U.S. Department
of Transportation

**Federal Railroad
Administration**

Administrator

1200 New Jersey Avenue, SE
Washington, DC 20590

APR 12 2016

The Honorable Bill Posey
The House of Representatives
Washington, DC 20515

Dear Congressman Posey:

Thank you for your letter concerning the All Aboard Florida (AAF) passenger rail project. I appreciate the concerns you expressed on behalf of your constituents. I want to assure you that FRA is in frequent communication with AAF regarding various aspects of the project, especially in matters regarding safety. A response to the questions you raised is provided below.

Regarding correspondence FRA has sent AAF, you are correct that FRA's Office of Railroad Safety has met, and corresponded with, AAF regarding the safety requirements for the project. I am attaching the following letters so you may better understand the communication between AAF and FRA on this issue:

1. AAF letter to FRA requesting confirmation of AAF's grade crossing design proposals
2. FRA's response to AAF that includes a detailed explanation as to why AAF's design plans failed to meet FRA's safety guidelines

Since this correspondence was transmitted, AAF has taken corrective actions and resubmitted grade crossing designs for Palm Beach, Martin and St. Lucie counties that meet FRA's safety requirements. FRA is also reviewing resubmitted designs for grade crossings in Indian River and Brevard counties and expects to bring any outstanding issues to resolution in the near future.

With respect to the permitting process, FRA did not request other federal agencies involved in the AAF permitting process to refrain from issuing permits until the Record of Decision is issued. FRA is working with two permitting agencies on the AAF project that are acting as cooperating agencies under the National Environmental Protection Act of 1969 (NEPA): the U.S. Coast Guard and the U.S. Army Corp of Engineers. As the lead agency on the NEPA process for this project, FRA published a Final Environmental Impact Statement (FEIS) last year. Under the NEPA process, cooperating agencies are able to issue their own RODs based on the lead agency's FEIS even if the lead federal agency does not issue a ROD. While FRA has not issued a ROD, FRA is providing the U.S. Coast Guard and the U.S. Army Corp of Engineers with all documentation the cooperating agencies require in order to issue their own RODs.

Congressman Posey, I appreciate your interest in this matter and look forward to working with you on other issues of importance to you and your constituents. If you have further questions, please do not hesitate to contact me or Mr. Trevor Dean, Advisor for Governmental Affairs Advisor, at (202) 493-0239 or trevor.dean@dot.gov.

Sincerely,

Sarah E. Feinberg
Administrator

Enclosures

ALL ABOARD FLORIDA
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Mr. Ron Ries, Staff Director
Highway Rail Crossing and Trespasser Division
Federal Railroad Administration
1200 New Jersey Ave S.E., Mail Stop 25
Washington, D.C. 20590

December 8, 2015

Dear Mr. Ries:

Thanks to you and Frank Frey for meeting with me and our All Aboard Florida staff on December 2, 2015. Attached to this letter is the Final Environmental Impact Statement grade crossing compliance worksheet that was reviewed during the meeting. In this document, we are attempting to reconcile compliance with FEIS Tables 3.1.8-3.1.12 in the context of design limitations resulting from the existing crossing and roadway configurations.

As we discussed in the meeting, there are certain crossings where what was observed by FRA during the early field diagnostics and subsequently recorded in the FEIS has been determined to not be a feasible solution. In these instances, AAF has applied the "Sealed Corridor" best practices outlined in the FRA Guideline on High Speed Rail and other sources, and has developed an alternative. The alternative design, and a brief statement on why the FEIS recommendation is not viable, is listed in the "notes" column. The design principles and rationale that led to the alternative design is more fully explained in the Technical Memorandum prepared for FRA as requested at our October 29, 2015 previous meeting. We are once again including this Technical Memorandum as an attachment for your convenience, as we have received no feedback from FRA on this document to date.

AAF respectfully requests confirmation from FRA that our intended approach on these crossings as shown on the attached worksheet is compliant with the FEIS tables. As you are well aware, our schedule is of paramount importance, and therefore an expedited response is deeply appreciated.

