

RECORD OF DECISION

Access to the Region's Core Project (ARC) in Hudson County, New Jersey and New York City, New York

1.0 DECISION

This Record of Decision (ROD) is issued pursuant to Title 23 of the Code of Federal Regulations (CFR), Part 771 and Title 40 CFR Parts 1500-1508. The Federal Transit Administration (FTA) has determined that the requirements of the National Environmental Policy Act of 1969 (NEPA) have been satisfied for the Access to the Region's Core (ARC) project proposed by New Jersey Transit (NJ TRANSIT) in consultation with the Port Authority of New York and New Jersey (PANYNJ). The following cooperating agencies participated in the development of the environmental impact statement by providing expertise in their area of interest: Federal Railroad Administration, United States Army Corps of Engineers, United States Coast Guard, and PANYNJ.

This decision applies to the Build Alternative described in the Final Environmental Impact Statement (FEIS) issued in November 2008, which consists of infrastructure improvements in the corridor extending 7.6 miles from the Koppers Coke site in Kearny, New Jersey through Frank R. Lautenberg Station in Secaucus, New Jersey to Fifth Avenue and West 34th Street in Manhattan. The ARC project anticipates initial revenue service commencing in 2017 with the full operational plan implemented by 2030. The ARC project parallels the existing Northeast Corridor (NEC) from just west of Frank R. Lautenberg Station and continues under North Bergen, Jersey City, Union City, Weehawken, and Hoboken in Hudson County, New Jersey and under the Hudson River to Manhattan. The ARC project encompasses portions of the Main Line and former Boonton Line as they extend south of Frank R. Lautenberg Station, merge to a connection with the Morris and Essex Lines in Jersey City, and continue west across the Hackensack River to the Koppers Coke site.

ARC's key elements, as described in the FEIS, include a new direct connection at Secaucus between the Main, Bergen County and Pascack Valley lines and the Northeast Corridor (NEC); new track capacity along the NEC between Frank R. Lautenberg Station and Tonnelle Avenue in New Jersey; two (2) new single-track tunnels under the Palisades in New Jersey and the Hudson River, with continuation of these two tunnels under the west side of Manhattan; a connection to a new station (New York Penn Station Expansion or NYPSE) adjacent to Penn Station New York (PSNY) under West 34th Street between Eighth Avenue and Sixth Avenue; a mid-day storage yard on the Koppers Coke site in Kearny, New Jersey; fan plants; traction power facilities, 187 new rail cars, and other ancillary facilities.

This ROD summarizes FTA's decisions regarding compliance with relevant environmental requirements. Further details supporting this ROD can be found in the ARC FEIS, the Section 106 Programmatic Agreement and Final Section 4(f) Evaluation signed by FTA in November 2008.

2.0 BASIS FOR DECISION

The environmental record for the ARC project includes the 2003 ARC Major Investment Study Summary Report (MIS), the February 2007 Draft Environmental Impact Statement (DEIS), the March 2008 Supplemental Draft Environmental Impact Statement (SDEIS), and the November 2008 FEIS. The FEIS includes a review of the purpose and need for the project, goals and objectives, consideration of alternatives, environmental impacts, and measures to minimize harm.

2.1 Background

The ARC project arose from an MIS process performed in accordance with FTA guidelines and conducted from 1995 to 2003 by NJ TRANSIT, PANYNJ, and the Metropolitan Transportation Authority (MTA) to consider options for improving access between midtown Manhattan (the region's core) and growing populations west of the Hudson River. The MIS evaluated 137 multi-modal alternatives and concluded that the best alternatives to consider were those that used the existing New Jersey commuter rail network, and NJ TRANSIT became the lead state agency for taking the alternatives through the NEPA process. The 2003 *ARC MIS Summary Report* concluded that two build alternatives should be examined in more detail.

The MIS findings led to the decision by NJ TRANSIT, in consultation with PANYNJ, to further narrow the alternatives and to prepare a DEIS that considered only two (2) alternatives (one build and the no-build) to improve trans-Hudson access and mobility, focusing on a commuter rail solution that terminated in the vicinity of PSNY, and provided not only additional train capacity into midtown, but also new passenger station capacity. The DEIS identified a number of significant impacts in New York including to a regional park, to local businesses due to the proposed cut-and-cover construction, and to the Hudson River. In addition, during preliminary engineering, which was on-going both during and after the DEIS was issued, it was determined that subsurface conditions in Manhattan would prevent the construction of the DEIS Build Alternative at the planned cavern depth. Accordingly, a SDEIS was developed that analyzed the project with a deeper tunnel profile and deeper station cavern directly adjacent to existing PSNY. The FEIS Build Alternative is basically the same as the SDEIS Alternative except that the NYPSE cavern was shifted 100 feet to the west and the tail tracks were removed.

Since the ARC project has progressed from MIS to FEIS with major changes to the Build Alternative, for the purposes of this ROD the Build Alternative will be referred to in three different terms following its environmental document milestone. For example, during the DEIS stage of the project, the Build Alternative will be referred to as the "DEIS Build Alternative", during the SDEIS stage of the project, the Build Alternative will be referred to as the "SDEIS Build Alternative", and during the FEIS stage, the Build Alternative will be referred to as the "FEIS Build Alternative."

