

APPENDIX 4: PUBLIC AND AGENCY COORDINATION

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Appendix 4 – A
CORRESPONDENCE WITH NJ TRANSIT

Appendix 4 – A – 1

LETTER FROM FRA TO NJ TRANSIT, NOVEMBER 6, 2018



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

November 6, 2018

NJ Transit
Attention: Jeremy Colangelo-Bryan, Chief Planner
One Penn Plaza East
Newark, NJ 07105

Re: Invitation to accept NEPA Participating Agency status for the Federal Railroad
Administration-led Sawtooth Bridges Replacement Project

Dear Mr. Colangelo-Bryan:

The National Railroad Passenger Corporation (Amtrak) is proposing to replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the “Sawtooth Bridges,” which are critical links and existing bottlenecks on Amtrak’s Northeast Corridor (NEC). The NEC is one of the busiest transportation systems in the world. The Sawtooth Bridges are in the Town of Kearny, Hudson County, New Jersey between Newark Penn Station and Secaucus Junction (see Figure 1-1). The Federal Railroad Administration (FRA) is serving as the lead agency for the Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed Sawtooth Bridges Replacement Project. The FRA invites New Jersey Transit Corporation (NJ Transit) to be a Participating Agency on the proposed Sawtooth Bridges Replacement Project, as you may have an interest in the project based on your operations along the Sawtooth Bridges and other rail infrastructure within the study area and special expertise.

The increasing age of the Sawtooth Bridges, their poor structural condition, and their two tracks (which are restricted to 60 miles per hour [mph]) limit the efficiency and reliability of rail operations throughout this segment of the NEC. The purpose of the Sawtooth Bridges Replacement Project (Proposed Project) is to achieve a state of good repair and to improve the reliability and resiliency of rail service along this critical segment of the NEC. The Sawtooth Bridges do not cross any bodies of water; rather, they span over other rail tracks. Amtrak Bridge No. 7.80 carries two NEC tracks over four NJ Transit rail tracks that serve the NJ Transit Morris & Essex Line. Amtrak Bridge No. 7.96 carries the two NEC tracks over one Port Authority Trans-Hudson Corporation (PATH) Newark–World Trade Center (WTC) rail track and one Consolidated Rail Corporation (Conrail) freight rail track.

In accordance with the Council on Environmental Quality (CEQ) final implementing regulations for NEPA (42 USC § 4370m(17)), the FRA requests your assistance and

participation in the NEPA process in the following ways:

- (a) Attendance at and input during agency coordination meetings (as appropriate);
- (b) Comment and feedback on the enclosed administrative draft EA;
- (c) Guidance on relevant technical studies included as part of the EA;
- (d) Identification of issues related to your agency's special expertise;

Please provide your written acceptance or declination of this invitation and comments on the enclosed EA on or before December 3, 2018. If you have any questions or would like to discuss our respective roles and responsibilities during the NEPA process in more detail, please contact me at (202) 493-0844 or brandon.bratcher@dot.gov.

Sincerely,

A handwritten signature in blue ink, appearing to be 'B. Bratcher', with a long horizontal flourish extending to the right.

Brandon Bratcher
Environmental Protection Specialist

enclosure

Appendix 4 – A – 2

LETTER FROM NJ TRANSIT TO FRA, DECEMBER 21, 2018

Philip D. Murphy, Governor
Sheila Y. Oliver, Lieutenant Governor
Diane Gutierrez-Scaccetti, Acting Commissioner
Kevin S. Corbett, Executive Director

NJ TRANSIT
One Penn Plaza East
Newark, NJ 07105-2246
973-491-7000

December 21, 2018

Brandon Bratcher
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: NJ TRANSIT comments on the Federal Railroad Administration-led Sawtooth
Bridges Replacement Project Administrative Draft EA

Dear Mr. Bratcher:

Thank you for granting NJ TRANSIT the opportunity to act as a Participating Agency and review the Administrative Draft of the Sawtooth Replacement EA. Our attached comments are offered with the intent of helping Amtrak provide a clear picture of this complex section of right-of-way, bringing more focus on the needs of many operators, track connections, future plans, and coordination challenges that this project must face. With this transmittal we are recommending consideration of refinements to Amtrak's approach that might help ensure that the work most needed in the near term has the best chance of advancing without unnecessary interruption or delay.

From our perspective it may be more prudent to design the new alignments for the project in such a way that the functionality of the current bridges can be replaced, essentially attaining a state of good repair (SOGR), while making sure not to preclude a third and fourth track that would have separate utility under the Gateway Program. As currently defined in the EA, in advancing one alternative to meet multiple needs, Amtrak runs the risk of overcomplicating the critical SOGR project elements, which may pose a significant risk to their successful and timely implementation. This is because conflating SOGR needs with capacity and speed considerations likely will result in elevating the project cost and extending its schedule for implementation. What is needed is a project that can be implemented quickly and at a cost that is reasonable to fund.

NJ TRANSIT is recommending that this EA more fully explore the environmental, cost, and temporal impacts of constructing replacement alignments that support 90 mph MAS versus a slower MAS. We are also recommending that the first phase, the SOGR portion, of this project be defined independently so that the timing and funding of the second phase, the capacity/redundancy portion, does not prevent the SOGR project from rapid advancement and implementation.

It is possible that Federal Transit Administration funding will be sought for one or both proposed phases of this project. As such, issues like design speeds must be fully understood from the perspective of “commuter” service such as that operated by NJT, with a focus on maintaining SOGR and reliability.

Again, thank you for the opportunity to participate in the development of this EA; we look forward to our continued engagement in the process.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Colangelo-Bryan', enclosed within a thin black rectangular border.

Jeremy Colangelo-Bryan

Cc. Jeannie Kwon
Justin Davis
Paul Wyckoff
Eric Daleo

“Administrative Draft” Sawtooth Bridges Replacement Project

Environmental Assessment and Draft 4(f) Evaluation (EA)

PRELIMINARY DRAFT COMMENTS

General/ Support/Need

NJT strongly supports replacing the Sawtooth Bridges and is appreciative of the opportunity to engage with Amtrak on this project. The bridges are over 100 years old and were not designed to the higher engineering standards of the rest of the NEC since freight trains never used this portion of the NEC (something not brought out in the EA).

NJ TRANST has a vested interest in not having a capacity constraint imposed on the trains we can operate while these bridges are being replaced or upgraded. We appreciate that the proposed plan avoids causing NJT to limit its services which use the NEC and that a meaningful attempt was made to limit temporary impacts to the M&E while the new bridges are being constructed.

NJ TRANSIT also appreciates that the plan is to construct bypass tracks in advance of replacing the existing bridges to reduce impacts on existing operations.

In support of the purpose and need for the project, NJT recommends that more emphasis be placed on the fundamental need to sustain the existing functionality of the NEC and to minimize disruptions, in order to better inform the public of the criticality of this project.

Environmental Process

In the purpose and need, it is stated that the proposed project will meet the intent of the NEC Future Tier I EIS and ROD for improved intercity rail services. To this end, the project will allow trains to travel at a maximum authorized speed of 90 mph and will provide a four track railroad from Newark into Midtown Manhattan. **The arguments in favor of advancing the project do not emphasize enough the fundamental need to sustain the existing functionality of the NEC and minimize disruptions to existing Amtrak and non-Amtrak train services.** These are among the most compelling arguments in favor of what is proposed.

In the goals and objectives 90 mph MAS is stated as a critical element that would be used to eliminate potential candidate alternatives. NJ TRANSIT believes a more appropriate analysis would permit consideration of alternatives that are designed to a slower MAS, such as 60 mph

MAS. This could provide a more thorough context related to environmental impacts and potential costs.

Operations

The necessity of a 90 mph MAS in this section of the railroad is not clear. The EA notes that the area is constrained by a number of physical issues that limit speeds. The EA also notes that the “poor structural condition... and... two tracks (which are limited to 60 miles per hour... limit the efficiency and reliability of rail operations through this segment of the NEC.” It is not clear if this is stating that it is the speed limitation or the condition that limits the efficiency/reliability of the railroad. We would suggest that the speed “restriction” is not the limitation. Please provide technical documentation that supports the suggestion that a 90 mph MAS will improve the efficiency and reliability of this track segment and quantifies the difference between the two speeds.

