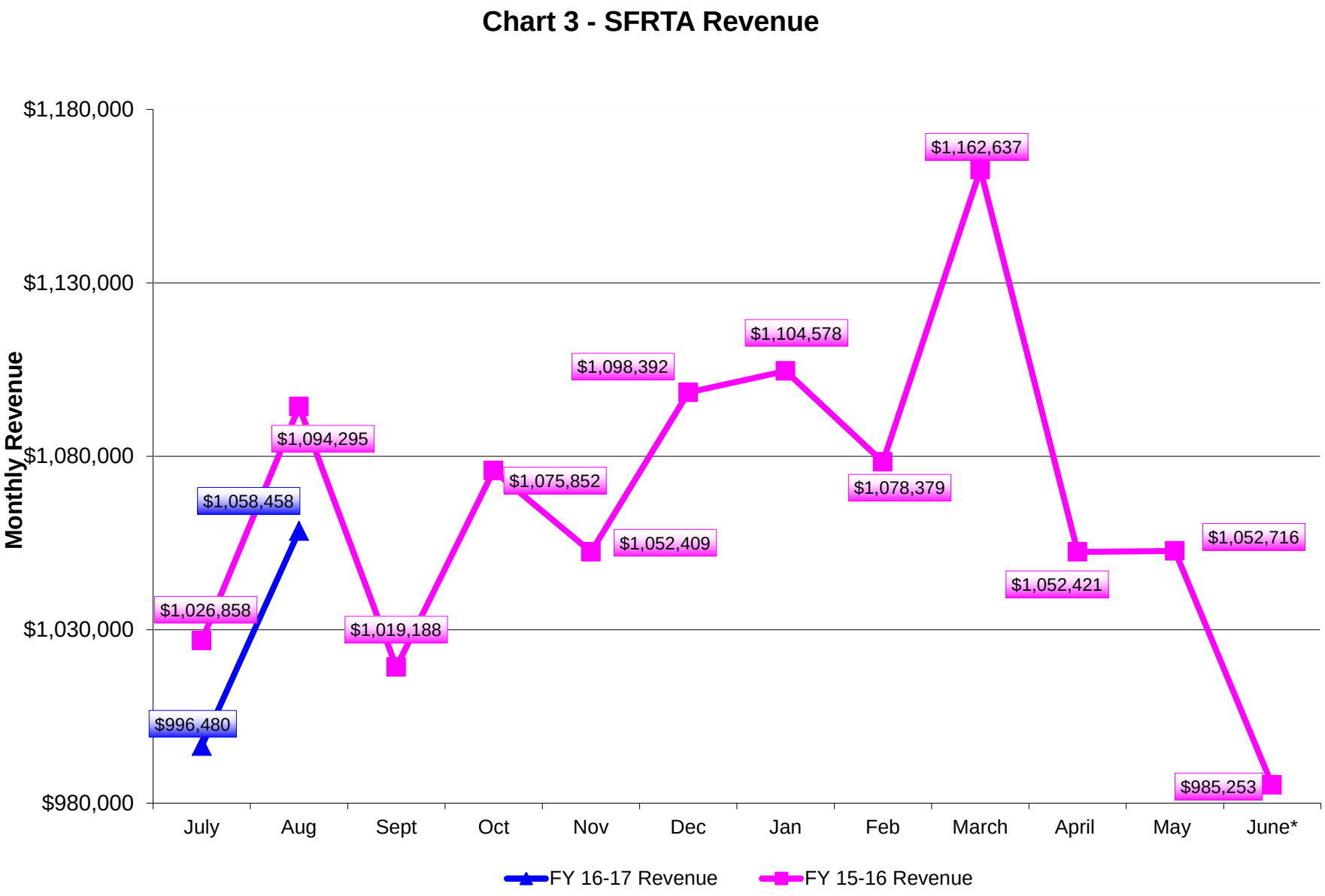
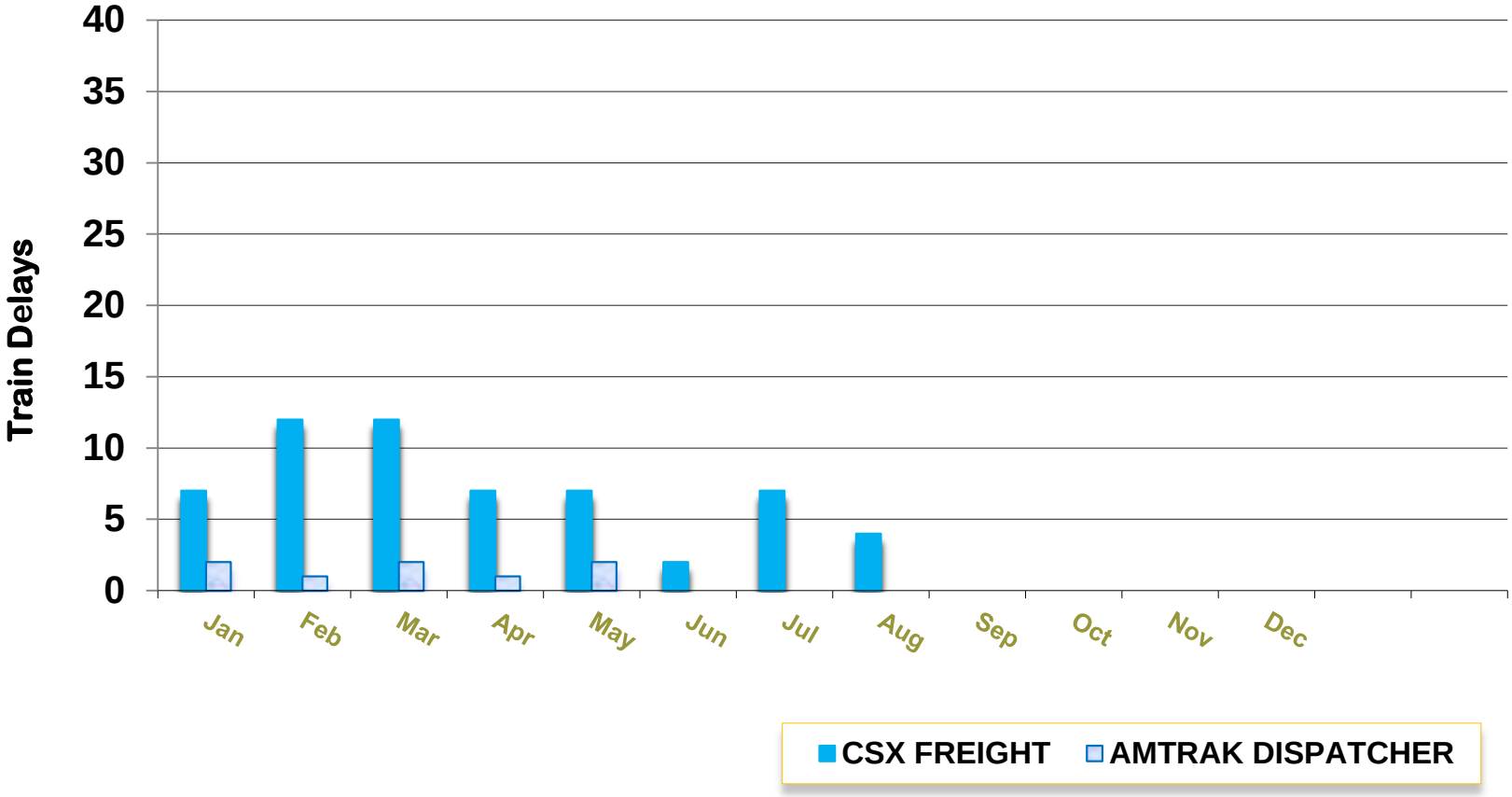


Chart 3 - SFRTA Revenue
Monthly Revenue
$1,180,000
$1,130,000
$1,080,000
$1,030,000
$980,000
$1,162,637
$1,104,578
$1,098,392
$1,094,295
$1,075,852
$1,058,458
$1,078,379
$1,052,409
$1,052,716
$1,052,421
$1,026,858
$1,019,188
$996,480
$985,253
July
Aug
Sept
Oct
Nov
Dec
Jan
Feb
March
April
May
June*
FY 16-17 Revenue
FY 15-16 Revenue

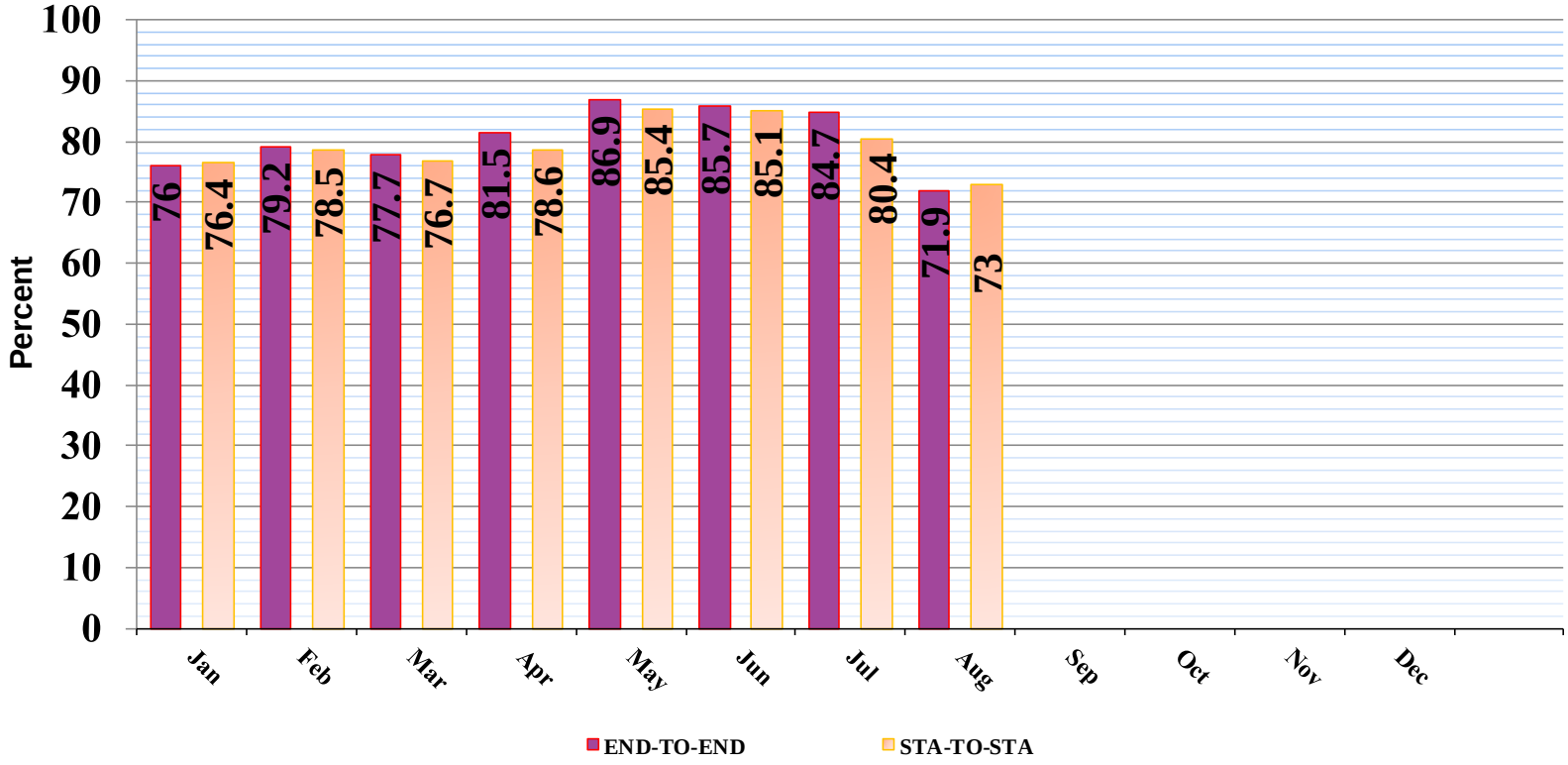
AUG 2016 ON TIME PERFORMANCE - CAUSAL ANALYSIS SUMMARY

OTP End To End			**71.9%**
OTP Station To Station			**73.0%**
DELAY CAUSES	**NUMBER OF INCIDENTS**	**NUMBER OF LATE TRAINS**	**PERCENT OF TOTAL TRAINS**
PD/FD Activity	3	18	1.3%
CSX FREIGHT	2	3	0.2%
CSX LOCAL SWITCHER	4	4	0.3%
PLANNED SERV. WORK, TIE GANG	15	51	3.7%
VTMI MOW	10	32	2.3%
VTMI COMMUNICATIONS	0	0	0.0%
VTMI OUTSIDE COMMUNICATIONS	0	0	0.0%
VTMI SIGNALS-COMP.	7	26	1.9%
AMTRAK POM DISPATCHER	0	0	0.0%
BOMBARDIER MECHANICAL	3	3	0.2%
TRANSDEV	6	18	1.3%
AMTRAK	3	3	0.2%
FEC DELAY IRIS	4	16	1.2%
FEC DELAY TRAIN	7	8	0.6%
WEATHER	5	34	2.4%
ROW FOUL	1	1	0.1%
SFRTA TRANSPORTATION	14	20	1.4%
SFRTA RULE COMPLIANCE	0	0	0.0%
OTHER	10	40	2.9%
SFRTA SCHEDULE CONFLICT	0	0	0.0%
3RD PARTY GATE MALFUNCTION	13	39	2.8%
3RD PARTY GATE FATALITIES/VEHICLES	1	1	0.1%
ROTEM MECHANICAL	0	0	0.0%
BROOKVILLE MECHANCIAL	8	19	1.4%
VANDALISM	0	0	0.0%
ADA	5	6	0.4%
EFFICIENCY TESTING	2	15	1.1%
POMPANO STATION CONSTRUCTION	0	0	0.0%
TOTAL	123	357	25.7%
TRAINS LATE		357	25.7%
TERMINATED		28	2.0%
TERMINATED/RECOVERED		0	0.0%
ANNULLED		5	0.4%
TRAINS ON TIME		1000	71.9%
TOTAL		1390	100.0%

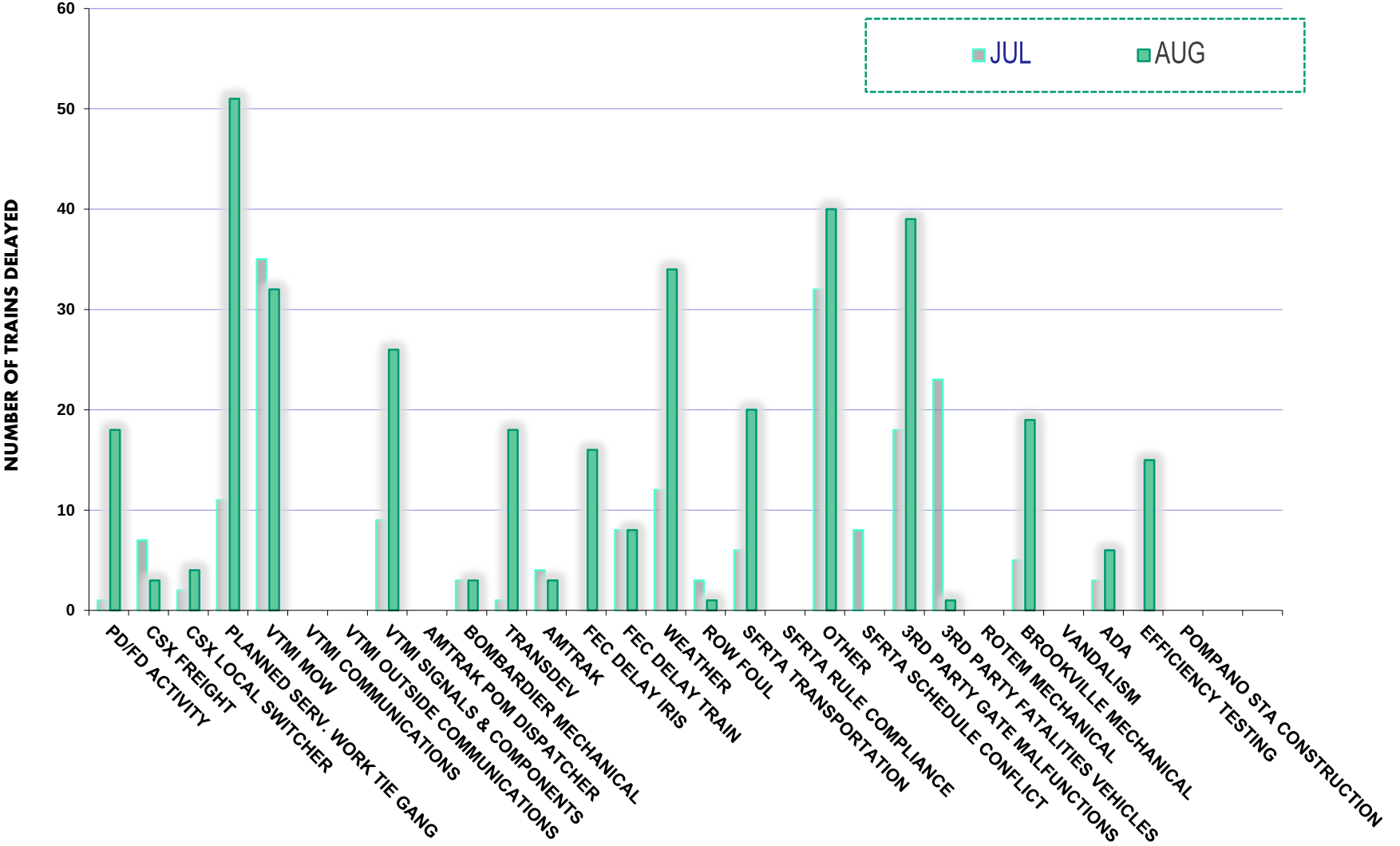
CSX Freight & Amtrak Dispatcher Delays 2016



