U.S. Department of Transportation
Federal Railroad Administration

FINDING OF NO SIGNIFICANT IMPACT and FINAL SECTION 4(f) DETERMINATION

Livingston Avenue Bridge Replacement Project
Albany and Rensselaer Counties, New York
August 2022

1 Introduction

The New York State Department of Transportation (NYSDOT) is proposing to undertake the Livingston Avenue Bridge Project (the Project) to replace the Livingston Avenue Bridge, which spans the Hudson River between the cities of Albany and Rensselaer, providing a critical rail link on New York State's Empire Corridor. The bridge, which CSX Transportation Inc. (CSX) owns and the National Railroad Passenger Corporation (Amtrak) maintains and operates, was constructed in 1901-1903 on a substructure that dates to the 1860s and is nearing the end of its serviceable life. Amtrak uses the bridge for intercity passenger trains traveling on the Empire Corridor route and CSX and Canadian Pacific (CP) use the bridge for freight rail service.

Since Federal funds and Federal permits are necessary for the Project, compliance with the National Environmental Policy Act of 1969 (42 USC § 4321 et seq.) (NEPA) is required. The Federal Railroad Administration (FRA) is the lead Federal agency for review under NEPA. FRA and NYSDOT as Project sponsor completed an Environmental Assessment (EA) and draft Section 4(f) Evaluation in May 2022 evaluating the potential environmental effects of the Project. FRA and NYSDOT prepared the EA in accordance with NEPA, the Council on Environmental Quality's NEPA implementing regulations (40 CFR Parts 1500-1508), and FRA's Procedures for Considering Environmental Impacts (64 FR 28545, [May 26, 1999] and 78 FR 2713 [January 14, 2013]), and other related laws and requirements. FRA and NYSDOT have coordinated with the U.S Army Corps of Engineers (USACE) and U.S. Coast Guard (USCG), both of which must issue permits for the Project before it can proceed. The EA documents the effects of the Project on the environment and the measures that will be implemented to avoid, reduce, and mitigate the Project's adverse effects on social, economic, and environmental resources.

The EA was made available for review by agencies and the public for a 38-day review and comment period between May 9, 2022 and June 15, 2022. A notice of availability of the EA was distributed via email and postcard to the Project mailing list and residents of the Project area. The EA was available on FRA's website[1] and NYSDOT's website[2] and its availability was advertised in the *Albany Times-Union*. Public informational meetings were held virtually on May 31, 2022 and in person at the Palace Theater in Albany on June 1, 2022. Summaries of comments received on the EA and responses to those comments are provided in **Attachment D**; the full text of all comments is provided in **Attachment E**.

This Finding of No Significant Impact (FONSI) is made based on the information in the EA to comply with NEPA, 42 U.S.C. §§ 4321 et seq., and its implementing regulations, 40 C.F.R. Parts 1500-1508; FRA's NEPA Procedures; and other applicable laws, including Section 106 of the National Historic Preservation Act (Section 106) and Section 4(f) of the U.S. Department of Transportation Act of 1966 (Section 4(f)).

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1 https://railroads.dot.gov/environment/environmental-reviews/livingston-avenue-bridge-replacement-project.

2 https://www.dot.ny.gov/livingstonavebridge.

2 Purpose and Need

The purpose of the Project is to improve reliability and reduce passenger and freight train delays along this segment of the Empire Corridor; achieve (at a minimum) a long-term state-of-good-repair for the bridge; eliminate existing bridge and track deficiencies; and maintain or improve navigation near the bridge. This will ensure that the Livingston Avenue Bridge meets modern passenger and freight rail capacity and load (weight) standards, maintains acceptable levels of safety, and supports the long-term utility and vitality of the Empire Corridor. The Project is essential to implementing future rail plans and improving state-wide rail transportation.

2.1 Need to Address Structural Deficiencies and Substandard Conditions

The Livingston Avenue Bridge is more than 100 years old and is nearing the end of its serviceable life. Its superstructure and substructure are in fair to poor condition; the mechanical portions of the swing span are significantly worn and require near constant maintenance to remain operable; the swing span frequently malfunctions, resulting in delays to passenger trains, freight trains, and boat traffic; and the bridge does not meet current design standards related to load, speed, and horizontal and vertical clearance. Due to its deteriorated condition and obsolete design, the bridge cannot support train operations at speeds consistent with the speeds on adjacent rail segments and the two-track bridge can be used only by one train at a time. The bridge also has non-standard vertical and horizontal clearances, which limit the types of carriages and freight that can traverse the span. Moreover, the equipment controlling the bridge operations is obsolete. While Amtrak maintains the system by replacing parts as they are available, finding parts for the obsolete system has become difficult.

2.2 Need to Improve Capacity

The Livingston Avenue Bridge is a restrictive bottleneck along the Empire Corridor that impedes future High Speed Intercity Passenger Rail (HSIPR) plans for the corridor. The Empire Corridor is the only passenger rail route between New York City, Albany, Buffalo, and Niagara Falls; it also serves as a Class I freight rail route (as defined in 49 CFR 1201) that is a critical link in domestic and international goods movement. The current restrictions on bridge operations compromise the short- and long-term utility and vitality of New York's passenger and freight rail service via the Empire Corridor. Improving the existing crossing is an essential component of developing a successful HSIPR corridor in New York State and providing ample connection to New York City.

2.3 Navigational Need

The Livingston Avenue Bridge is a swing span bridge over a navigable section of the Hudson River. It is operated by a bridge operator working in an operator's house on the bridge above the center of the swing span. In recent years, the bridge has opened for ships an average of 300 times a year. Improving the reliability of the movable span is important for maintaining the navigation channel past Albany.