Given trends in freight rail clearance requirements do your designs meet the 17’ car under wire Plate F standards?

Cost

NJ TRANSIT notes that there is no discussion of the overall capital cost of this project, nor of potential funding sources.

Although not generally required in an EA, we recommend that you update the document to include general capital assumptions **in relative terms (such as “high/medium/low” cost) when comparing alternatives and incremental approaches** to advancing the project.

How would the alternatives considered compare if they all assumed a 60 mph MAS? Would the alternatives be less complicated and costly? Would the limits of the work area, and associated construction impacts, be as large?

Funding

This project is but one of several in the mix of State of Good Repair projects within the State of New Jersey that may require financial action by NJ TRANSIT and/or the State of New Jersey, as well as the Federal Transit Administration. The yet to be identified additional cost associated

with providing the proposed 90 mph MAS on the Sawtooth Bridges would need to be understood in this funding context.

Impacts

The proposed plan as already noted avoids causing NJ TRANSIT to limit its services which use the NEC. There are some temporal impacts which may be felt on the M&E while the new bridges over the M&E are put in place.

We would ask that more detail be provided regarding the degree to which the existing services (especially the M & E) will be impacted

Speed

NJ TRANSIT does not require that the maximum authorized speed (MAS) be 90. Designing for trains to travel at this MAS imposes additional design constraints on the project which add to the capital cost and subsequent maintenance costs.

While NJ TRANSIT staff understands that there is a desire on Amtrak's part to reduce travel times between Washington and NYC it is unclear to us the degree to which increasing the MAS through this congested section of the NEC will help in that goal. The segment of track proposed for improvement in this EA is approximately ½ mile in length and it is speed constrained to the west by 60 mph track along the curve at HUDSON interlocking. The EA needs to specifically define the operational benefits associated with the use of 90 mph MAS through this very short section of track that is so close to Newark Penn Station and the curve at HUDSON, including expected travel time and reliability benefits. With the current level of detail provided it would appear that the benefits would be marginal compared to the cost.

We disagree, unless further documentation can be provided, with primary goal #3 that 90 mph MAS is a critical need to improving service efficiency and reliability, and do not believe that it should function as a fatal flaw criteria when developing or screening otherwise viable alternatives. Attempting to reach this speed would not be easy during peak operating hours given the variety of vertical and horizontal curves, and crossovers in this general area.

Given that Secaucus Station is generally walled-off along both longitudinal sides, effectively creating a tunnel within which trains will pass along passenger tracks, there will likely be safety concerns related to trains traveling through at a high rate of speed. We recommend that

Amtrak update a study on this issue performed for NJ TRANSIT during the design phase of the Secaucus Station (that study can be provided at Amtrak's request).

Coordination

Given that the proposed alternative would impact both services, we would recommend reaching out to PATH and Conrail in advance of publishing this EA.

Although perhaps outside of the bounds of the EA specifically, an understanding of how this project factors into the NECC Major Projects (Backlog) process, in Amtrak's view, would be useful in addressing some of the cost and operational issues identified above.

Timing/Phasing

Given the proposed schedule for this project, Portal North Bridge, and the Hudson River Tunnel (HRT), Amtrak will need to be able to sufficiently support each of the projects – as abundantly as possible with flag protection and force account personnel – in order to not impede on the progress of any of the 3 projects, and have the ability to support the daily, routine maintenance needs and requirements of the NEC. NJ TRANSIT suggests that preliminary, draft staffing projections be made of the numbers of Amtrak personnel that will be needed of each union craft if all 3 projects (HRT, Portal, and Sawtooth) are proceeding at the same time.

Given that this project is a critically important and time sensitive SOGR project that, if delayed, would increase the chance of a catastrophic failure on the NEC, NJ TRANSIT recommends considering a phased approach, and that Amtrak consider coordinating phase 2 with target implementation after the opening of Portal Bridge North and before the start of construction on Portal Bridge South. The benefits of the four tracks at Sawtooth are most meaningfully realized once Portal South is complete. If there are significant benefits to the four tracks in the absence of Portal South then the details of those should be clearly documented in this EA

Construction

Given the limited space to do work in this area of the NEC, Amtrak should be give consideration to working with Conrail to deliver by rail the large steel beams that will be erected as part of both Sawtooth North and South bridges. Additionally, utilizing NJ Transit's M&E Line off hours– might also be a good alternative for delivery of large materials.

Connectivity

For the ***Eastbound Waterfront Connection*** it is important to remember that beside the role it can play to offer a more resilient rail service allowing some NEC trains to access Hoboken Terminal, it also is a means of ingress and egress from the MMC. NJ TRANSIT requests that Amtrak consider the likelihood of a second eastbound connecting track to facilitate two-way train traffic through this area. This EA should also outline the potential impacts that the proposed alternatives might have to NJ TRANSIT's desired improvement to the speed of Eastbound Waterfront connection in the future.

The ***Westbound Waterfront Connection***, aside from increasing the ability of NJ TRANSIT to send some trains to/from Hoboken when there is a loss of train capacity on the NEC, will also play a role with train movements in and out of the MMC and responding to the long term desire not to have westbound trains cross in front of eastbound NEC trains.

Both the current (Eastbound Waterfront) and future (Eastbound and Westbound Waterfront) connections will provide resiliency and redundancy in the case of service disruptions east of Sawtooth and additional capacity in advance of the completion of the Gateway Program

Similarly, NJ TRANSIT would appreciate it if the Sawtooth EA explicitly state that the Sawtooth design is and will be consistent with the work of the NEC Initiatives project. This can at least partially be accomplished by modifying section 1.4.1 of the document by including the NEC Initiative and its findings into that section. That section could also outline the steps proposed to prevent the preclusion of future changes to the existing (eastbound waterfront) and future (westbound waterfront) connections between the NEC and the M & E to Hoboken as described above.

The EA should be updated to include the milepost location, makeup, and functionality of the Red Bridge, and how it ties in to the Sawtooth Bridges reconstruction proposals.

Independent Utility

Figures of alignments reference "Gateway Tracks." This would seem to run counter to statements in the text about independent utility.

Historical & Environmental

- Cumulative Impacts should discuss broader set of projects that helps "justify" the full option 2A.

- Chapter 3, page 32, the reference to the spur of the NJ Turnpike built in 1976 should be the Western Spur. Also, that spur was started in 1968 and finished in 1970. The Eastern Spur was completed as noted in 1954.

Specific Comments

Executive Summary

p. 2 – Primary goal 3 indicates that service can be improved by increasing design speeds. This should be explained. It may not improve service for NJ TRANSIT.

p. 4 – NJ TRANSIT Red Bridge should be explained – should also be consistently referenced in the photographs (see 1-3D).

Section 1 (should this be Chapter 1?): Purpose and Need

p. 3 – What is the basis for the stated passenger projections?

p. 6 – The description of the need and utility of the proposed Westbound Waterfront Connection and its existing Eastbound counterpart is missing important aspects of what roles both connections must play. On the second paragraph from bottom of the page discussion the WB is characterized as a way to “meet expected passenger demand” on several lines. This is incorrect.

Section 2 (should this be Chapter 2?)

P 8 – Would the relocation, realignment, or removal of HUDSON Interlocking, be required under Option 2A (selected option) be necessary if a 60 mph MAS were assumed? Please provide more detail on how these various modifications to HUDSON might be laid out and the operational and environmental impacts that might result.

P 10 – Please clarify your statement that service transfer to the new M&E track 5 can occur with no effect to NJ TRANSIT service.

P 11 – In Section 2.5.5 Amtrak’s apparent, new turnout standard proposed to be implemented between SWIFT Interlocking and the modified ALLIED (existing), EARLY (new) and LIGHT (new) Interlockings located east of Secaucus Junction Station is the “#24 Turnout”. Since HUDSON Interlocking is composed of several #15 Turnouts and Crossovers, and since HUDSON is to be relocated in a railroad west direction, would future engineering protocol incorporate the installation of #24’s into HUDSON? And, is there enough room length-wise to accommodate

the longer turnouts? Please provide clarification on how this interacts with the recommended MAS.

