U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT

FOR THE ALL ABOARD FLORIDA PASSENGER RAIL PROJECT

WEST PALM BEACH TO MIAMI, FLORIDA

JANUARY 2013

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1.0 Introduction

All Aboard Florida – Stations LLC and All Aboard Florida – Operations LLC (AAF) propose passenger rail service and rail improvements within 66 miles of the privately owned, operated, and maintained Florida East Coast corridor (FEC corridor). These improvements would return the FEC corridor to its historic dual-track system, providing fast, dependable and efficient passenger rail service between West Palm Beach and Miami.

AAF is a subsidiary of Florida East Coast Industries, Inc. (FECI), which is a full service commercial real estate and infrastructure company based in Coral Gables, Florida. The FECI structure operates through independent business divisions including: AAF, as a passenger rail enterprise; Flagler, as a full service real estate company; South Florida Logistics Services, as a logistics company; and Parallel Infrastructure LLC as a right-of-way management and development company. The independent business divisions are referenced in this document as FECI affiliates, but are separate and not inclusive of AAF.

AAF operates as an independent subsidiary of FECI and is comprised of All Aboard Florida - Operations LLC (AAF-O) and All Aboard Florida - Stations LLC (AAF-S). AAF-O will manage the development and operation of the system for the Project, including the track, platforms and other infrastructure. AAF-S will manage the surrounding development and operation of the stations for the Project. AAF-O shall be the owner of the railroad infrastructure installed for the operation of the service, and AAF-S shall be the owner of the fee simple and/or leasehold interests of the station property in West Palm Beach, Fort Lauderdale and Miami.

Florida East Coast Railway LLC (FECR), an affiliate of FECI, owns the right-of-way and existing railroad infrastructure within the corridor between Miami, West Palm Beach and Jacksonville, over which FECR

operates a freight rail service. Certain FECI affiliates own rights to develop and operate services within that corridor. For example, AAF-O has an easement granted by FECR whereby AAF-O may develop and operate the proposed passenger service within the FEC corridor between West Palm Beach and Miami. AAF-O will operate the proposed passenger rail service in coordination with FECR's continued freight service within the corridor.

AAF prepared an Environmental Assessment and Section 4(f) Statement (EA) for the proposed All Aboard Florida Passenger Rail Project from West Palm Beach to Miami, Florida (Project). The Project area analyzed includes the FEC corridor between West Palm Beach and Miami, and adjacent areas within which the system, stations, and vehicle maintenance facility (VMF) have been proposed (Project Area). The EA addresses the potential effects of the proposed action to the environment within the Project area.

The EA was reviewed, revised, and approved by FRA for public circulation and comment from October 31, 2012 through December 3, 2012. FRA is making this Finding of No Significant Impact (FONSI) based on the information in the EA and considering public comments. The EA and FONSI have been prepared pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq. (NEPA); Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303(c)); and FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999).

FRA cooperated with AAF to develop the EA for the Project in connection with a potential future AAF filing with the FRA of an application for financial assistance through the FRA's Railroad Rehabilitation and Improvement Financing (RRIF) Program. FRA's regulations on the conduct of environmental reviews in support of RRIF applications are found at 49 C.F.R. §260.35 and these are the foundation of FRA's participation in this environmental review process. The conduct of an environmental review under NEPA is triggered by the presence of a major federal action with the potential for significant impacts on the human or natural environment. FRA's review and decision on a potential RRIF application is the FRA's potential federal connection to the Project. FRA is not aware of any other potential major federal action within the FRA's jurisdiction for the Project.

AAF has not as of this date submitted a RRIF application to the FRA and so no formal FRA action is pending at this time. AAF has requested and FRA has agreed to issue this FONSI completing this stage of the NEPA review process in advance of the receipt of an application, because the environmental review is complete and the EA adequately addresses and presents the environmental consequences of the proposed Project.

The public record, including AAF filings before the Surface Transportation Board (STB), indicates that AAF has an interest in pursuing the development of passenger rail operations in a larger corridor from Miami to Orlando (see STB Docket Number FD_35680). FRA participated in the evaluation of the environmental impacts of the Project between Miami and West Palm Beach on the basis of a request from AAF that focused solely on the development of this portion of the corridor as an initial step. FRA has no role in the development of passenger rail service on the FEC corridor outside of the RRIF program and no role in deciding on the appropriate scope of the project that AAF might wish to pursue. A private sector concern can limit its interest to an initial segment of a potentially larger corridor so long as the

initial proposal involves logical termini and has independent utility. FRA has concluded that the proposed Project has logical termini and independent utility. Of course, neither the EA nor this FONSI address in any way the environmental impacts associated with development of passenger rail in the larger corridor between Miami and Orlando or how those impacts might appropriately be identified and evaluated should a federal approval or funding role through the FRA be identified in the future. AAF will be required to meet all the appropriate environmental review requirements for the larger corridor as a whole and FRA will take appropriate action to comply with NEPA.

2.0 Purpose and Need

The purpose of the Project is to provide intercity passenger rail service that addresses South Florida's current and future needs to enhance the transportation system by providing a transportation alternative for Floridians and tourists, supporting economic development, creating jobs, and improving air quality.

- There is a need to enhance public safety and reduce highway congestion by developing additional transportation alternatives for the region. In June 2010, Florida Department of Transportation (FDOT) prepared the I-95 Transportation Alternatives Study, in consultation with the Department of Law Enforcement, the Department of Environmental Protection, the Division of Emergency Management, the Office of Tourism, Trade and Economic Development, and affected metropolitan planning organizations (MPOs) and regional planning councils located along the corridor.[1] The study, which provides an assessment of concerns and proposed solutions related to I-95, found that "I-95 is overwhelmed with traffic demand"[2] and that "[t]ravel within specific urban areas along the I-95 corridor is highly congested in peak travel periods due to single driver automobile use."[3] This study concluded that "[p]assenger rail service represents a mobility option to serve Florida's East Coast along the I-95 corridor," with multiple benefits including the reduction of "fossil fuel use and greenhouse gases (GHGs); job creation and economic development around station locations; and, better connectivity between northern and southern sections of Florida."[4] Further, the study determined that a need exists for improvements to the existing transportation system, stating that:

> "The transportation analysis illustrates the need for alternative transportation options be available by the 2035 planning horizon to accommodate the growing demand. I-95, even at build-out, will not be operating at acceptable levels and travel demand model results imply parallel facilities may be facing a similar outlook. Alternative transportation

[1] *For the complete report, see* http://www.dot.state.fl.us/planning/systems/sm/corridor/corridor%20study/I-95%20Transportation%20Alternatives%20Final%20Report.pdf.

[2] *Id.*, at 3.

[3] *Id.*, at 22.

[4] *Id.*, at 22

> routes and modal choices must become readily available to ensure safe and efficient movement of passenger and freight travel."[5]

Significant roadway expansion along the Interstate 95 (I-95) corridor is unlikely due to the potential for a large number of displacements and other substantial environmental impacts. As such, there is a need to consider alternate transportation modes that expand overall regional capacity. The proposed Project will provide an additional transportation alternative that addresses highway congestion and current and future travel demand between major South Florida cities, thereby reducing highway maintenance costs and accident rates.

- There is a need for connectivity between the historic downtowns of West Palm Beach Palm, Fort Lauderdale, and Miami that will support additional real estate development in downtown areas. While mass transit is being enhanced within each of the three cities, there is no limited stop alternative transportation that can compete with auto travel between the downtown areas of West Palm Beach, Fort Lauderdale, and Miami. The City of West Palm Beach has plans to both improve mass transit in the city and to create a connection between Clematis Street (downtown's main street) and the shopping and entertainment venue known as CityPlace. The objectives of the City of Fort Lauderdale and Broward County likewise include an innovative transit system at their core as a means of creating sustainable development and more livable communities. In addition, Miami's Downtown Development Authority completed the 2025 Downtown Miami Master Plan in October of 2009 (Master Plan). The Master Plan is organized by five overarching goals, which includes Goal 5, "Promote Transit and Regional Connectivity," that states:

  > "Uncomplicated and non-problematic access to Downtown Miami is critical to its economic and social strength. Access strategies should focus on the continuing development of multiple and intermodal transportation options that ease the ability to get to and from downtown, as well as the ability to move quickly and easily throughout the downtown."

  The proposed service can be enhanced with stations located on downtown sites adjacent to the FEC corridor in West Palm, Fort Lauderdale, and Miami. Complementary to the service, connectivity between the cities can be enhanced and development can be fostered in the urban cores to serve the growing public interest in pursuing rail options to meet regional mobility needs, all without disturbing environmentally sensitive areas of South Florida.

- There is a need to support economic development and create jobs. The Comprehensive Plan of the City of West Palm Beach establishes the Downtown Master Plan (DMP) for the City, which includes guidance for uses for the properties within the City's downtown areas.[6] Specifically, Policy 1.1.1.H of the DMP provides that the Quadrille Business District (QBD) includes "greatest

[5] *Id.*, at 6.

[6] For complete plan, see http://wpb.org/plan/pdf/PBCaseNo1580_CCP.pdf.

potential density of development and tallest building heights in the Downtown," and states that the intent of the DMP is "to create an activity center that connects the retail areas at CityPlace and Clematis Street retail corridor."[7]

The unemployment rates in Florida have historically exceeded the national average. The Florida Department of Economic Opportunity published the seasonally adjusted unemployment rate was 8.1 percent in November 2012.[8] The U.S. unemployment rate was 7.7 percent the same month.[9] The development of this Project is expected to create more than 1,200 direct, non-recurring construction jobs and hundreds of direct permanent jobs from rail operations and other indirect jobs, all while spurring economic development by creating new transit oriented community development opportunities along the corridor.

The Project is expected to generate new revenue for the State and local governments by creating opportunities for increasing property values and to generate new tax revenues, including growth in real estate taxes, corporate income taxes and sales taxes, all of which may be utilized to address community-specific needs (e.g. schools, parks, public works, police and fire protection).

- There is a need to improve air quality. The Florida Department of Environmental Protection in its Air Monitoring Report of 2011 stated, "Florida is fortunate to experience good overall air quality. However, the presence of air pollutants can pose a threat to clean air. Air pollution is generated by our modern day-to-day activities like driving and using electricity. Our southern location bound by the Gulf Coast on the western shore and the Atlantic Ocean on the eastern shore means that we need to be concerned about pollutants transported in and out of Florida as well as home grown air pollutants impacting the air we breathe."

  The counties included within the Project Area have made commitments to the reduction of greenhouse gas emissions. For example, Palm Beach County on its website states that it has developed an air program "responsible for assuring good air quality for the community through many regulatory and non-regulatory programs," noting that clean air "is a most important natural resource," and that air pollution "is produced from many human activities, primarily from combustion of fossil fuel for transportation and power generation."[10] Broward County notes on its website that the reduction of "greenhouse gas emissions is an important component to Broward County's overall commitment to a healthy, sustainable environment. Broward County is already committed to reducing greenhouse gas emissions from County operations to 7 percent below 1997 levels by the year 2015."[11] Similarly, the Maimi-Dade

[7] Id, at 16-6.

[8] For the complete press release, see http://lmsresources.labormarketinfo.com/library/press/release.pdf.

[9] Id., at 1.

[10] For more information on Palm Beach County's commitment to air quality, see http://www.pbchd.com/env/airqual/env_air_quality.html.

[11] For more information on Broward County's Climate Change Task Force, see http://www.broward.org/NATURALRESOURCES/CLIMATECHANGE/Pages/Mission.aspx.