On-Time Performance
Calendar Year 2016

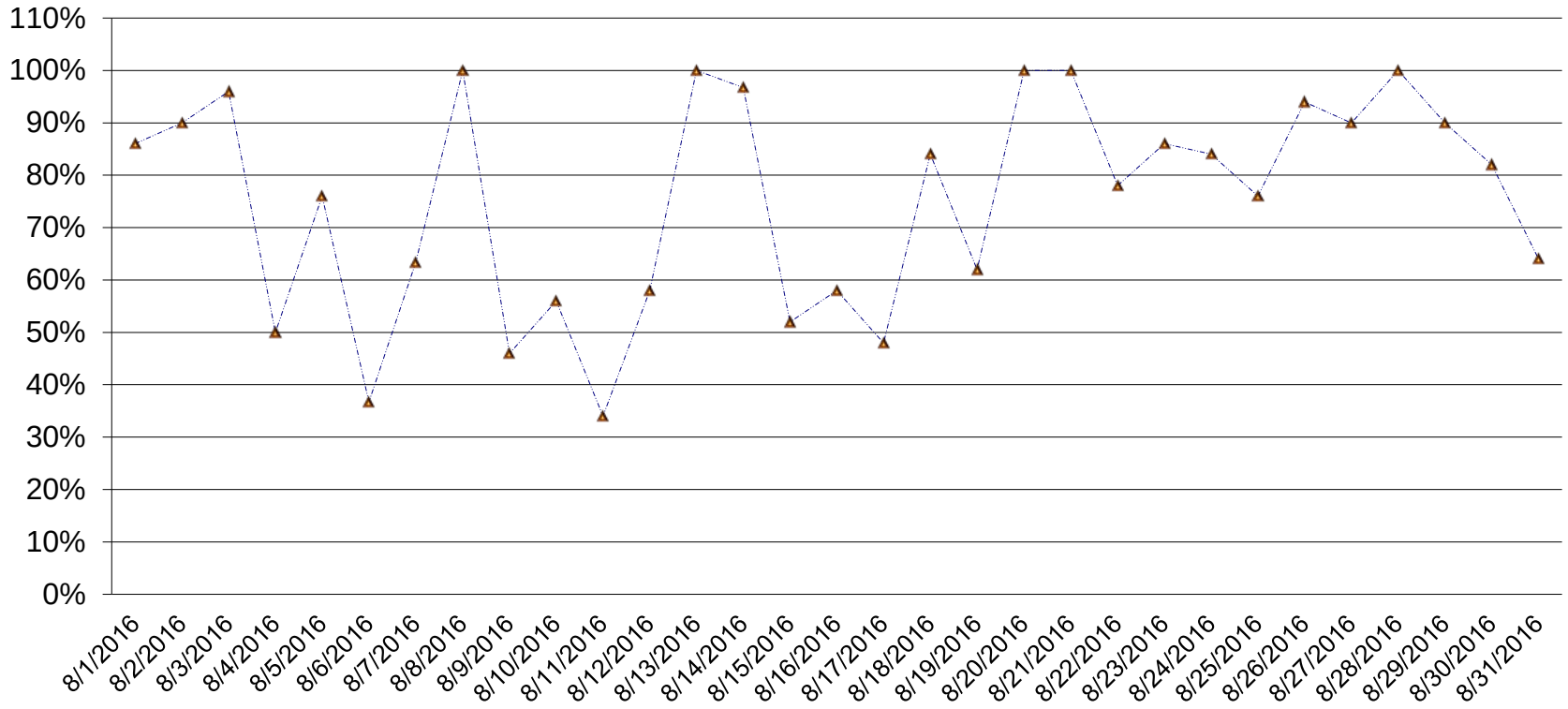


TRAIN DELAYS- 2016

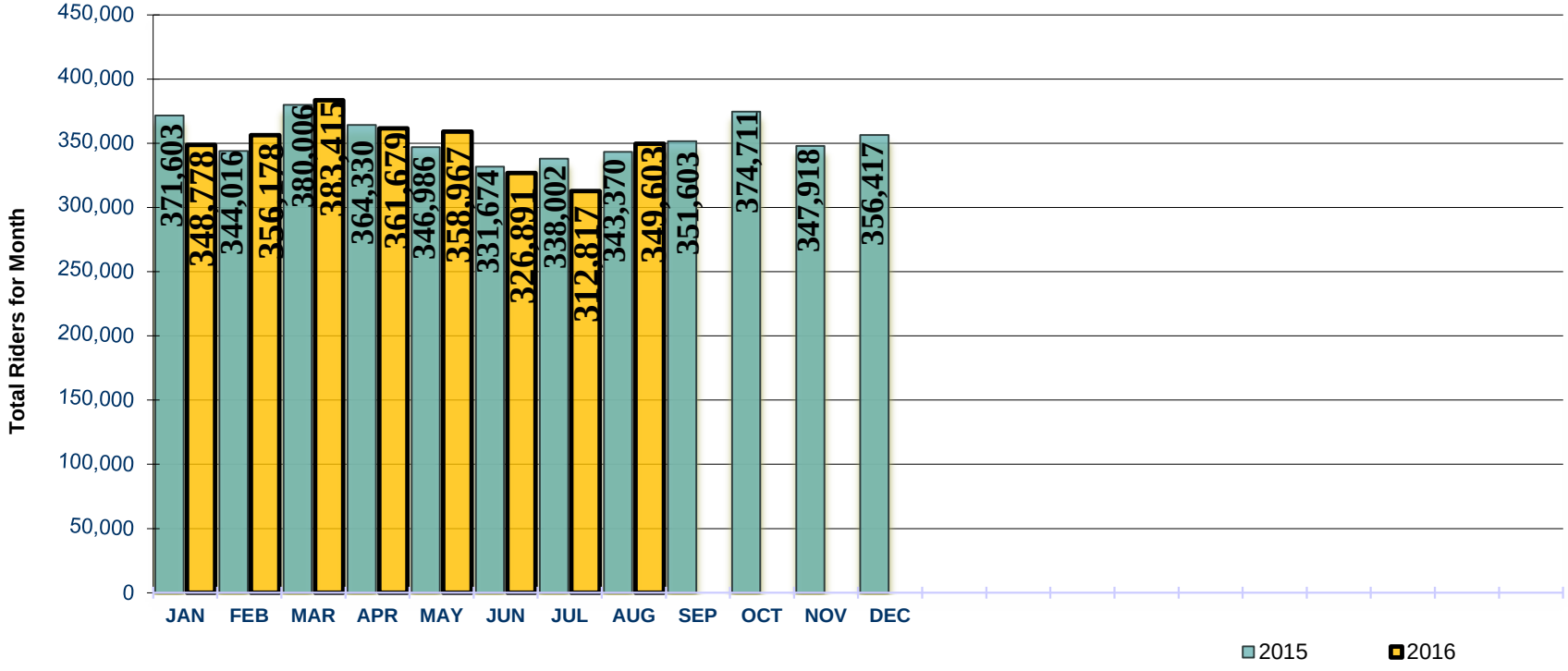


SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

ON TIME PERFORMANCE
END TO END AUGUST- 2016



SFRTA Tri-Rail Monthly Ridership 2016



AGENDA ITEM D

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
CORPORATE AND COMMUNITY OUTREACH OFFICE
MONTHLY SUMMARY FOR AUGUST 2016
GOVERNING BOARD MEETING

EMPLOYER DISCOUNT PROGRAM

The Employer Discount Program (EDP) added 14 new employers and 204 new employees during the month of August.

The total number of EDP tickets recorded as sold was 2,074 and the total revenue generated was reported as $119,027.85 in August.

NEW EDP COMPANIES

Employer	Enrollment Date	City
ABC Supply Company	8/16/2016	Fort Lauderdale
American Glass & Mirror, Inc.	08/22/2016	Boca Raton
Becker & Associates, P.A.	08/26/2016	Boca Raton
Darfoor Law Firm, PA.	8/24/2016	Fort Lauderdale
Event Net USA, Inc.	08/18/2016	Fort Lauderdale
Hyatt Place Fort Lauderdale	08/03/2016	Fort Lauderdale
Iboss, Inc.	8/25/2016	Fort Lauderdale
Indi Heart and Mind, Inc.	8/22/2016	Fort Lauderdale
IPA Direct	8/23/2016	Fort Lauderdale
Lexyl Travel Technologies, LLC	8/26/2016	West Palm Beach
Monument Real Estate Services	08/03/2016	Miami
ProMexico	08/19/2016	Miami
RC MTS Holdings, LLC	08/10/2016	Fort Lauderdale
Yacht Chandlers	08/16/2016	Fort Lauderdale

EDP SALES MISSIONS

Employer	City
ABC Supply Company	Fort Lauderdale
All Star Recruiting	Deerfield Beach
American Glass & Mirror, Inc.	Boca Raton
Becker & Associates, P.A.	Boca Raton
Broward Sheriff's Office	Fort Lauderdale
Carnival Cruise Lines	Miami
Collection Management Solutions	Deerfield Beach
Darfoor Law Firm, P.A.	Fort Lauderdale
Eventnetusa, Inc.	Fort Lauderdale
Festival Management Group	Lake Worth
Florida Department of Juvenile Justice	Fort Lauderdale
Halo Technologies	West Palm Beach
Hyatt Place Fort Lauderdale 17th Street Convention Center	Fort Lauderdale
Iboss, Inc.	Fort Lauderdale
Indi Heart and Mind, Inc.	Fort Lauderdale
IPA Direct	Fort Lauderdale
ITW Building Components Group, Inc.	Fort Lauderdale
Kaplan, Inc.	Fort Lauderdale
Lexyl Travel Technologies, LLC	West Palm Beach
Monument Real Estate Services	Miami
Pipeline Workspaces	Fort Lauderdale
ProMexico	Miami
RC MTS Holdings, LLC	Fort Lauderdale
Silver Airways	Fort Lauderdale
STS Refill Technology	Boca Raton
Sunrise Produce Services, Inc.	Pompano Beach
The Heat Group	Miami
Tierra Consulting Group, Inc.	Fort Lauderdale
United Air Lines	Miami
Vitas Healthcare Corporation	Miami
Yacht Chandlers	Fort Lauderdale

CORPORATE AND COMMUNITY OUTREACH OFFICE – AUGUST 2016 ACTIVITIES

BACK TO SCHOOL

A South Florida Regional Transportation Authority (SFRTA) Corporate and Community Outreach (CCO) office staff member was present for two Back-to-School expos held at the Sunrise Athletic Complex in Sunrise and the McNair Park in Pompano Beach. In preparation for the beginning of the school year, the events provided students with free school supplies and backpacks. SFRTA staff provided students with information on Tri-Rail student discounts.

COMTO LUNCHEON

The Conference of Minority Transportation Officials (COMTO) Fort Lauderdale Chapter held its 2nd annual Scholarship Awards, where three South Florida students were recognized for their academic achievements by receiving a scholarship to use for their continuing education. During the ceremony, the Jack L. Stephens Graduate Scholarship was dedicated to SFRTA's Executive Director, for his commitment and service to the chapter.

JACKSON HEALTH SYSTEM

SFRTA CCO office staff joined representatives from the Miami-Dade MPO and South Florida Commuter Services (SFCS), to attend the annual benefits fair held at three locations of Jackson Health System. Transportation information was provided on the Employer Discount Program (EDP), Carpooling and the Emergency Ride Home Program (ERH). Jackson Health is a long time participant of the Employer Discount Program.

STUDENT CAMPAIGN

As part of the SFRTA Millennial social campaign, representatives from the CCO office attended various events at college campuses in South Florida. Among them were Florida Atlantic University in Boca Raton; Broward College Central Campus, McFatter Technical College, and Nova Southeastern University in Davie, and Keiser University in Fort Lauderdale. Students were provided information on student discounts and were encouraged to register to get a free ticket to ride Tri-Rail as part of the campaign. In addition, interested students were provided with assistance initiating the process of obtaining their student-encoded EASY Cards at all events.

UM PRESENTATION

High school students interested the field of engineering paid a visit to the SFRTA headquarters, as part of the University of Miami's National Summer Transportation Institute Program. The students were provided presentations from a COO liaison about Tri-Rail service, as well as staff from the Engineering & Construction Department about engineering principals in the railroading industry. Their visit concluded with a tour of the Pompano Beach Station, to demonstrate the engineering principals in action with the station's current renovation project.

ONGOING COMMUNITY OUTREACH ACTIVITIES

- Conference of Minority Transportation Officials (COMTO) Fort Lauderdale Chapter Committee Meetings
- Greater Fort Lauderdale Chamber of Commerce / Biz to Biz Leads Group and Transportation Committee Introduction Meeting
- Greater Boca Raton Chamber of Commerce / Tech Event

EXECUTIVE SUMMARY
BUDGETED INCOME STATEMENT

August 2016

Revenue:

Train Revenue
For August 2016 year-to-date (YTD) actual train revenue decreased $87,427 or 4% when compared to fiscal year (FY) 2017 YTD budgeted revenue. Actual revenue for FY 2017 YTD decreased by $66,215 or 3% when compared to FY 2016 YTD actual revenue. This decrease can be attributed to less passengers taking public transportation due to lower fuel prices.

Expenses:
As of August 2016, the SFRTA's FY 2017 YTD actual expenses are $2,874,939 or 16% below budget when compared to the FY 2017 YTD budgeted expense. All expenses are well within budget.

Train operations variance for FY 2017 YTD is $1,000,093 or 9% below budget when compared to the FY 2017 YTD budget and increased $881,125 or 9% when compared to FY 2016 YTD actual. This increase in FY 2017 can be mostly attributed to an increase in Feeder Service expense, Train Operations Contract, Security Contract, and Station Utilities expense.

The major categories within Train Operations include Train Operations Contract, Train Fuel, Security Expense, Feeder Service, Dispatch and ROW Maintenance:

- Train fuel expense variance for FY 2017 YTD is $63,915 or 6% below budget when compared to the FY 2017 YTD budget, and decreased $118,257 or 10% when compared to FY 2016 YTD actual fuel expense. This decrease can be attributed to lower fuel prices.

- Security expense variance for FY 2017 YTD is $148,823 or 13% below budget when compared to the FY 2017 YTD budget, and decreased $17,796 or 2% when compared to FY 2016 YTD actual.

- Feeder bus expense variance for FY 2017 YTD is $89,783 or 8% lower when compared to the FY 2017 YTD budget and increased $97,887 or 10% when

Expenses (Contd.)

compared to FY 2016 YTD actual. This increase can be attributed to additional shuttle bus routes provided.

- ROW Maintenance expense variance for FY 2017 YTD is $410,466 or 10% below budget when compared to the FY 2017 YTD budget and increased $47,562 or 1% when compared to the FY 2016 actual.

- Dispatch expense variance for FY 2017 YTD is $9,643 or 2% below budget when compared to the FY 2017 YTD budget and increased $30,609 or 5% when compared to the FY 2016 actual.

- Insurance expense variance for FY 2017 YTD is $40,949 or 6% below budget when compared to the FY 2017 YTD budget and increased $609,945 when compared to the FY 2016 actual.

Train and Station Maintenance variance for FY 2017 YTD is $1,051,741 or 28% below budget when compared to the FY 2017 YTD budget and decreased $97,410 or 3% when compared to the FY 2016 actual.

- Train Maintenance variance for FY 2017 YTD is $915,830 or 28% below budget when compared to the FY 2017 YTD budget and decreased $112,756 or 4% when compared to FY 2016 YTD actual. This decrease in FY 2017 can be attributed to a lower amount of expenses monthly with our fleet maintenance contract.

- Station Maintenance variance for FY 2017 YTD is $135,911 or 27% below budget when compared to the FY 2017 YTD budget and increased $15,346 or 4% when compared to the FY 2016 actual.

Personnel Expenses variance for FY 2017 YTD is $544,922 or 27% below budget when compared to the FY 2017 YTD budget and decreased $89,356 or 6% when compared to the FY 2016 actual.