P 12 – In Section 2.7 - Bridge Span Design: Given the skew of the various tracks that will cross underneath both Sawtooth North and Sawtooth South, careful layout of the piers and abutments will have to be well thought-out. Side and vertical clearances will weigh heavily on the depth of the superstructure of both bridges, irrespective of whether or not short-span or long span options are considered. This will need to be vetted-out during the future design phases of the project

Also in this section, Will there be a current or future need to increase the vertical clearance at each bridge location? If so, will property be available length-wise along the NEC to introduce longer vertical curves on both the east and west ends of the new structures?

Chapter 3

P 2 – Please provide more detail on how the proposed construction will affect NJ TRANSIT service.

Appendix 4 – A – 3

LETTER FROM FRA TO NJ TRANSIT, JUNE 4, 2019



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

June 4, 2019

Jeremy Colangelo-Bryan
Chief Planner
Capital Planning and Programs
New Jersey Transit
One Penn Plaza East
Newark, NJ 07105

Re: Amtrak Sawtooth Bridges Replacement Project

Dear Mr. Colangelo-Bryan:

Thank you for your comments dated December 21, 2018 regarding the Administrative Draft Environmental Assessment (EA) for Amtrak's Sawtooth Bridges Replacement Project (Project). The Federal Railroad Administration (FRA) and Amtrak appreciate New Jersey Transit's (NJ TRANSIT) ongoing productive dialogue and continued involvement in the conceptual engineering and environmental planning process for the Project. NJ TRANSIT's input informed the development of the alternatives evaluated in the EA. Many of NJ TRANSIT's questions were discussed over the past year, and our coordination meeting on July 12, 2018 helped to further shape the EA. The attached correspondence from October 8, 2018 documents many of the topics discussed during our ongoing coordination. The purpose of this letter is to provide FRA's and Amtrak's responses to NJ TRANSIT's comments on the Administrative Draft EA.

General/Support/Need

Comment 1: NJ TRANSIT strongly supports replacing the Sawtooth Bridges and is appreciative of the opportunity to engage with Amtrak on this project. The bridges are over 100 years old and were not designed to the higher engineering standards of the rest of the NEC since freight trains never used this portion of the NEC (something not brought out in the EA).

Response 1: The comment underlines the need for the Sawtooth Bridges Replacement Project, which is explained in Chapter 1 of the EA. This section of the Northeast Corridor

(NEC) was more lightly engineered than other parts of the NEC that accommodated freight traffic hauled by steam locomotives. The very large dynamic forces resulting from the reciprocating driving machinery found on steam locomotives necessitated use of more robust bridge structures than would be needed to support the all-electric fleet operating into/from New York. The Pennsylvania Railroad (PRR) chose a design standard of a Cooper Rating of E-40, which was less than the standard used on contemporaneous freight lines. As a result, the structure has a smaller margin of safety as it aged. The replacement Sawtooth Bridges will have a Cooper Rating of E-80, which has become the standard applied across the NEC.

Comment 2: NJ TRANSIT has a vested interest in not having a capacity constraint imposed on the trains we can operate while these bridges are being replaced or upgraded. We appreciate that the proposed plan avoids causing NJT to limit its services which use the NEC and that a meaningful attempt was made to limit temporary impacts to the M&E while the new bridges are being constructed. NJ TRANSIT also appreciates that the plan is to construct bypass tracks in advance of replacing the existing bridges to reduce impacts on existing operations. In support of the purpose and need for the project, NJT recommends that more emphasis be placed on the fundamental need to sustain the existing functionality of the NEC and to minimize disruptions, in order to better inform the public of the criticality of this project.

Response 2: FRA and Amtrak agree with NJ TRANSIT's underlying point. We understand that maintaining NEC capacity is critical to both NJ TRANSIT and Amtrak operations. The need to sustain NEC functionality and minimize disruptions is presented throughout the EA document and is specifically emphasized in the Project's goals: "Maintain service and connectivity along the NEC during construction" and "Accommodate current and planned future rail operations" (Chapter 1, page 8; Chapter 2, page 3).

Project alternatives that would have resulted in prolonged service disruption were eliminated from further evaluation. The Rehabilitation Alternative was considered and eliminated because it would not allow for continued rail use due to the infeasibility of reconstructing the bridges to a state of good repair without significant cost and disruptions to rail operations. The narrow skew angle of the NEC crossing over the Morris & Essex Line (M&E) along with very restrictive vertical clearances influenced the PRR to choose a bridge design where each floor beam supports both main tracks with little to no resiliency available from adjacent structure. Component replacement under these conditions is not possible without the complete shut-down of all NEC operations and the likely removal of two M&E tracks from service during the replacement period. Replacing identified deficiencies without a new adjacent bridge already in service would result in prolonged and unacceptable shutdowns of rail operations during rehabilitation and would

significantly and adversely impact the operations of Amtrak, NJ TRANSIT, PATH, and Conrail.

Environmental Process

Comment 3: In the purpose and need, it is stated that the proposed project will meet the intent of the NEC Future Tier I EIS and ROD for improved intercity rail services. To this end, the project will allow trains to travel at a maximum authorized speed of 90 mph and will provide a four-track railroad from Newark into Midtown Manhattan. **The arguments in favor of advancing the project do not emphasize enough the fundamental need to sustain the existing functionality of the NEC and minimize disruptions to existing Amtrak and non-Amtrak train services.** These are among the most compelling arguments in favor of what is proposed.

Response 3: FRA and Amtrak appreciate NJ TRANSIT's suggestion to modify the purpose and need statement (EA Chapter 1). FRA and Amtrak propose amending the purpose and need statement as follows: *"The purpose of the Proposed Project is to achieve a state of good repair and to improve the reliability and resiliency of rail service along this critical segment of the NEC, while preserving the current functionality of Amtrak's NEC service and NJ TRANSIT's commuter rail service."*

As stated in Response 2, FRA and Amtrak recognize that maintaining NEC capacity is critical to both NJ TRANSIT and Amtrak operations and the desire to minimize passenger rail service disruptions is thoroughly understood. Also, as mentioned in Response 2, maintaining service and connectivity along the NEC during construction are included in the Project goals (Chapter 1, page 8; Chapter 2, page 3).

Amtrak recognizes that with some 60,000 average weekday trips on the Morris and Essex Lines, these tracks host a significant share of NJ TRANSIT's rail ridership and are critical to overall network operations. The extended construction duration associated with the Project (6 to 7 years) is intended to maintain Amtrak, NJ TRANSIT, and other railroad operations. Project cost and schedule were evaluated in the context of passenger rail service disruptions. The Project could be completed in a far more compressed timeframe if impacts to NJ TRANSIT service had not been so highly prioritized.

Furthermore, Amtrak thoroughly understands the desire to minimize passenger disruptions as evidenced by the chosen strategy to construct a new parallel series of spans adjacent to the existing bridges. A wide variety of recent bridge replacement projects along the NEC plan to use this strategy of constructing the replacement spans next to the existing ones, including the completed Niantic River Bridge replacement, and the planned Connecticut River, Pelham Bay, Portal North, and Susquehanna River Rail Bridges, among others.

Often, the parallel spans would operate as temporary bridges in order to allow replacement of the existing bridge; however, in the instance of Sawtooth, the cost to build the temporary structure comes close to the cost of building a permanent bridge due to the physical site constraints and bridge directly crossing over other operating railroads. As discussed in Response 2, the design of the current Sawtooth Bridges precludes the use of one track during construction; a two-track by-pass design was therefore necessary. The chosen strategy for this project is cost-effective and reduces risk to maintaining rail traffic, as NJ TRANSIT points out is fundamental.

Comment 4: In the goals and objectives 90 mph MAS is stated as a critical element that would be used to eliminate potential candidate alternatives. NJ TRANSIT believes a more appropriate analysis would permit consideration of alternatives that are designed to a slower MAS, such as 60 mph MAS. This could provide a more through [sic] context related to environmental impacts and potential costs.