Thank you again for meeting with our staff and engaging in a productive review of AAF's grade crossing program.

Best regards,

Adrian B. Share, PE
Executive Vice President, Rail Infrastructure

Attachments
cc: P. Michael Reininger, President, Brightline

U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DEC 16 2015

Mr. Adrian B. Share, P.E.
Executive Vice President, Rail Infrastructure
8529 South Park Circle, Suite 190
Orlando, FL 32819

Dear Mr. Share:

Thank you for your December 8, 2015, letter to the Federal Railroad Administration (FRA) concerning All Aboard Florida's (AAF) design plans for highway-rail grade crossings improvements and Mr. Reininger's December 8, 2015, email to FRA Administrator, Ms. Sarah Feinberg. In addition to the copy of AAF's Sealed Corridor Technical Memorandum dated October 30, 2015, you have also included a worksheet detailing information regarding AAF's proposed treatments at each crossing. You requested confirmation from FRA that AAF's intended approach, as indicated on the worksheet, is compliant with Tables 3.3-8 through 3.3-12 contained in the Final Environmental Impact Statement (FEIS). Importantly, the December 22, 2014, Provisional Bond Allocation Approval Letter (PABs Letter) required AAF to complete and implement the mitigation measures set forth in the FEIS. These measures include the recommended grade crossing improvements identified in the Diagnostic Team Report (FEIS Appendix 3.3.5-B), including as described by Section 3.3.5.3 of the FEIS and FEIS Tables 3.3-8 and 3.3-12.

FRA has completed its review of the submitted design plans, worksheets, and technical memorandum. FRA has determined that the highway-rail grade crossing plans submitted by AAF do not conform to the highway-rail grade crossing treatments in the FEIS, but agrees with some of AAF's treatments as discussed below. We also disagree with AAF's assertion that AAF's alternatives comply with FRA's sealed corridor guidelines. Therefore, AAF must comply with the following from the FEIS:

- Use exit gates at all crossings where a parallel roadway does not allow for a non-traversable curbed median that is at least 100 feet in length when measured from the tip of the gate. AAF may not use highway traffic control signals in lieu of exit gates as it proposed because it does not provide a physical obstruction to the highway-rail grade crossing (FEIS pg. 3-46 and Appendix 3.3.5-B Part 1 Report pg. 5 and Part 2 Report pgs. 5-7);
- Equip all three-quadrant and four-quadrant gate crossings with vehicle presence detection technology that is connected to the train control system and operate in the dynamic exit gate mode to provide notice to an approaching train that a vehicle is obstructing the crossing so it can take appropriate action (FEIS

pgs. S-20, 3-46, 5-160, 7-19, and Appendix 3.3.5-B Part 1 Report pg. 3 and Part 2 Report pg. 3);

- Install an exit gate at all locations where 100 feet of non-traversable curbed median cannot be achieved. AAF may not use a non-traversable curbed median that is less than 100 feet in length when measured from the tip of the gate (FEIS pg. 3-46 and Appendix 3.3.5-B Part 2 Report pg. 3); and
- Install separate pedestrian gates at exit gate locations adjacent to sidewalks (FEIS Appendix 3.3.5-B Part 2 Report pg. 3).

Collectively, these are the FEIS requirements concerning the grade crossing improvements. Under the PABs Letter, AAF is required to implement any additional mitigation measures identified in the FEIS even if they are not mentioned here.
FRA also recommends that AAF do the following:

- Install all gates at severely skewed acute-angled locations parallel to the rail consistent with FRA Administrator Szabo's July 29, 2014, letter to AAF; and
- Equip all automatic highway-rail grade crossing warning systems with Remote Health Monitoring (RHM) technology that not only constantly monitors the health of the crossing warning system, but also automatically notifies the train dispatcher and/or railroad maintenance personnel each time a crossing malfunction or false activation is detected. The crossing system AAF is installing comes equipped with RHM, but AAF's technical memorandum only addresses a communication link between a train and the crossing controller, which will place the train in restricting speed or penalty braking if a loss of "Health" is detected (FEIS Appendix 3.3.5-B Part 1 Report pg. 2 and 3).