Professional Services variance for FY 2017 YTD is $54,850 or 42% below budget when compared to the FY 2017 YTD budget and increased $10,800 or 16% when compared to FY 2016 actual.

Legal Departmental expenses variance for FY 2017 YTD is $47,564 or 34% below budget when compared to the FY 2017 YTD budget and decreased $22,721 or 20%

Expenses (Contd.)

when compared to FY 2016 actual. This decrease can be attributed to lower expenses associated with personnel expense services.

General and Administrative Expenses variance for FY 2017 YTD is $191,538 or 38% below budget when compared to the FY 2017 YTD budget and decreased $35,807 or 10% when compared to FY 2016 actual. Some categories within General and Administrative expenses are Business Travel, Telecommunications expense, Materials and Supplies and Dues and Subscriptions.

- Business Travel expense variance for FY 2017 YTD is $16,567 or 42% below budget when compared to the FY 2017 YTD budget and increased $4,816 or 27% when compared to FY 2016 actual.

- Telecommunications expense variance for FY 2017 YTD is approximately $40,975 or 41% below budget when compared to the FY 2017 YTD budget and decreased approximately $35,385 or 38% when compared to the FY 2016 YTD actual due to an decrease in monthly charges, usages as well as new phone lines.

- Dues and Subscriptions for FY 2017 YTD actual is $418 or 1% below budget when compared to the FY 2017 YTD budget and decreased $2,673 or 5% when compared to the FY 2016 actual.

- Materials and Supplies for FY 2017 YTD actual is $22,149 or 74% below budget when compared to the FY 2017 YTD budget and decreased $7,491 or 49% when compared to the FY 2016 actual.

Corporate & Community Outreach expenses variance for FY 2017 YTD is $15,367 or 15% below budget when compared to the FY 2017 YTD budget and increased approximately $9,311 or 12%when compared to the FY 2016 YTD actual.

- Corporate & Community Outreach Contract variance for FY 2017 YTD is $3,334 or 4% below budget when compared to the FY 2017 YTD budget and increased approximately $8,062 or 11% when compared to the FY 2016 actual..

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
BUDGETED INCOME STATEMENT
8/01/16 TO 8/31/16

REVENUE	AUGUST 2016 ACTUAL REVENUES	YTD ACTUAL REVENUES	YTD BUDGETED REVENUES	OVER (UNDER) BUDGET	2016-17 ANNUAL BUDGET	BUDGET AVAILABLE
Train Revenue	$1,058,458	$2,054,938	$2,142,365	($87,427)	$12,990,219	$10,935,281
Interest Income / Other Income	27,317	52,764	54,166	(1,402)	325,000	272,236
TOTAL TRAIN REVENUE	**$1,085,775**	**$2,107,702**	**$2,196,531**	**($88,829)**	**$13,315,219**	**$11,207,517**
OPERATING ASSISTANCE						
Statutory Operating Assistance	1,441,667	2,883,334	2,883,334	-	17,300,000	14,416,666
Statutory Dedicated Funding	1,108,333	2,216,666	2,216,666	-	13,300,000	11,083,334
Statutory Maintenance of Way	2,143,505	4,287,010	4,287,010	-	25,722,054	21,435,044
FHWA	347,500	347,500	666,666	(319,166)	4,000,000	3,652,500
FTA Assistance	1,028,825	2,577,301	4,278,589	(1,701,288)	23,041,659	20,464,358
FTA-JARC/New Freedom Program Fee	-	-	834	(834)	5,000	5,000
Statutory Counties Contribution	391,250	782,500	782,500	-	4,695,000	3,912,500
Gas Tax Transfer	-	-	316,150	(316,150)	1,896,895	1,896,895
SFRTA Reserves	-	-	391,642	(391,642)	2,349,853	2,349,853
Other Local Funding	-	-	57,030	(57,030)	342,178	342,178
TOTAL ASSISTANCE	**6,461,080**	**13,094,311**	**15,880,421**	**(2,786,110)**	**92,652,639**	**79,558,328**
TOTAL REVENUE	**$7,546,855**	**$15,202,013**	**$18,076,952**	**($2,874,939)**	**$105,967,858**	**$90,765,845**

EXPENSES	AUGUST 2016 ACTUAL EXPENSES	YTD ACTUAL EXPENSES	YTD BUDGETED EXPENSES	OVER (UNDER) BUDGET	2016-17 ANNUAL BUDGET	BUDGET AVAILABLE
Train Operations	5,045,673	10,637,435	11,637,528	(1,000,093)	67,892,172	57,254,737
Train and Station Maintenance	1,381,066	2,761,017	3,812,758	(1,051,741)	22,876,549	20,115,532
Personnel Expenses	936,693	1,444,564	1,989,486	(544,922)	11,946,919	10,502,355
Professional Fees	38,500	77,000	131,850	(54,850)	781,100	704,100
Legal	54,214	93,308	140,872	(47,564)	845,232	751,924
General & Administrative Expenses	156,107	313,862	505,400	(191,538)	2,471,546	2,157,684
Corporate & Community Outreach	47,357	85,357	100,724	(15,367)	604,340	518,983
Reserve	-	-	-	-	-	-
Expenses Transferred to Capital	(112,755)	(210,530)	(241,666)	31,136	(1,450,000)	(1,239,470)
TOTAL EXPENSES	**$ 7,546,855**	**$ 15,202,013**	**$ 18,076,952**	**$ (2,874,939)**	**$ 105,967,858**	**$ 90,765,845**
	0.00	0.00	0.00	0.00	0.00	0.00

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
ACTUAL VS BUDGET REPORT
AUGUST 31, 2016 & 2015

	Curent Year							Prior Year Comparison		
	August 2016 Actual	**August 2016 Budget**	**Variances**	**FY 2017 YTD Actual**	**YTD Budget**	**Variances**	**%**	**FY 2016 YTD Actual**	**Variances**	**%**
Revenues:										
Train Revenue	$1,058,458	$1,105,238	(46,780)	$2,054,938	$2,142,365	(87,427)	-4%	$2,121,153	(66,215)	-3%
Interest/Dividend Income	27,317	27,083	234	52,764	54,166	(1,402)	-3%	80,382	(27,618)	-34%
Total Train Revenue	**1,085,775**	**1,132,321**	**(46,546)**	**2,107,702**	**2,196,531**	**(88,829)**	**-4%**	**2,201,535**	**(93,833)**	**-4%**
Operating Assistance:										
Statutory Operating Assistance	1,441,667	1,441,667	-	2,883,334	2,883,334	-	0%	2,883,334	-	-
Statutory Dedicated Funding	1,108,333	1,108,333	-	2,216,666	2,216,666	-	0%	2,216,666	-	-
Statutory Maintenance of Way	2,143,505	2,143,505	-	4,287,010	4,287,010	-	0%	4,287,010	-	-
FHWA	347,500	433,333	(85,833)	347,500	666,666	(319,166)	-48%	-	347,500	-
FTA Assistance	1,028,825	1,822,986	(794,161)	2,577,301	4,278,589	(1,701,288)	-40%	2,121,756	455,545	21%
FTA-JARC/New Freedom Program Fee	-	418	(418)	-	834	(834)	-100%	-	-	-
Statutory Counties Contribution	391,250	391,250	-	782,500	782,500	-	0%	782,500	-	-
Gas Tax Transfer	-	158,075	(158,075)	-	316,150	(316,150)	-100%	-	-	-
SFRTA Reserves	-	195,821	(195,821)	-	391,642	(391,642)	-100%	-	-	-
Other Local Funding	-	28,515	(28,515)	-	57,030	(57,030)	-100%	38,500	(38,500)	-100%
Total Operating Assistance	**6,461,080**	**7,723,903**	**(1,262,823)**	**13,094,311**	**15,880,421**	**(2,786,110)**	**-18%**	**12,329,766**	**764,545**	**6%**
Total Revenue	**$7,546,855**	**$8,856,224**	**($1,309,369)**	**15,202,013**	**18,076,952**	**(2,874,939)**	**-16%**	**14,531,301**	**670,712**	**5%**

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
ACTUAL VS BUDGET REPORT
AUGUST 31, 2016 & 2015

	Curent Year							Prior Year Comparison		
	August 2016 Actual	August 2016 Budget	Variances	FY 2017 YTD Actual	YTD Budget	Variances	%	FY 2016 YTD Actual	Variances	%
Expenses:										
Train Operations										
Train Operations Contract	$1,098,625	$1,162,470	(63,845)	$2,088,625	$2,124,939	(36,314)	-2%	$1,929,532	159,093	8%
Train Operation - Fuel	517,819	566,000	(48,181)	1,068,085	1,132,000	(63,915)	-6%	1,186,342	(118,257)	-10%
Emergency Bus Service	8,204	8,250	(46)	12,523	13,500	(977)	-7%	3,205	9,318	-
Security Contract	480,421	566,550	(86,129)	984,277	1,133,100	(148,823)	-13%	1,002,073	(17,796)	-2%
Feeder Bus	519,553	573,074	(53,521)	1,056,365	1,146,148	(89,783)	-8%	958,478	97,887	10%
Station Utilities	141,908	155,801	(13,893)	271,023	311,602	(40,579)	-13%	216,105	54,918	25%
EMS Boards	7,516	10,000	(2,484)	22,102	23,000	(898)	-4%	13,763	8,339	61%
Revenue Collection	7,882	66,417	(58,535)	9,800	132,834	(123,034)	-93%	8,225	1,575	19%
Insurance	1,022	1,500	(478)	610,552	651,501	(40,949)	-6%	607	609,945	-
APTA Dues		1,583	(1,583)	-	3,166	(3,166)	-100%	-	-	-
ROW Maintenance	1,943,593	2,148,626	(205,033)	3,886,786	4,297,252	(410,466)	-10%	3,839,224	47,562	1%
TVM Maintenance	2,620	10,583	(7,963)	2,620	21,166	(18,546)	-88%	4,688	(2,068)	-44%
Smart Card		6,500	(6,500)	-	13,000	(13,000)	-100%	-	-	-
Dispatch	316,510	317,160	(650)	624,677	634,320	(9,643)	-2%	594,068	30,609	5%
Total Train Operations	**5,045,673**	**5,594,514**	**(548,841)**	**10,637,435**	**11,637,528**	**(1,000,093)**	**-9%**	**9,756,310**	**881,125**	**9%**
Train and Station Maintenance										
Train Maintenance	1,200,170	1,658,085	(457,915)	2,400,340	3,316,170	(915,830)	-28%	2,513,096	(112,756)	-4%
Station Maintenance	180,896	248,294	(67,398)	360,677	496,588	(135,911)	-27%	345,331	15,346	4%
Total Train and Station Maintenance	**1,381,066**	**1,906,379**	**(525,313)**	**2,761,017**	**3,812,758**	**(1,051,741)**	**-28%**	**2,858,427**	**(97,410)**	**-3%**
Personnel Expenses										
Salaries and Wages	703,683	733,280	(29,597)	1,121,914	1,466,560	(344,646)	-24%	1,117,848	4,066	-
Taxes	48,533	60,736	(12,203)	77,373	121,472	(44,099)	-36%	76,725	648	1%
Group Insurance	118,730	127,292	(8,562)	133,770	254,584	(120,814)	-47%	232,485	(98,715)	-42%
Pension	65,747	73,435	(7,688)	111,507	146,870	(35,363)	-24%	106,862	4,645	4%
Total Personnel Expenses	**936,693**	**994,743**	**(58,050)**	**1,444,564**	**1,989,486**	**(544,922)**	**-27%**	**1,533,920**	**(89,356)**	**-6%**
Professional Services										
Auditing Services	6,000	6,500	(500)	12,000	13,000	(1,000)	0%	-	12,000	-
Professional Services	32,500	59,425	(26,925)	65,000	118,850	(53,850)	-45%	66,200	(1,200)	-2%
Total Professional Services	**38,500**	**65,925**	**(27,425)**	**77,000**	**131,850**	**(54,850)**	**-42%**	**66,200**	**10,800**	**16%**
Legal										
Salaries and Wages	42,517	43,213	(696)	75,586	76,426	(840)	-1%	83,961	(8,375)	-10%
Taxes	1,440	2,441	(1,001)	3,371	4,882	(1,511)	-31%	5,182	(1,811)	-35%
Group Insurance	3,987	4,250	(263)	4,506	8,500	(3,994)	-47%	7,562	(3,056)	-40%
Pension	6,025	6,957	(932)	9,600	11,914	(2,314)	-19%	17,128	(7,528)	-44%
Business Travel	-	883	(883)	-	1,766	(1,766)	-100%	1,120	(1,120)	-
Membership/Dues/Subscriptions	245	352	(107)	245	704	(459)	-65%	471	(226)	-48%
Seminars and Training	-	300	(300)	-	600	(600)	-100%	330	(330)	-
Legal Services	-	18,040	(18,040)	-	36,080	(36,080)	-100%	275	(275)	-
Total Legal	**54,214**	**76,436**	**(22,222)**	**93,308**	**140,872**	**(47,564)**	**-34%**	**116,029**	**(22,721)**	**-20%**

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
ACTUAL VS BUDGET REPORT
AUGUST 31, 2016 & 2015

	Curent Year							Prior Year Comparison		
	August 2016 Actual	**August 2016 Budget**	**Variances**	**FY 2017 YTD Actual**	**YTD Budget**	**Variances**	**%**	**FY 2016 YTD Actual**	**Variances**	**%**
General and Administrative Expenses										
Bank & Credits Cards Fees	9,807	11,917	(2,110)	20,680	23,834	(3,154)	-13%	23,486	(2,806)	-12%
Building Maintenance	9,187	38,884	(29,697)	15,114	77,768	(62,654)	-81%	13,597	1,517	11%
Business Travel	14,646	19,604	(4,958)	22,641	39,208	(16,567)	-42%	17,825	4,816	27%
Materials & Supplies	4,616	15,000	(10,384)	7,851	30,000	(22,149)	-74%	15,342	(7,491)	-49%
Membership/Dues/Subscriptions	722	52,996	(52,274)	52,578	52,996	(418)	-1%	55,251	(2,673)	-5%
Office Rent	61,235	61,976	(741)	121,417	123,952	(2,535)	-2%	116,635	4,782	4%
Printing & Advertising	893	5,725	(4,832)	987	11,450	(10,463)	-91%	682	305	45%
Seminars and Training	-	12,429	(12,429)	-	24,858	(24,858)	-100%	6,052	(6,052)	-
Telecommunications	40,868	49,500	(8,632)	58,025	99,000	(40,975)	-41%	93,410	(35,385)	-38%
Vehicle Operations & Maintenance	2,957	5,417	(2,460)	3,268	10,834	(7,566)	-70%	4,282	(1,014)	-24%
Miscellaneous Personnel Expenses	11,176	13,250	(2,074)	11,301	11,500	(199)	-2%	3,107	8,194	-
Total General and Administrative Exp	**156,107**	**286,698**	**(130,591)**	**313,862**	**505,400**	**(191,538)**	**-38%**	**349,669**	**(35,807)**	**-10%**
Corporate & Community Outreach Expenses										
Special Programs	-	583	(583)	-	1,166	(1,166)	-100%	-	-	-
Customer Service/Information	5,357	7,695	(2,338)	5,357	15,390	(10,033)	-65%	4,044	1,313	32%
Corporate & Community Outreach Contract	42,000	43,667	(1,667)	80,000	83,334	(3,334)	-4%	71,938	8,062	11%
Promotional Materials	-	417	(417)	-	834	(834)	-100%	64	(64)	-
Total Corporate & Community Outreach Expenses	**47,357**	**52,362**	**(5,005)**	**85,357**	**100,724**	**(15,367)**	**-15%**	**76,046**	**9,311**	**12%**
Reserves and Transfers										
Reserve	-	-	-	-	-	-	0%	-	-	-
Expenses Transferred to Capital	(112,755)	(120,833)	8,078	(210,530)	(241,666)	31,136	-13%	(225,300)	14,770	-7%
					-					
Total Reserves and Transfers	**(112,755)**	**(120,833)**	**8,078**	**(210,530)**	**(241,666)**	**31,136**	**-13%**	**(225,300)**	**14,770**	**0%**
Total Expenses	**7,546,855**	**8,856,224**	**(1,309,369)**	**15,202,013**	**18,076,952**	**(2,874,939)**	**-16%**	**14,531,301**	**670,712**	**5%**
Net Income	**-**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**-**	
	-	-	-	-	-	-	0%	-	-	
					-	-				

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
STATEMENTS OF NET ASSETS
AUGUST 31, 2016

ASSETS		
Current assets:		
Cash and cash equivalents	$	49,119,364
Accounts receivable:		
State Grants		16,521,028
Federal Grants		45,423,420
Counties		1,716,282
Other		1,238,334
Prepaid expenses		137,066
Total current assets		114,155,494
Noncurrent assets:		
Capital assets (net of accumulated depreciation)		589,322,904
Total noncurrent assets		589,322,904
Total assets	$	703,478,398
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows of resources related to pensions		1,680,219
LIABILITIES		
Current liabilities:		
Accounts payable	$	4,876,153
Accruals		9,202,377
Compensated absences		493,563
Deferred revenue		1,807,434
Due to other governmental units		74,919
Total current liabilities		16,454,446
Noncurrent liabilities:		
Compensated absences		740,344
Deposits		18,199,519
Advances from FDOT		2,000,000
Net pension liability		3,242,546
Total noncurrent liabilities		24,182,409
Total liabilities	$	40,636,855
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows of resources related to pensions		2,056,301
NET ASSETS		
Invested in Capital Assets		589,322,904
Reserved for Capital Projects		50,990,686
Unrestricted		22,151,871
Total net assets		662,465,461
Total liabilities and net assets	$	705,158,617

FINANCE & INFORMATION TECHNOLOGY
EXECUTIVE SUMMARY

INVOICES OVER $2,500

During August 2016, the SFRTA's Accounts Payable division processed 380 invoices totaling $3,256,482.08 and disbursed 226 checks, excluding payroll, totaling $15,247,132.11.