2.2 Project Purpose, Need, Goals and Objectives

As population west of the Hudson River and employment within Manhattan continues to grow, the need for a more extensive and reliable trans-Hudson commuter rail system into Manhattan has become increasingly important. By 2030, AM peak period travel demand to PSNY is projected to increase from 39,000 to 62,000 passengers without any additional rail capacity. Such demand would create untenable crowding and bring the existing, unimproved commuter rail system to a virtual halt. Based on crowding and associated delays, rail travel times would continue to increase as dwell times and passenger congestion escalate. The existing constrained commuter rail infrastructure—two 100-year-old single-track tunnels leading into PSNY from under the Hudson River, also serving NEC intercity needs—cannot meet the access and mobility demands of the projected growth in the region.

The ARC project addresses the following commuter rail needs within the Frank R. Lautenberg Station-to-midtown Manhattan corridor:

- Increase capacity of the trans-Hudson commuter rail system, which is at capacity during peak travel periods;
- Provide new one-seat-ride service to midtown Manhattan from areas not served today;
- Provide a new station facility to relieve severely overcrowded and inadequate capacity at PSNY;

- Eliminate commuter rail delays caused by unanticipated events or routine maintenance of the NEC tunnel;
- Enhance commuter rail system safety and security;
- Provide increased rail capacity to meet growth in west-of-Hudson population and jobs in New York City; and
- Increase capacity of the trans-Hudson transportation system, which is at or near capacity during peak travel periods.

The Build Alternative satisfies five goals (listed below) and accompanying objectives that address the transportation system capacity, reliability, connectivity, and economic purposes of the ARC project:

- Improve Trans-Hudson Mobility
- Maintain a Safe, Secure and Reliable Transit System
- Utilize, Improve, and Expand the Capacity of the Region's Existing Transit Infrastructure to the Maximum Extent Possible
- Maintain and Enhance the Economic Viability of the Region
- Preserve and Protect the Environment

2.3 Alternatives Considered

2.3.1 Major Investment Study (MIS)

The planning and project development process to address trans-Hudson transportation needs began in 1995 with an MIS. The MIS evaluated 137 multi-modal alternatives to address the project needs. These 137 alternatives were screened down to three main options that were fully evaluated in the MIS; Alternatives P, S and G. All three alternatives would provide new trans-Hudson tunnels connecting to PSNY. The differences between the three alternatives are: Alternative P included a new stub-ended terminal station beneath existing PSNY, Alternative S included a new rail link between PSNY and train storage and maintenance facilities at Sunnyside Yard in Queens, including a new East River tunnel, and Alternative G included a connection between PSNY and Grand Central Terminal (GCT) on the east side of Manhattan.

The three alternatives had similar capital costs and ridership. The major difference among them was their ability to provide additional train capacity under the Hudson River into New York City. Alternative G provided the lowest peak hour capacity, 36 trains, compared to 40 trains for Alternative S, and 52 trains for Alternative P. The lower number of peak hour trains for Alternative G was a result of the limited capacity of PSNY Tracks 1 to 5, the relatively slow operating speeds on the track connection between PSNY and GCT, and the capacity limitations resulting from bi-directional operations (NJ TRANSIT and Metro-North) between PSNY and GCT. The slow track speeds between PSNY and GCT were determined by the tight turning radius and the steep grade needed to pass under the Sixth Avenue subway and still connect to GCT. Also, the relatively short distance between PSNY and GCT, combined with the slow acceleration and deceleration of commuter rail prevent faster operating speeds.

Although Alternative G had a slightly higher forecasted ridership in the MIS phase, the MIS did not take into account New York City plans for significant future West Side development which had not yet been approved. This major new destination would increase the proportion of trips destined for the west side

(PSNY area) versus the east side (GCT area), further justifying the decision to look at alternatives that did not continue to the east side.

Alternative G was eliminated at the end of the MIS process because its engineering and operability challenges were greater and its ridership advantage was considered less significant when the West Side development was taken into account. In 2003, the MIS recommended that Alternatives P and S be advanced to the DEIS phase for further refinement and evaluation.

2.3.2 Environmental Impact Statement (EIS)

The two MIS alternatives carried forward into the EIS scoping process, Alternatives P and S, were presented to the public, and several other alternatives were proposed by various interested parties during the DEIS scoping meetings held in December 2003. These additional long-term and near-term alternatives involving new rail alignments, new station locations, yard expansions, and concourse extensions, were identified and subsequently screened using an array of criteria during the DEIS scoping process. The screening criteria included capital cost, constructability, one-seat-ride opportunities, operational resiliency and redundancy, and environmental impacts. Eight build alternatives, including Alternatives P and S, were evaluated during the scoping process. The 34th Street Station Alternative, a variation of Alternative P was selected as the only build alternative for further study in the DEIS.