2.4 Project Goals

To evaluate the Project alternatives developed as part of the environmental review process, NYSDOT established three goals for the Project related to the Project purpose and need:

- Goal 1: Improve passenger rail operations, service reliability, and operational flexibility.
- Goal 2: Improve the load capacity of the corridor and remove existing structural operational limitations.
- Goal 3: Minimize conflicts with navigational traffic.

3 Alternatives Considered

FRA and NYSDOT considered a range of different alternatives for repairing, rehabilitating, or replacing the Livingston Avenue Bridge to identify alternatives that would meet the Project purpose and need

and be feasible and reasonable. **Exhibit 1** provides a list of the alternatives considered and summarizes the conclusions of the alternatives evaluation.

In the alternatives evaluation, FRA and NYSDOT first assessed the alternatives to identify whether they would meet the Project purpose and need. All alternatives that met the Project purpose and need were then evaluated to identify whether they were feasible and reasonable, based on their ability to meet the established Project goals and, where relevant, preliminary information on the potential cost, engineering factors, and likely environmental and transportation impacts.

Exhibit 1
Summary of Alternatives Considered

Alternative	Evaluation
Permanent Detour: Use of Alternate Routes	Not reasonable because it would not meet the Project purpose and need.
Rehabilitation: Bridge Repairs	Not reasonable because it would not meet the Project purpose and need. Also, would not satisfy the Project goal of improving service reliability and operational flexibility (Goal 1), upgrading the load capacity of the bridge (Goal 2), or the Goal 2 objectives of improving the design life of the structure and eliminating the existing geometric deficiencies.
Rehabilitation of Existing Bridge (Substructure and Superstructure) to Accommodate Mixed Rail Traffic	Not reasonable because it would not meet the Project goal of removing existing structural operational limitations (Goal 2) or the goal of minimizing conflicts with river traffic (Goal 3); would also not meet Goal 1 objective of eliminating track deficiencies and Goal 2 objective of providing a river crossing with a design life of a minimum of 100 years. Would have a cost ranging between 83 and 91 percent of the cost of replacing the structure.
Rehabilitation of Existing Bridge for Passenger Trains Only	Not reasonable because it would not meet the Project purpose and need. Also, would not meet Project objectives in Goal 2 of maintaining or improving freight movement across the bridge; improving the load rating of the structure to Cooper E-80 freight traffic; or supporting simultaneous two-track operation; and would not meet the goal of minimizing conflicts with river traffic (Goal 3).
Rehabilitation of Existing Bridge – Superstructure Replacement	Not reasonable because it would not meet the Project goal of minimizing conflicts with marine traffic (Goal 3); would not meet Goal 1 objective of eliminating track deficiencies or Goal 2 objective of providing a 100-year design life. Other goals and objectives would not be met in a cost-effective manner.
Replacement Bridge on Existing Alignment	Eliminated because it would have a higher cost and greater construction complexity than other replacement alternatives without providing any advantages.
Replacement Bridge on New Alignment	Not reasonable because it would not meet Project objective of improving freight and passenger rail capacity in a cost-effective manner (part of Goal 1); or the goal of minimizing conflicts with river traffic through improved clearances (Goal 3). Would have much greater cost, need substantially more property acquisition, and would have greater environmental, social, and construction impacts.
Alternative Bridge Types	A fixed span was eliminated because it would have construction complexities, much greater cost, need for substantially more property acquisition, and far greater environmental, social, and construction impacts for a lengthy new structure. A swing span was eliminated because it would have more complex mechanics that are more difficult to maintain and less reliable to operate than a lift span; a swing span also would not increase the width of the navigation channel. A bascule span was eliminated because it would not provide sufficient navigational clearance to meet Goal 3.
No Action Alternative	Would not meet Project purpose and need or any goals or objectives but retained to serve as a comparative baseline for the environmental analyses as required by NEPA.
Build Alternative 1, Replacement on an Adjacent North Alignment	Would meet the Project purpose and need and goals and objectives; evaluated in the EA.
Build Alternative 2, Replacement on an Adjacent South Alignment	Would meet the Project purpose and need and goals and objectives; evaluated in the EA.

Using that approach, FRA and NYSDOT considered a number of different alternatives, including elimination of a bridge at the existing location, rehabilitation of the bridge, and replacement of the bridge on various alignments. FRA and NYSDOT also considered several different bridge types in the evaluation. In the alternatives evaluation, FRA and NYSDOT determined that discontinuation of a rail

crossing between Albany and Rensselaer, repair and rehabilitation of the existing bridge, and replacement of the bridge within the existing bridge footprint would not be reasonable alternatives. FRA and NYSDOT concluded that two Build Alternatives that replace the existing bridge with a new lift bridge either just south or just north of the existing alignment would meet the purpose and need and be feasible and reasonable. The No Action Alternative was also retained for analysis in the EA to serve as a baseline against which to compare the impacts of the Build Alternatives. These alternatives are described below.

3.1 No Action Alternative

In the No Action Alternative, the Livingston Avenue Bridge would remain in service as is, with continued routine maintenance and repairs. No major improvements to, or replacement of, the Livingston Avenue Bridge or its approach tracks would be undertaken with the No Action Alternative. The bridge's live load capacity would not be improved, existing geometric deficiencies and vertical and horizontal clearance deficiencies would not be corrected, and the wye (a triangle of tracks allowing connection to a spur track) at the east approach to the bridge would not be realigned. With these substandard conditions, operations across the bridge would remain limited to single-track operation at 15 mph. With the No Action Alternative, other rail improvements that are planned or programmed separately from the Project would occur. In addition, other improvements to the regional transportation system and development projects that are proposed by others in the vicinity of the Project site would occur.