County Board of County Commissioners has recognized the importance of air quality and has made "serious commitments to prepare the County for a sustainable future," including its agreement "to pursue the regional goal of reducing greenhouse gas emissions by 80 percent from 2008 levels by 2050."[12]

By providing an efficient and attractive alternative to automobile travel, passenger rail travel will reduce congestion on South Florida's highways, thereby reducing greenhouse gas (GHG) emissions in the region because the emission reductions due to the decrease in regional vehicle miles travelled (VMTs) are higher than the relatively low incremental emissions expected as a result of the restoration of passenger trains to the FEC Corridor.

3.0 Alternatives

The EA evaluated alternatives for the proposed Project under two titles including: (1) "system" alternatives for the railway corridor between stations; and (2) "station" alternatives for locating stations (and ancillary development) in West Palm Beach, Fort Lauderdale, and Miami. Alternatives were considered in light of evaluation criteria developed by AAF to identify options that satisfied the purpose and need of the Project, including the need for proximity to the FEC corridor and downtown central business districts (CBD); the compatibility of existing land use patterns in the affected areas; the feasibility of Project components; and the cost and scheduling implications of each option. For example, to operate safely and efficiently, all station alternatives would need to be situated on tangent track at sites that accommodate the development of high-level platforms at least 800 feet long and approximately 50 inches high above the top of the rail to comply with level boarding requirements of the Americans with Disabilities Act of 1990 (PL 110-325). Further, the Miami station would need to serve as a terminus where train servicing would be performed. Alternatives in Miami would, therefore, need to accommodate four platform tracks, 1,000 foot platforms, and additional service platforms.

Several alternatives were considered and dismissed from further consideration for failing to meet the Project's purpose, need, goals, and objectives. The alternatives that were advanced for evaluation in the EA include: one alternative for study for the system, one for the Vehicle Maintenance Facility (VMF), and two potential station alternatives were identified for further evaluation in each of the proposed station locations - West Palm Beach, Fort Lauderdale, and Miami. Following analysis, AAF identified a recommended alternative for a detailed study for the system (the "*Preferred Build System Alternative*"), as well as each station location (each, the "*Preferred Build Station Alternative*") and the VMF.

The EA presented the recommended alternative for the proposed Project, including the *Preferred Build System Alternative* and the *Preferred Build Station Alternatives* (collectively, the "*Preferred Build Project Alternative*" or "*Preferred Alternative*"). As required by the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq. (NEPA), Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303(c)) and FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999), the EA also

[12] For more information on the Miami-Dade County GreenPrint: Our Design for a Sustainable Future, see http://www.miamidade.gov/greenprint/.

considered the "no-build" alternative that represents no change from current conditions for the system and proposed station locations beyond those that have been currently planned and funded.[13]

3.1 Alternatives Considered and Dismissed from Further Analysis

A. Eliminated System Alternatives: The following system alternatives[14] were considered but eliminated as not feasible or reasonable to meet the Project's purpose and need:

- **Full separation of freight and passenger rail on the same at-grade corridor**: This alternative, requiring the physical separation of passenger and freight rail on the same corridor, was considered and discarded as not feasible due to the extensive new track work, bridges, grade crossing widths, communication systems, and right-of-way that would be required. A completely separate system is estimated to cost approximately $2.5 billion, exclusive of right of way costs and impacts, which makes this alternative unreasonable for AAF to pursue. The proposed shared-use contemplated within the *Preferred Build System Alternative* achieves the Project's purpose and need at a lower cost, approximately $350 million, and with fewer environmental consequences.

- **Grade-separated system**: This alternative was considered, but not advanced for further evaluation due to its potential for significant environmental impacts, increased costs, and delays. A fully grade-separated system would be required if the Project would include plans for train travel at speeds faster than 110 mph. The proposed Project does not require such speeds to achieve the Project's purpose and need. Therefore, the economies of an at-grade shared-use system as contemplated with the *Preferred Build System Alternative* outweigh any benefits that might be achieved with a fully grade-separated system. A fully grade-separated system is estimated to cost more than $4 billion. Further, the environmental impacts of a fully-elevated system would be extensive in urban centers and would require more invasive construction work than the work required for the restoration of a second track within the existing FEC corridor.

B. Eliminated Station Alternatives: The following station sites were considered, but eliminated from further study for failing to meet the Project's purpose and need and essential criteria of proximity, compatibility, feasibility and/or connectivity:

- **West Palm Beach South Option**: Constructing an 800-foot long high-level platform close to the City's CBD would block the intersection at Okeechobee Boulevard (a primary east-west arterial route from the regional highway network) or Hibiscus Street (a key access road for the City Place retail district). These streets were identified as major thoroughfares. The blockage of these roads could impact local circulation and access to existing properties in the area. Grade

[13] See 40 CFR Section 1502.14(d) (requiring that any analysis of alternatives in an EA "include the alternative of No-Build.").

[14] Alignment alternatives that bypass downtown areas were also eliminated from review because such approaches would fail to meet the Project's purpose and need, including the need for connectivity to the downtown areas of key station destinations. These alternatives would also require the acquisition of extensive new railroad right-of-way, which would make these alternatives cost-prohibitive for cons

separating these two streets would also have the potential to impact access to adjacent properties.

- **Miami North At-Grade Option**: Siting an at-grade terminal station north of Fifth Street was considered to address the existing Metromover alignment. This option would require the passenger tracks to share the 100-foot wide right-of-way on the lead track to Port Miami used by the FECI affiliate, FECR, on the north side of Eighth Street while preserving the track connection to the port. Accommodating 1,000-foot long high-level platforms on tangent track within this property was deemed unreasonable because the required system and station infrastructure could not be located within the site. This option would require significant acquisition of additional land for the right-of-way and the station, which would be cost-prohibitive for this Project.

- **Miami North Elevated Option**. Siting an elevated terminal station north of Fifth Street, rather than an at-grade condition, was found to be technically infeasible and unreasonable due to the significant increases in costs, delays, and risks associated with construction.

  Accommodating 1,000-foot long, elevated platforms on tangent track within this property was not feasible because the necessary height could not be achieved at this location while remaining at-grade underneath the Dolphin Expressway (I-395) overpass, which extends to a six-lane causeway that connects Downtown Miami and South Beach via Biscayne Bay. The distance between I-395 and the location where the 1,000 foot-long, high-level platform would need to be located was not sufficient to accommodate the 3% incline for an elevated viaduct structure approximately 45 feet above grade. This option would, therefore, be unreasonable in that it would require an incline that would increase the costs, delays and risks of construction and operation.

- **Miami Below-Grade Option**. An underground scheme was explored but dismissed primarily due to constructability and cost challenges related to the site's high water table and buried utilities.

3.2 Alternatives Retained for Further Analysis

The *No-Build Alternative* was analyzed, along with the system alternative, six station alternatives, and an alternative retained for further consideration as the VMF in Fort Lauderdale. The following evaluation criteria were established for the analysis of each potential viable station alternatives:

Criteria	*Issues Analyzed*
Right-of-way acquisition	Whether any significant property acquisitions would be required for the right-of-way
Roadway blockage and/or at-grade crossing closures	Whether any street blockage or at-grade crossing closures to accommodate the system or proposed platforms would be required and, if so, whether (a) any such affected street would be a local street or a major state or federal thoroughfare, (b) the anticipated action would impact local circulation adversely, (c) alternate routes were located in close proximity to the proposed action so as to result in minimal changes to the existing traffic patterns and avoid no-

Criteria	*Issues Analyzed*
	outlet/dead-end conditions and (d) access to existing properties would be negatively affected by the proposed action
Vehicular traffic impact	Whether local vehicular traffic would be negatively impacted
Local government plan consistency	Whether the proposed development was consistent with local governmental plans
Local government support	Whether the proposed development was supported by local governments, including affected cities, counties and metropolitan planning organizations (MPOs)
Ecologically sensitive areas/wetlands	Whether ecologically-sensitive areas/wetlands would be impacted
Floodplains 100-yr	Whether the alternative would impact the function of the 100-year floodplain
Historic Properties	Whether the alternative was within the vicinity of historic properties and, if so, whether negative impacts were expected
Noise impacts	Whether the alternative would result in increased noise impacts
Vibration impacts	Whether the alternative would result in increased vibration impacts
Contamination	Whether the alternative would result in major soil disturbance activities resulting in negative impacts that could not be addressed through best management practices.
Impact to Environmental Justice populations	Whether the alternative would result in negative environmental justice impacts.
Parking impacts	Whether the alternative would result in negative parking impacts.
Engineering complexity	Whether the alternative would require complex design and/or construction work that would affect the feasibility of the proposal.

A. No-Build Alternative: The *No-Build Alternative* involves no changes to the transportation facilities within the FEC corridor beyond those that have already been planned and funded. Existing freight operations and facilities used by FECR would be maintained. Specifically, the *No-Build Alternative* would maintain FECR's operations as a freight provider within the FEC corridor assuming an annual growth in operations of approximately 5%-7% between today and 2016 due to current FECR projects at Port Miami and Port Everglades, and an organic growth of 3% per year after 2016. The *No-Build Alternative* would include future planned and funded roadway, transit, air, and other intermodal improvements within the Project Area. As such, the *No Build Alternative* is expected to result in increased traffic congestion and automobile dependence for long commutes because it does not provide an alternative mode of transportation to the use of personal vehicles, thereby further contributing to GHG emissions that would not promote improved air quality.

B. System Alternative (*Preferred Build System Alternative*): The system alternative analyzed includes the addition of, and improvement to, existing tracks and safety equipment on the FEC corridor. The Project would begin at FECR milepost (MP) 299.5, just north of the proposed West Palm Beach Station sites and would end at MP 365.5 at the Miami Station. The total system length is 66 miles, which includes 48 miles of existing single mainline track, and 18 miles of existing second track sidings. This alternative, identified as the *Preferred Build System Alternative,* would return the existing FEC corridor to its prior dual-track system, by constructing approximately 48 miles of new second mainline track on the FEC corridor. Additionally, this alternative includes the rehabilitation

of 8.3 miles of existing track on the FEC corridor. The double-track will allow for the development and re-introduction of passenger service between the historic downtowns of West Palm Beach, Fort Lauderdale and Miami in Southeast Florida. Track infrastructure improvements are planned to be completed within the existing right-of-way (i.e. no right-of-way acquisition is anticipated for the *Preferred Build System Alternative*). Three existing bridge structures will have an additional second mainline track added to the existing deck, but no improvements to the structure's footprint will need to be made and no work would be required directly within waterbodies and/or waterways. Seven existing bridges will remain single track and will not be expanded to accommodate two tracks under this Project.

C. Station and VMF Alternatives: Station alternatives are defined as those potential locations for developing stations and ancillary development needed to support the Project in West Palm Beach, Fort Lauderdale, and Miami. Two sites in West Palm Beach were considered: the North Option and the Central Option. Two sites were considered for Fort Lauderdale: the North Option and the South Option. In Miami, after eliminating three possible station alternatives that were not feasible, two alternatives were found to be feasible and were analyzed: the Central Option and the South Option. For the VMF, one site was considered, which is a facility is owned by FECR known as "Andrews Yard" that has adequate space to accommodate the passenger trains for maintenance. The facility has existing track connections to the mainline, and parking and utilities to support maintenance facility operations. Further, given FECR's plans to shift its intermodal operations from this site to a new location being constructed at Port Everglades, the facility will be available for maintenance of passenger trains. No other locations exist that provide these economic, ownership, operational and availability advantages. Therefore, the analyzed site was identified as the only reasonable alternative for locating the VMF that would serve the purpose and need of the Project.