The NJ TRANSIT Board of Directors, at its July 2005 meeting, selected the DEIS Build Alternative as the Locally Preferred Alternative (LPA). Since the project is located in two states, two metropolitan planning organizations (MPOs)—the North Jersey Transportation Planning Authority (NJTPA) and the New York Metropolitan Transportation Council (NYMTC)—adopted the DEIS Build Alternative as the LPA. NJTPA adopted the DEIS Build Alternative as the LPA on September 12, 2005, and NYMTC adopted it on March 15, 2006. The LPA, as it was finally configured as a result of the environmental process, was subsequently included in fiscally-constrained long-range regional transportation plans for both NYMTC and NJTPA and has been included in NJTPA's Transportation Improvement Program (TIP). The LPA was updated by NJTPA on November 10, 2008, and by NYMTC on November 20, 2008.

DEIS Build Alternative

The No Build Alternative and one Build Alternative were carried forward from the MIS process into the DEIS. The DEIS was published on February 9, 2007, thereafter FTA held a 60-day comment period that concluded on April 10, 2007. The DEIS Build Alternative, as presented in the DEIS, included infrastructure improvements to relieve the trans-Hudson commuter rail system capacity constraints. The project evaluated was a 7.6 mile-long area from Frank R. Lautenburg in New Jersey to west 34th Street and Fifth Avenue in Manhattan. Key elements of the DEIS Build Alternative were:

1. A new direct connection at Secaucus between the Main, Bergen County and Pascack Valley lines and the NEC;
2. New track capacity along the NEC (each 13,000 feet) between Frank R. Lautenberg Station and the Palisades in New Jersey;
3. Two (2) new single-track tunnels under the Palisades in New Jersey and the Hudson River; with continuation of these two tunnels under the west side of Manhattan;
4. A connection to existing PSNY tracks;
5. A connection to new station capacity (NYPSE) under West 34th Street between Eighth and Sixth Avenues;
6. A mid-day storage yard on the Koppers Coke site in Kearny, New Jersey;

7. Six (6) NYPSE station entrances and three (3) optional NYPSE station entrances; and
8. Two (2) fan plant/construction access shafts in New Jersey, six (6) fan plants/construction access shafts in New York, and two (2) optional fan plant/construction access shafts in New York.

As described in the DEIS, the tunnels under the Palisades in New Jersey would be deep enough for bored tunnel construction to minimize surface impacts. Under the Hudson River, the tunnels would begin to rise to allow a connection with the tracks at PSNY while the main service would continue to the proposed NYPSE station adjacent to PSNY. This connection would have required cut-and-cover construction through Hudson River Park and properties on the west side of Manhattan.

SDEIS Refined Build Alternative

As a result of further geotechnical analysis regarding the rock profile, the DEIS Build Alternative was changed. Further geotechnical analysis showed that the rock profile, particularly under West 34th Street, was lower than anticipated and was characterized by two locations of former stream beds or ponds, fault zones (fractured rock), and incompetent rock between Sixth and Eighth Avenues. The rock cover above NYPSE, as proposed in the DEIS, would have been too shallow and of poor quality, undermining the structural integrity of the station. Based on these findings, the cavern depth was increased to approximately 90 feet below street level to allow for sufficient rock cover of adequate quality. The deeper station design requires a deeper tunnel profile under the Hudson River and west side of Manhattan to align with NYPSE and to avoid impacts to the Metropolitan Transportation Authority, New York City Transit's (NYCT) proposed No. 7 line subway extension. The deeper tunnel profile under the Hudson River and the west side of Manhattan also responded to community and agency concerns as it reduces the environmental and community impacts in Manhattan by eliminating impacts to the river bottom, reducing impacts to historic properties and west side properties and easements. However, the deeper tunnels profile precluded the construction of an operationally feasible connection to PSNY and resulted in the loss of some redundancy and interoperability.

As refined, the SDEIS Build Alternative mitigated the following impacts presented in the DEIS:

- Impacts to historic resources as a result of the shallow (5 to 25 feet) tunnel under the Hudson River;
- Impacts to the Hudson riverbed itself, an EPA Superfund site due to deposits of severe industrial contamination from upstream;
- Impacts to the west side of Manhattan as a result of cut-and-cover construction to build the connection to PSNY and construction of fan plants on West 34th Street and Eighth Avenue; and
- Service disruptions to NJ TRANSIT and Amtrak passengers during construction of additional track capacity between Frank R. Lautenberg Station and the proposed tunnel portal would have occurred due to the proposed interconnection with existing NEC tracks. Since construction would take place off the existing NEC infrastructure with the SDEIS Build Alternative, impacts such as delays and service disruptions to trains on the NEC would be reduced.

FTA determined that the refinements to the DEIS Build Alternative, although they reduced or eliminated many of the project impacts, nonetheless changed the project and its impacts sufficiently such that publication of an SDEIS was appropriate. The SDEIS was published on March 14, 2008. Thereafter, FTA held a 45-day comment period that concluded on April 28, 2008.