The No Action Alternative would result in the continued deterioration of the structure, resulting in increased maintenance, and eventually could require the bridge to be closed to rail traffic. If the bridge were to close in the future, trains would have to cross the Hudson River via an inefficient, longer route. In that situation, passenger trains could be diverted to lower class track and across another Hudson River crossing, the Alfred H. Smith Memorial Bridge, on the CSX Castleton Subdivision, which spans the river between Castleton-on-Hudson and Selkirk. Routes would be longer, and trains would either have to bypass the Albany-Rensselaer and Schenectady Stations completely or make circuitous routes to reach them that would add to the required detour.

In addition to operational limitations, the No Action Alternative would adversely affect river traffic. Existing horizontal clearance limitations would not be improved. The mechanical features of the swing span would continue to be subject to failure due to age and deterioration, limiting the reliability of the navigation channel.

The No Action Alternative would not meet the purpose and need for the Project or satisfy any of the Project goals and objectives or the programming goals of improving service reliability and operational flexibility, improving load capacity and reducing operational limitations, and minimizing conflicts with navigational traffic. Additionally, pedestrians and cyclists would continue to lack access between the Cities of Albany and Rensselaer at this location due to the closure of the pedestrian walkway on the existing bridge.

3.2 Build Alternative 1 – Replacement on an Adjacent North Alignment

Build Alternative 1 involves the complete replacement of the existing two-track Livingston Avenue Bridge with a new two-track movable bridge on a skewed alignment north of the existing bridge (see **Figure 1**). The skewed alignment would be necessary to connect to the existing alignment prior to passing under the eight-lane I-787 viaduct in Albany, while also providing a straight alignment for the movable span. The alignment would be approximately 200 feet north of the existing bridge on the east side of the river and would abut the existing bridge on the west side. The skewed alignment would require the same number of piers as the existing bridge; however, the piers would be wider. The new bridge would be a truss bridge, the same type of superstructure as the existing bridge, although with a different design. The top of rail elevation would be two feet higher than with the existing bridge, to accommodate a deeper floor system while maintaining the same clearance above the water when the bridge is closed.

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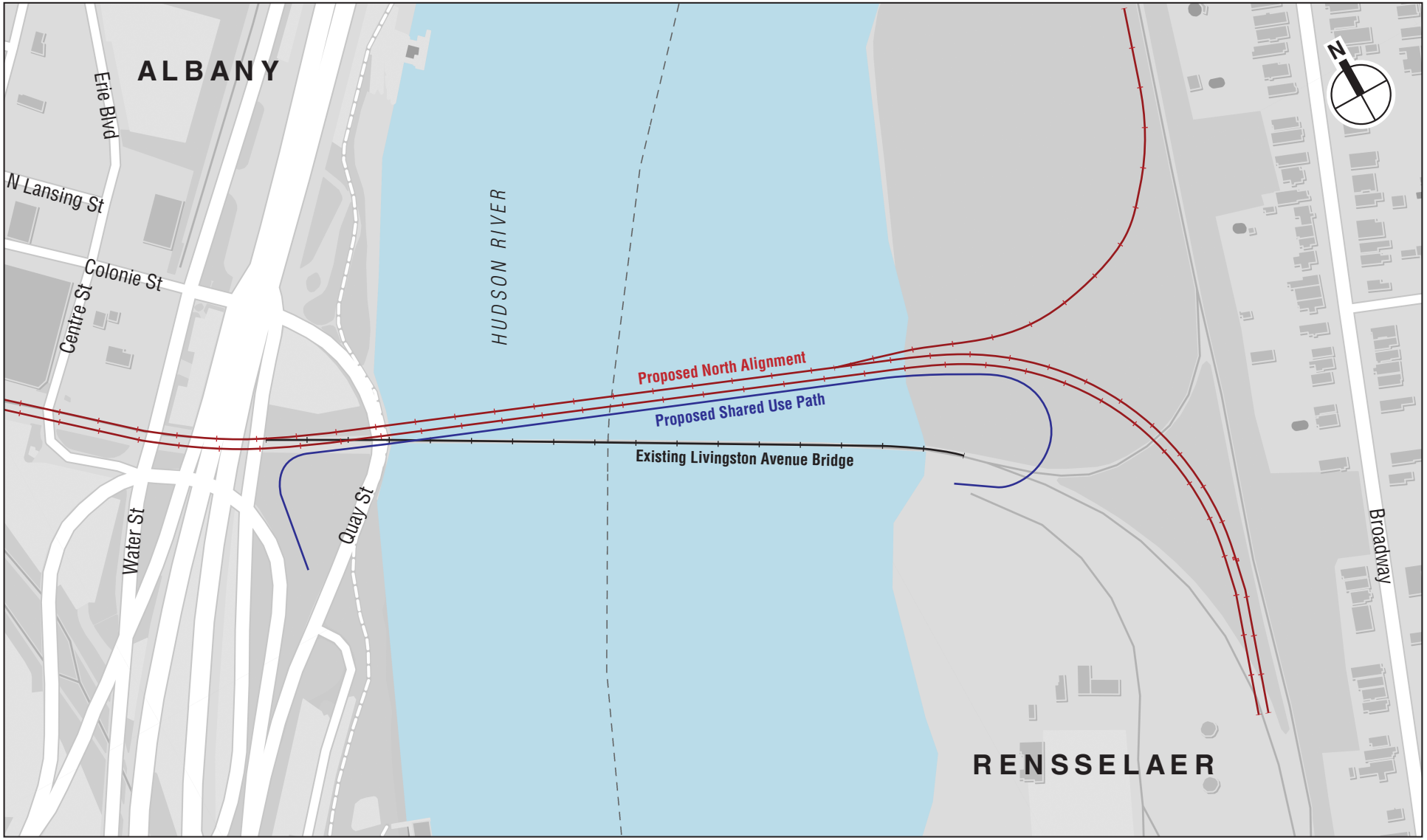

Build Alternative 1 – Replacement on an Adjacent North Alignment

Figure 1

The new bridge would have a lift span instead of a swing span like the existing bridge. This would increase the width of the navigation channel from the current width of 100 feet to approximately 190 feet wide. The vertical clearance of the lift span when open would be 60 feet above Mean High Water, which is the same clearance as the nearest bridges upstream and downstream of the Livingston Avenue Bridge. When the bridge is closed, the vertical clearance above the water would be the same as with the existing bridge, 25 feet above Mean High Water. No changes to the regulated navigation channel, which is approximately 600 feet wide in this portion of the Hudson River, would be required. At the lift span, a fender system would protect the bridge piers.