1. **West Palm Beach Station Alternatives**

West Palm Beach North Option: The AAF station would be located in the northern portion of downtown, roughly between Third and Seventh Streets proximate to the 15th Judicial Circuit Courthouse Complex, County Courthouse, County Administration Building and City Hall on property that

would need to be acquired from private property owners. The station's 800-foot long, 35-foot wide high-level platform would be located north of Third Street. The North Option alternative requires the platform to be on a tangent track north of the existing mainline curve. No right-of-way acquisition is anticipated for the track improvements or the station constructed in this alternative. While this alternative is farthest from the CBD it is in close proximity to government buildings, which aligns with the City's desire to focus on economic development in the northern part of downtown West Palm Beach. This site would take advantage of an uninterrupted stretch of the FEC corridor without the need for at-grade crossing closures, although it would block access to NW 7th Street, which is not desirable because the City of West Palm Beach has identified NW 7th Street, a major roadway, for a circulation improvement study and the development of the station at this location would possibly preclude plans that may be developed by the City following that study.

West Palm Beach Central Option (*Preferred Build Station Alternative*): The AAF station would be located roughly between Clematis Street and Fern Street. The two-story station building would be located to the west side of the FEC corridor on private property fronting Evernia Street that is currently leased by an FECI affiliate that has the right to purchase the land. The north edge of the 35-foot wide center-island platform would commence just south of Clematis Street and end north of Fern Street. The high-level platform would physically block the intersections at Datura and Evernia Streets, thus two at-grade crossing closures would be required due to the short block grid.

This site is attractive due to its proximity to City Hall, the County Courthouse, and County Administration. It would serve as a pedestrian and activity link between the urban retail corridor of Clematis Street and the mixed use district of CityPlace and the CBD. Although it requires the closure of two at-grade crossings, this site location was identified as the *Preferred Build Station Alternative* based on the application of the evaluation criteria. This West Palm Beach Central Option satisfied all evaluation criteria, including the factors considered regarding right-of-way acquisition, crossing closures, vehicular traffic impacts, local development plan consistency, local government support, and lack of significant adverse impacts to ecologically sensitive areas, floodplains, historic properties, noise, vibration, contamination, sensitive communities and parking. The criterion regarding crossing closures was satisfied by this Central Option because the crossing closures proposed to accommodate the system or proposed platforms would be at local streets and would not impact local circulation significantly as there are alternate routes located in close proximity to the proposed closures so as to result in minimal changes to the existing traffic patterns. Further, access to existing properties would not be affected by the proposed crossing closures. In addition, this location satisfies the criterion regarding the feasibility of design in that it accommodates the center-island platform design, which is preferred for operational and safety reasons. Access to the passenger platform is possible only by grade-separated means (via escalators/elevators, stairs to and from a controlled-access, air-conditioned waiting area). Further, this design ensures that ticketed passengers are always located on the correct platform, even if scheduling changes are made to inbound or outbound trains. Electronic signage will clearly indicate the train number and its direction and destination.

2. Fort Lauderdale Station Alternatives

Fort Lauderdale North Option (*Preferred Build Station Alternative*): The station's 800-foot long, 35-foot wide platform would be located north of Broward Boulevard and south of NW Fourth Street on property owned by Broward County, with which AAF would need to reach an agreement regarding the proposed use of the land. The high-level platform would require the at-grade crossing closure at NW Second Street. The station would extend to the east side of the FEC corridor onto the existing Broward Transit Center property bounded by Broward Avenue, NW First Avenue and NW Second Street. This alternative was identified as the *Preferred Build Station Alternative* based on the application of the evaluation criteria. The Fort Lauderdale North Option satisfied all evaluation criteria, including the factors considered regarding right-of-way acquisition, crossing closures, vehicular traffic impacts, local development plan consistency, local government support, and lack of significant adverse impacts to ecologically sensitive areas, floodplains, historic properties, noise, vibration, contamination, sensitive communities and parking. The criterion regarding crossing closures was satisfied because the at-grade crossing closures proposed to accommodate the system or proposed platforms would affect local streets and would not impact local circulation significantly as there are alternate routes located in close proximity to the proposed closures so as to result in minimal changes to the existing traffic patterns. Further, this location satisfies the criterion regarding feasibility of design in that this site accommodates a center-island design for the platform, which is preferred for the reasons cited above.

Fort Lauderdale South Option: The AAF station would be located south of Broward Boulevard and north of the existing railroad bridge over the New River. The station would extend to the east side of the FEC corridor onto the privately controlled Las Olas Riverfront property that would need to be acquired from private property owners. Eminent domain issues are not anticipated. All Aboard Florida plans

to acquire property that is needed for station development. It is assumed that a mutually acceptable deal is likely to be negotiated for the acquisition of property needed for the development of the stations, including this site, should it be determined necessary. This site is in close proximity to the existing public esplanade along the river. No track work would be undertaken within 100 feet of the existing bridge and the existing at-grade pedestrian crossing across the tracks would be preserved. To tie into the existing track alignment over the river crossing, the station would employ a side platform configuration in lieu of the preferred center-island platform described for the Fort Lauderdale-North Option.[15] In addition, the 800-foot long high-level platforms would result in the possible blockage and/or at-grade crossing closure of one major intersection: either Broward Boulevard or SW Second Street. Closing the at-grade crossing at Broward Boulevard would be problematic because it is a major connector to I-95 and the principle feeder to the proposed Fort Lauderdale station. Closing the at-grade crossing at SW Second Street would also be problematic because it connects the CBD east of the FEC corridor to important sites on the west of the FEC corridor, including the Downtown Ft. Lauderdale Historic District and the Broward Center for the Performing Arts.

3. Miami Station Alternatives

Miami South At-Grade Option: This station alternative is an at-grade option on property owned by an FECI affiliate. At the north end, two mainline tracks would pass at-grade under the Dolphin Expressway (I-395) overpass. Beyond the overpass, the single lead track to Port Miami would remain in service, diverging from the mainline at NW Eighth Street heading eastward into the port. The passenger track

[15] See foregoing description of the benefits of the center-island platform design. By contrast, at stations with side platforms, passengers often need to transfer from a platform on one side of the tracks to a platform on the other side of the tracks if a dispatching decision is made for an un-scheduled rerouting of a train from one track to the other as it approaches a station with side platforms. This situation can result in passengers taking risks by crossing mainline tracks at unsafe locations.

arrangement would continue south and fan out to four tracks between NW Eighth and NW Fifth Streets, allowing for platforms south of NW Fifth Street.

The Miami South At-Grade Option layout provides a combination of side and center-island platforms. All four tracks would be accessed also by a low-level service platform. The 1,000-foot long platforms would be located between NW Fifth Street (which would remain open) and Third Street (where the at-grade crossing would need to be closed). This at-grade crossing closure is challenging because it would result in dead-end conditions from both directions. Further, the entire track and station platform footprint would realize its full width at the south edge of NW Fifth Street. Four tracks would cross NW Sixth and NW Fifth Streets at-grade. This 4-track-wide crossing is unfavorable because it would present greater safety risks to pedestrians and vehicles along NW Sixth and NW Fifth Streets, which are two of the more significant downtown connectors to I-95 that provide access to Port Miami and the American Airlines Arena, among other local attractions and downtown properties. This alternative would not alter the existing Overtown Metrorail Station or existing Government Center Metrorail and Metromover Stations. The existing Metromover station at NE Fifth Street would also be maintained. However, it would not be possible to locate four passenger rail tracks and platforms under the existing Metromover alignment without altering the existing pier spacing; hence, the Metromover span through the property would need to be rebuilt, adding cost and risks of delays and disruptions to Metromover service.

Miami Central Elevated Option (*Preferred Build Station Alternative*): This elevated option layout on property owned by an FECI affiliate would have the same passenger and service platform configuration as the at-grade alternative described for the South At-Grade Option, except that the station platform footprint would be accommodated entirely on an elevated viaduct structure approximately 45 feet above grade. This alternative shifts the platform closer toward the northern portion of the property. Unlike the previous alternative, the two station lead tracks would commence a maximum 3% incline onto a viaduct immediately south of the Dolphin Expressway (I-395) overpass. The existing at-grade crossings at NW Eleventh and NW Tenth Streets would be eliminated due to the climbing passenger tracks; these streets would become blocked by a retaining wall. The at-grade crossing closures at NW Eleventh and NW Tenth Streets affect local streets rather than major state or federal thoroughfares. At each such location, the availability of alternative routes in close proximity to the proposed closures will avoid no-outlet (a.k.a., dead-end) conditions. Additionally, access to existing properties will not be prevented by the proposed crossing closures. By NW Ninth Street the elevated passenger tracks approaching the station would transition from retained embankment to viaduct structure. A minimum clearance of 23’-6” above the top of the rail would be maintained as the port lead track passes under the elevated Station Lead tracks. After the two station lead tracks fan out into four tracks, the 1,000-foot long platform zone would commence just south of NW Seventh Street and end just south of NW Fourth Street. The entire track and station platform footprint would pass over NW Eighth Street, the port lead, NW Sixth Street, NW Fifth Street, and the Metromover. This alternative would not alter the major through streets of NW Eighth, NW Sixth and NW Fifth Streets, the existing Overtown Metrorail Station or existing Government Center Metrorail and Metromover Stations. The AAF station would have multiple points of

pedestrian access. The headhouse's primary entry would front NW First Avenue opposite the Federal Courthouse. Parking would be provided on site. Specifically, a three to four story building of passenger-oriented functions and retail would create a continuous street wall extending to the north, and structured parking for retail uses would be concealed behind the building, under the tracks and platforms. Mixed-use development would be situated immediately south of the station headhouse. This alternative was identified as the *Preferred Build Station Alternative* based on the application of the evaluation criteria. The Miami Central Elevated Option satisfied all evaluation criteria, including the factors considered regarding right-of-way acquisition, crossing closures, vehicular traffic impacts, local development plan consistency, local government support, and lack of significant adverse impacts to ecologically sensitive areas, floodplains, historic properties, noise, vibration, contamination, sensitive communities and parking. The criterion regarding crossing closures was satisfied because the at-grade crossing closures proposed to accommodate the system or proposed platforms would affect local streets, would not impact local circulation significantly as alternate routes are located in close proximity to the proposed crossing closures so as to result in minimal changes to the existing traffic patterns. Further, this location satisfies the criterion regarding the feasibility of design in that this site accommodates the design for the platform that is required for the Miami location.

4. **Vehicle Maintenance Facility (*Preferred Build Station Alternative*):**
   For the reasons cited in 3.2 above, the use of the location known as the "Andrews Yard" in Fort Lauderdale was analyzed in the EA as the only feasible alternative considered for the Vehicle Maintenance Facility (VMF) for the Project. This site houses FECR's ramp terminal facility located on Andrews Avenue and features a 2010 intermodal lift-count of over 90,000 lifts. FECR also operates a drayage operation out of this facility. Existing land-use and zoning in the area is commercial/industrial in nature. Freight vehicle maintenance does not take place at this location. Historically, only intermodal operations have taken place at this location. These intermodal operations would be shifted to the FEC Intermodal Container Transfer Facility (ICTF) currently being constructed at Port Everglades and assumed as part of the *No Build Alternative*. Four AAF trainsets could, therefore, be serviced daily at this site as AAF's VMF. As such, this site was identified as the *Preferred Build Station Alternative*. Maintenance operations would occur primarily at night. Through these proposed operations, there will be three train moves added to the total train traffic in the morning, and three in the afternoon, when the trains return to the site for servicing during the night. However, these AAF train moves into and out of this *Preferred Build Station Alternative* would not disrupt or otherwise impact overall freight traffic on the line.