As a result from our recent technical review meetings, FRA is approving the variations from the FEIS referenced below, planned by AAF as civil design treatments at the following crossing locations:

- Rinker (private crossing), MP 176.10, U.S. DOT # 272105N
- Gus Hipp Blvd., MP 177.13, U.S. DOT # 272926T
- Carver Road, MP 179.14, U.S. DOT # 272109R
- Fee Avenue, MP 194.00, U.S. DOT # 272135F
- Strawbridge Avenue, MP 194.19, U.S. DOT # 272138B
- Valkaria Road, MP 203, U.S. DOT # 272151P
- Chamberlain Blvd., MP 238.40, U.S. DOT # 272213K
- SE Crossrip Street, MP 271.40, U.S. DOT # 272362L

However, for these grade crossings, AAF must adhere to the other FEIS Requirements. The enclosure with this letter provides a detailed explanation of FRA's rationale. We are pleased to hear from Mr. Reininger that AAF is not "resistant to grade crossing improvement obligations." Based on that understanding, and communications from Under Secretary Rogoff and FRA Administrator Feinberg to AAF, we expect AAF to comply with the grade

crossing treatments in the FEIS with the limited exceptions listed above. Please submit to FRA a revised 100 percent design plan that reflects this understanding.

With respect to the environmental issues, there seems to be a misunderstanding. Mr. Reininger's email reflects this misunderstanding by stating "it seems to me the environmental issues and the grade crossing issues are independent from one another, and the expeditious solutions to these issues can and should be simultaneously and independently pursued." First, the grade crossing treatments must comply with the FEIS, so the environmental issues and grade crossings are inextricably entwined. Second, we have been clear that any change in grade crossings from the FEIS creates a disconnect between the description in the FEIS that directly affects FRA's ability to respond to comments to the FEIS, which FRA's cooperating agencies require to complete their permitting processes. In addition, such changes could trigger a supplemental analysis of the FEIS to account for impacts that are different than currently described and analyzed in the FEIS. As such, until AAF submits 100 percent design plans that comply with the FEIS grade crossing treatments (with the modifications FRA agreed to above), FRA cannot complete the environmental review process.

If you have any questions, please contact Mr. Ron Ries at (202) 493-6285 or Ron.Ries@dot.gov.

Sincerely,

Patrick Warren
Deputy Associate Administrator
for Safety, Compliance, and Program Implementation

Jamie Rennert
Deputy Associate Administrator
for Regulatory and Legislative Operations

Enclosure: FRA Response Report

Background

On October 15 and December 2, 2015, technical engineering meetings were held at Federal Railroad Administration (FRA) Headquarters with All Aboard Florida (AAF) officials and their consultants. The scope of the meetings were to discuss AAF's 90 percent design plans along the proposed AAF route where speeds of 80 MPH and higher are present - with particular attention paid to Martin and St. Lucie counties. FRA's focus was to understand AAF's variances in design compared to FRA's Final Environmental Impact Statement (FEIS), dated August 4, 2015. As a result of the October 15th meeting, at the request of FRA, AAF submitted their "*Technical Memoranda in support of AAF Sealed Corridor approach*", dated October 29, 2015.

This formal response addresses AAF's 90 percent design plans for the safety requirements of 382 public and private grade crossings, the requirements in the FEIS (including Appendices), information from the technical engineering meetings between FRA and AAF, and AAF's October 29, 2015, technical memo. Specifically, FRA details where it concurs with AAF's 90 percent design plans, and where AAF must comply with the designs in the FEIS. .