The two towers supporting the lift span would be approximately 145 feet tall above Mean High Water, slightly shorter than the towers on the existing bridge that carry power cables and catenary wires, which are 151.5 feet above Mean High Water. On the east and west, the bridge's approach girder spans would be ballasted deck girders. This would accommodate additional width for increased track spacing.

A shared-use path would run along the south side of the new bridge on a cantilever extending from the bridge trusses and supported on an independent girder superstructure that shares piers and abutments with the deck girder approach spans of the rail bridge. The shared-use path would have a bicycle-height railing on the outboard side and a pedestrian security fence and bicycle-height railing on the inboard side to prevent unauthorized access from the walkway onto the railroad tracks. The walkway would include scenic overlooks at each end of the movable span to provide an area for pedestrians to collect and bicyclists to dismount when the bridge is opening/closing and the walkway gates are closed. On the east side of the river, the shared-use path would connect to the planned Rensselaer Riverfront Multi-Use Trail; on the west side of the river, it would connect to the Mohawk-Hudson Bike-Hike Trail and the Albany Skyway.

On the Rensselaer side of the river, new bridge approach tracks and reconfigured wye tracks would be installed so that the movement from the bridge south toward Albany-Rensselaer Station becomes the primary move, an improvement over the existing condition in which the primary move is to the north to the Troy Industrial Track.

On the Albany side of the river, the western abutment of the bridge would be shifted to the west from its current location, which would improve sightlines along Quay Street where it passes beneath the bridge adjacent to the abutment. The rail bridges over Water and Centre Streets would be rehabilitated and reconfigured to accommodate the shift in the track alignment. At each of those bridges, the beam seats of the bridge abutments that support the bridge girders would be modified or replaced and several pairs of the existing deck girders (i.e., bridge beams) would be repositioned to support the new alignment. At the Water Street bridge, a set of existing deck girders would be removed to accommodate this shift.

No change in the number of daily trains is planned as a result of the Project. With the new bridge, train operating speed on the bridge would be 40 mph for passenger trains and 35 mph for freight trains (an increase from 15 mph currently). The new bridge would have two tracks and could accommodate two trains operating across the bridge at the same time. As the new lift would operate more reliably than the existing bridge, the delays related to bridge malfunction would be eliminated.

3.3 Build Alternative 2 – Replacement on an Adjacent South Alignment

Build Alternative 2 involves the complete replacement of the existing two-track Livingston Avenue Bridge with a new two-track movable bridge located parallel to, and approximately 50 feet south of, the existing bridge (see **Figure 2**). The design and operational characteristics of Build Alternative 2 would be similar to those described for Build Alternative 1 except that Build Alternative 2 would only have eight piers (one fewer than the existing bridge and Build Alternative 1). The truss bridge under Build Alternative 2 would also have a lift span and shared-use path. The approach track work would

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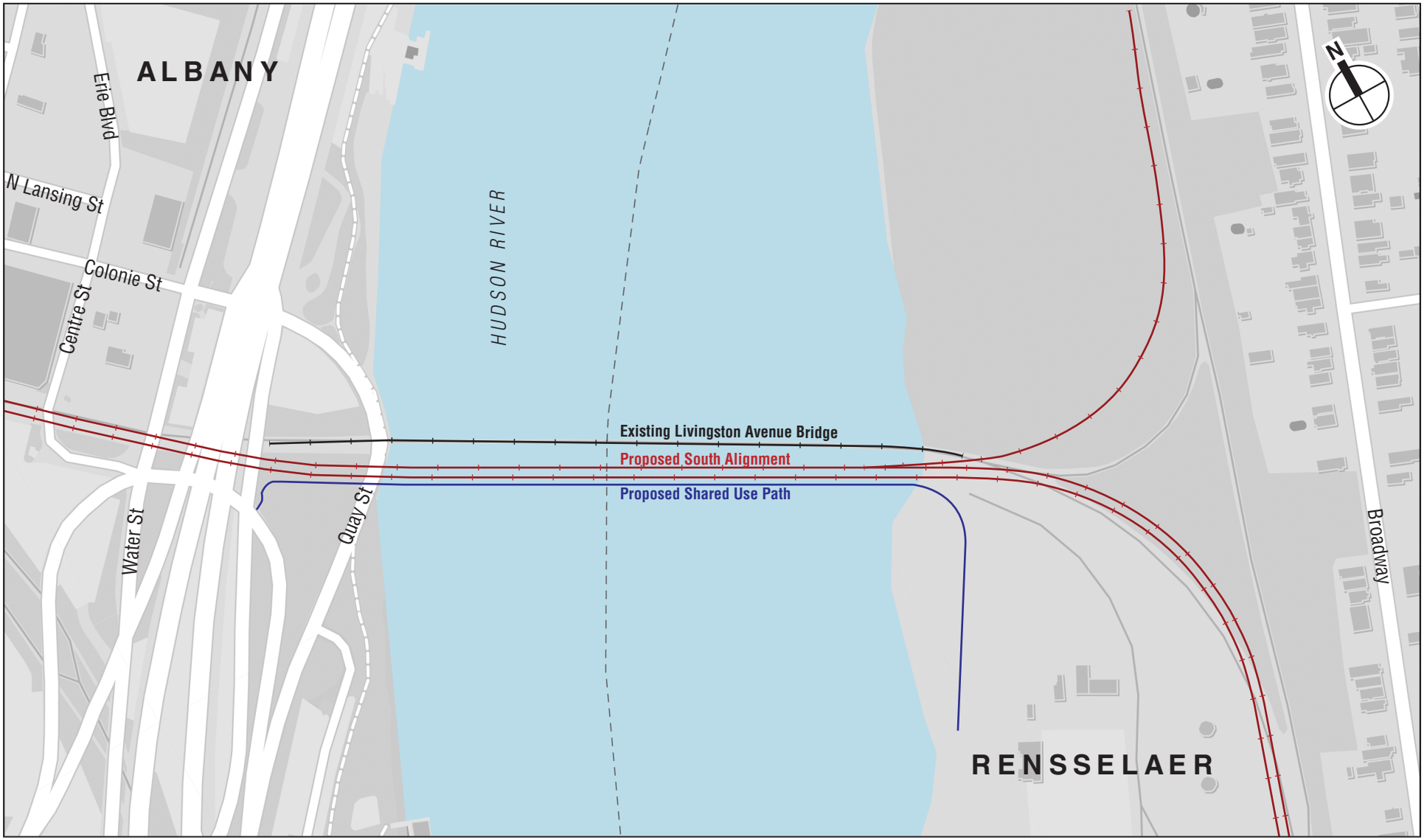