Invoices over $2,500 represent 39.9% (90 checks) of all invoices processed in the month of August, and represent 99.6% of the value ($15,177,699.22) of all checks processed in August 2016.

Accounts Payable processed 61.2% (55 checks) of the checks over $2,500 within the 21-25 days, with 81.2% (73 checks) of the checks over $2,500 processed within 30 days.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016
INFORMATION ITEM: PAYMENTS OVER $2,500
AUGUST 1 TO AUGUST 31, 2016

RCVD DATE	APPRVD DATE	CHECK DATE	MAILED CHECK	DAYS PROCESS	VENDOR	DESCRIPTION	AMOUNT
6/27/2016	6/30/2016	8/1/2016	8/1/2016	35	BV OIL COMPANY	JUNE OIL PURCHASES	363,549.81
7/1/2016	7/14/2016	8/1/2016	8/1/2016	31	NATIONAL RAILROAD PASSENGER	AMTRAK CONTARACT 06-101	308,167.00
6/30/2016	7/14/2016	8/1/2016	8/1/2016	32	BOMBARDIER MASS TRANSIT CORP	JUNE SERVICES	1,211,733.98
7/5/2016	7/18/2016	8/3/2016	8/8/2016	34	EAC CONSULTING	10-017(E) WO #8 INV #4	39,544.16
7/21/2016	8/2/2016	8/3/2016	8/8/2016	18	FLORIDA POWER & LIGHT	JULY FPL BILLINGS	10,400.17
7/22/2016	7/25/2016	8/3/2016	8/8/2016	17	G4S SECURE SOLUTIONS USA	CUST #006038 07/11-07/17/16	289,730.89
7/18/2016	7/21/2016	8/3/2016	8/8/2016	21	KEOLIS TRANSIT SERVICES, LLC	KEOLIS BOCA BUS (B)	10,101.13
6/29/2016	7/21/2016	8/3/2016	8/3/2016	35	BOMBARDIER MASS TRANSIT CORP	JUNE SERVICES	41,668.70
7/22/2016	8/1/2016	8/3/2016	8/8/2016	17	FLORIDA POWER & LIGHT	JULY SERVICE MOW	42,155.86
7/25/2016	7/27/2016	8/3/2016	8/8/2016	14	GLOBAL TRADING, INC.	STAFF SHIRTS	4,177.06
7/13/2016	7/29/2016	8/3/2016	8/8/2016	26	RAIL TECH CONSULTANTS INC	PASSENGER INFORMATION SIGNS REPAIRS	8,304.00
7/18/2016	7/26/2016	8/3/2016	8/8/2016	21	VEOLIA (VTMI)	AGREEMENT NO. 14-012 AND VEOLIA	3,839,223.14
7/11/2016	7/21/2016	8/8/2016	8/8/2016	28	BV OIL COMPANY	JULY OIL PURCHASES	75,255.54
7/12/2016	7/21/2016	8/8/2016	8/8/2016	27	SFEC TMA	15-009 JUNE 2016	8,209.75
7/25/2016	7/28/2016	8/8/2016	8/8/2016	14	MIAMI-DADE WATER & SEWER DEPT.	JULY SERVICE MOW	13,266.30
7/22/2016	7/25/2016	8/10/2016	8/10/2016	19	G4S SECURE SOLUTIONS USA	JULY SECURITY SERVICES	182,483.69
8/5/2016	8/9/2016	8/10/2016	8/10/2016	5	AT&T	BILLING #954 V34-7067 036	32,632.48
7/27/2016	8/9/2016	8/10/2016	8/10/2016	14	KAPLAN KIRSCH ROCKWELL LLP	CLIENT MATTER ID #1917-13	23,471.76
7/29/2016	8/4/2016	8/10/2016	8/10/2016	12	RENEE MATTHEWS	MATTHEWS, R. HOTEL STAY 07/09/16-07/15/16	2,799.28
7/11/2016	8/3/2016	8/10/2016	8/10/2016	30	RESPECT OF FLORIDA	CUST #90-COBRERA	5,122.77
7/18/2016	8/1/2016	8/15/2016	8/15/2016	28	BV OIL COMPANY	JULY OIL PURCHASES	106,883.05
8/8/2016	8/15/2016	8/17/2016	8/19/2016	11	FLORIDA POWER & LIGHT	JULY FPL BILLINGS	3,523.72
7/28/2016	8/15/2016	8/17/2016	8/22/2016	25	G4S SECURE SOLUTIONS USA	JULY SECURITY SERVICES	114,444.97
8/15/2016	8/15/2016	8/17/2016	8/22/2016	7	MIAMI-DADE WATER & SEWER DEPT.	JULY SERVICE MOW	4,173.07
8/15/2016	8/15/2016	8/17/2016	8/22/2016	7	AT&T	BILL #561 N07-0000 000	17,392.64
8/8/2016	8/11/2016	8/17/2016	8/22/2016	14	AT&T	BILLING #305 W77-7635 223 07/16	5,493.74
7/26/2016	7/29/2016	8/17/2016	8/22/2016	27	ERICKS CONSULTANTS	AGREEMENT #15-015	20,500.00
8/1/2016	8/15/2016	8/17/2016	8/22/2016	21	ERICKS CONSULTANTS	AGREEMENT #15-015	20,500.00
7/29/2016	8/15/2016	8/17/2016	8/22/2016	24	MERIDIAN MANAGEMENT CORPORATI	JUNE SERVICES	8,925.00
8/8/2016	8/12/2016	8/17/2016	8/22/2016	14	JACK STEPHENS	STEPHENS, J 07/25-07/29/16 TRAVEL	3,679.05
8/8/2016	8/9/2016	8/17/2016	8/22/2016	14	AT&T	ACCT #VP07JN-07/16	12,957.90
8/8/2016	8/15/2016	8/17/2016	8/22/2016	14	AT&T	ACCT #8003-000-2788 BILLING	9,987.04
7/12/2016	8/4/2016	8/22/2016	8/22/2016	41	MIAMI DADE	LINK UP & STORAGE FEE MAY 2016	72,546.47
8/5/2016	8/11/2016	8/24/2016	8/29/2016	24	CITY OF DELRAY BEACH	TROLLEY PASS THROUGH FUNDING	18,750.00
8/19/2016	8/22/2016	8/24/2016	8/29/2016	10	FLORIDA POWER & LIGHT	JULY-AUGUST FPL BILLING	13,171.36
8/9/2016	8/15/2016	8/24/2016	8/29/2016	20	G4S SECURE SOLUTIONS USA	JULY SECURITY SERVICES	360,903.50
3/14/2016	8/22/2016	8/24/2016	8/29/2016	168	LIBERTY MUTUAL INSURANCE	POLICY #BAS55839250 BUSINESS AUTO	2,505.00
8/1/2016	8/11/2016	8/24/2016	8/29/2016	28	TRANSDEV SERVICES, INC.	06-112 JULY 2016	1,044,499.90
8/15/2016	8/15/2016	8/24/2016	8/29/2016	14	FLORIDA POWER & LIGHT	JULY SERVICE MOW	2,834.74
8/12/2016	8/15/2016	8/24/2016	8/29/2016	17	GOVERNMENT AFFAIRS FTI CONSULTI	MATTER #435679.0001	12,000.00
7/14/2016	8/11/2016	8/24/2016	8/29/2016	46	MERIDIAN MANAGEMENT CORPORATI	JUNE SERVICES	181,775.21
8/19/2016	8/19/2016	8/24/2016	8/29/2016	10	PROLOGIS TRUST	SEPTEMBER 2016 RENT	58,642.52
8/22/2016	8/15/2016	8/24/2016	8/29/2016	7	T.Y. LIN INTERNATIONAL	14-010E 14-018 WO #5 INV #3	40,215.01
8/18/2016	8/22/2016	8/24/2016	8/29/2016	11	ELIZABETH WALTER	WALTER, E-EDUCATION REIMB MBA	5,790.00
7/27/2016	8/4/2016	8/25/2016	8/26/2016	30	KAPLAN KIRSCH ROCKWELL LLP	CLIENT MATTER ID #1917-13	27,862.09
8/18/2016	8/23/2016	8/25/2016	8/26/2016	8	VERIZON WIRELESS	JULY SERVICES	2,897.48
7/28/2016	8/11/2016	8/29/2016	8/29/2016	32	NATIONAL RAILROAD PASSENGER	AMTRAK CONTARACT 06-101	316,500.00
8/1/2016	8/10/2016	8/29/2016	8/29/2016	28	BV OIL COMPANY	JULY OIL PURCHASES	199,983.22
8/15/2016	8/22/2016	8/31/2016	9/2/2016	18	ANSALDO STS USA, INC.	CUST #140619	23,581.00
8/2/2016	8/24/2016	8/31/2016	9/2/2016	31	CRYSTAL SPRINGS	JULY WATER DELIVERY	2,593.98
8/29/2016	8/29/2016	8/31/2016	9/2/2016	4	DEPT OF MANAGEMENT SVCS	JULY SERVICES	7,461.16
7/1/2016	8/23/2016	8/31/2016	9/2/2016	63	GLOBAL INDUSTRIAL EQUIPMENT	SHELVING	3,357.46
7/20/2016	8/25/2016	8/31/2016	9/2/2016	44	OFFICE DEPOT INC	CHAIRS	3,099.80
8/11/2016	8/25/2016	8/31/2016	9/2/2016	22	RAIL TECH CONSULTANTS INC	REPAIRS	3,572.00
8/5/2016	8/24/2016	8/31/2016	9/2/2016	28	RESPECT OF FLORIDA	JULY JANITORIAL SERVICES	5,122.77
8/19/2016	8/26/2016	8/31/2016	9/2/2016	14	VEOLIA (VTMI)	AGREEMENT NO. 14-012	1,919,611.57
				56	**TOTAL OPERATING EXPENDITURES**		**11,169,733.89**

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016
INFORMATION ITEM: PAYMENTS OVER $2,500
AUGUST 1 TO AUGUST 31, 2016

RCVD DATE	APPRVD DATE	CHECK DATE	MAILED CHECK	DAYS PROCESS	VENDOR	DESCRIPTION	AMOUNT
7/11/2016	7/20/2016	8/1/2016	8/1/2016	21	GULF BUILDING, LLC	CONTRACT #15-001 06/01-06/30/16	1,818,115.93
7/12/2016	7/25/2016	8/3/2016	8/8/2016	27	CH2M HILL, INC.	14-010-A WO #6 INV#4 05/28-06/24/16	41,369.05
7/20/2016	7/27/2016	8/3/2016	8/8/2016	19	COALITION FOR INDEPENDENT LIVI	REIMB FOR 50% EXP JARC/NF GRANT	7,188.62
6/27/2016	7/11/2016	8/3/2016	8/8/2016	42	GOVCONNECTION, INC	CISCO SWITCHES	23,562.00
7/18/2016	7/26/2016	8/3/2016	8/8/2016	21	HDR ENGINEERING INC	10-017 (G) WO#8 INV#10	25,649.07
7/26/2016	7/26/2016	8/3/2016	8/8/2016	13	KIMLEY HORN AND ASSOCIATES	10-017 (H) WO#7 INV#16	88,006.52
7/27/2016	7/27/2016	8/3/2016	8/8/2016	12	MERIDIAN MANAGEMENT CORPORATI(	JUNE ELECTRICAL WORK	4,616.71
7/11/2016	7/25/2016	8/3/2016	8/8/2016	28	PARSONS BRINCKERHOFF, INC.	14-010-D WO#7 INV#3 05/28-06/30/16	135,850.91
7/27/2016	8/4/2016	8/10/2016	8/12/2016	16	BOARD OF CTY COMMISSIONERS	REIMB UNDER JARC GRANT	13,446.81
8/3/2016	8/9/2016	8/10/2016	8/10/2016	7	CENTER PORT BUSINESS PARK	7TH AMENDMENT TO DECLARATION WITH TRAIL-I	5,490.00
8/10/2016	8/12/2016	8/10/2016	8/10/2016	0	CH2M HILL, INC.	14-010A WO #4 INV #7 05/28-06/24/2016	3,678.64
8/2/2016	8/9/2016	8/10/2016	8/10/2016	8	MAE VOLEN SENIOR CENTER	REIMB OF NF GRANT 050	49,488.26
7/21/2016	8/10/2016	8/17/2016	8/19/2016	29	ALAN JAY CHEVROLET	ORDER #2016044954	27,781.00
7/20/2016	8/16/2016	8/17/2016	8/19/2016	30	GANNETT FLEMING INC	10-017(B) WO #10 INV #25	13,189.92
8/12/2016	8/16/2016	8/17/2016	8/19/2016	7	GREEN BLDG CERTIFICATION INST	ORDER #11983254	2,527.90
7/19/2016	8/4/2016	8/17/2016	8/19/2016	31	KIMLEY HORN AND ASSOCIATES	15-014 (B) WO #4 INV #2	56,648.10
6/29/2016	8/4/2016	8/17/2016	8/19/2016	51	KIMLEY HORN AND ASSOCIATES	10-017 (H) WO#7 INV#16	21,481.13
7/22/2016	8/2/2016	8/17/2016	8/19/2016	28	PARSONS BRINCKERHOFF, INC.	10-17-A WO #8 INV #22	4,226.20
7/18/2016	8/4/2016	8/17/2016	8/19/2016	32	T.Y. LIN INTERNATIONAL	10-017-C WO #1 INV #23	66,102.60
7/25/2016	7/29/2016	8/17/2016	8/19/2016	25	T.Y. LIN INTERNATIONAL	14-010-E WO #3 INV #7	2,774.70
7/22/2016	7/29/2016	8/17/2016	8/16/2016	25	T.Y. LIN INTERNATIONAL	15-014-E WO #3 INV #1	8,639.34
7/11/2016	7/29/2016	8/17/2016	8/19/2016	39	COUNCIL TREASURE COAST REGIONAL	OPTIPLEX 7040	25,000.00
8/15/2016	8/19/2016	8/24/2016	8/29/2016	14	DELL MARKETING, L.P.	CUST #049226262	89,543.61
8/1/2016	8/15/2016	8/24/2016	8/29/2016	28	HDR ENGINEERING INC	CONTRACT #12-008 INV #13	1,207,997.00
8/8/2016	8/17/2016	8/24/2016	8/29/2016	21	JACOBS ENGINEERING GROUP INC.	14-010 (B) WO #6 INV #2	21,932.85
8/4/2016	8/15/2016	8/24/2016	8/29/2016	25	KIMLEY HORN AND ASSOCIATES	15-014 (B) WO #4 INV #3	45,732.26
8/4/2016	8/17/2016	8/24/2016	8/29/2016	25	KIMLEY HORN AND ASSOCIATES	09-007D WO #35 INV #24	4,252.31
8/17/2016	8/19/2016	8/24/2016	8/29/2016	12	TEAM ONE REPAIR	REFUR SODECO BNA571	24,990.00
8/12/2016	8/15/2016	8/24/2016	8/26/2016	14	HDR ENGINEERING INC	CONTRACT #12-008 INV #4	66,146.17
8/2/2016	8/15/2016	8/24/2016	8/29/2016	27	HDR ENGINEERING INC	CONTRACT #12-008 INV #3	54,680.86
8/3/2016	8/25/2016	8/31/2016	9/2/2016	30	CUBIC TRANSPORTATION SYSTEMS	JUNE SERVICES	5,316.73
8/15/2016	8/23/2016	8/31/2016	9/2/2016	18	DELL MARKETING, L.P.	CUST #049226262	16,479.46
8/15/2016	8/23/2016	8/31/2016	9/2/2016	18	GOVCONNECTION, INC	JUNE SERVICES	9,712.50
8/15/2016	8/25/2016	8/31/2016	9/2/2016	18	ISIGNS	LEFT ARROW FLASHER	16,348.17
				34	**TOTAL CAPITAL EXPENDITURES**		**4,007,965.33**
	Item Total			**90**	**TOTAL OPERATING EXPENSES AND CAPITAL EXPENDITURES**		**15,177,699.22**