Highway Traffic Signals Systems

With respect to crossings located near highway intersections with paralleling roadways, AAF contends, "Roadway traffic signalization in conjunction with railroad preemption is an innovative strategy to achieve the stated goals of the 'Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail' published by the FRA for speeds 80 mph and greater." On this point FRA unequivocally disagrees. AAF never mentioned this proposal to the diagnostic team during the on-site diagnostic field assessments that took place in 2014. In fact, FRA has consistently insisted upon a "sealed corridor" approach as stated in the FEIS for the protection of highway-rail grade crossings with train speeds up to 110 MPH. While traffic signals with pre-emption, where feasible, can be a useful component of the sealed corridor treatment, such traffic signal systems alone are not sealed corridor treatments and are not effective "physical impediments" that prevent motorists from either intentionally or unintentionally circumventing the highway-rail grade crossing signals.

AAF assumes that motorists will recognize and obey the traffic signals. However, a review of the highway-rail grade crossing accident data for Florida East Coast Railroad's (FECR) Main Line where AAF will operate indicates that some crossings already equipped with traffic signals and preemption are among the crossings with the highest number of accidents (e.g. Fisherman's Wharf in Ft. Pierce, St. Lucie County, FL).

AAF also provided a theoretical computer-generated turning route map of a vehicle circumnavigating around a lowered gate arm to demonstrate it would be highly improbable for a motorist to make such a maneuver. However, the actions and behaviors of motorists dictate otherwise. For example, the Federal Transit Administration also does not consider traffic signals "replacements" for railroad grade crossing warning devices when train speeds exceed 35 MPH. On Light Rail Transit systems with traffic signals, crossing collisions still occur by motorists violating the signals and driving into Light Rail Vehicles. As such, passenger and freight rail operations have incidents where motorists have turned left from a paralleling roadway short of a lowered gate, at a signalized intersection that was equipped with "No Left Turn" blank-out signs.

FRA does recognize that the use of protected only left-turns is a good practice. However, this approach simply does not constitute a sealed corridor treatment as it does not provide a physical obstruction to the crossing itself.

AAF action required: AAF must restore exit gates at all crossings where the parallel roadway does not allow for a minimum distance of 100 feet for a median, including those locations interconnected to the highway traffic control signals.

Vehicle Presence Detection

With respect to Vehicle Presence Detection (VPD), the FEIS calls for VPD technology that is connected to the train control system at approximately 101 AAF high-speed rail grade crossing locations. The technology would alert the train of stalled vehicles and prevent the entrapment of motorists by a lowered exit gate. This means the exit gate remains in the upward position if a vehicle becomes stalled on the tracks. AAF states FECR's current practice is to not accept VPD, due to concerns about reliability, particularly given the frequency of lightning strikes in Florida. Therefore, AAF proposes not to install VPD at any of those respective locations. Rather, AAF proposes to delay the descent of the exit gate to mitigate against the hazard of motor vehicles becoming stopped or stalled on the tracks. FRA categorically disagrees with AAF's approach regarding this issue.

FRA also disagrees with AAF's contention that VPD technology is unreliable in areas where lightning is prevalent. It has been FRA's experience that VPD technology is reliable in areas that experience lightning storms as frequently as it occurs in Florida. Issues with lightning and concerns with the overall reliability of VPD technology have not been reported to FRA headquarters or regional signal specialists. In fact, a very similar type of vehicular detector loop has been used for a very long time in the traffic signal industry in Florida and lightning has not been an issue.

In addition, VPD systems have become an accepted design of several railroads across the country, including Class 1 railroads, and have functioned extremely well. These systems have the potential to connect to the train control system to notify the train engineer that a vehicle is stopped on the crossing ahead. However, the 3- or 4-quadrant gates designed to operate in timed mode only, without the use of VPD AAF proposes, do not have the capacity to notify the train operator when a vehicle is stalled or stopped on the crossing.