Response 4: Neither FRA nor Amtrak find this suggested change to be reasonable or consistent with FRA's NEC FUTURE Program (FRA's initiative to improve the passenger rail corridor from Boston, MA to Washington, DC). The first of four key components of FRA's NEC FUTURE Selected Alternative is "**Improve Rail Service:** Corridor-wide service and performance objectives for frequency, travel time, design speed, and passenger convenience." FRA's Selected Alternative establishes design speed targets in order to improve rail services, including a "general track operating design speed for the existing NEC [of] 160 mph, except where physical constraints or other operating constraints limit speed." (NEC FUTURE ROD, Section 3.2.1). FRA further elaborates on these objectives, stating: "New high-speed track capacity is necessary to achieve service, frequency, and travel time objectives between Washington, D.C., and New York City" (NEC FUTURE ROD, pg. 37).

Other bridge replacement projects in this region emphasize the need for increasing design speeds on the NEC. For example, in the Portal Bridge Capacity Enhancement Project FEIS issued by FRA and NJ TRANSIT, the importance of achieving 90 mph across the bridges was stressed for several reasons, including compatibility with adjacent segments of the NEC (page 2-6). This project, now called the Portal North Bridge Project and sponsored by NJ TRANSIT (who also managed the project's design phase, which maintained the 90 mph speed), notes in the June 2018 financial plan submitted by NJ TRANSIT to the Federal Transit Administration that the permanently restricted 60 mph speeds on the existing Portal Bridge cause bottlenecks in the corridor and notes that the new bridge will allow speeds to be raised to 90 mph (PNB Financial Plan p 17).

Amtrak, together with FRA and NJ TRANSIT, chose a 90-mph design speed for the

Sawtooth Bridges in order to be consistent with FRA’s overall goal to improve the NEC, as well as to be compatible with other NEC improvement projects in this immediate area. It should also be noted that the High-Density Interlocking System (HDIS), the high capacity signal system that was funded by NJ TRANSIT through the Newark-New York territory, is designed for higher speeds. Imposing a permanent 60 mph speed will likely reduce capacity, which is counter to the Project’s purpose and need.

Operations

Comment 5: The necessity of a 90 mph MAS in this section of the railroad is not clear. The EA notes that the area is constrained by a number of physical issues that limit speeds. The EA also notes that the “poor structural condition... and... two tracks (which are limited to 60 miles per hour... limit the efficiency and reliability of rail operations through this segment of the NEC.” It is not clear if this is stating that it is the speed limitation or the condition that limits the efficiency/reliability of the railroad. We would suggest that the speed “restriction” is not the limitation. Please provide technical documentation that supports the suggestion that a 90 mph MAS will improve the efficiency and reliability of this track segment and quantifies the difference between the two speeds.

Response 5: Please see Response 4 detailing the need to increase the speeds on this corridor to 90 mph.

The Sawtooth Bridges are located along a curved portion of the NEC alignment referred to as Curve 242. It is a long radius curve of over 12,000 feet and, in railroad engineering terms, is a 0 degree, 30 second curve. With one inch of superelevation and three inches of unbalance (consistent with the most conservative equipment designs NJ TRANSIT operates), trains may operate at speeds up to 106 mph through it. Trains able to operate at higher levels of unbalance can achieve faster speeds through the curve. A train traveling at 90 mph covers 132 feet in one second. Conversely, a train traveling at 60 mph travels 88 feet in one second—which is 33 percent slower. For the approximate 5,000-foot-distance between the midpoints of SWIFT and HUDSON interlockings, the 60-mph train would consume an additional 19 seconds, or approximately 15 percent of one two-minute train slot would be lost in traveling through this short distance.

Establishing a 60 mph maximum speed through this territory would place the NEC—at its busiest point—as among the slowest operating passenger rail lines in the nation. All commuter rail systems connecting to the NEC, including NJ TRANSIT, operate at higher maximum speeds along virtually every connecting route.

Comment 6: Given trends in freight rail clearance requirements do your designs meet the 17’ car under wire Plate F standards?

Response 6: No. Freight traffic does not currently and is not anticipated to traverse this segment of the NEC. The Project would, however, maintain existing clearances on the Conrail Center Street Branch, PATH, and the Morris & Essex Line.

Cost

Comment 7: NJ TRANSIT notes that there is no discussion of the overall capital cost of this project, nor of potential funding sources. Although not generally required in an EA, we recommend that you update the document to include general capital assumptions **in relative terms (such as “high/medium/low” cost) when comparing alternatives and incremental approaches** to advancing the project.

Response 7: Ranking alternatives based on cost at this early stage would be premature. The cost of the Project is highly dependent on the availability of work windows for foundation construction and the availability of Amtrak Engineering workforce. Working with NJ TRANSIT’s Operations and Engineering personnel will be a priority to ensure construction costs remain reasonable. Cost estimates will be refined during the preliminary engineering phase. It should be noted that the incremental cost to go from 60 mph to 90 mph on the approaching track is insignificant compared to the cost of building the bridges.

Comment 8: How would the alternatives considered compare if they all assumed a 60 mph MAS? Would the alternatives be less complicated and costly? Would the limits of the work area, and associated construction impacts, be as large?

Response 8: Please see Responses 4 and 5 for the reasons a 60 mph MAS is not reasonable or consistent with FRA’s NEC FUTURE Program. See Table 2-2 and Section 2.5.1 in Chapter 2 of the EA. The Alignment Options vary in their ability to allow 90 mph speeds for all permanent and temporary NEC tracks. The great majority of costs associated with any of the alternatives is associated with the new two-track structures over the M&E, Conrail and westbound (WB) PATH tracks. The new bridges must be constructed clear of all existing girders and columns and will be located on the north side (where there is sufficient room), nearly parallel to the existing bridges. Clearing the existing structure elements is the critical dimension to locating the new bridges. The alignment of the new structure conforms with the existing alignment and can support 100 mph+ speeds and is not the limiting factor. The maximum speed is determined by the permissible speeds trains will be able to run through the curved tracks approaching the new bridge. This is the limiting factor. The 90 mph speed versus a 60 mph speed is accommodated by changing the radius lengths of the respective curves and corresponding amounts of superelevation for the tracks leading to/from the new bridge. Establishing the longer radius curves for the 90 mph design speeds requires minor embankment widening and minor lengthening of the curved track sections. The costs for the modified approach track sections with respect to

the overall project costs are not significant. Overall, the project's cost and complication would not be meaningfully reduced if 60 mph had been the design speed.

Funding

Comment 9: This project is but one of several in the mix of State of Good Repair projects within the State of New Jersey that may require financial action by NJ TRANSIT and/or the State of New Jersey, as well as the Federal Transit Administration. The yet to be identified additional cost associated with providing the proposed 90 mph MAS on the Sawtooth Bridges would need to be understood in this funding context.

Response 9: As mentioned in Response 7, the incremental cost to increase from 60 mph to 90 mph on the approaching track is insignificant compared to the cost of building the bridges. A more refined cost estimate will be developed during the preliminary engineering phase of the Project, which is expected to include substantial involvement from NJ TRANSIT.

Impacts

Comment 10: The proposed plan as already noted avoids causing NJ TRANSIT to limit its services which use the NEC. There are some temporal impacts which may be felt on the M&E while the new bridges over the M&E are put in place. We would ask that more detail be provided regarding the degree to which the existing services (especially the M&E) will be impacted.

Response 10: The service impacts to NJ TRANSIT service were analyzed while developing the *Amtrak Sawtooth Conceptual Design Alternatives Analysis Report*, dated June 18, 2013. Amtrak has previously provided that report to NJ TRANSIT. To determine the track outage windows that could be available for construction on NJ TRANSIT tracks, a network simulation operations analysis was performed using a Rail Traffic Controller (RTC) model of the Project site¹. The results of the analysis were included in an appendix to the Amtrak Sawtooth Conceptual Design Alternatives Analysis report, which was provided to NJ TRANSIT.