4.0 Reasons for Choosing the Selected Alternative

FRA has chosen the *Preferred Build Project Alternative* as the selected alternative for the Project (*Selected Alternative)* in consultation with AAF because the Preferred Build Project Alternative best meets the purpose and need of the Project, returns passenger rail service to a portion of the FEC corridor, limits impacts to areas with cultural or natural resources, reduces the need for major highway transportation improvements, reduces regional vehicular congestion, increases inter-city connectivity

and mobility, and supports the economic development goals of the cities of West Pam Beach, Fort Lauderdale and Miami. The *Selected Alternative* also has the potential to improve air quality in the region by diverting vehicles from the roads and highways in South Florida between West Palm Beach and Miami. Further, the *Selected Alternative* involves the restoration of railway infrastructure within an existing right-of-way, thus requiring minimal construction impacts compared to a "green-field" project.

5.0 Summary of Environmental Impacts

This FONSI focuses only on those resources that have a reasonable likelihood to be affected by the proposed action. The following potential impact areas are not located within the Project Area or would otherwise not be affected by the Project and, therefore, are not affected by the Selected Alternative: waterbodies, waterways, navigation, special designations, essential fish habitat, coastal zones, land use, municipal services (including sanitary sewer systems and solid waste disposal systems), energy resources, and aesthetics. Thus, these resources are not discussed in this FONSI.

A. Air Quality: Projected emission estimates of the EPA's National Ambient Air Quality Standards (NAAQS) criteria pollutants related to the new passenger trains, freight trains, and on-road VMT reductions were developed to assess the potential impact of passenger trains emissions resulting from the *Selected Alternative (*as defined in Section 4.0 above). While the project area is in attainment for NAAQS pollutants, the analysis was completed to confirm that the Project would not cause any exceedence of the standards. Further, in accordance with FDOT's guidelines, project-level impact analyses were performed through a carbon monoxide (CO) hotspot screening method employed at proposed station location road intersections and rail road crossings, where vehicle congestion may happen. The analyses were performed for the existing conditions (2012), the opening year (2015), and the build-out year (2035).
The analysis of the *Selected Alternative* includes those improvements to the existing FEC corridor related to the restoration of passenger service within the existing ROW and includes the addition of, and improvement to, existing tracks and safety equipment beginning at MP 299.5 and ending at MP 365.5, with a total system length of 66 miles including 49.2 miles of new track and the rehabilitation of 8.3 miles of existing track.

Based on that analysis, the *Selected Alternative* would provide a net regional air quality benefit as compared to the current conditions. Operation of the *Selected Alternative* would reduce regional criteria pollutants, mobile source air toxics (MSATs), and GHG emissions because motor vehicle emissions would decrease in the region based upon the reduction of VMTs. By 2030, the *Selected Alternative* would reduce regional VMT by 51,345,672.[16]

Table 3-1.1 of the EA presents the ridership and vehicle diversion, and associated reduction in VMT, expected as a result of the *Selected Alternative* for years 2018 and 2030. Further, Tables 3-1.2, 3-1.3, 3-1.4, and 3-1.5 present the estimated emissions of criteria pollutants in each of the three

[16] See Table 3-1.1, Ridership and Vehicle Diversion by Station Pair. FEC, 2012.

counties affected by the *Selected Alternative* for the freight trains, passenger trains, switch locomotives, and on-road VMT reductions, respectively, Table 3-1.6 presents a summary that shows the total regional criteria pollutant emissions in the three counties and the difference between the emissions due to VMT decrease and those due to the passenger trains (e.g., the estimated VMT reduction, the effects of that VMT reduction estimated for emissions reductions and the "offset" in this emission reduction that will be caused by the passenger train emissions through operation). As shown in that table, the incremental emissions of the passenger trains in 2015 and 2030 are lower than those of the freight trains for the existing conditions in 2012, as well as the *No-Build Alternative*, and the opening year of 2015. Furthermore, that table shows that the emission reductions due to the decrease in regional VMTs are higher than the relatively low incremental increase due to the passenger trains. Therefore, the *Selected Alternative* would potentially improve the air quality in the region by diverting vehicles from the roads and highways in South Florida between West Palm Beach and Miami.

The Selected Alternative will not result in significant adverse impacts on current or future air quality standards and will not lead to the establishment of an EPA NAAQS non-attainment area.

B. Water Quality: Analysis of water quality includes surface waters, sole source aquifers, and well-field protection zones. The *Selected Alternative* will not increase the existing impervious surface area or alter the existing drainage system because it will utilize an existing rail corridor with track bed in place for two rail lines. Further, the *Selected Alternative* would not be expected to impact off-site drainage systems or water resources in light of the proposed use of on-site drainage improvements at all station alternatives. The *Selected Alternative* will include, at a minimum, on-site water quality treatment and best management practices as required by the South Florida Water Management District (SFWMD) (Chap. 40A though E, -4, -40,-42, and/or -44). Any temporary impacts resulting from construction of the *Selected Alternative* would cease when construction was completed and would be minimized by best management practices as required by the Florida Department of Environmental Protection (FDEP) via the National Pollutant Discharge Elimination System (NPDES) Program.[17] The Project will be designed to meet these additional water quality standards in order to secure the necessary permits from SFWMD and FDEP.

The Selected Alternative will not result in significant adverse impacts to water quality. Further, any potential temporary impacts to water quality will be avoided and/or minimized through the foregoing best management practices and permitting requirements.

C. Floodplains: The proposed system improvements on the mainline would occur within the FEC corridor at existing flood elevations. Therefore, although this *Selected Alternative* could involve work within the horizontal limits of the 100-year floodplain in areas throughout the FEC corridor, no work would be performed below the 100-year flood elevation and, as a result, this *Selected Alternative* would not encroach upon the base floodplain and complies with Executive Order 11988. Similarly, any modifications to drainage structures included in the *Selected Alternative* would result

[17] *See State of Florida Erosion & Sediment Control – Designer & Reviewer Manual, 2007.*

in an insignificant change in their capacity to carry floodwater. These changes would cause minimal increases in flood heights and flood limits. These minimal increases would not result in any significant adverse impacts or any significant change in flood risks or damage. Only the *Selected Alternative* in Fort Lauderdale is located within mapped 100-year floodplains. However, improvements at the Fort Lauderdale *Selected Alternative* will be made within the existing FEC corridor and/or on property already developed above the 100-year floodplain and any impacts to flood elevations will be addressed by applying the FDOT's drainage design standards[18] and following the SFWMD procedures[19] to achieve results that will not increase or significantly change the flood elevations and/or limits. If work is found to be necessary below the 100-year flood elevation, mitigation of any flood management impacts will be required and undertaken as part of the necessary Environmental Resource Permit process, resulting in no significant impact to regulated floodplains.

The Selected Alternative will not result in significant adverse impacts to 100-year floodplains. Further, any potential impacts will be avoided and/or minimized through best management practices and permitting requirements.

D. Wetlands: Based on the current National Wetlands Inventory (NWI) mapping and SFWMD Land Use mapping, there are no jurisdictional wetlands that exist within the FEC corridor. However, based on field investigations conducted on July 13, 2012, and review of aerial photography, new wetland boundaries were mapped by AAF within the FEC corridor in three locations:

- Milepost 338.5; East and west edge of right of way on the north side of South Fork Middle River
- Milepost 353.7; West edge of right of way on the north side of the Oleta River
- Milepost 354.3; East edge of right of way between NW 172nd Street and Snake Creek Canal

Each of these newly mapped wetlands within the FEC corridor individually represents less than 1/3 acre and, in the aggregate, less than 1/2 acre. These fringe mangrove wetlands are along the perimeter edge of the FEC corridor and no work is proposed in the immediate vicinity of these wetlands. Intrusion into these edge wetlands will be avoided or minimized through project design, such as using cross-sections of minimum practicable width to avoid intrusion. Furthermore, best management practices would be employed during construction to avoid temporary impacts to the wetland systems. Although not anticipated, any wetland impacts that would result from the construction of this *Selected Alternative* would be mitigated pursuant to S. 373.414 F.S. to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C. §1344. Such measures may include onsite mitigation, offsite mitigation, or the purchase of mitigation credits from mitigation banks permitted under S. 373.4136 F.S. to offset any functional loss of wetlands as determined through Florida's Uniform Mitigation Assessment Method (UMAM) (Chap. 62-345 FAC). Any such applicable wetlands mitigation requirements would be coordinated during permitting. However, in

[18] See *State of Florida Department of Transportation Drainage Manual, Chapters 2.2, 3.3, 4.2, and 4.4, and Appendix D.*

[19] See *SFWMD Environmental Resource Permit Information Manual Volume IV.*

light of the wetland mitigation required for state and federal permit efforts, the total potential wetland impact (less than 0.5 acre) would not be significant.

The Selected Alternative will not result in significant adverse impacts to wetlands. Further, any potential impacts will be avoided and/or minimized through best management practices and mitigation requirements, if and as applicable.

E. Noise and Vibration: Noise and vibration impacts of the construction and operation of the *Selected Alternative* were analyzed pursuant to the guidelines of the Federal Transit Administration (FTA)[20] for train and rail facility operations, along with those of the Federal Highway Administration (FHWA) as defined for Florida application by the FDOT for traffic noise. Through that analysis, the EA establishes that the construction and operation of the *Selected Alternative* would not be expected to result in significant vibration impacts. As for noise, the EA documents that the Project would have noise impacts however AAF has committed to mitigation that would reduce both Project and existing noise levels. The potential unmitigated noise impacts would primarily be the result of the additional train horn noise as trains approach at-grade crossings. AAF has committed to instituting the use of stationary wayside horns at the grade crossings where severe, unmitigated impacts are identified. The *Selected Alternative* will dramatically reduce the potential – and existing – noise impacts on the surrounding communities. Specifically, more detail is contained in EA section 3.1.7 that describes how committed noise mitigation would serve to:

a. Eliminate all severe impacts in Broward County and Miami-Dade County and more than 99% of all severe impacts in Palm Beach County;
b. Eliminate at least 99% of the moderate impacts in Broward County and Miami-Dade County and more than 98% of the moderate impacts in Palm Beach County; and
c. Improve noise conditions in the region because it would include mitigation that is not expected to be instituted with the *No Build Alternative* (such that there would be a greater noise impact to the region as a result of the *No Build Alternative*).

As such, with this mitigation, the *Selected Alternative* would create no material adverse noise impact on the surrounding communities. As for the increased noise levels that may be encountered during the construction of the *Selected Alternative*, those would be temporary, occurring only during construction periods. Further, the institution of construction noise mitigation measures described in the EA for the construction of the *Selected Alternative* would mitigate even those potential temporary noise impacts; as described in more detail in Section 3.1.7.4 of the EA, and as shown in Tables 3-1.22 and 3-1.23 of the EA.

The Selected Alternative will not result in significant adverse impacts in terms of vibration. Further, with the institution of construction noise mitigation measures and the incorporation of stationary wayside horns at the grade crossings where severe, unmitigated impacts exist, the Selected Alternative will not result in significant adverse impacts in terms of noise, and will, instead, reduce

[20] See *Transit Noise and Vibration Impact Assessment,* USDOT Report Number FTA-VA-90-1003-06, May 2006.

existing train-related noise in the FEC corridor. Required noise mitigation is described in the Commitments section.

F. Ecological Systems: Ten terrestrial communities, primarily natural, are located adjacent to the Project Area. The *Selected Alternative* would not impact terrestrial ecological systems because the proposed work would only involve the removal of open maintained areas within the existing FEC corridor or disturbed urban areas adjacent to the FEC Corridor. Furthermore, where the public lands run parallel to the FEC corridor, there is a 10-20 foot maintained dirt road buffer between the inside of the property fence and the natural area.

The Selected Alternative will not result in significant adverse impacts to ecological resources.