FRA's accident data indicates that in some counties where AAF will operate, more than a third of the crossing accidents involved motor vehicles that were stalled or stopped on the crossing. Crossing accidents involving passenger trains colliding with stalled or stopped vehicles have been known to have catastrophic results. The most effective safety measure to address the hazards of stalled or stopped vehicles at 3- or 4-quadrant gate crossings is the installation of dynamic exit gates with VPD technology connected to the train control system.

According to AAF's Tech Memo, they are utilizing General Electric's ElectroLogIXS XP4 equipment capable of supporting a wide range of grade crossing safety applications; including motion detection control, vital input monitoring, radio signaling capabilities, and vital relay drive output control. The noted concern by AAF regarding FECR's lack of VPD acceptance may be related to accepting an inductive loop detector as "vital". However, existing inductive loop detection

technology is equipped with a second loop built in to the cable that continually tests continuity of the first loop. If the testing finds a broken (non-inductive) loop, it shuts the system down and an alarm is issued though the Vital Harmon Logic Controller at the crossing. It interprets the loop failure, notifies the engineer of an approaching train, initiates a penalty brake application if the engineer does not take appropriate action, and notifies the train dispatcher or signal maintainer of the failure indication at the crossing.

FRA's experience has been that inductive loops are very reliable. For example, in Massachusetts, a 4-quadrant gate crossing on the MBTA's Greenbush Line has been in service since 2007 and to FRA's knowledge only one VPD loop detector has failed which was quickly detected. Subsequently, the loop was easily replaced within a few hours.

In another example, there are 69 4-quadrant gate installations that have been in service since 2003 along the Illinois high-speed rail corridor that employ an enhanced VPD system consisting of inductive loop detectors similar to those in Massachusetts. The detectors were designed to fail their health output in the event of a shorted or open primary wire within the pavement. Additionally, they also employ the test loop functionality. Basically, the detector uses this imbedded second loop by periodically shorting the wires simulating the presence of a vehicle to verify the functionality of the primary loop.

These 4-quadrant gate systems have proven to be reliable and effective. Due to the apprehension by some railroads on the reliability of the detection systems when they were installed, these 4-quadrant gate systems in Illinois were designed to automatically revert to a timed mode operation, as a back-up, if a vehicle detection system failure were to occur. Based on the proven reliability of the systems, this back up mode has now been removed and the 4-quadrant gated systems are operating exclusively under VPD.

In 2009, an FRA-sponsored study by VOLPE was conducted on the reliability of those 69 4-quadrant gate systems in Illinois. The study's focus was on the operational integrity of the vehicle detection systems and the reliability of the railroad signaling system components interconnected with the grade crossing electronic components. The study concluded that most equipment failures or incidents were related to the maintenance and inspection practices, and not attributable to the VPD.

Regarding Illinois's high speed rail corridor, its VPD system will be used in conjunction with the Incremental Train Control System (ITCS). As a high speed train approaches, it will detect the presence of vehicles on the crossing and if the crossing is not clear and all gates down, it will automatically send a message to the train crew to allow the train to slow down or stop before it reaches the crossing. This is modeled on the system used at crossings along the Northeast Corridor. As an added safety benefit, their VPD system will also be designed to detect vehicles that are stopped for an extended period of time; as in the case of a stalled or high-centered vehicle, even when the crossing is not active and a train is not on the approach.

Once again, as mentioned at the October 8, 2015, meeting at FRA Headquarters with AAF officials, FRA suggests that AAF reach out to the Illinois Commerce Commission (ICC) to discuss grade crossing engineering design options for train speeds 80 MPH and higher. They are using the

same predictor units, the XP4, with controlled four quadrant gates, and VPD as the FEIS requires AAF to use. Currently, all other 4-quadrant gate installations in Illinois use the Exit Gate Management System (EGMS). Therefore, the ICC is a recommended resource. For example, since 2011 they have been working with General Electric's (GE) signals engineers to demonstrate the use of an alternate form of 4-quadrant gate control at a test-location crossing. GE implemented logic equations into the XPR that mirrored much of the EGMS functionality and vehicle detection capabilities. The system is performing well.