The model assessed weekday and weeknight track outages on the Morris & Essex Tracks 2 and 3, and two-track outages during weekends on any combination of Tracks 1, 2, and 3. The RTC model results showed that taking one track out at a time would not adversely impact NJ TRANSIT weekday schedules. On weekends, two tracks could be out of service for the entire weekend without significantly impacting NJ TRANSIT scheduled service and scheduled non-revenue equipment movements. In addition, train volumes are light enough to allow single tracking and predicted delays for any combination of track outages

¹ Model based on the June 2, 2013 NJ Transit's Hoboken Division Operating Plan

were found to be negligible. Regarding Track 5, its reconstruction would require only a weekend outage to cut-over to the new alignment.

Separate from the NEPA process but as part of advancing the engineering for the Project, Amtrak suggests coordinating with NJ TRANSIT to perform a new simulation to reflect the existing Operation Plan closer to the construction phase to evaluate the operational impacts and identify available work windows.

Speed

Comment 11: NJ TRANSIT does not require that the maximum authorized speed (MAS) be 90. Designing for trains to travel at this MAS imposes additional design constraints on the project which add to the capital cost and subsequent maintenance costs. While NJ TRANSIT staff understands that there is a desire on Amtrak's part to reduce travel times between Washington and NYC it is unclear to us the degree to which increasing the MAS through this congested section of the NEC will help in that goal. The segment of track proposed for improvement in this EA is approximately ½ mile in length and it is speed constrained to the west by 60 mph track along the curve at HUDSON interlocking. The EA needs to specifically define the operational benefits associated with the use of 90 mph MAS through this very short section of track that is so close to Newark Penn Station and the curve at HUDSON, including expected travel time and reliability benefits. With the current level of detail provided it would appear that the benefits would be marginal compared to the cost.

Response 11: Responses 4, 5, 7, 8 and 9 outline why a 90-mph design speed was chosen for the Project. As explained previously, the NEC FUTURE plan defines overall operational benefits from integrated operations and standardized train performance at higher speeds across the NEC. Additionally, restricting this portion of the corridor to 60 mph would limit the ability of trains to take full advantage of the new 90 mph Portal North Bridge. Finally, reinstating the original 90 mph speed along this portion of the NEC will accelerate recovery time in the event of unplanned service disruptions.

We note the 60 mph restriction cited above for Hudson Interlocking is not due to geometric limitations. Hudson Interlocking is located on tangent track. The speed limitation stems from the bridge condition as well as certain signal system restrictions associated with historic operations no longer in effect. Notably, Hudson Interlocking was designed as a temporary measure to shorten the blocks during Portal Bridge construction. Once Portal North Bridge is completed, high-speed Tracks 2 and 3 within Hudson Interlocking (and the accompanying switches) will be substantially removed. The construction of four NEC tracks as part of the Project would provide redundant capacity for operations and would improve reliability and resiliency to the west of Swift Interlocking. The temporary (run-

around) tracks as well as all four permanent tracks would have a design speed of 90 mph each, and would result in an operational improvement, as compared to the existing condition over the speed-restricted Sawtooth Bridges.

Comment 12: We disagree, unless further documentation can be provided, with primary goal #3 that 90 mph MAS is a critical need to improving service efficiency and reliability, and do not believe that it should function as a fatal-flaw criterion when developing or screening otherwise viable alternatives. Attempting to reach this speed would not be easy during peak operating hours given the variety of vertical and horizontal curves, and crossovers in this general area.

Response 12: Please see Responses 4 and 11. The design concepts for the Sawtooth Bridges have followed the guidance and goals developed by FRA regarding speeds and are consistent with the HDIS. Amtrak agrees with these goals and believes they have been considered appropriately but not to the exclusion of other critical criteria. We do not believe there are any speed restrictions associated with the main track horizontal alignment geometry through the project territory and the special trackwork (switches) have been designed to provide for high speed diverging operations at Swift Interlocking for primary routes to sustain full utilization of track capacity. Secondary routes, such as at Hudson Interlocking, provide for 45 mph operations but these secondary routes are currently not critical to daily operations except during emergencies or track work. High speeds for these secondary routes are neither necessary nor cost effective. Furthermore, reverting to a 60 mph limitation in this portion of the corridor would be counter to the agreements between Amtrak and NJ TRANSIT to construct the New Initiatives Program.

Comment 13: Given that Secaucus Station is generally walled-off along both longitudinal sides, effectively creating a tunnel within which trains will pass along passenger tracks, there will likely be safety concerns related to trains traveling through at a high rate of speed. We recommend that Amtrak update a study on this issue performed for NJ TRANSIT during the design phase of the Secaucus Station (that study can be provided at Amtrak's request).

Response 13: Safety of proposed infrastructure and operations is fundamental. According to the Amtrak February 1, 2018 Timetable, 90 mph maximum speeds are authorized from Mile Post 3.0 to Mile Post 7.7 for Tracks 2 and 3. This territory encompasses both Secaucus Transfer Station as well as the Sawtooth Bridges. These speeds have existed since the inception of Secaucus operations a decade and a half ago and no safety issues identified with the operating speeds are known. Daily operations with speeds as high as 150 mph on tracks adjacent to station platforms can be found on the NEC and they have not presented problems. Amtrak will review the study referred to, but because nothing has changed since

that time, Amtrak does not believe the existing and proposed speeds are safety concerns.

Coordination

Comment 14: Given that the proposed alternative would impact both services, we would recommend reaching out to PATH and Conrail in advance of publishing this EA.

Response 14: We agree. Amtrak has coordinated and will continue to coordinate with the appropriate agencies and railroads. Amtrak will provide all interested parties with the opportunity to review and comment on the EA.

Comment 15: Although perhaps outside of the bounds of the EA specifically, an understanding of how this project factors into the NECC Major Projects (Backlog) process, in Amtrak's view, would be useful in addressing some of the cost and operational issues identified above.

Response 15: As noted in the comment, the EA does not discuss the NECC processes because they are outside the scope of NEPA. Generally, though, development of the Sawtooth Bridge Replacement Project has proceeded following NECC guidelines.

Timing/Phasing

Comment 16: Given the proposed schedule for this project, Portal North Bridge, and the Hudson River Tunnel (HRT), Amtrak will need to be able to sufficiently support each of the projects – as abundantly as possible with flag protection and force account personnel – in order to not impede on the progress of any of the 3 projects, and have the ability to support the daily, routine maintenance needs and requirements of the NEC. NJ TRANSIT suggests that preliminary, draft staffing projections be made of the numbers of Amtrak personnel that will be needed of each union craft if all 3 projects (HRT, Portal, and Sawtooth) are proceeding at the same time.

Response 16: Amtrak recognizes that force account plans must be developed for any project before going to construction. Given the advanced status of Portal North Bridge design, permitting, local funding commitments, and early construction work, it is reasonable to assume that Portal North Bridge construction will likely precede Hudson Tunnel and Sawtooth Bridges. Force account plans will be rigorously developed when there are better estimates regarding construction timing.

Comment 17: Given that this project is a critically important and time sensitive SOGR project that, if delayed, would increase the chance of a catastrophic failure on the NEC, NJ TRANSIT recommends considering a phased approach, and that Amtrak consider coordinating phase 2 with target implementation after the opening of Portal Bridge North

and before the start of construction on Portal Bridge South. The benefits of the four tracks at Sawtooth are most meaningfully realized once Portal South is complete. If there are significant benefits to the four tracks in the absence of Portal South then the details of those should be clearly documented in this EA.

Response 17: The new, four-track Sawtooth Bridges are not predicated on the construction of the new Portal Bridges. One of the initial steps of the design for the new Sawtooth Bridges will be to finalize the conceptual design of tying into both the existing Track 2 and Track 3 and the future Track 2 and Track 3 for the Portal North Bridge Project. This will enable the two projects to connect, regardless of whether the Sawtooth or the Portal North Bridge project moves forward to construction first. A final layout to allow for the “full build-out” of a future Portal South Bridge, including future Tracks 1, 4, will not be precluded at Swift Interlocking. The configuration continues with the track alignment concepts established as part of the Access to the Region’s Core (ARC) Project between Swift and Hudson Interlockings as agreed to by NJ TRANSIT and Amtrak. The EA makes it clear that the construction of four NEC tracks as part of the Project would provide redundant capacity for operations and would improve reliability and resiliency to the west of Swift Interlocking. Moreover, the train volumes over the Sawtooth Bridges would not increase until other projects along the corridor (including Portal South Bridge) are implemented. The four tracks constructed as part of the Project would result in operational benefits to Amtrak and NJ TRANSIT regardless of when Portal South Bridge is constructed.