Of the eight (8) elements in the DEIS Build Alternative, seven (7) elements were retained in principle and one (1) element, the connection to existing PSNY, was eliminated altogether in the refined SDEIS Build Alternative. The SDEIS Build Alternative also included a change in the alignment along the NEC right-

of-way in New Jersey. The seven (7) project elements were changed as follows: the six (6) NYPSE entrances were reduced to five (5), the six (6) fan plants and two (2) optional fan plants were reduced to four (4) fan plants and one (1) optional fan plant, and four (4) ADA elevators were added.

The SDEIS evaluated this refined Build Alternative. Hence, key elements of the SDEIS Build Alternative were:

1. A new direct connection at Secaucus between the Main, Bergen County and Pascack Valley lines and the NEC;
2. New track capacity along the NEC between Frank R. Lautenberg Station and the Palisades in New Jersey;
3. Two (2) new single-track deep tunnels under the Palisades in New Jersey and the Hudson River with continuation of these two deeper tunnels under the west side of Manhattan;
4. A connection to new deeper station (NYPSE), under West 34th Street between Eighth and Sixth Avenues, adjacent to PSNY;
5. A mid-day storage yard on the Koppers Coke site in Kearny, New Jersey;
6. Five (5) NYPSE station entrances, four (4) Americans with Disabilities Act (ADA) compliant elevator entrances, one (1) of which is for employee use only; and
7. Two (2) fan plant/construction access shafts in New Jersey, four (4) fan plants/construction access shafts in New York, and one (1) optional fan plant/construction access shaft in New York.

In New Jersey, design refinements to the track alignment along the NEC reduced the impacts on existing operations by locating new track construction along the south side of the NEC. Other design refinements were incorporated to reduce construction risk, address property owner concerns and minimize environmental impacts.

Subsequent to the SDEIS publication, on March 28, 2008, FTA approved NJ TRANSIT's request for a Categorical Exclusion (CE) in accordance with 23 CFR 771.117(d)(12) to acquire real property at 431 West 33rd Street in Manhattan for protective purposes. This property is the proposed site of one of the four New York fan plant/construction access shafts (Dyer Avenue Fan Plant/Construction Access Shaft). The FTA approved the CE because proposed imminent development of the property would have precluded its use for public transportation purposes.

In response to concerns expressed by Amtrak and FRA after issuance of the SDEIS, regarding the impacts of constructing a deeper tunnel, NJ TRANSIT analyzed tunnel design alternatives to the current FEIS Build Alternative alignment and profile to determine if an Amtrak tunnel connection to PSNY, as originally proposed in the DEIS Build Alternative, was feasible. The PSNY connection had been eliminated from the project after DEIS issuance because of the need to lower the station cavern profile due to the poor quality of rock under West 34th Street and to avoid potential significant environmental impacts to Hudson River Park and Hudson River bulkhead. As the SDEIS indicated, the deeper station profile and resulting deeper tunnels made it operationally infeasible to design a PSNY connection at an acceptable grade for commuter rail service. Although additional alternatives to make the connection to PSNY on the west side of Manhattan were evaluated at the request of Amtrak and FRA, no alternatives were identified that could reasonably address the various constraints that had been identified in the original analysis. It was acknowledged by Amtrak and FRA that the PSNY connector could not be reinstated as a component of the FEIS Build Alternative.

FEIS Build Alternative

All seven (7) elements of the SDEIS Build Alternative were retained in the FEIS Build Alternative. However, since the publication of the SDEIS, the continuing advancement of Preliminary Engineering, public outreach and agency concerns resulted in further refinements to the SDEIS Build Alternative.

As a result of ongoing coordination and outreach with New York City Department of Environmental Protection (NYC DEP), the NYPSE tail tracks that were to extend to the east by 1,100 feet were eliminated and the station cavern was shifted 100 feet to the west to avoid conflicts with New York City Water Tunnel No. 1. The tail tracks, which would have been constructed only for the upper level of NYPSE, would have provided storage for a disabled train from the upper level of NYPSE. The NYC DEP indicated that they will work with NJ TRANSIT on the feasibility of adding these tracks after the water tunnel is completed.

During the SDEIS public review, concerns raised with regard to the historic Hammerstein Ballroom at 34th Street and 8th Avenue, in combination with additional Preliminary Engineering, led to the elimination of the Optional 35th Street Fan Plant at 323 West 34th Street in the element of No. 7 of the SDEIS Build Alternative. The FEIS was published on November 7, 2008 and, thereafter, FTA held a 30-day period until December 8, 2008.

Subsequent to the release of the FEIS, NJ TRANSIT, in consultation with Amtrak, determined that NJ TRANSIT's power needs for ARC operations would need to be independently augmented to supply sufficient power for ARC operations. This NJ TRANSIT increase in power allocation for ARC operations is an increase over that amount which had been considered in the DEIS, SDEIS and FEIS. Any impacts to the design or location of power facilities as a result of this proposed change will be subject to a separate NEPA review during Final Design and prior to any construction that would be impacted by this change. To the extent that NJ TRANSIT can construct additional power stations in the same locations using the same utility provider as would have been built for Amtrak, the potential impacts of this change would be far less than if additional power stations were to be constructed in new locations.