Furthermore, as an option, the use of VPD with 4-quadrant gates does not preclude the use of timed mode for the operation of the exit gates. VPD can be used to supplement timed mode to further delay the lowering of an exit gate in the event vehicular traffic has not cleared the crossing. It is FRA's opinion that a near simultaneous dropping of all gates (dynamic exit gates) serves as a better deterrent to motorists who may rush under an entrance gate as it is lowering, or to those who try to circumvent the entrance gate before the delayed descent of the exit gate (timed mode) has lowered.

AAF required action: AAF must equip all 3- & 4-quadrant gated crossing locations with vehicle presence detection technology that is connected to the train control system and prevents the lowering of the exit gate when a vehicle is stopped on the crossing.

100 foot non-traversable curbed medians

The FEIS requires 100' minimum non-traversable medians to discourage motorists from driving around the gates. AAF believes reducing the medians to as low as 60' is just as effective. The FRA does not consider a reduction of the 100' median length as an acceptable safety alternative. The 100' length greatly reduces the chances of motorists driving around the tip of the gate.

The 100' length is also appropriate for an environment where trains are travelling up to 110 MPH. If a collision occurs at these higher speeds, the likelihood of a derailment increases that will endanger the lives of the passengers and crew on the train. Due to the increased likelihood of casualties to people on the train, the installation of 100' non-traversable curbed medians are warranted and enhances safety compared to the 60' length that AAF is proposing.

AAF required action: AAF must install exit gates at locations where it cannot achieve 100' of non-traversable median curbing.

Gate Orientation at Skewed Crossings (Miami to Cocoa)

At various severely skewed acute-angled grade crossings throughout the entire AAF service route (from Miami to Cocoa), where some gates are as much as 28-feet away from the centerline of track, AAF does not plan to orient the gate arms parallel to the rail to comply with FDOT's standard of 15-feet from centerline of rail.

The intent of aligning crossing gates parallel to the track at acutely skewed crossings is to improve safety through the reduction of the open queuing space that could trap a vehicle between the gate and the nearest rail, or gates descending onto vehicles. This orientation also deters

vehicles from driving around the gate because the layout of parallel gates makes it much more difficult for those motorists to drive around the gates. The three gate lights can be adjusted to be perpendicular to the motorist.

Amtrak adopts this practice of parallel gate orientation at acute-angled crossings. The American Railway Engineering and Maintenance-of-Way Association (AREMA) recognizes this gate orientation as one of many recommended configurations in Part 3.1.36 of the AREAMA C&S Manual.

AAF recommended action: Although this is not a requirement in the FEIS, due to the increased safety benefits, FRA recommends that AAF re-align all gates parallel to the rail at severely skewed acute-angled locations.

Pedestrian Gates

The FEIS requires the installation of separate pedestrian gates at locations where an exit gate is adjacent to a sidewalk and the separate pedestrian gate is to lower simultaneously with the entrance gates. At every 3- and 4-quadrant gated location, AAF proposes to use the vehicular exit gate to include the sidewalk and roadway together, in lieu of a separate pedestrian gate. FRA objects to this change from the FEIS because it poses a significant safety risk when the exit gates are delayed by giving a pedestrian the opportunity to proceed into the crossing before the exit gates descend.

AAF required action: AAF must install separate pedestrian gates at exit gate locations adjacent to sidewalks.

Remote Health Monitoring (Miami to Cocoa)

While the Remote Health Monitoring (RHM) functions proposed by AAF provide a useful safety feature, it may fall short of the safety critical functions that RHM technology is intended to provide. FRA's overall concern is that it is unclear whether or not the type of RHM technology AAF proposes will send a message to the train dispatcher or railroad maintenance personnel to notify them of crossing signal malfunctions or false activations. If this is the case, the RHM system would do little to facilitate more timely repairs of crossing signal malfunctions or false activations, which is one of the primary purposes of RHM systems.