Construction

Comment 18: Given the limited space to do work in this area of the NEC, Amtrak should be give consideration to working with Conrail to deliver by rail the large steel beams that will be erected as part of both Sawtooth North and South bridges. Additionally, utilizing NJ Transit’s M&E Line off hours– might also be a good alternative for delivery of large materials.

Response 18: FRA and Amtrak agree. The ability to take one track out of service at a time on the Morris & Essex Line would be extremely beneficial to the Project as the construction staging is refined as part of future design efforts. Furthermore, the use of the Conrail Center Street Industrial Track would facilitate this staging and will be considered moving forward.

Connectivity

Comment 19: For the *Eastbound Waterfront Connection* it is important to remember that besides the role it can play to offer a more resilient rail service allowing some NEC trains to access Hoboken Terminal, it also is a means of ingress and egress from the MMC. NJ TRANSIT requests that Amtrak consider the likelihood of a second eastbound connecting

track to facilitate two-way train traffic through this area. This EA should also outline the potential impacts that the proposed alternatives might have to NJ TRANSIT's desired improvement to the speed of Eastbound Waterfront connection in the future.

Response 19: The Sawtooth Bridges Replacement Project conceptual plans have been developed so as not to preclude reasonably foreseeable projects, including speed improvements on the Eastbound Waterfront. Amtrak is not aware of a second eastbound connecting track but would be pleased to review any available plans.

Comment 20: The *Westbound Waterfront Connection*, aside from increasing the ability of NJ TRANSIT to send some trains to/from Hoboken when there is a loss of train capacity on the NEC, will also play a role with train movements in and out of the MMC and responding to the long term desire not to have westbound trains cross in front of eastbound NEC trains.

Both the current (Eastbound Waterfront) and future (Eastbound and Westbound Waterfront) connections will provide resiliency and redundancy in the case of service disruptions east of Sawtooth and additional capacity in advance of the completion of the Gateway Program.

Similarly, NJ TRANSIT would appreciate it if the Sawtooth EA explicitly state that the Sawtooth design is and will be consistent with the work of the NEC Initiatives project. This can at least partially be accomplished by modifying section 1.4.1 of the document by including the NEC Initiative and its findings into that section. That section could also outline the steps proposed to prevent the preclusion of future changes to the existing (eastbound waterfront) and future (westbound waterfront) connections between the NEC and the M & E to Hoboken as described above.

Response 20: As noted in Response 19 from Amtrak's letter dated October 8, 2018 to NJ TRANSIT, the Westbound Waterfront Connection has not been precluded by the Project. Amtrak understands the importance of the WWC to regional mobility and has incorporated information about the Waterfront Connections (provided by NJ TRANSIT in 2013) into the Project design. If NJ TRANSIT changed or further developed the plans for the WWC, the Sawtooth Bridges' design team would be pleased to coordinate with NJ TRANSIT.

FRA and Amtrak will incorporate the findings of the NEC Initiatives report into Section 1.4.1 of the EA and will state that the proposed Project will not preclude the planned improvements described in the NEC Initiatives report.

Comment 21: The EA should be updated to include the milepost location, makeup, and functionality of the “Red Bridge”, and how it ties in to the Sawtooth Bridges reconstruction proposals.

Response 21: Please see Chapter 2 of the EA and references to potential effects to the Red Bridge in the Alignment Options comparison discussion (see Table 2-2 and Section 2.5.2).

Independent Utility

Comment 22: Figures of alignments reference “Gateway Tracks.” This would seem to run counter to statements in the text about independent utility.

Response 22: Figures 2-3 through 2-6 have been modified for clarification.

Historic and Environmental

Comment 23: Cumulative Impacts should discuss broader set of projects that helps “justify” the full option 2A.

Response 23: Chapter 4 discusses a broad array of relevant projects, including Hudson Tunnel Project, the new Moynihan Train Hall at New York Penn Station, the new Portal Bridges, Secaucus Junction, and Bergen Loop. The chapter also discusses the benefits of creating four mainline tracks as part of the overall Gateway Program, including improving system resiliency and connectivity and increasing capacity.

Comment 24: Chapter 3, page 32, the reference to the spur of the NJ Turnpike built in 1976 should be the Western Spur. Also, that spur was started in 1968 and finished in 1970. The Eastern Spur was completed as noted in 1954.

Response 24: The text in Chapter 3 has been revised accordingly.

Specific Comments

Executive Summary

Comment 25: p. 2 – Primary goal 3 indicates that service can be improved by increasing design speeds. This should be explained. It may not improve service for NJ TRANSIT.

Response 25: Please see Responses 4 and 11.

Comment 26: p. 4 – NJ TRANSIT “Red Bridge” should be explained – should also be consistently referenced in the photographs (see 1-3D).

Response 26: Edits made. Photograph 1-3D now refers to the bridge as “NJ Transit Red Bridge”.

Purpose and Need

Comment 27: p. 3 – What is the basis for the stated passenger projections?

Response 27: Various trend analyses have supported this forecast. For purposes of clarity, the reference in Chapter 1 will be modified to specifically quote the *Northeast Corridor Infrastructure Master Plan*, dated May 2010, which projects 412 million annual NEC riders by 2030. Similarly, FRA’s *NEC FUTURE Tier I Final EIS* estimates that by 2040, approximately 439 million annual passenger rail trips will be made.

Comment 28: p. 6 – The description of the need and utility of the proposed Westbound Waterfront Connection and its existing Eastbound counterpart is missing important aspects of what roles both connections must play. On the second paragraph from bottom of the page discussion the WB is characterized as a way to “meet expected passenger demand” on several lines. This is incorrect.

Response 28: Existing language in the EA appears to be correct. According to NJ TRANSIT, the Westbound Waterfront Connection will increase NJ TRANSIT’S ability “to send some trains to/from Hoboken when there is a loss of train capacity on the NEC” as well as facilitate the movement of trains in and out of the Meadowlands Maintenance Complex so that westbound trains do not have to cross in front of eastbound NEC trains. Both the Eastbound and Westbound Waterfront Connections “will provide resiliency and redundancy in the case of service disruptions east of Sawtooth and additional capacity in advance of the completion of the Gateway Program”. In addition, according to the *New Jersey State Rail Plan* published in 2015, the Westbound Waterfront Connection “could have the effect of increasing NEC capacity and connectivity for NEC, [Raritan Valley Line], and [North Jersey Coast Line] line customers” (page 5-14). <https://www.njtransit.com/pdf/NJStateRailPlan.pdf>

Alternatives

Comment 29: P 8 – Would the relocation, realignment, or removal of HUDSON Interlocking, be required under Option 2A (selected option) be necessary if a 60 mph MAS were assumed? Please provide more detail on how these various modifications to HUDSON might be laid out and the operational and environmental impacts that might result.

Response 29: Option 2, which assumes 60 mph, would not require the relocation of Hudson Interlocking. Assuming a 90 mph MAS and based on conceptual Project design,

Amtrak would need to remove the interlocking or relocate it approximately 500 feet to the west. Relocating the interlocking requires minimal infrastructure changes, including relocating two crossovers and a signal bungalow within the existing Amtrak ROW. Whether Amtrak would remove or relocate the Hudson Interlocking depends on the timing of Project construction and the timing of the construction of Portal North Bridge. If the construction of Portal North Bridge is complete before the phase of the proposed Project that involves the construction that would tie the new NEC tracks to the Hudson Interlocking, Amtrak would remove the interlocking. Otherwise, Amtrak would relocate the interlocking. Please note the majority of the restored Hudson Interlocking was undertaken only to temporarily support the construction of Portal North Bridge (and, potentially, the Westbound Waterfront Project). Absent these projects, it would not have been restored. Except for the switches associated with the Eastbound Waterfront Connection and one crossover to Track 2, long-term plans call for its retirement.