2.4 Benefits of the FEIS Build Alternative

The FEIS Build Alternative will provide one-seat-ride service into midtown Manhattan from areas (North Jersey Coast Line south of Long Branch; Montclair-Boonton Line west of Montclair State University Station; Pascack Valley Line and Main and Bergen County Lines, including New York MTA Metro-North services; and Raritan Valley Line) that do not have direct service today. With the implementation of dual-power locomotives, a separate project which is currently being implemented by NJ TRANSIT, additional non-electrified lines will also have direct service to Manhattan. AM peak hour NJ TRANSIT service will increase from 23 trains per hour to 48 trains per hour, and commuter rail passenger trips into PSNY and the new NYPSE will increase by 48 percent. Daily boarding riders will increase by over 30,000 passengers per day above what was expected from the No Build. Comparing the FEIS Build Alternative to the No Build Alternative, daily trips into Newark Penn Station and Hoboken will decrease slightly (by 836 and 3,730 respectively), and as a result of the additional service into midtown Manhattan, some NJ bound trains are rerouted into New York.

The demand for trans-Hudson bus, Port Authority Trans Hudson, and ferry trips will decrease with the FEIS Build Alternative as compared to the No Build Alternative. Daily demand for trans-Hudson auto trips will decrease by about 5 percent by 2030 compared to No Build conditions. Projected decreases in the number of bus and ferry trips between New Jersey and Manhattan would decrease estimated pollution emissions in Manhattan. Associated decreases in energy consumption associated with the Build Alternative would reduce greenhouse gas emissions (i.e., CO₂) by 65,794 tons per year.

The FEIS Build Alternative's proposed operating and service plans incorporate dual-power equipment that will decrease diesel train miles and emissions in New Jersey compared to No Build operations by 2017.

2.5 Environmental Impacts of the Build Alternative

The FEIS identifies environmental impacts and benefits associated with the FEIS Build Alternative for a range of issue areas and related resources, both in the short-term during construction (2009 – 2017) and over the long-term during ongoing operations starting in 2017. The primary impacts of concern are summarized below.

2.5.1 Short-term, Construction-Related Impacts

The primary short-term, construction-related environmental and community impacts include:

- **Air Quality**
 - Air pollutant emissions during construction will occur because of earth excavation and grading, handling and transport of excavated material and debris, operation of heavy-duty diesel and gasoline-powered construction equipment, and operation of heavy-duty diesel trucks to transport excavated tunnels material and deliver construction materials. This impact is of particular concern in densely developed Manhattan.
- **Noise and Vibration**
 - Construction at the surface, or close to the surface, of tracks, structures, fan plants, construction access shafts, and NYPSE entrances and mezzanines will create temporary construction noise and vibration impacts.
- **Ecology**
 - In New Jersey, construction impacts to upland natural areas will total 2.9 acres, including 0.2 acre of forest. Construction associated with the NEC alignment, Secaucus Connection, and West End Wye improvements will result in the temporary disturbance of approximately 7.3 acres of wetlands and open water.
- **Water Resources**
 - Construction staging areas and stockpiles of excavated material will increase the volume of stormwater runoff containing suspended solids, chlorides, metals, oil and grease, and bacteria during construction. In New Jersey, the construction of the Kearny Rail Yard and construction access roads will cause similar degradation of stormwater and receiving waters.
- **Contaminated Materials**
 - In New Jersey:
 - Impacts at six contaminated or potentially contaminated sites along the NEC will occur from construction-related disturbance of contaminated soil, ballast and treated timber rail ties and, to a lesser extent, contaminated groundwater associated with historic railroad operations, fill material and adjacent industrial, residential and commercial facilities.
 - Impacts will also occur from construction-related disturbance of: five contaminated or potentially contaminated sites, including the Malanka Landfill, along the Secaucus Connection and reconfigured West End Wye; three contaminated or potentially contaminated sites east of Tonnel Avenue; and two contaminated or potentially contaminated sites at the Hoboken Fan Plant/Construction Access Shaft site.

- Asbestos and other hazardous materials may be found in buildings and structures to be demolished or altered for the project, including the structures at the locations of fan plants and NYPSE entrances.
- In New York:
 - Impacts from construction-related disturbance of contaminated soils and potentially contaminated groundwater will occur at the Twelfth Avenue and Dyer Avenue Fan Plant/Construction Access Shaft sites, and a portion of Block 675 immediately to the north of the Twelfth Avenue Fan Plant/Construction Access Shaft site.
 - Asbestos and other hazardous materials may be found in buildings and structures to be demolished or altered for the project, including the structures at the locations of fan plants and NYPSE entrances.