Build Alternative 2 – Replacement on an Adjacent South Alignment

include improvements to the wye tracks and require a similar effort for the rehabilitation and reconfiguration of the rail bridges over Water and Centre Streets in Albany.

3.4 Identification of Selected Alternative

Based on the environmental analysis in the EA as well as operational and engineering considerations, NYSDOT identified Build Alternative 2, Replacement on an Adjacent South Alignment, as the Selected Alternative. The Selected Alternative includes a shared-use path creating new access across the Hudson River, consistent with long-term plans to better connect the east and west shoreline communities along the Hudson River.

3.5 Changes to the Selected Alternative After Publication of the EA

Since the EA was published, NYSDOT has incorporated the following changes into the Selected Alternative in response to public comments on the EA:

- **Connection to Albany Skyway:** In the EA, the western terminus of the shared-use path was described as providing a connection to the Albany Skyway, but it was not clear whether this connection would be direct, or via the Mohawk-Hudson Bike-Hike Trail in Corning Riverfront Park. Drawings attached to the EA showed the shared-use path touching down at the Hudson River waterfront, without a direct connection to the Albany Skyway. In response to public comments on the EA, NYSDOT has revised the design to incorporate a direct connection from the shared-use path to the Albany Skyway at the western terminus of the new bridge, where the two pathways will be at a similar elevation.

  FRA and NYSDOT have evaluated this change to the Selected Alternative and found that it would not result in any new adverse effects and would in fact result in beneficial effects. The connection to the Albany Skyway would result in a greatly reduced footprint for the shared-use path in Albany, eliminating the need for the previously planned touchdown in Corning Riverfront Park; that connection would now occur via the Albany Skyway, avoiding the need to construct a duplicative trail segment. As noted by several commenters on the EA, the direct connection to the Albany Skyway would result in an improvement to the functionality and usefulness of both trails and a better solution for regional bicycle and pedestrian connections, as it would save trail users the time and effort that would have been required to descend from the shared-use path to the waterfront and then climb back up to the same elevation on the Albany Skyway (or vice versa when traveling in the opposite direction).

  The connection to the Albany Skyway would not change impact determinations for the following resource categories analyzed in the EA:

  - **Transportation:** Aside from the benefits to pedestrian and bicycle connections noted above, this modification would not affect any elements of the transportation system (roads, rail lines, navigable waters, transit stops or routes, etc.).
  - **Land Use, Social and Economic Conditions:** This modification would not change land use or zoning, nor would it require any new acquisition of property. It would not displace any residents or businesses, divide communities, or have any other adverse social or economic effects. There would be a brief narrowing in the available width of the Albany Skyway during construction of the tie-in to the shared-use path, when construction workers are finalizing work at the tie-in point. This would involve light construction activity to finalize surface finishes of the shared-use path at the point where it meets the Skyway. NYSDOT and its contractor would use cones or construction fencing to prevent the public from entering the work zone, and would stage the work to ensure no disruption to bidirectional traffic on the Skyway. With these measures in place, this temporary, minor disruption to the Albany Skyway would not constitute a significant adverse effect on this open space.
  - **Cultural Resources and Visual Resources:** This modification would not directly impact any historic or cultural resources. As it would be in roughly the same location as the previously

planned shared-use path touchdown, but with a much smaller footprint, it would not have any greater effect on viewsheds than what was analyzed in the EA, and thus would not have an effect on historic resources. For the same reason, it would not adversely affect visual and aesthetic resources.