Comment 30: P 10 – Please clarify your statement that service transfer to the new M&E track 5 can occur with no effect to NJ TRANSIT service.

Response 30: The reconstruction of Track 5 would only require a weekend outage to cut-over to the new alignment. The text in Chapter 2 has been modified to the following: *“Amtrak anticipates that service could be transferred to the new Morris & Essex Line Track 5 viaduct with minimal effect to NJ TRANSIT service.”*

Comment 31: P 11 – In Section 2.5.5 Amtrak’s apparent, new turnout standard proposed to be implemented between SWIFT Interlocking and the modified ALLIED (existing), EARLY (new) and LIGHT (new) Interlockings located east of Secaucus Junction Station is the “#24 Turnout”. Since HUDSON Interlocking is composed of several #15 Turnouts and Crossovers, and since HUDSON is to be relocated in a railroad west direction, would future engineering protocol incorporate the installation of #24’s into HUDSON? And, is there enough room length-wise to accommodate the longer turnouts? Please provide clarification on how this interacts with the recommended MAS.

Response 31: Please see response to comment 29. The issue of turnout size is moot.

Comment 32: P 12 – In Section 2.7 - Bridge Span Design: Given the skew of the various tracks that will cross underneath both Sawtooth North and Sawtooth South, careful layout of the piers and abutments will have to be well thought-out. Side and vertical clearances will weigh heavily on the depth of the superstructure of both bridges, irrespective of whether or not short-span or long span options are considered. This will need to be vetted-out during the future design phases of the project.

Response 32: FRA and Amtrak agree. All designs will be reviewed by NJ TRANSIT and Amtrak Engineering staff at 30 percent, 60 percent, 90 percent, and 100 percent design to ensure compliance with the respective railroad's standards and operational requirements. Furthermore, FRA intends to review the design at 30 percent.

Comment 33: Also in this section, will there be a current or future need to increase the vertical clearance at each bridge location? If so, will property be available length-wise along the NEC to introduce longer vertical curves on both the east and west ends of the new structures?

Response 33: Amtrak is aware of the vertical clearances that would be required if the Conrail Center Street Industrial Track were to be electrified. The conceptual design includes an increase in vertical clearance, and the Amtrak ROW has sufficient room to accommodate the run-off the track profiles.

Chapter 3

Comment 34: P 2 – Please provide more detail on how the proposed construction will affect NJ TRANSIT service.

Response 34: Please see Response 2 and 3. Separate information disclosing the service impacts to NJ TRANSIT during construction has been provided to NJ TRANSIT throughout the planning process. As noted in Response 10, Amtrak suggests that a new simulation be performed, separate from the NEPA process, using an updated operation plan provided by NJ TRANSIT.

FRA and Amtrak thank NJ TRANSIT again for its valuable input into the conceptual engineering and environmental planning process for the Project. The NEPA team expects to release the EA by the end of the year. If you have further comments or questions, please contact Brandon Bratcher, FRA Environmental Protection Specialist, at 202-493-0844 or brandon.bratcher@dot.gov.

Sincerely,



Marlys Osterhues
Chief, Environment and Corridor Planning Division
Office of Railroad Policy and Development

cc: Brandon Bratcher, FRA
Craig Caldwell, Amtrak
Petra Messick, Amtrak

Appendix 4 – B
CORRESPONDENCE WITH U.S. ARMY CORPS OF ENGINEERS

Appendix 4 – B – 1
LETTER FROM FRA TO USACE, NOVEMBER 6, 2018



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

November 6, 2018

U.S. Army Corps of Engineers
Environmental Analysis Branch Planning Division
Attention: Peter Wepler, Chief
26 Federal Plaza
New York, NY 10278

Re: Invitation to accept NEPA Cooperating Agency status for the Federal Railroad
Administration-led Sawtooth Bridges Replacement Project

Dear Mr. Wepler:

The National Railroad Passenger Corporation (Amtrak) is proposing to replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the “Sawtooth Bridges,” which are critical links and existing bottlenecks on Amtrak’s Northeast Corridor (NEC). The NEC is one of the busiest transportation systems in the world. The Sawtooth Bridges are in the Town of Kearny, Hudson County, New Jersey between Newark Penn Station and Secaucus Junction (see Figure 1-1). The Federal Railroad Administration (FRA) is serving as the lead agency for the Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed Sawtooth Bridges Replacement Project (Proposed Project). FRA invites the US Army Corps of Engineers (USACE) to be a Cooperating Agency on the Proposed Project, as your agency may have an interest in the Proposed Project based on your jurisdiction by law, including Section 404 of the Clean Water Act, and special expertise.

The increasing age of the Sawtooth Bridges, their poor structural condition, and their two tracks (which are restricted to 60 miles per hour [mph]) limit the efficiency and reliability of rail operations throughout this segment of the NEC. The purpose of the Proposed Project is to achieve a state of good repair and to improve the reliability and resiliency of rail service along this critical segment of the NEC. The Sawtooth Bridges do not cross any bodies of water; rather, they span over other rail tracks. Amtrak Bridge No. 7.80 carries two NEC tracks over four New Jersey Transit Corporation (NJ Transit) rail tracks that serve the NJ Transit Morris & Essex Line. Amtrak Bridge No. 7.96 carries the two NEC tracks over one Port Authority Trans-Hudson Corporation (PATH) Newark–World Trade Center (WTC) rail track and one Consolidated Rail Corporation (Conrail) freight rail track.

Construction of the Sawtooth Bridges Project would result in temporary disturbance of up to one acre of wetlands and open waters. Based on the preliminary wetland delineation conducted in the study area and the available conceptual designs, Amtrak anticipates that

the Proposed Project may permanently affect approximately 1.04 acres of regulated wetlands. Amtrak and FRA would identify exact mitigation measures and wetland compensation ratios in collaboration with your agency and other regulatory agencies during the subsequent preliminary design and permitting phase. At this time, Amtrak anticipates that mitigation requirements would be satisfied through a combination of restoration-in-place and purchasing mitigation credits from an available wetland mitigation bank.

In accordance with the Council on Environmental Quality (CEQ) final implementing regulations for NEPA (40 C.F.R. § 1501.6 and § 1508.5), FRA requests your assistance and participation in the NEPA process in the following ways:

- (a) Attendance at and input during agency coordination meetings (as appropriate);
- (b) Comment and feedback on the enclosed administrative draft EA;
- (c) Guidance on relevant technical studies included as part of the EA;
- (d) Identification of issues related to your agency's jurisdiction by law and special expertise;
- (e) Adoption of the FRA EA, when needed, to fulfill your independent NEPA obligations related to your Federal action and to reduce duplication with other Federal, State, Tribal and local procedures.

Please provide your written acceptance or declination of this invitation on or before December 3, 2018. Should you decline to accept our invitation to be a cooperating agency, we advise that you provide a copy of your response to CEQ as specified at 40 C.F.R. § 1501.6(c). We look forward to working with your agency on the preparation of the EA. If you have any questions or would like to discuss our respective roles and responsibilities during the NEPA process in more detail, please contact me at (202) 493-0844 or brandon.bratcher@dot.gov.

Sincerely,



Brandon Bratcher
Environmental Protection Specialist

enclosure

Appendix 4 – B – 2

E-MAIL FROM FRA TO USACE, JULY 12, 2019



Hannah Spierer <hannah@calladiumgroup.com>

Fwd: Sawtooth Bridges Replacement Project

Leslie Mesnick <leslie@calladiumgroup.com>
To: Hannah Spierer <hannah@calladiumgroup.com>

Fri, Jul 12, 2019 at 5:06 PM

----- Forwarded message -----

From: **Bratcher, Brandon (FRA)** <brandon.bratcher@dot.gov>
Date: Fri, Jul 12, 2019, 4:11 PM
Subject: RE: Sawtooth Bridges Replacement Project
To: James.H.Cannon@usace.army.mil <James.H.Cannon@usace.army.mil>
Cc: Leslie Mesnick <leslie@calladiumgroup.com>, Mielke, Matthew S [USA] <mielke_matthew@bah.com>, Messick, Petra T <petra.messick@amtrak.com>

Hi again Jim.