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
GOVERNING BOARD MEETING: SEPTEMBER 23, 2016
INFORMATION ITEM:
SUMMARY OF PAYMENTS OVER $2,500
AUGUST 1, 2016 TO AUGUST 31, 2016

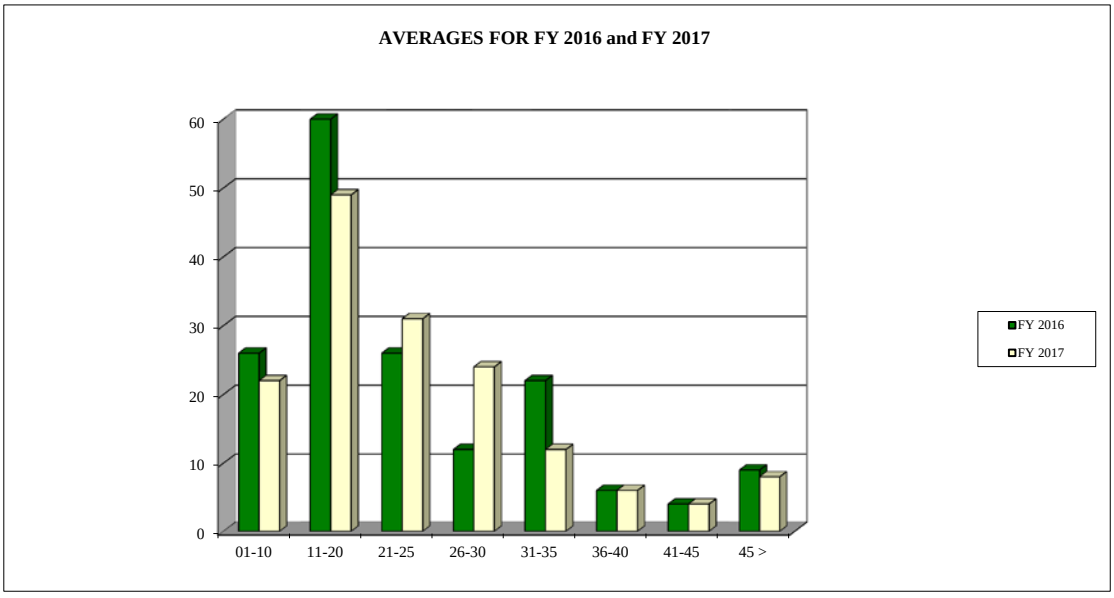
INVOICE CYCLE	NO. CHECKS	PERCENT OF TOTAL	ACCUM %
0-10 days	12	13.4%	13.4%
11-20 days	29	32.2%	45.6%
21-25 days	14	15.6%	61.2%
26-30 days	18	20.0%	81.2%
31-35 days	9	10.0%	91.2%
36-40 days	1	1.1%	92.3%
41-45 days	3	3.3%	95.6%
Over 45 days	4	4.4%	100.0%
TOTAL CHECKS	90	100.0%	

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
PAYMENT CYCLE REPORT - AUGUST 2016

AGENDA ITEM NO. F

FOR INVOICES $2,500 AND OVER

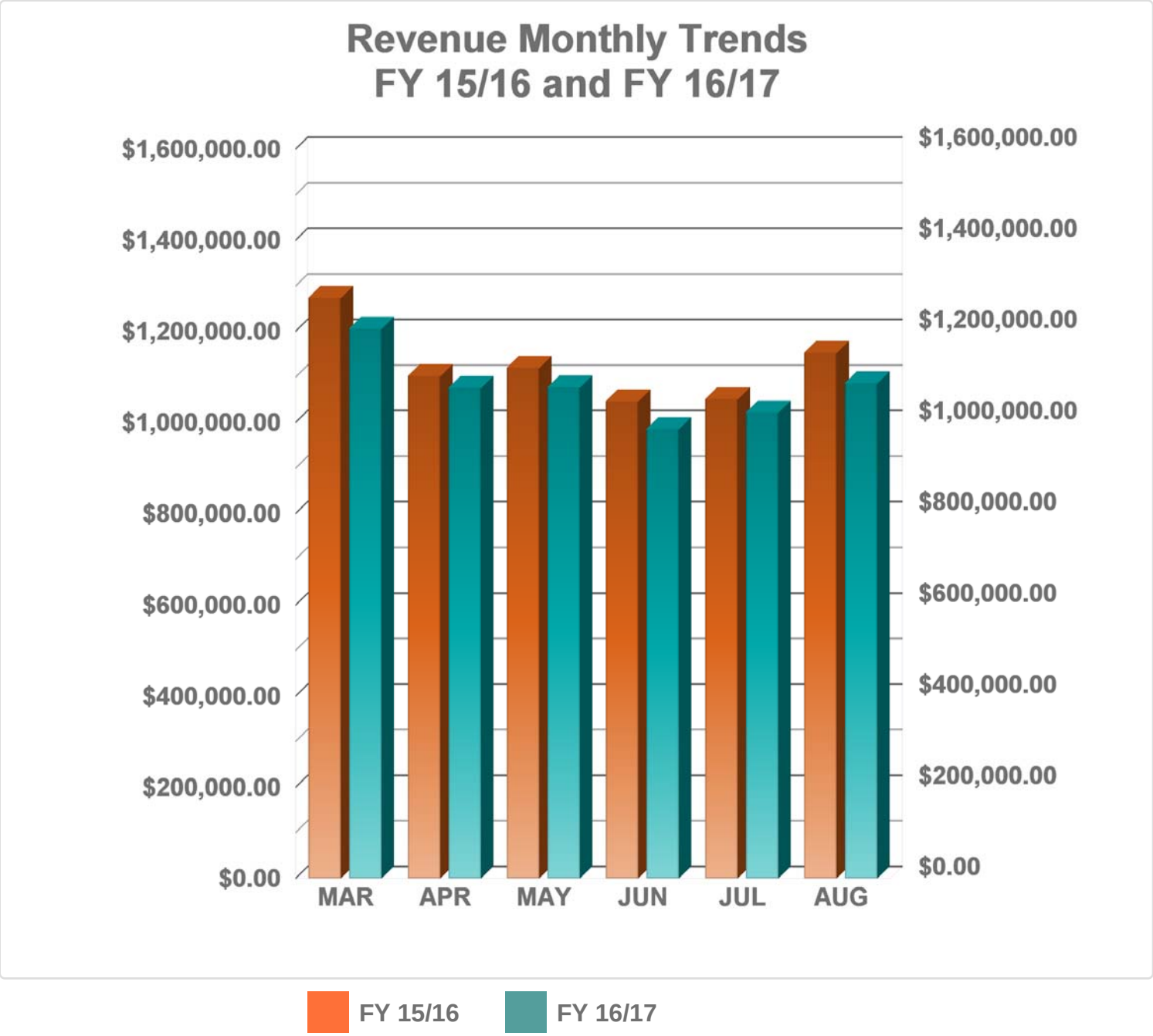
MONTHLY AVERAGE AUGUST 1, 2015 TO AUGUST 31, 2015		MONTHLY AVERAGE AUGUST 1, 2016 TO AUGUST 31, 2016	
INVOICE CYCLE	**% OF TOTAL**	**INVOICE CYCLE**	**% OF TOTAL**
0 -10 Days	15.8%	0 -10 Days	14.1%
11-20 Days	36.4%	11-20 Days	36.4%
21-25 Days	15.8%	21-25 Days	15.8%
26-30 Days	7.3%	26-30 Days	7.3%
31-35 Days	13.3%	31-35 Days	13.3%
36-40 Days	3.6%	36-40 Days	3.6%
41-45 Days	2.4%	41-45 Days	2.6%
Over 45 Days	5.5%	Over 45 Days	5.8%



SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
REVENUE REPORT - AUGUST 2016

REVENUE - AUGUST 2016

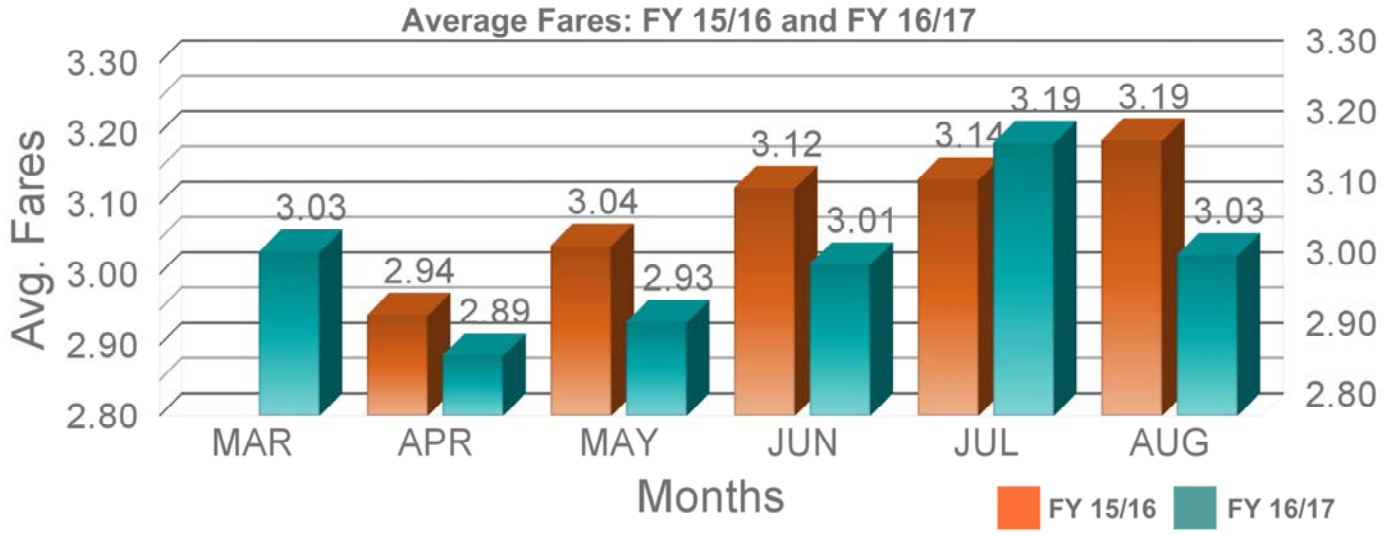
	AUGUST 2015	AUGUST 2016	VARIANCE	%
Weekday Sales	895,990	910,168	14,178	2
Weekend Sales	199,300	148,290	-51,010	-34
Other Income	57,774	27,318	-30,456	-111
Total Revenue	1,153,064	1,085,776	-67,288	-6



SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
REVENUE REPORT - AUGUST 2016

AGENDA ITEM NO. G

Sales by Ticket Type	AUGUST 2015	AUGUST 2016	Percent Change
Palm Beach Schools	30,750.00	30,000.00	-2.00%
Employer Disc. Program	130,498.55	119,027.85	-9.00%
Pre-Paid	995.00	2,450.00	146.00%
Group Tour Sales	563.65	381.18	-32.00%
Station Sales:			
One-Way	434,157.90	453,371.10	4.00%
Roundtrip	229,749.00	210,788.15	-8.00%
12 Trips FF	37,781.30	39,083.90	3.00%
Monthly	71,000.00	62,100.00	-13.00%
Monthly Reg. Pass	19,700.00	18,600.00	-6.00%
One-Way Discount	4,665.50	3,802.55	-18.00%
Roundtrip Discount	7,962.85	5,146.40	-35.00%
Monthly Discount	27,250.00	21,500.00	-21.00%
Monthly Disc. Reg. Pass	8,550.00	6,500.00	-24.00%
Stored Value	82,102.30	76,848.70	-6.00%
Card Deposits	9,564.00	8,858.00	-7.00%
Total Station Sales	932,482.85	906,598.80	-3.00%
Total Sales	1,095,290.05	1,058,457.83	-3.00%
Average Fare	3.19	3.03	-5.00%

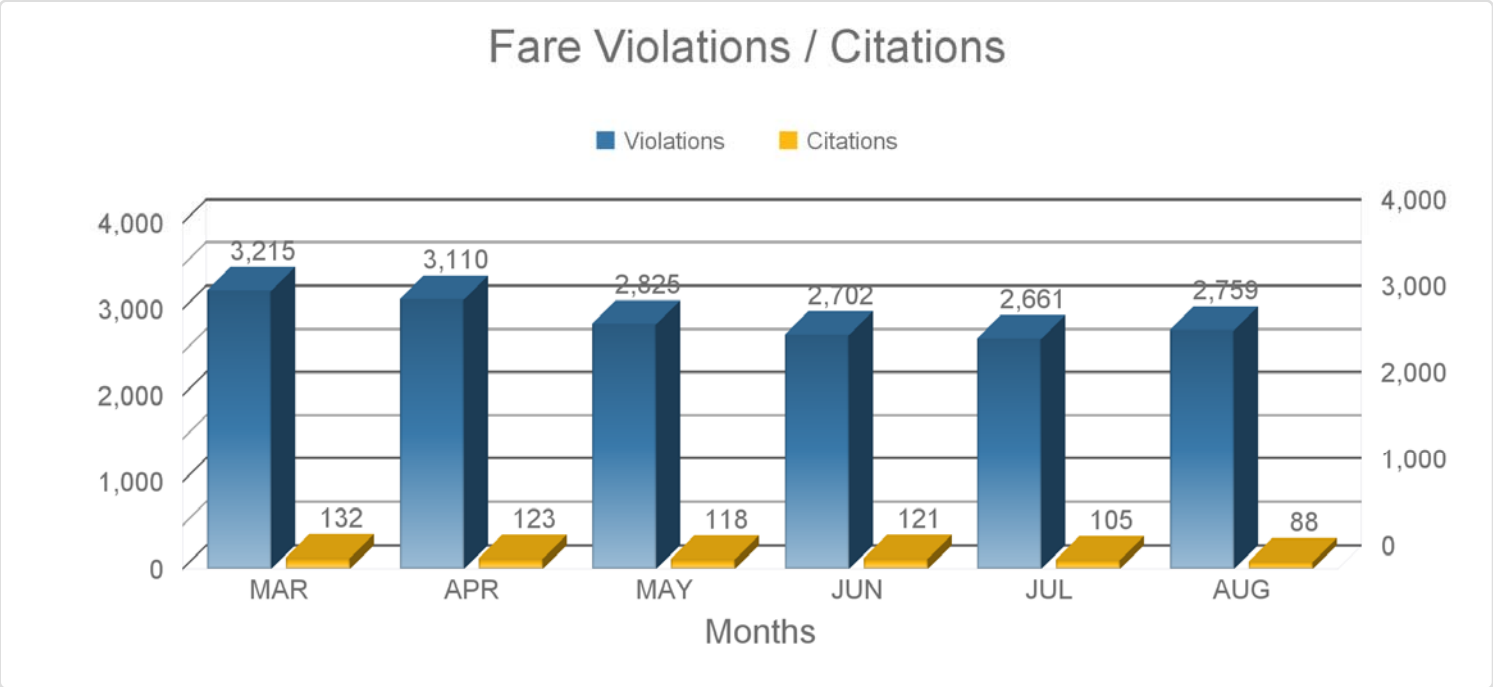


AGENDA ITEM NO.