2.5.2 Long-term Impacts

The primary long-term environmental and community impacts of the FEIS Build Alternative include:

- **Station Access and Parking**
 - In New Jersey, parking demand at stations along each commuter rail line is anticipated to grow because of the improved service provided by the FEIS Build Alternative. Eight of the 20 rail segments assessed will experience parking shortfalls ranging from 40 spaces to 510 spaces. Once the parking needs have been identified at individual stations, further environmental review will be conducted as needed in accordance with Attachment B – Station Access and Parking.
- **Roadways**
 - In New York, the FEIS Build Alternative will generate 200-250 taxi trips per hour in the peak hours. Five to seven intersections will experience increased traffic congestion due to taxi and bus trips during peak hours.
- **Pedestrians**
 - In New York, NYPSE will attract additional volumes of pedestrians to particular sidewalks approaching the station. As a result, some sidewalks, street corners, and crosswalks will experience greater congestion during either the AM or PM peak periods. Impact will also occur at stairwells and one control facility at NYCT subway stations.
- **Property Acquisition**
 - In New Jersey, 18 permanent property interests will be necessary for the construction of tracks, structures, permanent Life Safety Emergency Access Roads, fan plants, and the Kearny Rail Yard. In New York, permanent property interests will be required for a portion of nine properties located on or along West 34th Street for station entrances. Five permanent property interests will also be required for the 33rd Street, 35th Street, Dyer Avenue, and Twelfth Avenue Fan Plants.
- **Noise and Vibration**
 - In Secaucus, an increase in the number of trains will cause increased noise levels, resulting in severe noise impacts to three residences on Henry Street. Vibration levels at these residences will exceed the FTA criterion for frequent train events and will result in rattling of windows or a rumble-type noise.
 - At the Bay Head Rail Yard in New Jersey and at the Suffern Rail Yard in New York, the noise levels from increasing the number of idling train locomotives with the FEIS Build Alternative will exceed moderate impact criteria at residences or other noise-sensitive receptors.
 - Ventilation fans operating in a prototypical fan plant without silencers installed would result in noise impacts in both States that exceed the local noise ordinances.

- **Ecology**
 - In the Hackensack Meadowlands District (HMD) in New Jersey, the FEIS Build Alternative will destroy between 19 to 25 acres of wetlands and open waters, and approximately 112 acres of upland natural areas including 1.7 acres of forest.
 - The FEIS Build Alternative will destroy approximately 0.5 acre of upland scrub-shrub vegetation, 0.4 acre of forest, 0.2 acre of upland herbaceous vegetation, and approximately 0.1 acre of palustrine emergent wetland, located between the HMD's eastern boundary and the Hudson River in New Jersey. See Attachment B for a discussion on mitigation measures.
- **Water Resources**
 - In New Jersey, impacts will result from new or increased water discharges to watercourses. Permanent embankments supporting the NEC tracks east of Secaucus Road will require relocation of a 0.4-mile reach of an unnamed tributary to Penhorn Creek where the proposed tracks run parallel to the tributary stream.
- **Parklands**
 - The FEIS Build Alternative will use one parkland and recreational area, the Hudson River Park in Manhattan.
- **Contaminated Materials**
 - In New Jersey and New York, the disturbance of contaminated material in the soil and groundwater may result in the migration of this contamination to adjoining sites where contact with humans and wildlife could occur.
- **Safety and Security**
 - The operation of diesel fuel-laden equipment within the proposed Palisades, Hudson River, and Manhattan tunnels, and NYPSE requires continuing coordination with local and regional fire departments, local police departments, and emergency medical services.
- **Archaeological and Historic Resources**
 - Seven historic properties in New Jersey will be adversely affected by the construction of walls, viaducts, underpinning, and demolition. In New York, two historic properties (including one historic district) will be adversely affected by the construction of a fan plant and station entrance.
 - Areas of archaeological sensitivity in New Jersey include historic cemeteries in Secaucus, as well as industrial remains, a historic 18th century Weehawken Ferry Slip and Hackensack Plank Road in Hoboken. In New York, the area from the Hudson River shoreline to Tenth Avenue was infilled and wharves may be present. From Tenth Avenue to Fifth Avenue, domestic archaeological remains, such as privies, wells and building foundations, may be present. These archaeological resources, if encountered during construction, will be evaluated in accordance with Section 4(f) regulation (23 CFR Part 774) and the Section 106 Programmatic Agreement (Attachment A).

2.6 Measures to Mitigate Harm

All feasible and prudent means to avoid and minimize environmental harm from the FEIS Build Alternative have been adopted. The project team comprised of NJ TRANSIT and PANYNJ will design and incorporate into the project the mitigation measures presented in the FEIS and the measures added subsequent to the FEIS in the ROD. FTA will require in any funding agreement on the project, and as a condition of any grant for the project, that committed mitigation be implemented in accordance with the FEIS and ROD. FTA will require the project team to periodically submit written reports on its progress in implementing the mitigation commitments. FTA will monitor this progress through quarterly reviews of

the project's progress. The measures to minimize harm are fully described in the FEIS and ROD and are summarized in **Attachment B** to this ROD.