G. Threatened and Endangered Species: The *Selected Alternative* travels through a highly urbanized area within Palm Beach, Broward, and Miami-Dade Counties, and impacts are limited to the existing right-of-way. As such, minimal effects would be expected on wildlife and habitat. The Project Area has been largely developed leaving little habitat capable of supporting protected species. Specific habitat requirements for most of the identified listed species preclude their presence within the Project Area. Other species that might have historically been present within the vicinity of the Project Area are no longer present due to urban development replacing all suitable habitats. For the few protected species (primarily birds) that might occur within the Project Area, their presence is likely to be transient in nature. No designated critical habitat is located within the Project Area for the *Selected Alternative*. Based on these results, USFWS concurrence was requested in October 2012. On November 20, 2012, USFWS sent a letter to the FRA to confirm its finding that no adverse effect would result from the *Selected Alternative*. That letter is attached hereto as **Exhibit 1**. Further, the Florida Fish and Wildlife Conservation Commission sent a letter to the Florida Department of Environmental Protection on November 26, 2012 in support of the Project and to confirm its finding that no significant adverse impact would result from the *Selected Alternative*. That letter is attached hereto as **Exhibit 2**.

The Selected Alternative will not result in significant adverse impacts to threatened and endangered species.

H. Transportation: The EA analyzed the potential transportation impacts of the *Selected Alternative* for rail transportation networks, regional roadway transportation networks, local roadway transportation networks and parking.

1. **Rail Transportation:** The *Selected Alternative* will be designed (physically and operationally) to have no adverse impact on the existing freight rail transportation system. The provision of a dual-track new railroad (in place of the existing mostly single track railroad) has been optimized through Berkeley Simulation Software's RTC modeling software to provide sufficient capacity for the on-time-performance of the proposed passenger rail service, as well as the existing and future freight demands. The capacity improvements, including the expanded signal infrastructure, within the *Selected Alternative* are designed to provide a high degree of reliability for the passenger service and have the benefit of keeping the freight service operating on-time,

taking projected freight growth into consideration. Further, one new dispatch district is planned between Miami and West Palm Beach for the unified control of the tracks for both freight and passenger services. The needed track construction, improvements and rehabilitation would also be performed according to best management practices to have minimal temporary impacts to existing freight operations during construction.

2. **Regional Roadway Transportation:** The *Selected Alternative* would have an overall, positive impact on the regional roadway network (especially I-95 and Florida's Turnpike corridors) by providing a new transportation alternative that would be easily accessible to residents and visitors to Southeast Florida in the CBDs of West Palm Beach, Fort Lauderdale and Miami. The I-95 and the Florida Turnpike corridors operate as regional commuter corridors analogous to the FEC corridor. The average vehicle occupancy rate in Florida is 1.25 passengers per vehicle; therefore, for every 5 riders on the proposed passenger rail system, it is anticipated that 4 vehicles would be removed from the regional roadway network because those riders would have otherwise utilized either the I-95 or Florida Turnpike corridor.[21]

3. **Local Roadway Transportation:** Analysis and evaluation of impacts to local vehicular transportation was divided into two distinct scenarios: (a) potential impacts along the corridor at crossings and crossing closures resulting from the system, and (b) potential impacts from the stations.
   a. **System:** The *Selected Alternative* (which has been analyzed to include impacts resulting from existing freight service, as well as projected freight growth and the proposed passenger service) would not have a significant impact on traffic operations at railroad crossings in the Project Area. The impact on delay, queuing, and Level of Service (LOS) as result of the *Selected Alternative* is limited to signal cycles immediately following a train crossing event and are minimal on a peak-hour basis. The passenger train is proposed to clear a typical crossing in 52 seconds. With only one such crossing event during peak hours, the impact on traffic operations on adjacent roadways is expected to be minor. Signal and circuit upgrades performed as part of the track construction, improvement and rehabilitation would occur within the FEC corridor, and would not substantially impact traffic on intersecting roadways. There are no permanent road closures contemplated as a result of the system portion of the *Selected Alternative*. There are, however, crossing closures anticipated for the station elements of the *Selected Alternative* that are necessary to accommodate the proposed platforms. The contemplated crossing closures would only occur at low-volume, local streets and would not impact local circulation significantly as there are alternate routes located in close proximity to the proposed closures so as to avoid dead-end conditions and result in minimal changes to the existing traffic patterns. Access to existing properties would not be affected by the proposed crossing closures.

[21] Based on a 2007 survey conducted by FDOT District Six in Miami-Dade County, the county-wide average vehicle occupancy rate was 1.25 passengers per vehicle. Also, data published by US Department of Energy in 2010, shows a national average vehicle occupancy rate of 1.59 passengers per vehicle for cars - http://www1.eere.energy.gov/vehiclesandfuels/facts/2010_fotw613.html

b. Stations: The traffic that is projected by the *Selected Alternative* would be minor compared to existing traffic and roadway capacities in the Project Area. The crossing closures at two local streets in West Palm Beach and NW Second Street in Fort Lauderdale are not anticipated to impact local circulation. The availability of alternative routes in close proximity to the proposed crossing closures will avoid dead-end conditions and result in minimal changes to the existing traffic patterns and access to existing properties will be maintained. Further, no significant adverse effects are projected on any roadway segments in Miami.[22] Therefore, no mitigation is required.[23] As for temporary impacts that may be caused by construction, the roadway segments that provide direct access to the proposed sites for the stations may require access management traffic analysis during the design phases.

4. Parking: The *Selected Alternative* would develop demand for 1,170 new parking spaces (60 spaces in West Palm Beach and Fort Lauderdale (total of 120 spaces), and 1,050 in Miami) to support the retail at each of the three stations. Handicapped spaces will be provided as per local ordinance. AAF does not plan to develop dedicated parking on-site for rail service passengers because easily-accessible, long-term parking capacity is available within a close radius of each of the stations. Existing parking conditions were inventoried at each of the three station locations and categorized as surface or structure or public or private within 0.25 and 0.50 miles of the station locations. The use of such existing parking facilities is supported by each of the affected municipalities (see Exhibit 4). Based upon traffic and ridership projections, there would be no conflicts or shortages of parking because the existing parking areas are sufficient. The unmet demand associated with the West Palm Beach Station (155 vehicles) represents less than 1.5 percent of the total number of spaces located within the ½ mile buffer (12,279). Existing parking facilities would need to be occupied at a rate of 98.5% to make the demand unsupportable. The unmet demand associated with the Fort Lauderdale Station (155 vehicles) represents less than 0.5 percent of the total number of spaces located within the ½ mile buffer (14,333). Existing parking facilities would need to be occupied at a rate of 99.5% to make the demand unsupportable. The demand associated with the Miami Station (# of spaces) can easily be supported by the vacant parking available within the ½ mile radius. The City of Miami Parking Authority confirmed that many of the larger surface lots proximate to the station

[22] No adverse effects are projected because a roadway is considered "adversely" impacted if the station-related traffic causes the roadway change from having acceptable LOS to having unacceptable LOS. None of the roadways considered as part of the *Selected Alternative* confront such changes. A separate analysis applies, however, for determining whether a "significant" impact is realized. An impact is considered "significant" if the station-related traffic utilizes 5% or more of the roadway capacity. One of the roadway segments in Miami utilizes such capacity, but this is not considered "adverse" for the reasons cited in the first sentence of this footnote.

[23] No adverse effects are projected because a roadway is considered "adversely" impacted if the station-related traffic causes the roadway change from having acceptable LOS to having unacceptable LOS. None of the roadways considered as part of the Selected Alternative confront such changes. A separate analysis applies, however, for determining whether a "significant" impact is realized. An impact is considered significant if the station-related traffic utilizes 5% or more of the roadway capacity of an adjacent roadway. One of the roadway segments in Miami utilizes such capacity, but this is not considered adverse.

are occupied at a rate of approximately 30% or less, thus leaving adequate capacity to support the demand associated with the station.[24]

The Selected Alternative will not result in significant adverse impacts to rail transportation networks, regional roadway transportation networks, local roadway transportation networks or parking.

I. **Demographics and Environmental Justice:** A high-level quantitative analysis was conducted pursuant to Executive Order 12898, to determine the potential for disproportionately high or adverse impacts to sensitive communities.[25] Based on the result of the demographic assessment, minority populations subject to protection under Executive Order 12898 are present within the Project Area. Although there are Environmental Justice communities of concern present along the FEC corridor, the implementation of directional, wayward or crossing mounted horns would dramatically reduce the existing footprint of warning horn noise and would minimize the number of existing and potential noise impacts in the Project Area. Further, the *Selected Alternative* would not displace any businesses or residences and would not adversely impact the demographics of the Project Area. The *Selected Alternative* would further benefit residents by providing additional transportation options to residents and tourists within walking distance of the CBDs in the three cities where stations are proposed.

The Selected Alternative will not result in a disproportionately high or adverse effect on those sensitive populations and Environmental Justice communities of concern considered under Executive Order 12898 after noise mitigation measures have been implemented, such as directional, wayward or crossing mounted horns. FRA has determined that a meaningful number of sensitive communities are present within the Study Area, and additional steps must be taken by the Project Sponsor to further address the requirements of Executive Order 12898 and U.S. Department of Transportation Environmental Justice Order 5610.2(a). See Section 7.0 Commitments.

J. **Barriers to Elderly and Handicapped:** The Americans with Disabilities Act (ADA) of 1990 (PL 110-325) provides for equal opportunity for individuals with disabilities to access public and private facilities. The *Selected Alternative* has been developed to provide expanded mobility opportunities for those with disabilities and, during the design phase, federal, state and local provisions related to ADA compliance will be followed. Designated ADA compliant parking spaces would be provided to ensure the availability of parking and decrease the distance for elderly and disabled passengers to travel to the train platform. Further, AAF trains will be single level, fully accessible coaches, with level floor boarding from platforms. All station facilities and platforms will have elevator access, and individuals with disabilities will not encounter stairs in boarding or departing from trains. Also, there will be no stairs or other obstacles to impede movement on board trains. AAF trains will be the first-in-the-nation to have the entire train accessible to wheelchair passengers, including access to pass between coaches for the entire length of the train.

[24] An analysis of parking was completed in the area of each of the proposed stations as part of the EA. This analysis identified the presence of available parking within ¼ and ½ mile buffers. The ¼ and ½ mile thresholds were chosen based on standards identified in the Transportation Research Board's Transit Capacity and Quality of Service Manual.

[25] See Section 3.3.3 of EA

The Selected Alternative will not result in significant adverse impacts in terms of barriers to the elderly and handicapped populations. It is anticipated that the Selected Alternative will benefit elderly and handicapped groups by providing a transportation option that will enhance mobility and livability in their communities.

K. Public Health and Safety: The addition of passenger trains to the FEC corridor and the development of the corresponding stations will not negatively impact public health or safety. The *Selected Alternative* would result in enhancing public safety with improvements to grade crossing signal equipment for vehicular and pedestrian traffic. Also, the benefits resulting from decreased congestion and the potential for fewer vehicular crashes and fewer air emissions indicate that there will be no significant negative impacts on public health and safety.

The Selected Alternative will not result in significant adverse impacts on public health and safety.

L. Cultural Resources: The FRA has undertaken consultation with the Florida State Historic Preservation Office (SHPO) pursuant to Section 106 of the National Historic Preservation Act (NHPA) related to historic, cultural, archaeological and tribal resources and received concurrence on November 6, 2012 with FRA's finding that the Selected Alternative would have no adverse effect conditioned on continued consultation with the SHPO and locally affected parties (the Cities of West Palm Beach, Fort Lauderdale, and Miami) through the station design process. That letter is attached hereto as **Exhibit 3**.

The Selected Alternative will not result in significant adverse impacts on any of the historic and/or cultural resources found within the Project Area.