It is well known that crossing warning signals are subject to periodic malfunctions, especially false activations, very often due to environmental conditions beyond the railroad's control. It would not be unusual for several crossing signal malfunctions to occur each month on a railroad line with 382 crossings. When motorists encounter crossing false activations they are often tempted to drive through or around the malfunctioning gates, especially at crossings that provide the sole means of access to a neighborhood, as is the case at a number of AAF crossings. In fact, FRA has found that malfunctioning crossing signals tend to reduce the credibility of the crossing warning systems. The issue of false activations reducing the credibility of the crossing warning signals is not a mere theoretical concern; it is supported by data analysis.

FRA has analyzed grade crossing accidents following crossing signal malfunctions and false activations. FRA discovered that at those grade crossing locations where false crossing signal

malfunctions occurred, accidents increased during the 24-hour period and during the one-week period following the malfunctions. Consequently, RHM technology that facilitates timely repairs of crossing malfunctions serves to minimize motorist's exposure to malfunctioning crossings and thereby reduces the risk of crossing accidents. For this reason, RHM systems are critically important to safety.

Also, because of the safety critical functions of RHM, it is essential to the safety of the crossings that the RHM systems themselves are kept in good working order. Therefore, whenever a health monitoring system should fail to perform its intended function, it should be treated as any other crossing signal component malfunction and be repaired or replaced without undue delay.

AAF recommended action: Although this is not a requirement in the FEIS, FRA recommends that AAF equip all grade crossings along the entire AAF service route (from Miami through Cocoa) with RHM technology that constantly monitors the health of the crossing warning system and automatically notifies the train dispatcher and/or railroad maintenance personnel each time a crossing malfunction or false activation is detected.

Simultaneous and Advanced Traffic Preemption

FRA is satisfied with the efforts AAF is taking on their collaboration with the municipalities by conducting a thorough evaluation of the Simultaneous and Advanced Traffic Preemption needs to determine whether Simultaneous or Advanced Preemption is required at each grade crossing location.

Jonathan Dickinson State Park Crossing

Of special note is a concern identified in the FEIS (Page 7-19) regarding the grade crossing located in Jonathan Dickinson State Park [DOT# 272370D, M/P 277.70]. Park officials are seeking both median barriers and 4-quadrant gates to ensure optimum safety measures for the users of the state park facility. FRA brought this to the attention of AAF officials at the December 2, 2015, technical meeting. As such, FRA expects AAF to fulfill the grade crossing enhancements and commitments for this crossing in the FEIS unless AAF receives written confirmation from park officials approving the installation of either 4-quadrant gates or median barriers.

Recent AAF Civil Design Plans

As a result of the December 2, 2015, technical meeting with AAF, the FRA has approved AAF's latest design proposals for the civil design for the following grade crossing locations:

- Rinker (private crossing), M.P. 176.10, US DOT # 272105N: locked gates with existing 2-quadrant gates. Procedures to gain permissible access will follow from AAF;
- Gus Hipp Blvd., M.P. 177.13, US DOT # 272926T: 3-quadrant gates with 135' non-traversable curbed median;
- Carver Road, M.P. 179.14, US DOT # 272109R: 4-quadrant gates;
- Fee Avenue, M.P. 194.00, US DOT # 272135F: 4-quadrant gates;
- Strawbridge Avenue, M.P. 194.19, US DOT # 272138B: 3-quadrant gates with 100' non-traversable (curbed) median;

- Valkaria Road, M.P. 203, US DOT # 272151P: 100' non-traversable curbed medians (each approach);
- Chamberlain Blvd., M.P. 238.40, US DOT # 272213K: 3-quadrant gates with 100' non-traversable (curbed) median; and
- SE Crossrip Street, M.P. 271.40, US DOT # 272362L: 4-quadrant gates.

The crossings listed above meet the par level of safety from a civil standpoint that is outlined in FRA's Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail. FRA expects that the required safety enhancements will be incorporated, such as but not limited to VPD and RHM.