3.0 PUBLIC OPPORTUNITY TO COMMENT

The Notice of Intent to initiate the NEPA process was published in the Federal Register on November 14, 2003. Scoping meetings were held on December 8 and 10, 2003 in New Jersey and New York, respectively. Public hearings for the DEIS were held in Newark and North Bergen, New Jersey on March 13 and 14, 2007, respectively, and in New York City on March 27, 2007. Public information meetings for the DEIS were held in Rockland and Orange Counties, New York on March 20 and 22, 2007, respectively. Public hearings for the SDEIS were held in Newark, New Jersey on March 31, 2008 and New York City on April 1, 2008.

Over 600 additional meetings have been held with elected officials, affected communities, transit passengers, property owners, interest groups, business groups, and transportation and other government agencies, in New Jersey and New York. Meetings with the Technical Advisory Committee (TAC) and Regional Citizens Liaison Committee (RCLC) have been convened throughout the EIS process. Coordination continues with representatives of affected New Jersey municipalities and New York City agencies.

FTA published notice of the FEIS in the Federal Register on November 7, 2008. Comments received during the public comment period for both the DEIS and SDEIS are addressed in the FEIS.

Twenty-five written letters were received during the 30-day waiting period following issuance of the FEIS. These comments on the FEIS, and responses to those comments, are described in Attachment C to this Record of Decision.

4.0 SUPPLEMENTAL ENVIRONMENTAL REVIEW

Pursuant to 23 CFR Section 771.129, a written re-evaluation of the FEIS will be required before further approvals may be granted if NJ Transit proposes changes to the project or mitigation measures that differ from its description in the FEIS, or if major steps to advance the project have not been taken within three years of the ROD date. The purpose of the re-evaluation is to assist FTA in deciding the appropriate level of NEPA review, if any, of the proposed changes to the project. Additionally, as part of any procurement contract for the project, the project team must commit to carry out, or cause to be carried out, the mitigation measures described in the FEIS and summarized in Attachment B. As previously discussed, NJ TRANSIT has identified the need to generate new power for their operations. Any changes to the design or location of power facilities will be evaluated during final design to determine the appropriate level of NEPA analysis to approve the change.

The project team, in cooperation with FTA, shall initiate a supplemental environmental review of the project, as outlined in 23 CFR 771.130, whenever: (1) Substantial changes to the project would result in significant environmental impacts that were not evaluated in the FEIS; (2) New information or circumstances relevant to environmental concerns and bearing on the project or its impacts would result in significant environmental impacts not evaluated in the FEIS; or (3) Where the significance of new impacts is uncertain. A supplemental environmental review will not be necessary where the changes to the project, new information, or new circumstances result in a lessening of adverse environmental impacts evaluated in the FEIS without causing other environmental impacts that are significant and were not evaluated in the FEIS. The scope of any supplemental NEPA review shall be limited to the project elements and impacts affected by the proposed change. If a supplement is developed, then the NEPA

process for this supplement will conclude with a separate NEPA determination or an amendment to this ROD.

5.0 DETERMINATIONS AND FINDINGS

5.1 Environmental Protection

The environmental record for the ARC project includes the previously referenced MIS Summary Report issued in 2003, the DEIS issued in February 2007, the SDEIS issued in March 2008, and the FEIS issued in November 2008. These documents represent FTA's detailed analyses and findings required by NEPA and the Federal Transit Act, 49 U.S.C. 5324(b), regarding the environmental impacts of the project, adverse environmental effects that cannot be avoided, and alternatives to the project.

On the basis of the evaluation of social, economic, and environmental impacts as presented in the FEIS, and the written and oral comments offered by the public and public agencies, the FTA has determined, in accordance with 49 U.S.C. 5324(b), that:

- An adequate opportunity to present views was given to all parties with a significant economic, social, or environmental interest;
- Consideration was given to the preservation and enhancement of the environment and to the interest of the community in which the project is located; and
- All reasonable steps are being taken to minimize adverse environmental effects of the project, and where adverse environmental effects remain, no feasible and prudent alternative to the effect exists.

5.2 Conformity with Air Quality Plans

The ARC project has been adopted by the two MPOs in the region in which it will be built and operated—NJTPA in northern New Jersey, and NYMTC in New York City. Each MPO has included the FEIS Build Alternative in its fiscally constrained, air-quality conforming, metropolitan long-range transportation plan (LRTP). NJTPA adopted its LRTP and transportation improvement program (TIP), both of which include the ARC project, on November 10, 2008. NYMTC amended its LRTP on November 20, 2008 to include the ARC project. Furthermore, the results of microscale analyses presented in the FEIS have demonstrated that the FEIS Build Alternative will not cause localized violations of the NAAQS for CO, PM₁₀ or PM_{2.5} during construction or operation of the project. Therefore, the FTA finds, in accordance with the transportation conformity regulations of the U.S. Environmental Protection Agency (40 CFR part 93), that the project conforms to the two States' air quality plans for the region.