- **Water Resources and Ecology:** The site of the connection to the Albany Skyway is a grassy lawn area that lacks significance as wildlife habitat, and contains no water resources; therefore, this modification to the Selected Alternative would not have any adverse effects on water resources or ecology.
- **Geology:** This modification would not result in any change to effects on geological conditions because of the nature of the construction as minor, shallow, above-ground work.
- **Air Quality, Energy, Greenhouse Gas Emissions:** This modification would not create a new source of air pollutant emissions or greenhouse gas emissions. It would not increase the operational energy requirements or the Selected Alternative. As mentioned earlier, the connection creates more streamlined access to the shared-use path that would likely encourage bicycle and pedestrian use, potentially minimizing the use of cars for transport and any associated greenhouse gas emissions.
- **Utilities and Infrastructure:** This modification would not involve any new effects on utilities or infrastructure, as none are located on the site of the connection to the Albany Skyway.
- **Contaminated Materials:** This modification would not involve the use of any new hazardous substances, nor would it increase the likelihood of exposure to contaminated materials already present in soils and structures at the Project Site.
- **Safety and Security:** The shared-use path connection to the Albany Skyway would feature a bicycle-height railing and security lighting to ensure the safety and security of trail users.
- **Construction:** As it would reduce the overall footprint of the Selected Alternative, this modification would slightly reduce the amount of construction disturbance associated with the Selected Alternative. As noted above, the brief, minor construction disruption to the Albany Skyway would not constitute an adverse effect on that resource.
- **Indirect and Cumulative Effects:** This modification would not result in any new indirect effects; in combination with other planned and recently completed trail projects, including the Albany Skyway, it would contribute to a cumulative benefit to the regional trail network.
- **Environmental Justice:** As described elsewhere in this section, this modification would not result in any adverse effects, and thus would not result in disproportionately high and adverse effects on environmental justice populations. It would result in benefits to the local community via more direct access to the shared-use path.
- **Section 4(f):** FRA has determined, and the City of Albany has concurred, that the new connection to the Albany Skyway, which is a Section 4(f) property, would not constitute a Section 4(f) use of the Albany Skyway; instead, it would qualify for the exemption applied to temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f). This determination is documented in the Final Section 4(f) Evaluation, which is **Attachment C** to this FONSI.

- **Incorporation of Rensselaer Riverfront Multi-Use Trail:** In the EA, the eastern terminus of the shared-use path was described as connecting to the proposed Rensselaer Riverfront Multi-Use Trail, which was to be constructed in the future as a separate project by the City of Rensselaer. In response to comments on the EA from the City of Rensselaer and others, NYSDOT has incorporated construction of a portion of this trail into the Livingston Avenue Bridge Replacement Project. The portion to be included in the Project will extend from the existing northern limit of the trail at DeLaet's Landing to a point just north of the Livingston Avenue Bridge. NYSDOT's construction contractor will already have established construction access and staging at the site of the trail and will be in an advantageous position to complete the additional work to construct the

trail as part of the Project. The Rensselaer Riverfront Multi-Use Trail (PIN 1760.84) received federal funding through the Federal Highway Administration's (FHWA) Transportation Alternatives Program (TAP) and Congestion Mitigation and Air Quality Improvement (CMAQ) Program, and FHWA and NYSDOT completed NEPA categorical exclusion documentation for the project on January 11, 2021. As described in the categorical exclusion documentation for the Rensselaer Riverfront Multi-Use Trail, that project would not result in any adverse impacts, and no mitigation measures would be required. For the portion of the trail project that will be constructed as part of the Selected Alternative, NYSDOT and its contractor will build the trail as presented in the categorical exclusion documentation and design documents prepared by the City of Rensselaer. FRA and NYSDOT considered whether this new element of the Selected Alternative could result in any effect on Section 4(f) resources, and determined that because the trail is a future resource that will be developed as part of the Selected Alternative, no use of a Section 4(f) property will result from NYSDOT's construction of this trail segment. However, future projects (to which Section 4(f) applies) that would affect the trail may need to consider the trail a Section 4(f) property.

Updated design drawings showing these two modifications to the Selected Alternative are presented in **Attachment G**.

As noted in this section, FRA and NYSDOT have evaluated these modifications and found that they do not affect the impact determinations in the EA or Section 4(f) Evaluation upon which FRA relied in choosing the Selected Alternative. Accordingly, FRA and NYSDOT are incorporating these elements into the Selected Alternative.

4 Affected Environment and Environmental Consequences

In the EA, FRA and NYSDOT evaluated the social, economic, and environmental consequences of the Selected Alternative in accordance with the requirements of NEPA and FRA rules and procedures. The No Action Alternative served as a baseline against which to compare the impacts of the Selected Alternative. Based on the analyses contained in the EA, FRA concludes that the Selected Alternative, along with measures to mitigate potential Project-related adverse impacts, is not likely to result in significant adverse environmental impacts. **Exhibit 2** summarizes the potential long-term impacts of the Selected Alternative and **Exhibit 3** summaries the temporary construction impacts of the Selected Alternative. Measures to mitigate the potential for adverse impacts are addressed in both tables, as warranted.