Sorry again for the phone tag – but I got your message that, at this time, USACE does not wish to join as a Cooperating Agency. Please let us know if you change your mind.

Otherwise, we'll keep you on our distribution list when the EA comes out, for situational awareness.

Have a great weekend!

[Quoted text hidden]

Appendix 4 – C
DISTRIBUTION LIST

**Amtrak Sawtooth Bridges Replacement Project
Environmental Assessment Distribution List**

Sal	First	Last	Title	Agency/Organization	Department/Division/ Office	Address 1	Address 2	City	State	Zip	Email
Mr.	Brandon	Bratcher	Environmental Protection Specialist	Federal Railroad Administration	Office of Railroad Policy and Development, Environmental & Corridor Planning Division (RPD-13)	1200 New Jersey Avenue, SE (MS-20)		Washington	DC	20590	brandon.bratcher@dot.gov
Ms.	Marlys	Osterhues	Chief, Environmental and Corridor Planning	Federal Railroad Administration	Office of Program Delivery	1200 New Jersey Avenue, SE (W36-37)		Washington	DC	20590	marlys.osterhues@dot.gov
Mr.	Peter	Weppler	Chief, Environmental Analysis Branch Planning Division	U.S. Army Corps of Engineers		26 Federal Plaza		New York	NY	10278	peter.m.weppler@usace.army.mil
Mr.	Stephen	Goodman	Regional Administrator, Region 2	Federal Transit Administration - Region 2		One Bowling Green	Room 428	New York	NY	10004	stephen.goodman@dot.gov
8ik	Dave	Kluesner	Acting Director, Region 2	U.S. Environmental Protection Agency - Region 2		290 Broadway		New York	NY	10007	kluesner.dave@epa.gov
Ms.	Jennifer	Anderson	Assistant Regional Administrator for Protected Resources	NOAA National Marine Fisheries Service	Protected Resources Division	55 Great Republic Drive		Gloucester	MA	01930	jennifer.anderson@noaa.gov
Mr.	Christopher	Boelke	NE Field Office Supervisor	NOAA National Marine Fisheries Service	Habitat Conservation Division	55 Great Republic Drive		Gloucester	MA	09130	christopher.boelke@noaa.gov
Ms.	Michaela	Noble	Director, Office of Environmental Policy and Compliance	Department of Interior		MIB-MS 2340	1849 C Street NW (MS 2462)	Washington	DC	20240	
Mr.	Andrew	Raddant	Regional Environmental Officer	Department of Interior	Office of Environmental Policy and Compliance, Northeast Region	15 State Street	8th Floor	Boston	MA	02109	andrew_raddant@ios.doi.org
				U.S. Fish and Wildlife Service	New Jersey Field Office	4 East Jimmie Leeds Road	Suite 4	Galloway	NJ	08205	NJFO_ProjectReview@fws.gov
Ms.	Ruth	Foster	Acting Director	NJ Department of Environmental Protection	Office of Permit Coordination and Environmental Review	401 East State Street	PO Box 420	Trenton	NJ	08625	Ruth.Foster@dep.nj.gov
Ms.	Sharon	Mascaro	Deputy Director of Land Use Management & Deputy Chief Engineer	New Jersey Sports and Exposition Authority		One Dekorte Park Plaza	PO Box 640	Lyndhurst	NJ	07071	smarscaro@njsea.com
Ms.	Francesca	Giarratana	Division Chief	Hudson County Division of Planning		Bergen Square Center	830 Bergen Avenue, Suite 6A	Jersey City	NJ	07306	fgiarrantana@hcnj.us
Mr.	Jonathan	Broder	Vice President - Corporate Development and Chief Legal Officer	Consolidated Rail Corporation		1717 Arch Street	Suite 1310	Philadelphia	PA	19103	jonathan.broder@conrail.com
Mr.	Ryan	Hill	Director - Design & Construction	Consolidated Rail Corporation		100 Howard Boulevard		Mount Laurel	NJ	08054	ryan.hill@conrail.com
Mr.	Bill	Kaeser	Assistant Chief Engineer	Consolidated Rail Corporation		100 Howard Boulevard	4th Floor	Mount Laurel	NJ	08054	william.kaeser@conrail.com
Mr.	Vincent	Milano	Design and Construction	Consolidated Rail Corporation		100 Howard Boulevard		Mount Laurel	NJ	08054	vincent.milano@conrail.com
Mr.	John	Keller	Executive Director	New Jersey Turnpike Authority		PO Box 5042		Woodbridge	NJ	07095-5042	

**Amtrak Sawtooth Bridges Replacement Project
Environmental Assessment Distribution List**

Sal	First	Last	Title	Agency/Organization	Department/Division/ Office	Address 1	Address 2	City	State	Zip	Email
Mr.	Kevin	Corbett	Executive Director	NJ Transit		One Penn Plaza East		Newark	NJ	07105	
Mr.	Jeremy	Colangelo-Bryan	Chief Planner	NJ Transit		One Penn Plaza East		Newark	NJ	07105	jcolangelo-bryan@njtransit.com
Mr.	Todd	Discala	Director, Trans-Hudson Intermodal Planning	NJ Transit		One Penn Plaza East		Newark	NJ	07105	tdiscala@njtransit.com
Ms.	Katherine	Marcopul	Deputy State Historic Preservation Officer	NJ Department of Environmental Protection	Historic Preservation Office	Mail Code 501-04B	501 East State Street, 4th Floor	Trenton	NJ	08625	kate.marcopul@dep.nj.gov
Mr.	Michael	Farbiarz	General Counsel	Port Authority of New York and New Jersey	Law Department	4 World Trade Center	150 Greenwich Street, 23rd Floor	New York	NY	10007	mfarbiarz@panynj.gov
Ms.	Elizabeth	Rogak, Esq.		Port Authority of New York and New Jersey	Law Department	4 World Trade Center	150 Greenwich Street, 25th Floor	New York	NY	10007	erogak@panynj.gov
Ms.	Mary	Murphy	Director	Port Authority of New York and New Jersey	Planning and Regional Development	4 World Trade Center	150 Greenwich Street, 23rd Floor	New York	NY	10007	mkmurphy@panynj.gov
Ms.	Clarelle	DeGraffe	Executive Director	Port Authority of New York and New Jersey - PATH		1 PATH Plaza		Jersey City	NJ	07306	
Ms.	Kelly	Pollard, P.E.	Manager of Technical Services	PATH Capital Project Management Division		1 PATH Plaza	6th Floor	Jersey City	NJ	07306	kpollard@panynj.gov
Mr.	Francis	Sacr	Interim Executive Director	Gateway Program Development Corporation	C/O Port Authority of New York and New Jersey	4 World Trade Center	15th Floor	New York	NY	10007	fsacr@panynj.gov
Ms.	Mary D.	Ameen	Executive Director	North Jersey Transportation Planning Authority		One Newark Center	1085 Raymond Boulevard, 17th Floor	Newark	NJ	07102	lgoldman@njtpa.org
Mr.	James	Bruno, Esq.	Town of Kearny	Castano Quigley LLC		155 Passaic Avenue	Suite 340	Fairfield	NJ	07004	jbruno@cq-law.com
Mr.	Christopher	Wilson	Program Analyst	Advisory Council on Historic Preservation		401 F Street NW	Suite 308	Washington	DC	20001	cwilson@achp.gov
Ms.	Kim	Penrod	Director, Cultural Resources	Delaware Nation		31064 State Highway 281	PO Box 825	Anadarko	OK	73005	kpenrod@delawarenation.com
Ms.	Tonya	Tipton	Director, Enrollment and Tribal Historic Preservation Office	Shawnee Tribe of Oklahoma		PO Box 189		Miami	OK	74354	tonya@shawnee-tribe.com
Mr.	Chester	Brooks	Chief	Delaware Tribe of Indians		5100 Tuxedo Boulevard		Bartlesville	OK	74006	cbrooks@delawaretribe.org
Ms.	Diane	Gutierrez- Scaccetti	Commissioner	NJ Department of Transportation		David J. Goldberg Transportation Complex	1035 Parkway Avenue	Trenton	NJ	08625	