M. Section 4(f) and Recreational Resources: Based on the results of the EA analysis, one Section 4(f) resource (El Portal Tot Lot – Miami-Dade County) appears to have a potential impact from noise in the *Selected Alternative*. However, based on the committed mitigation measure related to wayside horns at grade crossings, the noise impact to El Portal Tot Lot would be eliminated.

The Selected Alternative would not use properties subject to the requirements of Section 4(f) of the Department of Transportation Act of 1966 or have a significant impact on recreational resources.

N. Construction Impacts: Impacts from construction of the *Selected Alternative* are considered temporary and occur during and immediately following construction. Most construction impacts cease once construction activity in a certain location is completed. Although all construction impacts cannot be estimated at this time, AAF has committed to follow best practices and employ noise reduction measures, provide dust/erosion/sediment controls and further mitigation measures including limitations on nighttime activities in residential neighborhoods. Discharges of sediment into waterways will be minimized during construction by preparing a Stormwater Pollution Prevention Plan and employing best management practices such as the use of silt fences, straw bales, and ditch checks to minimize erosion. Erosion control methods will follow all governing regulations and permits. Further, AAF will prepare a spill prevention plan for petroleum products

and hazardous materials during construction and will require contractors to properly maintain their equipment to avoid spills. In summary, the temporary construction impacts would cease immediately after construction activities are completed and would be minimized using best management practices and by following all applicable federal, state, and local statutes, regulations and ordinances. For example, as referenced in the foregoing section regarding water quality, the *Selected Alternative* will include, at a minimum, on-site water quality treatment and best management practices as required by the South Florida Water Management District (SFWMD) (Chap. 40A though E, -4, -40,-42, and/or -44) and the Florida Department of Environmental Protection (FDEP) via the National Pollutant Discharge Elimination System (NPDES) Program.[26]

The Selected Alternative will not result in significant permanent and adverse construction impacts. Further, any potential temporary impacts will be avoided and/or minimized through best management practices and mitigation requirements applied pursuant to all applicable federal, state, and local statutes, regulations and ordinance, if and as applicable, such that any such temporary construction impacts would cease immediately after construction activities are completed.

O. Potential Secondary and Cumulative Impacts: The *Selected Alternative* may result in secondary impacts such as creating the potential for development and redevelopment outside the development directly associated with the stations. This additional development may also create impacts such as increased traffic generated from those developments. It is not anticipated that the *Selected Alternative* will have a secondary impact on the availability and capacity of the local governments' ability to provide municipal services (e.g., potable water, sewer, solid waste, police, fire, EMS) for the proposed action and the surrounding areas. Since the Project does not have any significant adverse effects it will not contribute to cumulative effects in the Project area.

The Selected Alternative will not result in significant adverse secondary and/or cumulative impacts.

6.0 Comments

The matrix attached (**Exhibit 4 – Part 1)** sets forth a description of all comments received from citizens and elected officials since the EA was released for public circulation and comment on October 31, 2012, and through December 3, 2012. Further, the comments received from citizens have been compiled and attached (**Exhibit 4 – Part 2)**. In addition, the comments received from elected officials have been compiled and attached (**Exhibit 4 – Part 3)**. Finally, the comments received from agencies have been compiled and attached (**Exhibit 4 – Part 4)** and a description thereof appears below.

In summary, a total of 88 comments were received on the EA during the 30-day public comment period, which closed on Monday, December 3, 2012. Of those comments:

- 59 were received from citizens;
- 29 were received from elected officials;

[26] *See State of Florida Erosion & Sediment Control – Designer & Reviewer Manual, 2007.*

- 84 were provided in support of the Project;
- 3 were provided in opposition to the Project; and
- 1 was provided without a position on the Project.

The following discussion provides summarized descriptions of those comments that raised concerns related to the Project or comments related to potential impacts, followed by a response thereto.

Noise

Alicia Banuchi, Hollywood, Florida resident
Ms. Banuchi stated her opposition to the Project due to the noise resulting from the warning horns at grade crossings.

Robert Kurtz, West Palm Beach, Florida resident
Mr. Kurtz expressed concern as to whether or not he resides in one of the two multifamily buildings in Table 3-1.23 categorized as severely impacted. He was trying to determine if the "…train warning horn would only be sounded when the train is within 500 feet of the station," and if so, would train warning horns only be sounded "well north" of Okeechobee Boulevard. Finally, Mr. Kurtz asked, "why should residents of West Palm Beach have to settle for what sounds like 'second best' solutions to the issue of train noise?" His understanding is that the best solution to horn noise is for West Palm Beach to be designated as an official "Quiet Zone," which has been done for other sections of the FEC railway.

Response: In response to the first concern raised by Mr. Kurtz, his building is not one of the severely impacted sites, nor was it determined that it would be moderately impacted from noise. In response to the request for further clarification regarding the noise analysis, reference is made to Section 3.1.7 of the EA, which details the evaluation and analysis of potential noise and vibration impacts from the Project. The methodology used in the evaluation and analysis of noise and vibration was derived from the Federal Transit Administration's (FTA's) Guidance Manual for Transit Noise and Vibration Impact Assessment, May 2006 (FTA-VA-90-1003-06). Based on this guidance, and as set forth in Section 3.1.7.3 of the EA, the number of potential unmitigated severely and moderately impacted parcels was determined for the *No-Build Alternative* (Table 1-2) and the additional and overlapping[27] impacts for the *Preferred Build Project Alternative* (Table 1-3) for each of the three (3) counties.

[27] *Following the FTA noise assessment methodology, both the No-Build and Preferred Build Project Alternatives are compared to the existing conditions. Impacts from both alternatives would affect many of the same noise sensitive receptors and overlap. Therefore the unmitigated impacts of No Build and the Project cannot be added together.*

Table 1-2
Summary of Unmitigated Noise Impact Results
No-Build Alternative

County	Number of Severe Impact Parcels					Number of Moderate Impact Parcels				
	Residential Single Family	Residential Multi Family	Residential Mobile Home	Institutional	Recreational	Residential Single Family	Residential Multi Family	Residential Mobile Home	Institutional	Recreational
Miami-Dade	710	492	1	0	0	1,782	998	41	5	0
Broward	2,121	1195	3	0	0	4,862	2,222	6	20	0
Palm Beach	3,935	1,267	0	0	0	5,952	1,168	0	16	1

Source: URS Corporation, 2012

Table 1-3
Summary of Unmitigated Noise Impact Results
Preferred Build Project Alternative

County	Number of Severe Impact Parcels					Number of Moderate Impact Parcels				
	Residential Single Family	Residential Multi Family	Residential Mobile Home	Institutional	Recreational	Residential Single Family	Residential Multi Family	Residential Mobile Home	Institutional	Recreational
Miami-Dade	428	299	1	8	0	1,974	1,148	41	44	5
Broward	1,155	673	2	23	1	5,708	2,725	7	124	4
Palm Beach	2,432	895	0	16	1	7,241	1,504	0	84	7

Source: URS Corporation, 2012

To mitigate for these potential impacts, AAF has committed to the use of stationary wayside horns at the grade crossings where severe, unmitigated noise impacts exist, thereby reducing the number of potential impacts in the Project Area substantially. The stationary horns are sounded at the crossing; not from the trains themselves, which significantly reduces the resulting noise impacts, and focuses the noise from the horns in the direction of traffic. The following graphic illustrates the smaller area that is impacted from the use of stationary wayside horns when compared to horns sounded from the train as it is moving.

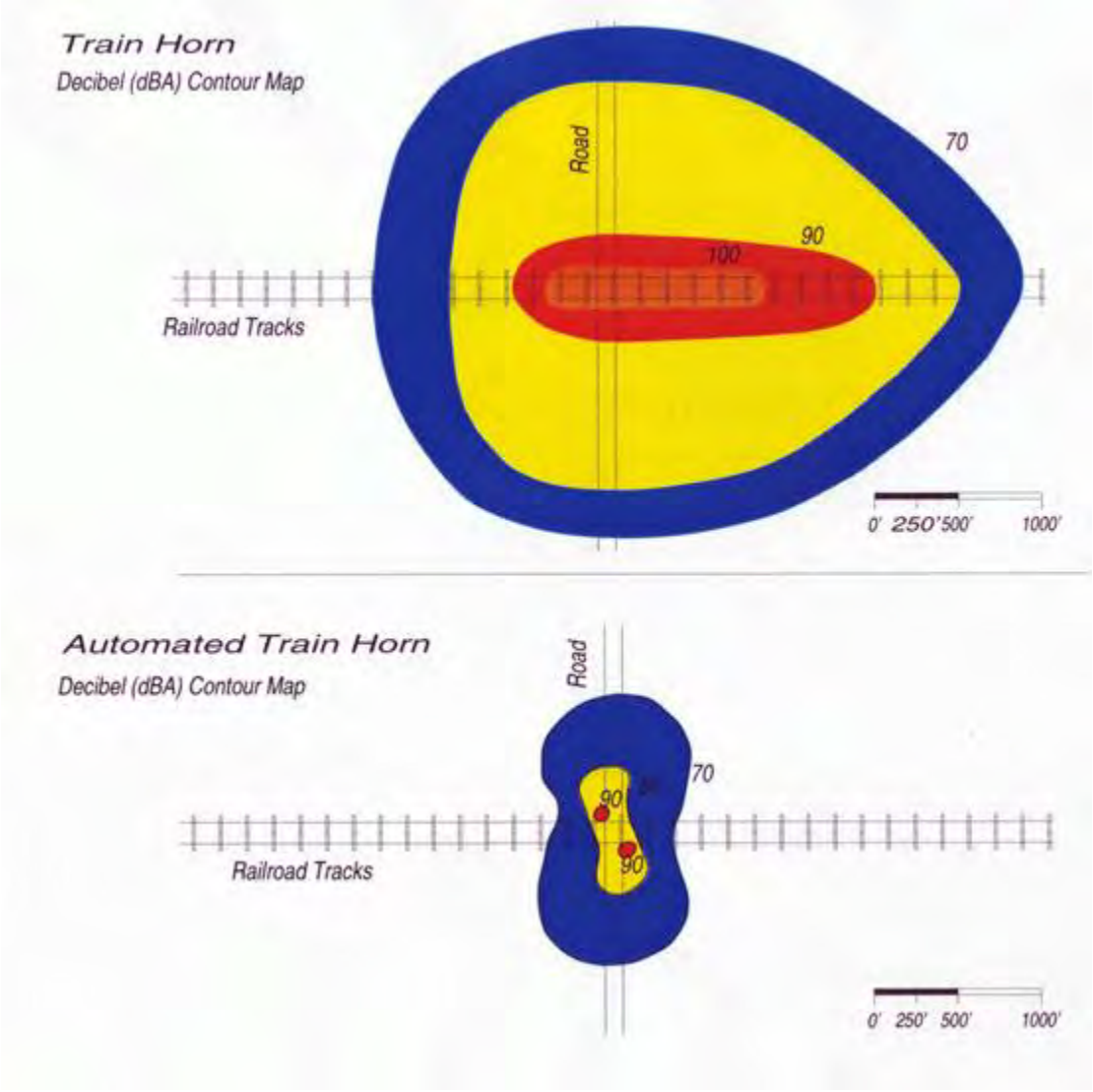
Train Horn
Decibel (dBA) Contour Map
Road
70
90
100
Railroad Tracks
0' 250' 500' 1000'
Automated Train Horn
Decibel (dBA) Contour Map
Road
70
90
90
Railroad Tracks
0' 250' 500' 1000'

Table 1-4 summarizes the benefits received from the use of the committed noise mitigation.