Exhibit 2
Summary of Potential Long-Term Impacts and Mitigation

Analysis Area	Long-Term Impacts of the Selected Alternative	Mitigation/Commitment
Transportation	The Selected Alternative would eliminate an existing bottleneck on the Empire Corridor, improve reliability and reduce passenger and freight train delays by eliminating track deficiencies and providing a new bridge that would meet modern passenger and freight rail capacity and load standards. It would improve navigation by widening the navigation channel beneath the bridge to 190 feet from 100 feet and eliminating delays to river traffic resulting from bridge malfunctions. Pedestrians and bicyclists would benefit from the shared-use path, which would connect to the planned Rensselaer Riverfront Multi-Use Trail and the Albany Skyway and Mohawk-Hudson Bike-Hike Trail in Albany.	NYSDOT will coordinate operation and maintenance of the shared-use path on the bridge during final design with the Cities of Rensselaer and Albany as well as CSX, CP, and Amtrak.
Land Use and Community Character	The Selected Alternative requires acquisition of 5.4 acres of land in Rensselaer by either fee acquisition or permanent easement, including approximately 1.4 acres programmed for residential use within the proposed 18-acre Kiliaen's Landing development. In Albany, the Selected Alternative would be built entirely on railroad property and land owned by New York State. The proposed shared-use path would provide for greater cohesion between the communities on both sides of the Hudson River and support plans for improved waterfront access. The Selected Alternative would enhance recreational resources in the study area by providing the shared-use path on the bridge. Pedestrians and bicycles are currently not permitted on the bridge.	Property owners will be compensated under the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act) and its established equitable land acquisition procedures. NYSDOT will coordinate with the City of Rensselaer regarding the Kiliaen's Landing development.
Social Conditions	The shared-use path would comply with the Americans with Disabilities Act (ADA) and be accessible to all social groups, thereby providing a benefit to the communities on both sides of the river.	N/A
Economic Conditions	By maintaining passenger and freight rail along existing, but improved, routes, the Selected Alternative would positively affect the regional and local economies and employment in Albany and Rensselaer Counties.	N/A
Cultural Resources	FRA and NYSDOT have determined that the Selected Alternative would have an adverse effect on the historic Livingston Avenue Bridge due to its demolition and replacement. FRA and NYSDOT have determined that no adverse effect would result from the modifications to the Water and Centre Street rail bridges, because the character-defining features of the Albany Railroad Viaduct would be unaffected. The Selected Alternative would not result in adverse effects to archaeological resources.	As stated in the Section 106 Memorandum of Agreement among FRA, NYSDOT and the State Historic Preservation Office (SHPO) (see **Attachment B** for detailed list of mitigations incorporated herein), NYSDOT will document the Livingston Avenue Bridge following Historic American Engineering Record standards, install interpretive signage on both sides of the river, and design the new bridge as a truss bridge incorporating key visual elements relating to the existing Livingston Avenue Bridge (the pulley housing and operator's building). NYSDOT will also actively seek new ownership of the existing Livingston Avenue Bridge for adaptive reuse, or, because of its overall size, partial reuse at a new location.

Exhibit 2 (cont'd)
Summary of Potential Long-Term Impacts and Mitigation

Analysis Area	Long-Term Impacts of the Selected Alternative	Mitigation/Commitment
Visual and Aesthetic Considerations	The Selected Alternative would enhance visual resources, creating more views of the Hudson River view corridor than exist today, and improving the experience of the viewers via the scenic overlooks on the shared-use path.	N/A
Water Resources	The Selected Alternative would require the placement of fill in the 100-year floodplain and waters of the U.S. under the jurisdiction of USCG and USACE. The Selected Alternative would have eight piers, one fewer than the existing bridge. The total pier footprint would be approximately 0.5 acres, compared to 0.42 acres for the existing bridge. The Selected Alternative would place one support pier within an ephemeral stream; FRA and NYSDOT will consider this stream as jurisdictional Waters of the U.S. for permitting purposes.	NYSDOT will acquire and adhere to all requirements and conditions associated with the permits and approvals for the Selected Alternative, including the USCG Section 9 and USACE Section 10/404 and Section 408 permits and federal coastal consistency review as required by the federal Coastal Zone Management Act. Other potential permits include SPDES and New York State Department of Environmental Conservation (NYSDEC) floodplain and water quality certification. A New York State Office of General Services (NYSOGS) permit for activities affecting the bed of the Hudson River may also be necessary. The NYSDOT Regional Hydraulics Engineer will perform a floodplain hydraulic analysis during the advance detail plan phase. FRA and NYSDOT will assess the need for stormwater treatment during final design. NYSDOT will employ green infrastructure techniques to manage and treat stormwater and maintain natural hydrology and ecological function.
Ecology	The Selected Alternative would result in the loss of 2 acres of woodland of marginal value. No impacts to significant habitat or the disturbance-tolerant wildlife that are found in the City of Rensselaer would occur. The minimal loss of bottom habitat and benthic invertebrates in the river due to the larger pier footprint would not result in adverse impacts.	FRA and NYSDOT consulted with the National Marine Fisheries Service (NMFS) regarding Essential Fish Habitat (EFH) and threatened and endangered species and with the U.S. Fish and Wildlife Service (USFWS) regarding threatened and endangered species, birds protected under the Migratory Bird Treaty Act, and eagles protected under the Bald and Golden Eagle Protection Act. NYSDOT will use low-maintenance native plant material for landscaping.
Geology	None; the Selected Alternative will meet modern seismic codes, and engineering measures will address any unfavorable geological conditions.	NYSDOT will perform a geotechnical investigation prior to construction to identify design and construction requirements for the new bridge.
Air Quality	None; the Selected Alternative would not change rail traffic volumes and would not move the rail alignment notably closer to existing sensitive receptors.	N/A
Energy and Greenhouse Gas Emissions	None; the Selected Alternative would improve the reliability of the freight rail network, a much more efficient mode of transport than trucks. In addition, the new connection to the Albany Skyway and expansion of the bicycle pedestrian system is likewise beneficial to reducing GHG emissions by encouraging alternate modes of transportation.	N/A