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY
FARE EVASION REPORT

MARCH 2016 THROUGH AUGUST 2016

MONTH	TOTAL INSPECTED	TOTAL VIOLATIONS	# OF CITATIONS	# OF WARNINGS	% Riders Inspected
MARCH 2016	451,990	3,215	132	3,082	118
APRIL 2016	433,762	3,110	123	2,987	119
MAY 2016	392,725	2,825	118	2,707	109
JUNE 2016	333,523	2,702	121	2,580	102
JULY 2016	304,834	2,661	105	2,556	97
AUGUST 2016	361,306	2,759	88	2,671	103
AVERAGE	379,690	2,879	115	2,764	108
FARE EVASION %	0.76		FINES		2,560.75



Solicitation Status Report
August 2016

AGENDA ITEM: H

Solicitation Number	Solicitation Type	Description of Services	Advertise Date	Document Available	Pre-Submittal Conference	Due Date Bids/Proposals	Award Contract
15-011	**ITB**	"Hialeah Yard Electrical Improvements"	**7/1/16**	**7/5/16**	**7/14/16**	**8/2/16**	**9/23/16**
16-010	**RFP**	"Operating Services"	**9/2/16**	**9/7/16**	**9/29/16**	**12/9/16**	**1/27/17**

AGENDA ITEM NO: I

Contract Actions Executed
Under The Executive Director's Authority
For The Month of August 2016

Contract/ Purchase Order No.	Contract /Project Description	Contract Action	Amount $
17-000074	**CONTRACTOR: GOVCONNECTION** **DESCRIPTION:** Installation, And Training To Configure And Upgrade The Existing VoIP Telephone System And Migration To The SFRTA's New Operations Center	**Purchase Order**	$99,500.00
17-000076	. **CONTRACTOR: PRINT DYNAMICS** **DESCRIPTION:** Full-Color Tri-Fold Tri-Rail Schedules And Shuttle Bus Brochures.	**Purchase Order**	$12,000.00
17-000075	**CONTRACTOR: TEAM ONE REPAIR** **DESCRIPTION:** Refurbished Sodeco BNA571 Bill Acceptors.	**Purchase Order**	$49,980.00
17-000084	**CONTRACTOR: STRAIGHT & NARROW STRIPING** **DESCRIPTION:** External Signage Maintenance.	**Purchase Order**	$15,000.00
17-000090	**CONTRACTOR: FPL FIBERNET, LLC** **DESCRIPTION:** Dedicated Internet Access Update - 3 Year Contract.	**Purchase Order**	$16,740.00
15-014 (A)	**CONTRACTOR: HNTB CORPORATION** **DESCRIPTION:** Assist SFRTA's Maintenance Of Way Project Manager With Daily Monitoring of The MOW Contractors (VTMI's) Work Activities Along The South Florida Rail Corridor.	**Work Order**	$337,384.90

AGENDA ITEM: J

Contract Actions Executed
Under The
Construction Oversight Committee's Authority
For The Month of August 2016

Date Signed	Description	Contract Action	Amount $
8/19/16	Amendment No. 6 to Agreement No. 15-001 Design Build Services for the Operations Center and Pompano Beach Tri-Rail Station Improvements Project with Gulf Building, LLC, for an amount not to exceed $582,703.57 for the purchase and installation of audio and visual equipment for the SFRTA Operations Center.	Amendment	$582,703.57

SOUTH FLORIDA
REGIONAL
TRANSPORTATION
AUTHORITY

MONTHLY CRIME ANALYSIS SUMMARY AND FARE EVASION REPORT

AUGUST 2016

PRESENTED BY

ANTHONY STRIANESE
PROJECT MANAGER

SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY MONTHLY CRIME ANALYSIS SUMMARY

AUGUST 2016

During the month of August 2016, a total of 3,119 incidents were reported to, or by G4S Secure Solutions, USA, Custom Protection Officers®. **(1)** A bicyclist was struck by a SFRTA Commuter Train; however, he sustained no injury. **(1)** Subject committed battery on a CPO and fled the scene prior to arrival of Law Enforcement.

MAJOR INCIDENTS

TRESPASSER STRIKE – MM 992.9 – (YAMATO ROAD)
Case #: 08-16-2133

This incident occurred at approximately 1346, Monday, August 26th 2016. A bicyclist struck the side of the P626 northbound train at the listed location. Now, the train stopped and the train crew notified the appropriate parties. The subject was able to stand on his own, at which time he departed the scene. It is unknown if the subject sustained any injuries. The Boca Raton, FL Police Department did not respond and there is not any police documentation of the incident. This incident created an eleven minute delay for passenger service.

TRAIN DERAILMENT – MM 966.7 – (AUSTRAILIAN AVE)
Case #: 08-16-546

This incident occurred at approximately 1825, Friday, August 5th 2016. Coach Car 1013, which was a part of the P634 consist, had become dislodged from the tracks for reason undetermined. The G4S Officers responded to the scene and maintained a security presence for passengers and officials from various entities of the SFRTA. There were no reported injuries and the Palm Beach County Sheriff's Office (PBCSO) was also on scene. The P634 was taken out of service and a bus bridge was established between Mangonia Park and West Palm Beach SFRTA Stations. The scene was secured by G4S throughout the evening between the inclusive time(s) of 2255, Friday, August 5th 2016, until 0525, Saturday August 6th 2016. The PBCSO Case # is **2016-110829.**

POMPANO BEACH STATION – (SERIOUS INJURY)
Case #: 08-16-3057

This incident occurred at approximately 1445, Wednesday, August 31st 2016. A male construction worker, fell from a ladder while employed as a subcontractor at the Pompano Beach Station. The Pompano Beach Fire / Rescue (PBFR) and the Broward County Sheriff's Department (BSO) responded to the scene. The worker was transported to a medical facility for treatment of injuries and further medical intervention. Now, as of this date, his current condition is not known and the subject was not

MAJOR INCIDENTS – CONTINUED

identified pursuant to current provisions of the Health Insurance Portability and Accountability Act (HIPPA). The PBFR Alarm number is **18594.** The BSO Case # is **11-1608-008287.**

WEST PALM BEACH STATION – ROBBERY – (BY SUDDEN SNATCHING)
Case #: 08-16-0448

This incident occurred at approximately 0935, Friday, August 5th 2016. A female patron was approached by an unidentified Caucasian male subject on the east platform. The subject asked the victim for money and she declined. Now, without warning the subject removed her "IPhone 6"from her hand and fled the station. The West Palm Beach, FL Police Department responded to the station and filed a formal report. The victim did not sustain any injuries as a result of this incident. The WPBPD Case number is **2016-14030.**

WEST PALM BEACH STATION – BATTERY – STATE TRANSIT AGENT
Case #: 08-16-1400

This incident occurred at approximately 1500, Monday, August 15th 2016. The G4S Officer admonished a subject for trespassing on the railroad right of way, at the listed station. The subject became unruly and a physical altercation erupted. The G4S Officer sustained a minor abrasion to his right ear which required medical intervention. The subject fled the scene and was not identified. The West Palm Beach, FL Police Department (WPBPD) responded and filed a formal report. The WPBPD Case number is **2016-14673.**

MANGONIA PARK STATION – AUTO THEFT
Case #: 08-16-591

This incident occurred between the inclusive time(s) of 0800-1940, Saturday, August 6th 2016. A patron parked his vehicle at 0800 and during the interim of his absence, person unknown, by undetermined means stole his vehicle. He returned at 1940 to discover and subsequently reported the theft. Now, the Palm Beach County FL, Sheriff's Office (PBCSO) responded and conducted a preliminary inquiry. The PBCSO Case number is **2016-111226.** A description of the vehicle and other particulars are documented in the Incident Report.

MAJOR INCIDENTS – CONTINUED

BOYNTON BEACH STATION – AUTO THEFT

Case#: 08-16-1545

This incident occurred between the inclusive dates of Thursday, July 28th 2016 and Tuesday, August 16th 2016. The patron parked his vehicle during the morning hours of July 28th 2016. During the interim of his absence, person(s) unknown stole his vehicle from the listed location. He returned at 2000, Tuesday, August 15th 2016 to discover the theft. A call was made to the Boynton Beach, FL Police Department; however they did not arrive in a timely manner. The victim and his wife departed and related that they would proceed to the police department and file the report. The police case number is unknown at this time. A description of the vehicle and other particulars are documented in the Incident Report.

CYPRESS CREEK STATION – THEFT

CASE #: 08-16-2299

This incident occurred between the inclusive time(s) of 0900-0915, Wednesday, August 24th 2016. A patron left her cellular telephone and head seat unsecured and unattended in the west stairwell. She returned to retrieve the items, at which time she discovered theft. The Ft. Lauderdale, FL Police Department (FTLPD), was notified and responded to the station. A formal report was taken; however no witnesses or suspects have been identified. The FTLPD case number is **34-1608-126135.**

FT. LAUDERDALE AIRPORT STATION – CRIMINAL MISCHIEF

This incident was discovered at approximately 1449, Thursday, August 11th 2016. The G4S Officer, while performing security duties at the Ft. Lauderdale Airport Station, discovered that person(s) unknown, utilizing an unknown object, had broken the side diver's window of a vehicle parked and unattended in space #2126. The Broward County FL, Sheriff's Office (BSO), was notified and responded to the scene. The owner of the vehicle was not present and a loss value, if any, could not be determined. A description of the vehicle and other particulars are documented in the Incident Report. The BSO case number is **02-1608-001010.**

DELRAY BEACH STATION – CRIMINAL MISCHIEF

Case #: 08-16-1888

This incident was discovered by the GS Officer at approximately 0905, Saturday, August 20th 2016. The Officer was conducting a patrol of the parking facility when he discovered that person(s) unknown, by

MAJOR INCIDENTS – CONTINUED

undetermined means had shattered the driver's window of a vehicle parked and unattended at the listed location. The Delray Beach, FL Police Department (DBPD) responded to the scene and filed a formal report. The owner of the vehicle was not present and a loss value, if any, could not be determined. A description of the vehicle and other particulars are documented in the Incident Report The DBPD case number is **2016-013004.**

CYPRESS CREEK STATION – ILLNESS
Case #: 08-16-2386

This incident occurred at approximately 0955, August 25th 2016. A male subject complained of chest pains, while commuting onboard the P619 southbound train. The Fort Lauderdale, FL Fire / Rescue FTLFR responded to the station and the subject was transported to a medical facility. The FTLFR Alarm number is **0834640.**

BOCA RATON STATION – ILLNESS
Case #: 08-16-2370

This incident occurred at approximately 2256, Wednesday, August 24th 2016. A male subject approached the G4S Officer and complained of chest pains. The subject stated he has a history of cardio-vascular disease. The Boca Raton Fire / Rescue responded to the station and the subject was transported to a medical facility for further observation. The BRFR Alarm number is 08-16-11293.

OUTSTANDING JOB PERFORMANCES

Custom Protection Officer Sommervil is commended for his diligent patrols while working the Opa-Locka station. Sommervil while conducting foot patrol of the parking facility, observed a suspicious male attempting to gain entry into several parked and unattended vehicles. The subject was confronted by Sommervil and ultimately taken into custody by local law enforcement.

All Custom Protection Officers, Supervisors and members of the PSCC are commended for their corridor knowledge and customer service they displayed during the August 5th, trail derailment incident. A commendable performance by all involved.

MONTHLY FARE EVASION REPORT

MONTH: August-2016

Date	Total Passengers	Total Inspected	Total Violations	Number of Citations	Discretion Warnings	F.S.S. 812.015	% Riders Inspected	% Riders Violation	% Violators Cited	% Violators Warned	%Violators Arrested
8/1/2016	12,608	11,424	111	4	107	0	91%	0.97%	4%	96%	0%
8/2/2016	12,590	10,050	100	5	95	0	80%	1.00%	5%	95%	0%
8/3/2016	12,421	10,799	109	6	103	0	87%	1.01%	6%	94%	0%
8/4/2016	11,221	9,558	71	4	67	0	85%	0.74%	6%	94%	0%
8/5/2016	12,571	11,763	100	4	96	0	94%	0.85%	4%	96%	0%
8/6/2016	6,231	5,722	46	1	45	0	92%	0.89%	2%	98%	0%
8/7/2016	5,500	5,015	53	1	52	0	91%	1.02%	2%	98%	0%
8/8/2016	12,677	12,141	90	3	87	0	96%	0.74%	3%	97%	0%
8/9/2016	12,482	11,372	90	8	82	0	91%	0.79%	9%	91%	0%
8/10/2016	12,609	11,886	120	4	116	0	94%	1.01%	3%	97%	0%
8/11/2016	12,148	11,990	109	0	109	0	99%	0.91%	0%	100%	0%
8/12/2016	12,609	11,886	104	0	104	0	94%	0.87%	0%	100%	0%
8/13/2016	6,046	7,722	47	0	47	0	128%	0.60%	0%	100%	0%
8/14/2016	5,256	5,799	53	2	51	0	110%	0.91%	4%	96%	0%
8/15/2016	13,879	16,838	82	3	79	0	121%	0.49%	4%	96%	0%
8/16/2016	13,725	14,864	105	2	103	0	108%	0.71%	2%	98%	0%
8/17/2016	13,207	15,072	88	0	88	0	114%	0.58%	0%	100%	0%
8/18/2016	13,624	16,766	105	2	103	0	123%	0.63%	2%	98%	0%
8/19/2016	13,582	14,530	90	2	88	0	107%	0.62%	2%	98%	0%
8/20/2016	6,450	6,412	70	0	70	0	99%	1.09%	0%	100%	0%
8/21/2016	5,401	5,612	45	3	42	0	104%	0.78%	5%	95%	0%
8/22/2016	14,062	15,640	97	4	93	0	111%	0.62%	4%	96%	0%
8/23/2016	14,276	14,590	101	5	96	0	102%	0.76%	5%	95%	0%
8/24/2016	14,364	16,142	114	5	109	0	112%	0.70%	4%	96%	0%
8/25/2016	13,759	15,166	96	5	91	0	110%	0.63%	5%	95%	0%
8/26/2016	14,188	15,145	112	4	108	0	107%	0.74%	4%	96%	0%
8/27/2016	5,936	6,799	46	1	45	0	115%	0.68%	2%	98%	0%
8/28/2016	5,545	5,021	63	4	59	0	91%	1.25%	6%	94%	0%
8/29/2016	13,752	15,320	105	3	102	0	111%	0.69%	3%	97%	0%
8/30/2016	14,034	15,156	116	0	116	0	108%	0.75%	0%	100%	0%
8/31/2016	13,695	15,106	121	3	118	0	110%	0.80%	2%	98%	0%
Totals	**350,448**	**361,306**	**2,759**	**88**	**2671**	**0**	**103%**	**0.76%**	**3%**	**97%**	**0%**

Weekly/Monthly Fare Inspection Report

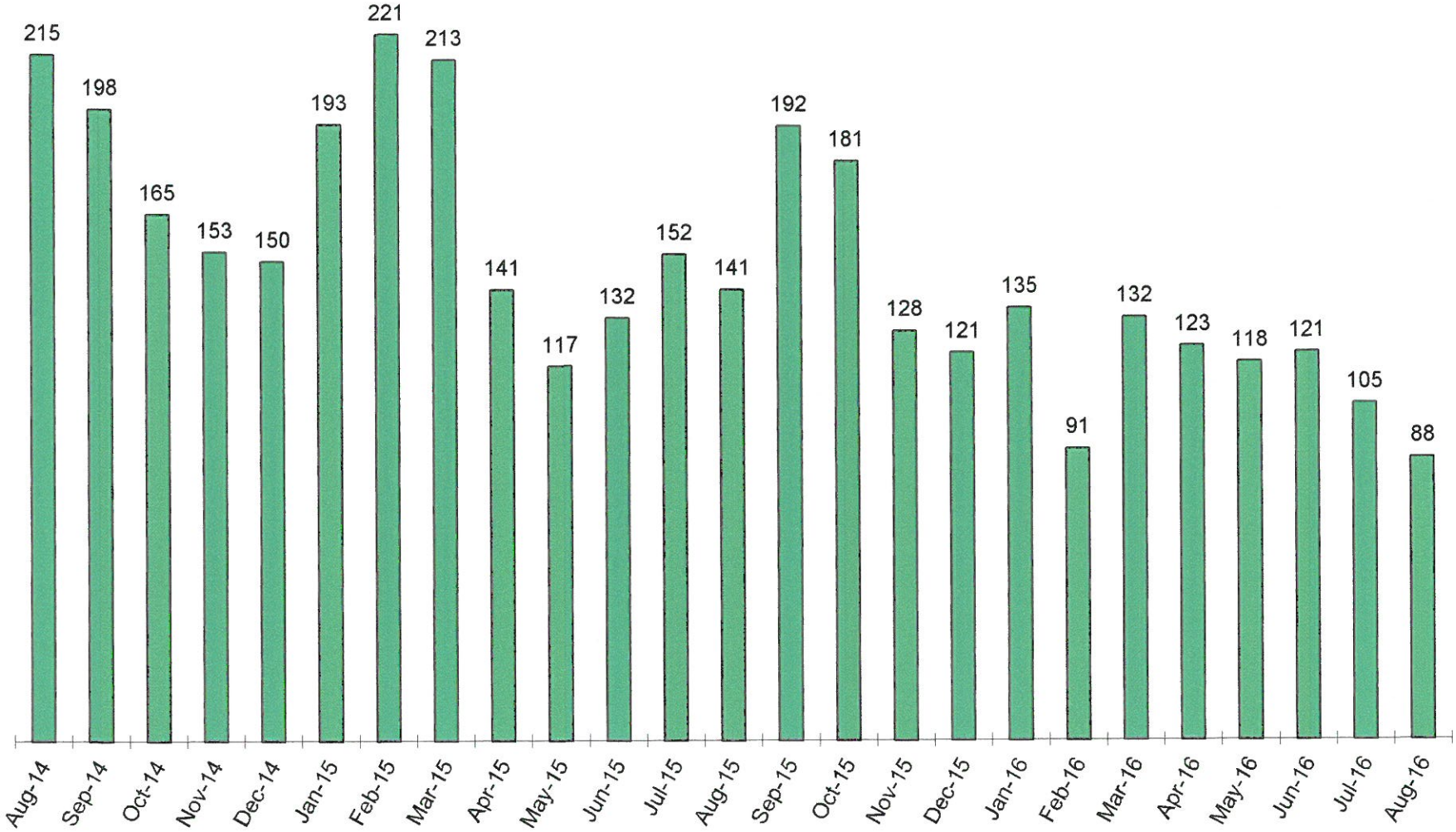
MONTH: August-2016

WEEK	Total Passengers	Total Inspected	Total Violations	Number of Citations	Discretion Warnings	F.S.S. 812.015	% Riders Inspected	% Riders Violation	% Violators Cited	% Violators Warned	%Violators Arrested
08/01/16-08/7/16	73,142	64,331	590	25	565	0	88%	0.92%	4%	96%	0%
08/08/16-08/14/16	73,827	72,796	613	17	596	0	99%	0.84%	3%	97%	0%
08/15/16-08/21/16	79,868	90,094	585	12	573	0	113%	0.65%	2%	98%	0%
08/22/16-08/28/16	82,130	88,503	629	28	601	0	108%	0.71%	4%	96%	0%
08/29/16-08/31/16	41,481	45,582	342	6	336	0	110%	0.74%	2%	98%	0%
	350,448	**361,306**	**2,759**	**88**	**2,671**	**0**	103%	0.76%	3%	97%	0%