Table 1-4
Summary of Noise Impact Results
Preferred Build Project Alternative with Stationary Grade-Crossing Horns

Counties	Number of Severe Impact Parcels					Number of Moderate Impact Parcels				
	Residential Single Family	Residential Multi Family	Residential Mobile Home	Institutional	Recreational	Residential Single Family	Residential Multi Family	Residential Mobile Home	Institutional	Recreational
Miami-Dade	0	0	0	0	0	5	13	0	1	0
Broward	0	0	0	0	0	13	11	0	2	0
Palm Beach	2	2	0	0	0	106	51	0	3	0

Source: URS Corporation, 2012

The committed noise mitigation will improve the ambient noise levels along the FEC corridor because all train movements through the corridor (passenger and freight) will use the stationary grade-crossing horns and not the warning horn blasts from the train itself over a 0.25-mile long distance that are currently in effect.

In response to the reference to Quiet Zones, stakeholders in the affected communities are considering the institution of Quiet Zones (which prohibit horns to be sounded in specified areas), as stated in the EA. Specifically, the City of Miami is in the process of applying for a continuous 4.5 mile Quiet Zone involving 19 grade crossings and the City of Fort Lauderdale is considering applying for Quiet Zones as well. This involves instituting alternate safety measures such as four-quadrant gates and non-mountable median dividers. In addition, supplementary safety measures must be installed and a risk analysis must be prepared to demonstrate that safety would not be compromised by eliminating train horns in the area receiving Quiet Zone designation. As stated in the EA, AAF will support efforts to institute such Quiet Zone measures. It should be noted, however, that while AAF is not opposed to the establishment of Quite Zones and understands that those efforts may be pursued by governmental authorities or others, the implementation of Quiet Zones has not been proposed as part of the *Selected Alternative*. Instead, the governmental entities or other authorities pursuing these efforts will act as the sponsors of such efforts and will be responsible for the application process and the costs associated therewith, including the costs of any improvements to be borne in connection therewith. In light of the foregoing, the feasibility of these measures has not been determined as part of the Project.

In summary, the substantial reduction of impacts resulting from stationary wayside horns significantly reduces noise impacts such that no significant impact is expected.

Sensitive Communities

Alicia Banuchi, from Hollywood, Florida resident

Ms. Banuchi expressed her concern that the Project will have a "…proportionately high adverse severe noise impact on the low-income minority populations and businesses in the surrounding communities – and not just minority 'Hispanics'." Furthermore, she expressed her concern that severe noise impacts will have a direct effect on "'non-white'' racial minorities."

Response: Section 3.3.3 of the EA details the evaluation and analysis of potential impacts to Environmental Justice populations from the Project. Environmental Justice was established in 1994 by Executive Order 12898 requiring federal agencies to analyze and address, as appropriate, disproportionately high adverse human health and environmental effects of federal actions on sensitive populations, when such analysis is required by NEPA. Criteria outlined in *Environmental Justice, Guidance Under the National Environmental Policy Act*, published by the Council on Environmental Quality (CEQ) in December 1997, guide the examination of potential environmental justice effects, and were applied to identify whether sensitive populations exist within the Project Area. Based on the analysis of 2010 US Census and 2010 American Communities Survey data and evaluation criteria guidance from the CEQ, it was determined in the EA that certain populations meet the criteria for evaluation as Environmental Justice populations and were impacted by additional noise generated by the *Selected Alternative* without the inclusion of mitigation measures, as summarized in Tables 1-5 and 1-6.

Table 1-5
Location of Impacts to Non-White Populations

Location of Impacts	Total
Number of Census Tracts With Non-White Population Greater than 29.7% (established Tri-County average) Containing Severe Impact Locations	58 (56.9% of 102 tracts with severe impacts)
Total Number of Severe Impact Locations within the 58 Affected High-Minority Tracts	3,430 (57.8% of total number of severe impacts)

Source: 2012 Noise and Vibration Analysis, 2010 US Census

Table 1-6
Location of Impacts to Low-Income Populations

Location of Impacts	Total
Number of Census Tracts with Low-Income Population Greater than 11.5% Containing Sever Impact Locations	80 (78.4%)
Total Number of Severe Impact Locations within the 80 Affected High-Hispanic Tracts	4,637 (78.1%)

Source: 2006 – 2010 American Community Survey, 5 year Estimate, 2012 Noise and Vibration Analysis

However, as stated previously in this FONSI and in Table 1-4, the committed use of stationary wayside horns at the grade crossings where severe, unmitigated noise impacts exist dramatically reduces severe and moderate noise impacts (i.e., eliminating all severe impacts in Broward County and Miami-Dade County, more than 99% of all severe impacts in Palm Beach County, at least 99% of the moderate impacts in Broward County and Miami-Dade County and more than 98% of the moderate impacts in Palm Beach County). This substantial reduction of impacts also significantly reduces impacts to sensitive populations such that no significant impact remains.

Emergency Response and Emergency Facilities

Sue Gunzburger, Broward County Commissioner – District 6, Fort Lauderdale, Florida
Ms. Gunzburger expressed concern over her constituents' abilities to access emergency medical care due to the increase in train traffic resulting from the addition of up to 16 to 19 roundtrip passenger rail trains per day. She stated, "with only at-grade crossings throughout Southeast Broward County, the frequency of those crossings being closed to vehicles at peak hours for train traffic will surely delay timely access to trauma and emergency hospital care."

Response: Sections 3.3.1.1 and 3.3.1.2 detail the evaluation and analysis of potential impacts to traffic and surface transportation from the Project. Table 1-7 summarizes the estimated delays caused by current activities (2006), opening year (2015) and future year (2025) operational conditions. To assess the impact of the proposed passenger service on the existing crossings, first the delay estimates at a typical crossing were developed, and then two representative crossings were analyzed in detail for each affected county, for a total of six investigated crossings. These crossing were selected at major arterial roadways that have significant traffic volumes compared to other roadways with railroad crossings. Adjacent signalized intersections within 500 feet from the crossing were also included in the analysis to study the impact of the train crossing event on intersection traffic operations. The analyzed crossings represent the worst-case scenario in terms of traffic delay and LOS.

For Broward County, the EA analyzed the crossings at Hillsboro Blvd. and Broward Blvd. Based on the EA's analysis of these high-traffic crossings for the opening year of 2015 and the build out year of 2035 – with and without the train service traffic operations in the Project Area – it was determined that the traffic operations and LOS at adjacent intersections are anticipated to continue to operate at similar LOS with the introduction of the passenger rail service compared to LOS with already existing freight service such that the additional impact from the passenger rail service is minimal. Specifically, both the crossings analyzed in Broward County are expected to operate at LOS E or better in the build-out year of 2035. There would be no significant impact to traffic operations at these locations as a result of the Selected Alternative. Further, it is expected that because the impacts are minimal at these major arterial crossings (with higher traffic volumes) then the impact would be minimal at minor roadway crossings as well.

The impacts are minimal in Broward County and the other affected counties for the following reasons, among others:

- Shorter Train Length: AAF's trainsets will be shorter than the freight trains that currently operate in the corridor. Those freight trains average 8,837 feet in length. By contrast, AAF's trains will be less than 1,000 feet long – averaging from 725 to 900 feet in length.

- Quicker Clearance of Crossings: The freight trains can take five minutes to clear a crossing (averaging from 237 seconds to 308 depending on the County). AAF's trains will clear crossings in 52 seconds. This includes the time to activate and close the gate, the train passing and the gates reopening.

Further, as stated in the EA, traffic signals in the area have pre-emption capabilities and standard signal coordination in place allowing traffic to clear out and/or hold vehicles until the train clears. The signal operation at adjacent intersections can be synchronized so the traffic signal for the parallel roadways will remain green, and the roadway with a railroad gate in the lowered position will be red, to avoid blocking intersections and reduce the number of vehicles in the line of traffic at the crossing. This coordination and preemption would prevent vehicles – including emergency vehicles – from being trapped between the crossing location and the intersection. No significant impact is expected to emergency response or access related to traffic.

Table 1-7

FEC Railroad Crossing Delay Estimates

FEC RAILROAD CROSSING DELAY ESTIMATES-2006 BASE CONDITION

Service Type	Time to activate and close the gate (Sec)	Length (Feet)	Speed (mph)	Time to Clear (Sec)	Time to bring the gate back up (Sec)	Total time to activate and clear (Sec)	Crossings per Day	Delay per Day (Min)	Maximum crossings per hour	Max delay per Hour (Min)
	PALM BEACH									
Freight	30	6750	28.5	161	15	206	27	92.7	2	6.9
	BROWARD									
Freight	30	6750	22.6	204	15	249	27	112.1	2	8.3
	MIAMI-DADE									
Freight	30	6750	29.5	156	15	201	27	90.5	2	6.7

Note: Freight service includes 4 local freight trains and 23 through freight trains

FEC RAILROAD CROSSING DELAY ESTIMATES-2015 OPENING YEAR CONDITION

Service Type	Time to activate and close the gate (Sec)	Length (Feet)	Speed (mph)	Time to Clear (Sec)	Time to bring the gate back up (Sec)	Total time to activate and clear (Sec)	Crossings per Day	Delay per Day (Min)	Maximum crossings per hour	Max delay per Hour (Min)
	PALM BEACH									
Freight	30	8837	30.5	198	15	243	14	56.7	1	4.1
Passenger	30	600	60.1	7	15	52	12	10.4	1	0.9
Total								67.1		5.0
	BROWARD									
Freight	30	8837	30.5	198	15	243	14	56.7	1	4.1
Passenger	30	600	60.1	7	15	52	12	10.4	1	0.9
Total								67.1		5.0
	MIAMI-DADE									
Freight	30	8837	31.3	192	15	237	14	55.3	1	4.0
Passenger	30	600	60.1	7	15	52	12	10.4	1	0.9
Total								65.7		4.9

Note: Freight service includes 4 local freight trains and 10 through freight trains

FEC RAILROAD CROSSING DELAY ESTIMATES-2035 YEAR CONDITION

Service Type	Time to activate and close the gate (Sec)	Length (Feet)	Speed (mph)	Time to Clear (Sec)	Time to bring the gate back up (Sec)	Total time to activate and clear (Sec)	Crossings per Day	Delay per Day (Min)	Maximum crossings per hour	Max delay per Hour (Min)
	PALM BEACH									
Freight	30	12795	39.5	221	15	266	22	97.5	1	4.4
Passenger	30	600	60.1	7	15	52	16	13.9	1	0.9
Total								111.4		5.3
	BROWARD									
Freight	30	12795	38.5	227	15	272	22	99.7	1	4.5
Passenger	30	600	60.1	7	15	52	16	13.9	1	0.9
Total								113.6		5.4
	MIAMI-DADE									
Freight	30	12795	33.2	263	15	308	22	112.9	1	5.1
Passenger	30	600	60.1	7	15	52	16	13.9	1	0.9
Total								126.8		6

Note: Freight service includes 4 local freight trains and 10 through freight trains

Notes:

1 FRA regulations require 20 seconds to activate and close the gate prior to the train entering the railroad crossing and 10 seconds to bring the gate back up. FDOT uses 30 seconds to activate and close the gate prior to the train entering the railroad crossing and 15 seconds to bring the gate back up. To accoutn for the worst-case scenario, FDOT timings were used in this analysis.

2 Time taken for the train to clear the railroad crossing is calculated using the length of the train and speed of the train.

3 A maximum of two trains would cross per hour (Northbound and Southbound combined)

4 To account for freight growth from 2016 to 2035, a 3% per year growth was assumed. The length of the train was increased 3% per year to account for this growth. The number of trains was kept constant.

Use of Alternate Fuels

Alexander Martinez, Miramar, Florida resident
Mr. Martinez expressed interest in how the trains will be "powered," and if the use of "less impactful" alternative energy sources will be used.