5.3 Section 4(f)

Section 4(f) of the Department of Transportation Act (49 U.S.C. 303) affords special protection to parks, recreation areas, wildlife and waterfowl refuges, and historic sites, including archaeological sites. The FEIS Build Alternative will require the use of eleven (11) Section 4(f) resources, consisting of ten (10) historic resources and one (1) park.

For each of the 11 resources, a separate Section 4(f) evaluation was prepared in accordance with the Section 4(f) regulation (23 CFR part 774) and each is contained in the FEIS. Having considered the Section 4(f) evaluations presented in the FEIS and having consulted with the U.S. Department of the Interior, FTA has concluded that: a) there are no feasible and prudent alternatives to the use of land from these Section 4(f) resources, and b) the project includes all possible planning and measures to minimize

harm to the Section 4(f) resources resulting from such use. The measures to minimize harm are included in the summary list of mitigation measures in Attachment B.

5.4 Section 106

The effects of the FEIS Build Alternative on historic and archaeological resources were assessed in accordance with the regulation implementing Section 106 of the National Historic Preservation Act of 1966. Study areas, known as Areas of Potential Effect (APE), were identified in consultation with the New Jersey State Historic Preservation Office (NJSHPO) and the New York State Historic Preservation Office (NYSHPO). Historic and archaeological resources were identified through field surveys and documentary research in consultation with the SHPOs and the New York City Landmarks Preservation Commission (NYCLPC).

A total of 88 historic resources located within the APE for the ARC project were evaluated. The FEIS Build Alternative will result in direct adverse effects to nine (9) of these historic properties, seven (7) in New Jersey and two (2) in New York.

The Section 106 Programmatic Agreement (Attachment A) requires that certain recordation and other mitigation actions be taken by NJ TRANSIT prior to demolition or alteration of these historic properties.

The NYPSE station entrances and fan plants/construction access shafts will be located near 19 historic properties (two (2) properties in New Jersey and 17 properties in New York) and will have adverse visual (contextual) effects. The attached Programmatic Agreement provides for design reviews by SHPOs and NYCLPC so that the design of these project features minimizes the adverse visual effects.

Construction of the FEIS Build Alternative has the potential to disturb 17 archaeological resources, four (4) in New Jersey and 13 in New York. The Programmatic Agreement requires monitoring during construction and the cessation of construction activity followed by appropriate evaluation and recovery efforts should a significant archaeological resource be discovered.

The attached Programmatic Agreement executed by the FTA, Advisory Council on Historic Preservation, NJSHPO, NYSHPO and NJ TRANSIT dated October 13, 2008, also requires the development and implementation of Construction Protection Plans for protecting and avoiding construction damage to historic properties (Attachment A).

5.5 Environmental Justice


The FEIS Build Alternative was evaluated with respect to its impacts on minority and low-income communities. This analysis determined that anticipated human and environmental effects of the project will largely be distributed evenly and will not be disproportionately borne by minority or low-income populations. However, on Henry Street in Secaucus, New Jersey, the added train service on the NEC with the FEIS Build Alternative will cause noise and vibration impacts on three residential properties in a predominantly minority and low-income area north of the NEC. These impacts will be mitigated. Therefore, FTA finds that the project complies with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," as implemented through the U.S. Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations.

5.6 Floodplains and Wetlands

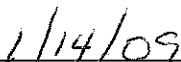
Several construction areas for the FEIS Build Alternative will be located in the 100-year floodplain. There are no practicable alternatives to this encroachment on the floodplains, and the project has been designed to minimize harm to beneficial floodplain values. Project activities in the floodplains are not expected to result in any increased flooding. FTA therefore finds that the FEIS Build Alternative is in accordance with the requirements of Executive Order 11988.

NJ TRANSIT will continue coordination with the United States Army Corps of Engineers (USACE), the Meadowlands Interagency Mitigation Advisory Committee (MIMAC), and NYS&W regarding mitigation of unavoidable impacts on waters of the U.S. The Build Alternative avoids impacts to natural areas, including wetlands and open waters, where practicable, and minimizes such impacts to the greatest extent practicable. Where the discharge of fill material into wetlands and open waters are unavoidable, measures will be taken to mitigate these impacts in accordance with Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act of 1899. FTA finds that the FEIS Build Alternative is in accordance with the requirements of Executive Order 11990.

During final design of the ARC project, and in support of the Section 404 permitting process, NJ TRANSIT will prepare a wetlands mitigation plan. FTA will review and approve the mitigation plan, allowing for public review and comment. The plan will specify the steps to be taken to mitigate all of the project's impacts to regulated wetlands and open waters. Project construction cannot occur in regulated wetlands until a mitigation plan has been finalized and mitigation activities have started. The preferred option is to use the Federal and State Richard P. Kane Tract wetland mitigation bank under development by the Meadowlands Conservation Trust. The mitigation plan will describe the selected mitigation method(s) and how they will be implemented.



Brigid Hynes-Cherin
Regional Administrator, Region II
Federal Transit Administration



Date of Approval

Attachments:

Attachment A: Section 106 Programmatic Agreement

Attachment B: Summary of Mitigation Measures

Attachment C: Response to Comments