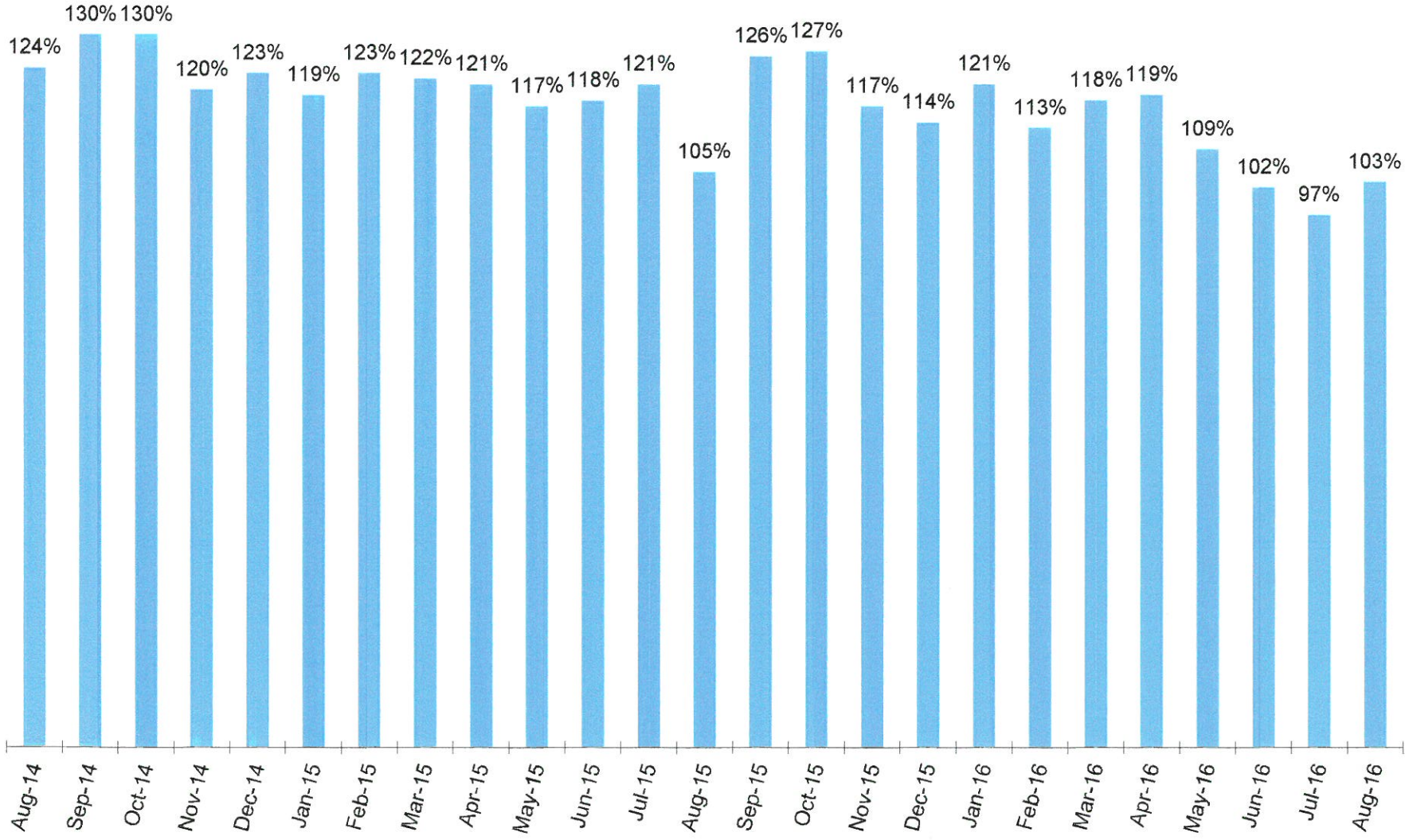
FARE EVASION REPORT
MONTHLY COMPARISON

MONTH	Total Passengers	Total Inspected	Total Violations	Number of Citations	Discretion Warnings	F.S.S. 812.015	% Riders Inspected	% Riders Violation	% Violators Cited	% Violators Warned	% Violators Arrested
August-13	353,977	476,608	3326	163	3155	8	135%	0.70%	5%	95%	0%
September-13	360,416	473,572	3285	128	3155	2	131%	0.69%	4%	96%	0%
October-13	400,198	523,802	3168	180	2977	11	131%	0.60%	6%	94%	0%
November-13	361,358	462,614	2806	146	2652	8	128%	0.61%	5%	95%	0%
December-13	356,655	464,640	2937	141	2789	7	130%	0.63%	5%	95%	0%
January-14	388,660	492,277	2755	121	2632	2	127%	0.56%	4%	96%	0%
February-14	364,857	448,069	2400	86	2308	6	123%	0.54%	4%	96%	0%
March-14	385,596	459,743	2553	77	2472	4	119%	0.56%	3%	97%	0%
April-14	387,963	491,362	2765	120	2737	8	127%	0.56%	4%	99%	0%
May-14	372,507	458,263	3233	179	3048	6	123%	0.71%	6%	94%	0%
June-14	340,111	409,153	3157	227	2915	15	120%	0.77%	7%	92%	0%
July-14	343,855	429,167	3393	273	3111	9	125%	0.79%	8%	92%	0%
August-14	356,596	442,931	3214	215	2988	11	124%	0.73%	7%	93%	0%
September-14	357,498	465,919	3332	198	3124	10	130%	0.72%	6%	94%	0%
October-14	389,574	507,221	3490	165	3322	3	130%	0.69%	5%	95%	0%
November-14	352,762	424,072	3020	153	2861	6	120%	0.71%	5%	95%	0%
December-14	359,776	444,040	3197	150	3044	3	123%	0.72%	5%	95%	0%
January-15	371,459	442,632	3253	193	3060	0	119%	0.73%	6%	94%	0%
February-15	344,117	421,621	3206	221	2976	9	123%	0.76%	7%	93%	0%
March-15	380,011	465,160	3407	213	3185	9	122%	0.73%	6%	93%	0%
April-15	366,910	442,809	3048	141	2897	10	121%	0.69%	5%	95%	0%
May-15	346,946	406,144	3036	117	2915	4	117%	0.75%	4%	96%	0%
June-15	331,611	391,193	3065	132	2929	4	118%	0.78%	4%	96%	0%
July-15	327,979	396,732	3287	152	3129	6	121%	0.83%	5%	95%	0%
August-15	392,505	413,006	3277	141	3126	10	105%	0.79%	4%	95%	0%
September-15	350,884	442,374	3183	192	2984	7	126%	0.72%	6%	94%	0%
October-15	379,852	481,658	3334	181	3148	5	127%	0.69%	5%	94%	0%
November-15	349,408	409,912	2745	128	2614	3	117%	0.67%	5%	95%	0%
December-15	356,416	405,007	2810	121	2689	0	114%	0.69%	4%	96%	0%
January-16	348,709	422,770	2656	135	2521	0	121%	0.63%	5%	95%	0%
February-16	360,477	408,948	2513	91	2421	1	113%	0.61%	4%	96%	0%
March-16	383,168	451,990	3215	132	3082	1	118%	0.71%	4%	96%	0%
April-16	364,715	433,762	3110	123	2987	0	119%	0.72%	4%	96%	0%
May-16	360,260	392,725	2825	118	2707	0	109%	0.72%	4%	96%	0%
June-16	326,641	333,523	2702	121	2580	1	102%	0.81%	4%	95%	0%
July-16	312,655	304,834	2661	105	2556	0	97%	0.87%	4%	96%	0%
August-16	350,448	361,306	2759	88	2671	0	103%	0.76%	3%	97%	0%
Totals	**61,886,591**	**66,475,525**	**413,969**	**36,351**	**376,699**	**1,021**	**107%**	**0.62%**	**9%**	**91%**	**0%**

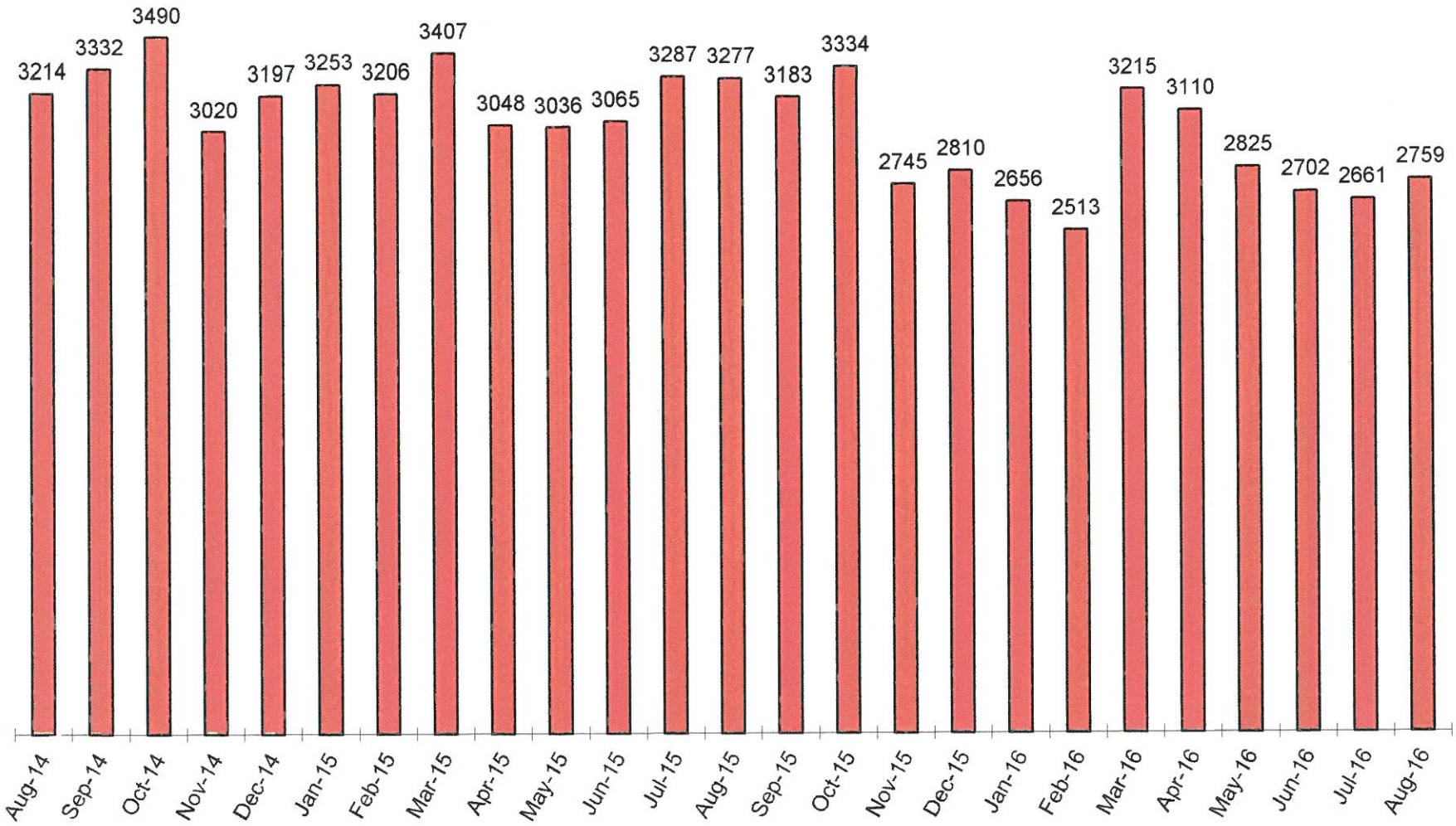
CITATIONS ISSUED



PERCENTAGE OF RIDERS INSPECTED



FARE EVASION VIOLATIONS



CLASSIFICATIONS BREAKDOWN
AUGUST 2016

CLASSIFICATION	
ABANDONED VEHICLE	
ALARMS	1
ALARMS-TVM	
ALCOHOLIC BEVERAGE	
ALTERED TICKET/COUNTERFEIT	
ARSON	
ASSAULT AGGRAVATED TRANSIT AGENT / CPO	
ASSAULT-AGGRAVATED	
ASSAULT TRANSIT AGENT / CPO	
ASSAULT	
ASSIST PASSENGER	2
ASSIST OTHER AGENCY	
ATTEMPTED SUICIDE	
AUTO THEFT	2
AUTO THEFT - ATTEMPT	
AUTO THEFT - RECOVERY	
BATTERY - AGGRAVATED TRANSIT AGENT / CPO	
BATTERY - AGGRAVATED	
BATTERY TRANSIT AGENT / CPO	
BATTERY	1
BIKE LOCKER/OTHER	
BICYCLE VIOLATIONS	
BIOLOGICAL RELEASE	
BOMBING	
BOMB THREAT	
BRUSH FIRE	
BURGLARY-ATTEMPT	
BURGLARY	
BURGLARY-AUTO	
BURGLARY-ATTEMPT AUTO	
CAMERA MONITORING CENTER	
CHEMICAL RELEASE	
CIVIL DISTURBANCE	
CREDIT CARD FRAUD	
CRIMINAL MISCHIEF	12
CROSSING W/ GATE DOWN	
CYBER INCIDENT	
DAMAGED PROPERTY	
DEBRIS ON TRACK	
DISORDERLY CONDUCT	4
DISTURBANCE	2
DOMESTIC VIOLENCE	
DRUG OFFENSE	1
EMS BOARD MALFUNCTION	
ELEVATOR MALFUNCTION	8
ELEVATOR PHONE MALFUNCTION	3

CLASSIFICATIONS BREAKDOWN
AUGUST 2016

CLASSIFICATION	
ESCALATOR MALFUNCTION	16
FALSE IDENTIFICATION	
FARE EVASION	2759

	CITATION	WARNED	ARREST
12 TRIP NO TAP	0	15	0
ZONE OVERRIDE EASY CARD	0	0	0
INSUFFICIENT FUNDS	6	121	0
NO BUS/METRORAIL TRANSFER	3	53	0
NO PHYSICAL TICKET	71	2153	0
NO SFRTA TRANSFER TICKET	1	14	0
NO TAP EASY CARD	2	175	0
OUTDATED PAPER TICKET	1	31	0
ZONE OVERRIDE PAPER TICKET	4	109	0
TOTAL	88	2671	0

FIRE	
GRADE CROSSING PROBLEM	24
HIJACKING	
ILLNESS	6
INJURY	2
INJURY-CPO	
INFORMATION / MISCELLANEOUS	22
INTERFERING W/ TRAIN	
INTOXICATED PERSON	
INVESTIGATION	
KIOSK PROBLEM	
LOST/FOUND PROPERTY	107
LOUD MUSIC	
LUGGAGE	
MISSING PERSON	1
MISSING PERSON-LOCATED	
MOTOR VEHICLE ACCIDENT	2
PARKING PROBLEM	19
PARKING LOT ACCIDENTS	
PARKING LOT VIOLATIONS	
PAYPHONE MALFUNCTION	
PULLED EMERGENCY STOP	2
RECOVERED STOLEN PROPERTY	
RIDING ON OUTSIDE OF TRAIN	
ROBBERY	1
ROBBERY- SUDDEN SNATCHING	
ROBBERY STRONG ARMED	
SABOTAGE	
SAFETY HAZARD	10
SEXUAL BATTERY	
SEX OFFENSE (OTHER)	

CLASSIFICATIONS BREAKDOWN
AUGUST 2016

CLASSIFICATION	
SIGN PROBLEM	
SLIP AND FALL	5
SMOKING ON TRAIN	
SOLICITATION	2
STUDENT INCIDENT	
BAK MIDDLE SCHOOL	
DREYFOOS HIGH SCHOOL	
G STAR	
LAKE WORTH	
ROOSEVELT MIDDLE SCHOOL	
BOYNTON BEACH	
OTHER	
SURFBOARDS ON TRAIN	
SUSPICIOUS INCIDENT	3
SUSPICIOUS PERSON	4
SUSPICIOUS VEHICLE	3
SUICIDE / ATTEMPT	
TELEPHONIC THREAT	
THEFT	5
THEFT-ATTEMPTED	
THROWING OBJECT AT TRAIN	1
TOWED VEHICLE	1
TRAIN VS ANIMAL	
TRAIN VS BICYCLE	
TRESPASSER STRIKE	1
TRAIN VS FIXED OBJECT	
TRAIN VS VEHICLE	
TRESPASS	18
TVM GATE MALFUNCTION	2
TVM MALFUNCTION	65
UNAUTHORIZED ANIMAL	
SAV VALIDATOR MALFUNCTION	2
VEHICLE ON TRACK	
WEAPON-COMPLAINT	
WEAPON-CONCEALED	
SPECIAL ASSIGNMENT:	
TOTAL INCIDENTS	**3119**