Response: Diesel fuel is required to propel the train locomotives. Section 3.3.10 details the evaluation and analysis of potential impacts from energy resources for the Project. Tier IV locomotives would be used that would emit less pollution than older locomotives. Use of electricity was not considered viable for the Project due to the additional cost of overhead catenary systems and supplemental electrical sub-stations, as well as the potential for substantial adverse aesthetic impacts especially in historic areas. Table 1-8 summarizes the benefits from the Project as it relates to energy consumption and savings. As such, no significant impact is anticipated.

Table 1-8
Energy Consumption and Savings

Energy Resource	Consumption	Savings	Joules[1]/unit	KJoules[2]
Gasoline		2,162,330.5 gallons/year[3]	131,760,000.00	285,000,000,000
Diesel	1,287,720.0 gallons/year[4]		136,629,732.60	176,000,000,000
Electricity	81,600,000 Kwh/year[5]		3,600,000.00	294,000,000,000
Total Difference				(185,000,000,000)
Examples of 185,000,000,000 KJoules				
Gallons of gasoline annually				1,404,608.00
Gallons of diesel annually				1,354,024.46
Kwh annually				51,388,888.89

[1] Joules = $kg*m^2/s^2$ and is used as the common measure of "work"
[2] KJoules = Kilojoules or 1,000 Joules (rounded)
[3] Based on the average of 2,001,327.6 and 2,323,333.5 stated above
[4] Based on 147 gallons per one way trip X 24 daily one way trips = 3,528 gallons/day
3,528 gallons/day x 365 day = 1,287,720.0 gallons/year
[5] Based on 16 Kilowatt hours (Kwh)/sq ft /month x 12 months = 192 Kwh/sq ft/year
192 Kwh/sq ft/year x 425,000 sq ft = 81,600,000 Kwh/year

Transportation Planning

Treasure Coast Regional Planning Council (TCRPC)

TCRPC stated its support of the Project citing improvements to regional mobility, reduction of traffic congestion, improvement to regional air quality and use of alternative modes of transportation.

South Florida Regional Transportation Authority (SFRTA)

SFRTA endorses the Project but makes the following comments:

- The EA does not encompass the full scope of AAF's planned passenger network.
- The EA does not analyze the impact of AAF's proposed operations on the existing Tri-Rail Commuter Rail service or AMTRAK's intercity service, or assess the amplified benefits of linking AAF's and Tri-Rail and/or AMTRAK's operations.
- The EA does not provide support for assertions that future freight traffic on AAF's corridor will not exceed 2006 volumes.

Response: With regard to the first comment, it should be noted that the EA covers the project as proposed by the AAF to the FRA (see additional discussion in section 1.0 of this FONSI) addressing West Palm Beach to Miami, Florida, which AAF intends to pursue as an independent project. With regard to the second comment, commuter rail is not part of the *No Build Alternative* and is not part of the *Selected Alternative.* The possibility of commuter rail within the FEC corridor has been studied for at least 10 years. Those studies have not yet established a definite preferred alternative or approach. Moreover, no funding plan exists for such commuter service. Given the number of issues still in flux regarding the possibility of commuter rail within the FEC corridor, an agreement is not in place between FDOT, SFRTA and AAF for that service. However, as AAF has stated in the EA, while there are no current plans for shared use of the stations for commuter rail service, the option for such service will continue to exist even after the Project becomes operational because the stations will be developed in a manner that will not preclude future commuter rail service on the FEC corridor, by SFRTA, FDOT or others. Further, AAF representatives have publically and consistently stated their support for commuter rail over the last 10 years.[28]

The investment grade ridership study completed by AAF assumes a fare structure that is multiple times the current fare structure published by SFRTA. This accounts not only for the different type of service that will be provided by AAF (e.g. multiple class seating, free Wi-Fi, meal service, etc.), but also allows AAF to target the non-commuter market that exists in the South Florida region. With intercity type of

[28] See, e.g., *Proposed Tri-Rail service would take passengers into hearts of coastal cities from Jupiter to Miami*, *The Palm Beach Post* (Nov. 24, 2012), *available at* http://www.palmbeachpost.com/news/news/local/proposed-tri-rail-service-would-take-passengers-in/nTD2S/. See, also, *Tri-rail Ponders Fec Line Purchase, The Sun Sentinel* (October 5, 2002), available at http://articles.sun-sentinel.com/2002-10-05/news/0210050099_1_tri-rail-fec-commuter-trains.

train sets, service times (one-hour headways instead of twenty minute headways in the case of Tri-Rail during peak hours), and service attributes, AAF will serve different market segments than Tri-Rail, therefore allowing both to coexist in the region. FRA agrees that continued coordination by AAF with FDOT and SFRTA is appropriate and has been included as one of the mitigation commitments identified in section 7.

Finally, with regard to the references to the 2006 level of frequency, it should be noted that those references are made to speak to the changing composition of rail freight from bulk movements to containerization. Throughout the EA, however, it indicates that the analysis has been conducted based on the presumption that FECR will maintain operations as a freight provider within the FEC corridor with projected and planned annual growth of 5% to 7% until 2016 and 3% thereafter. As such, future freight traffic has been considered and evaluated within the EA as part of the No-Build Alternative, which has been compared to the Selected Alternative in accordance with NEPA and FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999)

South Florida Water Management District (SFWMD)

SFWMD issued a statement of "No Comment."

Florida Department of Transportation (FDOT) – Central Environmental Management Office (CEMO)

FDOT CEMO recommended coordination with the appropriate FDOT District Permit Offices for activities within and adjacent to FDOT rights-of-way and projects. Coordination with the appropriate FDOT District Traffic Operations Offices was also recommended if lane closures and/or channelization are necessary.

Response: AAF is committed to continued and on-going coordination with FDOT and FDOT Districts.

Federal Transit Administration (FTA) – Region IV

The Federal Transit Administration – Region IV requested coordination between AAF and SFRTA regarding; Tri-Rail and operational service issues along portions of the corridor; Tri-Rail and attempts to ensure that AAF service does not compete and/or degrade existing Tri-Rail service within the Miami Urban Zone Area (UZA); and station area plans. FTA Region IV cited concerns relating to bus routes at station locations, and use of public loan guarantees for the Project.

FTA Region IV requests that the three local MPOs and SFRTA have the opportunity to review impacts from station locations, potential transit oriented development, and parking assessments. Additionally, FTA Region IV commented on the number of provided parking spaces, and whether or not AAF will assist in station area planning.

Response: With regard to the comments from the FTA Region IV regarding coordination between AAF and SFRTA, FRA agrees that this is a sound recommendation and has included this requirement in the mitigation commitments section (Section 7). AAF has stated publically that it supports discussion and dialogue with all interested parties regarding commuter rail and continued consultation by the parties as the Project is advanced would be appropriate. While the Project will not provide public transit service,

the option for SFRTA to cooperate with FECR and FECI to develop commuter rail service on the FEC line will remain available after implementation of the Project.

With regard to the FTA Region IV's financing comments, a Project cost estimate has been included in section 3.1 and discussion of a potential RRIF loan in section 1.0. The decision on whether to apply for a RRIF loan rests with AAF and the decision as to whether to approve any such request if made rests with the FRA.

With regard to parking, the EA analysis was based on the Institute of Transportation Engineers (ITE) parking estimation guide, Parking *Generation, 4th Edition*. As per the ITE guidance, the spaces available and provided are considered adequate.

7.0 Commitments

Demographics and Environmental Justice

FRA concludes that the EA presents a high-level quantitative analysis for demographics and Environmental Justice. Further analysis will need to be completed by the Project Sponsor prior to construction to fully comply with the requirements of Executive Order 12898 and U.S. Department of Transportation Environmental Justice Order 5601.2(a) due to the meaningfully greater number of Environmental Justice communities present within the Project Area. FRA will review and accept a completed *Environmental Justice Community Impact Assessment* conducted and submitted by the Project Sponsor.

Traffic Design

FRA concludes that additional analyses of the intersections adjacent to the three station locations will need to be completed prior to construction by the Project Sponsor during the design phase to address any specific traffic control requirements that may be present. FRA will review and accept completed traffic design analyses conducted and submitted by the Project Sponsor.

Noise

FRA finds that noise mitigation is required to address potential train horn noise impacts. AAF has committed to mitigating these impacts with the installation of stationary wayside horns at the grade crossings where severe, unmitigated impacts exist (EA section 3.1.7.4). AAF will also cooperate with local jurisdictions should they seek to establish quiet zones. Unless AAF can show that noise associated with certain crossings will not cause severe impacts, FRA requires AAF to install wayside horns or cooperate to establish quiet zones for all crossings in the Project area.

Coordination

FRA finds that concerns about coordination with commuter rail planning calls for continued interaction with regional transportation agencies. FRA requires that AAF coordinate directly with FDOT and SFRTA on the development of the Project in relationship to transit services provided by FDOT and SFRTA, with an objective of developing a plan for integrated passenger rail services in the south Florida region.

Water Quality

Temporary impacts resulting from construction of all alternatives considered would cease when construction was completed and would be minimized by best management practices as required by the South Florida Water Management District (SFWMD) (Chap. 40A through E, -4,-40,-42, and/or -44). SFWMD water quality criteria require on-site retention of the first inch of stormwater runoff from the entire site area or 2.5 times the percentage of impervious area, whichever is greater. In South Florida, the best management practices used to accommodate for these retention criteria and also meet permitting requirements are:

- Surface infiltration through swales or ditches;
- Installation of underground French drain systems to drain water into the superficial aquifer or water table;
- Deep injection wells to drain water via gravity or pumping to the deeper G-III aquifer (only permissible outside of well-field protection areas and east of the salt-water intrusion line); and/or;
- Retention ponds

Potential water quality impacts resulting from erosion and sedimentation will be controlled in accordance with best management practices. SFWMD Environmental Resource Permit (ERP) requirements protect the discharge water quality, which in turn avoids impact. The proposed Project would comply with all local ordinances for protection of the well-fields, including those noted above. During the design phase of the Project, further coordination with SFWMD will occur to ensure the ERP requirements include best management practices during construction to preserve (or enhance) the water quality within surface waters.

Wetlands

Best management practices would be employed during construction to avoid temporary impacts to the wetland systems.

Rail Transportation

Track construction, improvements and rehabilitation needed to implement the Preferred Build System Alternative would be performed according to best management practices to have minimal temporary impacts to existing freight operations during construction.

Hazardous Materials Use, Storage, and Transportation

Usage and storage of hazardous materials at the Ft. Lauderdale Vehicle Maintenance Facility location will be handled according to accepted industry best management practices.

Construction Impacts

Discharge of sedimentation into waterways will be minimized during construction. Best management practices, such as silt fence, straw bales, and ditch checks, will be used to minimize soil erosion,

sedimentation, runoff, and surface instability during construction. Erosion control devices will be placed and maintained in accordance with governing regulations and permits. A spill prevention plan will be developed for petroleum products or other hazardous materials during construction. Contractors will be required to property maintain their equipment such that spills are avoided.

8.0 Conclusion

The FRA finds that the AAF Project as presented and assessed in the attached October 2012 EA satisfies all applicable requirements of the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq.; Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303(c)); and FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999), and has determined that this Project will have no significant impacts on the quality of the environment provided it is implemented in accordance with the mitigation commitments identified in this FONSI. This FONSI is based on the EA, which was independently evaluated by FRA and determined to adequately and accurately discuss the need, environmental issues, impacts of the proposed Project, and appropriate mitigation measures. The EA provides sufficient evidence and analysis to determine that an environmental impact statement is not required for the Project as presented.

Joseph C. Szabo, Administrator

1/30/13
Date