ANNUAL CRIME ANALYSIS
2016

CLASSIFICATION	MAR	APRIL	MAY	JUNE	JULY	AUG
ABANDONED VEHICLE		2		1		
ALARMS					2	1
ALCOHOLIC BEVERAGE/TRAIN						
ALTERED TICKET/COUNTERFEIT						
ARSON						
ASSAULT-AGGRAVATED -CPO						
ASSAULT-AGGRAVATED					1	
ASSAULT TRANSIT AGENT / CPO			1			
ASSAULT	1	1		1	2	
ASSIST PASSENGER	2	1	1	6		2
ASSIST OTHER AGENCY	1		1	1	1	
ATTEMPTED SUICIDE						
AUTO THEFT		1	1	1	1	2
AUTO THEFT - ATTEMPT	1			2		
AUTO THEFT - RECOVERY				2		
BATTERY - AGGRAVATED C.P.O.						
BATTERY - AGGRAVATED						
BATTERY - TRANSIT AGENT-CPO	1					
BATTERY	1		1		1	1
BIKE LOCKER/OTHER	5	3	1	3		
BICYCLE VIOLATIONS				1		
BOMBING						
BOMB THREAT						
BURGLARY						
BURGLARY ATTEMPT	1					
BURGLARY-STRUCTURE						
BURGLARY-AUTO	2	4	46	12	1	
BURGLARY-ATTEMPT AUTO						
CAMERA MONITORING CENTER						
CHEMICAL RELEASE						
CIVIL DISTURBANCE						
COUNTERFEIT/ALTERED TICKET						
CREDIT CARD FRAUD						
CRIMINAL MISCHIEF	26	26	10	10	10	12
CROSSING W/ GATE DOWN						
CYBER INCIDENT						
DAMAGED PROPERTY	1	3	1		4	
DEBRIS ON TRACK	2		2			
DISORDERLY CONDUCT	7	11	7	6	11	4
DISTURBANCE	5	2	9	7	9	2
DRUG OFFENSE						1
DOMESTIC VIOLENCE						
EMS BOARD MALFUNCTION	1	4	1	1	3	
ELEVATOR MALFUNCTION	10	16	19	19	21	8
ESCALATOR MALFUNCTION	7	8	6	4	9	16
ELEVATOR PHONE MALFUNCTION	2	3	2	3	2	3
FARE EVASION- CITATIONS	132	123	118	121	105	88
FARE EVASION-WARNINGS	3082	2987	2707	2580	2556	2671
FARE EVASION-ARREST	1			1	0	
FALSE IDENTIFICATION						
FIRE	1					
GRADE CROSSING PROBLEM	3	11	7	11	8	24
SUB-TOTAL	3295	3206	2941	2793	2747	2835

ANNUAL CRIME ANALYSIS
2016

CLASSIFICATION	MAR	APRIL	MAY	JUNE	JULY	AUG
ILLNESS	14	10	9	7	12	6
INJURY	1	5	1	1	1	2
INJURY-CPO		1				
MISCELLANEOUS/INFORMATION	40	44	43	44	25	22
INTERFERING W/ TRAIN	1					
INTOXICATED PERSON						
INVESTIGATION						
KIOSK PROBLEM						
LUGGAGE						
LOST/FOUND PROPERTY	143	143	128	105	85	107
LOUD MUSIC						
MISSING PERSON	1	1	1		2	1
MISSING PERSON-LOCATED						
MOTOR VEHICLE ACCIDENT	1	1	1	4	2	2
PARKING PROBLEM	31	33	25	33	20	19
PARKING LOT ACCIDENTS						
PARKING LOT VIOLATIONS						
PAYPHONE MALFUNCTION						
PULLED EMERGENCY STOP	2			1	1	2
RECOVERED STOLEN PROPERTY			1			
RIDIDNG ON OUTSIDE OF TRAIN						
ROBBERY						1
ROBBERY SUDDEN SNATCHING						
ROBBERY STRONG ARMED						
SAFETY HAZARD	23	9	22	18	23	10
SEXUAL BATTERY						
SEX OFFENSE (OTHER)		2	2		1	
SIGN PROBLEM						
SLIP AND FALL	5	5	3	2	7	5
SMOKING ON TRAIN						
SOLICITATION		1	1		1	2
STUDENT INCIDENT		1	2			
SURFBOARDS ON TRAIN						
SUSPICIOUS INCIDENT	7	9	10	13	5	3
SUSPICIOUS PERSON	5	3	6	2	6	4
SUSPICIOUS VEHICLE	4	1	1	5	2	3
SUICIDE / ATTEMPT					1	
THEFT	9	2	9	3	4	5
THEFT-ATTEMPTED	1					
THROWING OBJECT AT TRAIN	2	1	9	1		1
TOWED VEHICLES	9	1	2	3	5	1
TRAIN VS ANIMAL						
TRAIN VS BICYCLE						
TRESPASSER STRIKE	1		2		1	1
TRAIN VS VEHICLE	3		3		1	
TRAIN VS FIXED OBJECT						
TRESPASS ARREST						
TRESPASS	35	28	25	31	18	18
TVM GATE MALFUNCTION	1	1	5	5	2	2
TVM MALFUNCTION	109	100	123	91	85	65
SAV VALIDATOR MALFUNCTION	1	1		6	2	2
VEHICLE ON TRACKS		1				
WEAPON CONCEALED/COMPLAIN				1		
TOTAL REPORTS	3744	3610	3375	3169	3059	3119

MONTHLY SUBCONTRACTOR UTILIZATION REPORT

INSTRUCTIONS: This form must be filed each month to report actual Subcontractors participation by SFRTA certified firms for work done the proceeding month.

Contract Number: 16-001

Contract Name: Armed Security, Fare Enforcement and Revenue Collection

Reporting Period: 8/1/2016-8/31/2016

Prime Firm: G4S SECURE SOLUTIONS, USA

Contract Amount (as Amended) $ 33,596,432.00

Total Invoiced Amount this period: $0

Total Invoiced to Date: $0.00

Name of Subcontractor	If DBE Minority Group*	Gender M/F	Description of Work	Type of Work*	Starting Date	Completion Date
N/A						

*** Minority Group Enter:** B-Black American I-Asian American H-Hispanic American N-Native American P-Asian Pacific American O-Other

*** Type of Work:** Professional Consultant/Services, Construction, Supplies, Equipment, Other

- If prime firm is a certified DBE firm, the prime firm's quarterly activity must also be reported.
- This form must be completed monthly and submitted with firm's application for payment.

MONTHLY SUBCONTRACTOR UTILIZATION REPORT

1) Did any of the DBE subcontractors rent/lease equipment from the prime consultant or an affiliate company during the report period? If yes, explain the arrangement, including a description of the equipment and the cost.

_____ NO

2) Did any of the DBE subcontractors utilize employees or former employees of the prime consultant or an affiliate company during the reporting period?

_____ NO

3) Did any of the DBE subcontractors subcontract any portion of its work to a non-DEB during the report period? If yes, explain fully.

_____ NO

4) Has the scope of work or the subcontract amount of any of the DBE subcontractors changed since the last report? If yes, explain fully.

_____ NO

By signing this form, the person individually and on behalf of the Firm represents to the SFRTA that the information contained on both the above forms is complete truthful, and accurate.

AUTHORIZED SIGNATURE: _____ TITLE: PROJECT MANAGER DATE: September 9, 2016

NTD INTERNET REPORTING

NON MAJOR SECURITY

Part I

Aug-16

INCIDENTS ONLY

		Transit Passengers	Transit Facility Occupants	Transit Employees	Other Workers	Trespasser	Other	Total Incidents
Forcibile Rape								
In Vehicle		0						0
In Revenue Facility		0						0
Non Revenue Facility		0						0
Right Of Way/Roadway		0						0
Robbery								
In Vehicle		0						0
In Revenue Facility		1						1
Non Revenue Facility		0						0
Right Of Way/Roadway		0						0
Aggravated Assaults								
In Vehicle		0						0
In Revenue Facility		0						0
Non Revenue Facility		0						0
Right Of Way/Roadway		0						0
Burglary								
In Vehicle / Train		0						0
In Revenue Facility	Structure	0						0
Non Revenue Facility	auto burglary	1						1
Right Of Way/Roadway		0						0
Larceny/Theft Offenses								
In Vehicle		0						0
In Revenue Facility	Includes	**0**						**0**
Non Revenue Facility	thefts	**5**						**5**
Right Of Way/Roadway	Vehicle	0						0
Motor Vehicle Theft								
In Vehicle		0						0
In Revenue Facility	Includes	2						2
Non Revenue Facility	Attempts	0						0
Right Of Way/Roadway		0						0
Arson								
In Vehicle		0						0

NTD INTERNET REPORTING

NON MAJOR SECURITY

In Revenue Facility	0						0
Non Revenue Facility	0						0
Right Of Way/Roadway	0						0

Part II

	In Vehicle	In Revenue	In Non Revenue Facility	On Right of Way	Total Incidents
Fare Evasion (citations)	**88**				**88**
Other Assaults (arrests)	0				0
Trespassing (arrests)	**0**				**0**
Vandalism (arrests)	0				0

Other Security Issues

	In Vehicle	In Revenue	In Non Revenue Facility	On Right of Way	Total Incidents
Bomb Threats	**0**				**0**
Bombing	0				0
Chemical / Biological / Nuclear Release	0				0
Cyber Incident	0				0
Hijacking	0				0
Non Violent Civil Disturbance	0				0
Sabotage	0				0

Total Property Damage ($) 0

(01) Train v. trespasser
(01)Battery on CPO
(01) Drug Offense

G4S Secure Solutions USA
6499 Powerline Road Suite 300
Fort Lauderdale FL 33309-2044
Telephone: 954.771.5005
Fax: 954.771.5408
www.g4s.com/us

MEMORANDUM

To: Mr. Anthony Strianese, Project Manager, G4S/SFRTA

From: Richard D. Cannon, Jr. Investigator, ID #276

SUBJECT: MONTHLY ACTIVITY REPORT – AUGUST 2016

Date: Friday, September 9th 2016

I was assigned the following tasks for the month of: **AUGUST 2016:**

As the Court Liaison Officer: I maintained contact with the Clerk of the Court, North County Regional Courthouse, Deerfield Beach, FL. I also handled the filing, service and return of subpoenas served to Custom Protection Officers assigned to the G4S/SFRTA Project. I attended all court hearings involving G4S / SFRTA / Fare Evasion matters and tracked criminal cases.

As the Citation Coordinator: I managed the review, sorting and filing of Citations. I filed **88** citations at the North County Regional Courthouse. I also processed any voided citations and conducted inquiries as directed by the County Court Judge, related to Fare Evasion Citations.

As the Investigator: I investigated or conducted inquiries into **(16)** Incidents:

- **SFRTA IR #: 04-15-2369 – Trespasser Strike– (Pending M.E. /P.D. Report)**
- **SFRTA IR #: 05-15-1056 - Trespasser Strike– (Pending P.D. Report)**
- **SFRTA IR #: 06-15-2234 – Trespasser Strike – (Pending M.E. / P.D. Report)**
- **SFRTA IR #: 08-15-979 – Trespasser Strike – (Fatality) – Pending M.E. P.D. Report)**

- **SFRTA IR #: 09-15-3182 – Trespasser Strike– (Pending P.D. / M.E. Reports)**
- **SFRTA IR #: 10-15-2354 – Trespasser Strike – (Pending P.D. M. E. Reports)**
- **SFRTA IR #: 02-16-2427 – Trespasser Strike – (Pending P.D. Report)**
- **SFRTA IR #: 03-16-1369 – Trespasser Strike – (Pending P.D. / M.E. Reports)**
- **SFRTA IR #: 05-16-2880 – Train vs. Vehicle – (Pending P.D. /M.E. Reports)**
- **SFRTA IR #: 05-16-1223 – Train vs. Vehicle – (Pending P.D. Report)**
- **SFRTA IR #: 05-16-1483 – Train vs. Vehicle – (Pending P.D. Report)**
- **SFRTA IR #: 06-16- 959 – Train vs. Vehicle – (Amtrak) – (Pending P.D. Report)**
- **SFRTA IR #: 07-16-513 – Train vs. Vehicle (Amtrak) – (Pending P.D. Report)**
- **SFRTA IR #: 07-16-522 – Trespasser Strike – (Pending P.D / M.E. Reports)**
- **SFRTA IR#; 08-16-1400 - Battery / Violation of G4SPolicy – (Officer Removed)**
- **UNUMBERED – Violation of G4S Policy – (G4S Officer Removed)**

In addition, I obtained various police reports pertaining to incidents involving the SFRTA. Lastly, I continued to provide support, logistical and troubleshooting services to the Director of Safety & Security, SFRTA, as well as the Project Manager.

rdc/
cc: Mr. Allen R. Yoder
Director, Safety & Security, SFRTA

Expiring Contract Report
S FL Regional Transportation Authority

Expiring Date (8/1/2016) thru (8/1/2017)

Project Manager Conrtact # Contract Administrator	Contract Title Contract Name	Start Date Expiration Date	Contract Duration Renewal
projectmgr			
Renee Matthews	INTEGRATED FINANCIAL MGT SYSTEM SOFTWARE	12/31/2008	8 Year Term
02-711	010137 TYLER WORKS/EDEN DIVISION	12/31/2016	
BOBBY BECKER			
Brad Barkman	TRANSITION DISP TRAIN CTRL AND YARD SERV	02/01/2007	10 Year Term
06-101	010512 NATIONAL RAILROAD PASSENGER	06/30/2017	5 year base term. 5 - 1 year renewal options. All 5 options exercised, no options remain.
BOBBY BECKER			
Brad Barkman	COMMUTER RAIL OPERATIONS	02/16/2007	10 Year Term
06-112	010844 TRANSDEV SERVICES, INC.	06/30/2017	1 - 3 year option renewal. Option has been exercised - no options remain.
BOBBY BECKER			
Brad Barkman	COMMUTER RAIL FLEET MAINTENANCE	07/01/2007	10 Year Term
06-113	010855 BOMBARDIER MASS TRANSIT CORPOR	06/30/2017	1 - 3 year option renewal. Option has been exercised - no options remain.
BOBBY BECKER			
Lauran Mehalik	STATION MAINTENTANCE SERVICES	08/01/2010	7 Year Term
10-001	010697 MERIDIAN MANAGEMENT CORPORATIO	06/30/2017	No renewal options.
BOBBY BECKER			

Expiring Contract Report
S FL Regional Transportation Authority

Expiring Date (8/1/2016) thru (8/1/2017)

Project Manager Conrtact # Contract Administrator	Contract Title Contract Name	Start Date Expiration Date	Contract Duration Renewal
projectmgr			
Richard Chess 11-007 BRYAN KOHLBERG	BANKING SERVICES 012062 SUNTRUST BANK	10/13/2010 12/31/2016	6 Year Term
Richard Chess 11-013 OSCAR NELSON	LEASE FOR 800 NW 33RD ST - SFRTA ADM HQ 010304 PROLOGIS TRUST	05/01/2011 12/31/2016	5 Year Term
Allen Yoder 17-002 BOBBY BECKER	MARLIN ENGINEERING SUPPORT 013261 MARLIN ENGINEERING, INC.	07/27/2016 10/26/2016	0 Year Term N/A

Contract Actions Executed
Under The General Counsel's Authority
For August 2016

Date Signed	Contract /Purchase Order No.	Contract Action	Amount $	Term
8/17/2016	**Kaplan Kirsch Rockwell LLP** Tri-Rail Downtown Miami Link Service	Purchase Order 17-000086	10,000.00	N/A
8/17/2016	**Kaplan Kirsch Rockwell LLP** Labor and 13 (C) Issues	Purchase Order 17-000087	10,000.00	N/A
8/17/2016	**Kaplan Kirsch Rockwell LLP** VTMI MOW Contract	Purchase Order 17-000088	10,000.00	N/A
8/25/2016	**Kaplan Kirsch Rockwell LLP** Amtrak incident involving VTMI, including NTSB investigation	Purchase Order 17-000097	15,000.00	N/A
8/25/2016	**Kaplan Kirsch Rockwell LLP** Operations Procurement (Dispatch, Train Operations, Station Maintenance and Maintenance of Equipment)	Purchase Order 17-000098	15,000.00	N/A
8/25/2016	**Robert Lee Shapiro, PA** Tri-Rail Downtown Miami Link Service/Lease and Easment Agreements	Purchase Order 17-000100	15,000.00	N/A