Exhibit 2 (cont'd)
Summary of Potential Long-Term Impacts and Mitigation

Analysis Area	Long-Term Impacts of the Selected Alternative	Mitigation/Commitment
Noise and Vibration	None; use of continuous welded rail on the new bridge would result in lower overall noise and vibration levels than existing infrastructure.	N/A
Utilities and Infrastructure	None; all existing utilities in the study area would remain viable with the Selected Alternative.	N/A
Contaminated Materials	None; with the Selected Alternative, rail operations would not result in any new sources of human or environmental exposure to contaminated materials.	N/A
Safety and Security	The Selected Alternative would improve the structural reliability of the bridge, which would increase the safety of the freight and passenger trains traveling over the bridge. It would provide navigation channel fenders and a dolphin system and reduce the potential for boat collisions with an improved design. Vehicular safety conditions would be improved by better visibility along Quay Street, due to the westward shift of the bridge abutment. Pedestrian and bicycle safety would be improved due to the provision of the fenced shared-use path on the bridge, which would eliminate the current safety concern regarding trespassing.	N/A
Environmental Justice	None. The potential adverse impacts associated with the Selected Alternative are not related to the built environment where the environmental justice communities are located and would not adversely affect the quality of life or public health conditions in the study area. Therefore, the Project would not result in disproportionately high and adverse effects on environmental justice populations. At the same time, the Selected Alternative would provide increased resilience for the Empire Corridor service and an ADA-compliant shared use path connecting the communities in Rensselaer and Albany via improved waterfront access, which is a permanent, long-term benefit to the local community.	N/A
Indirect and Cumulative Impacts	No adverse effects. In combination with other waterfront development projects in the study area, the Selected Alternative would improve the non-motorized travel network in the study area and enhance waterfront access by providing a series of connected riverfront trails, scenic viewpoints, and waterfront uses. This would be a regional transportation and recreational benefit and fulfill long-term plans to better connect the east and west shoreline communities along the Hudson River. Replacement of the Livingston Avenue Bridge, together with a number of other planned improvements to the Empire Corridor, would enable full operation of the Empire Corridor High Speed Rail Program.	N/A

Exhibit 3
Summary of Temporary Construction-Period Impacts and Mitigation

Analysis Area	Temporary Construction-Related Impacts of the Selected Alternative	Mitigation/Commitment
Transportation	Two weekend track outages and periodic nighttime track outages that would affect passenger and freight rail traffic. One 2-day closure of the navigation channel that will affect boat traffic. During a two-month construction period for the west bridge abutment and west end span: Quay Street would be closed; access to the Corning Riverfront Park parking lot south of the railroad crossing would be restricted due to a one-way (northbound) traffic pattern; access to the Jennings Landing (amphitheater) parking facilities would be restricted from Quay Street; pedestrian and cyclist access to the Mohawk-Hudson Hike-Bike Trail may be interrupted during heavy lift operations or other operations that may present a risk to the public. During two 2-week periods for work on the Water Street and Centre Street rail bridges: Water Street and Centre Street would each be closed from Quay Street to Livingston Avenue and traffic would be redirected for access to parking (NYSOGS Lots 12A and 12B) and the street network beyond; large truck traffic would be restricted from using the Colonie Street exit from southbound I-787; the pedestrian walkway along Water Street would be relocated to Centre Street for the duration of the Water Street bridge construction; and Water and Centre Streets would be closed concurrently for bridge resetting over the span of two weekends. Partial closure of NYSOGS Lot 11 under the I-787 overpass would be required and approximately 20 parking spaces in the parking lot just north of the existing bridge would be displaced during the construction period. The Selected Alternative would involve construction of a temporary construction access road in Rensselaer from Tracy Street to the staging area north of the existing bridge.	NYSDOT will use construction methods that minimize disruption to transportation services to the greatest extent practicable, including providing proper notice for closures; implementing a Work Zone Traffic Control Program; and maintaining pedestrian and cyclist access to the Mohawk-Hudson Hike-Bike Trail via erection of a canopy through the work area. NYSDOT will coordinate with the City of Albany to ensure continued access to events at Jennings Landing during the closure of Quay Street.
Land Use and Community Character	NYSDOT's construction contractor would need to acquire temporary access easements for construction laydown areas and access routes. The Selected Alternative would require temporary access restrictions to certain parks and recreational resources as described above under "Transportation."	NYSDOT will ensure property owners are compensated under the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. NYSDOT will coordinate with the City of Rensselaer regarding the Kiliaen's Landing development. NYSDOT and its contractor will use cones or construction fencing to prevent the public from entering the work zone at the shared-use path tie-in point to the Albany Skyway, and will stage the work to ensure no disruption to bidirectional traffic on the Skyway.
Social and Economic Conditions	Construction activities would generate jobs, resulting in economic benefits to the local and regional economy.	N/A

Exhibit 3 (cont'd)
Summary of Temporary Construction-Period Impacts and Mitigation

Analysis Area	Temporary Construction-Related Impacts of the Selected Alternative	Mitigation/Commitment
Cultural Resources	None with implementation of mitigation measures	To avoid accidental damage to adjacent resources, a Construction Protection Plan (CPP) will be developed in consultation with SHPO and the property owners to set forth the specific measures to be used to protect architectural resources during the construction period. It will set forth protocols and specifications to prevent inadvertent damage during construction.
Visual Resources and Aesthetic Considerations	None. Construction of the Selected Alternative would not substantially alter important views. During the construction period, cranes, barges, construction equipment, and staging areas would be visible, but these changes would be temporary and of short duration, and would not constitute an adverse effect on visual resources.	N/A
Water Resources	None with implementation of mitigation measures	NYSDOT will ensure the construction contractor performs all work in accordance with USCG, USACE, and NYSDEC permit conditions. NYSDOT will use turbidity barriers and other measures to protect water quality as warranted and as specified by permit conditions. NYSDOT will implement a storm water pollution prevention plan (SWPPP) and comply with NYSDEC technical standards for erosion and sediment control.
Ecology	None with implementation of mitigation measures	Prior to construction of the temporary pier, NYSDOT will undertake a survey of submerged aquatic vegetation and the pier will be installed so as to minimize the potential to affect submerged aquatic vegetation. NYSDOT will follow timing restrictions for construction work in the Hudson River to protect spawning shortnose and Atlantic sturgeon and their eggs and larvae: no in-water construction from March 1 through September 30 (work could still occur within the cofferdam cells). Avoidance of this time period will also minimize impacts to migratory and breeding anadromous fish. NYSDOT will implement other construction best management practices developed in consultation with NMFS to reduce turbidity and noise due to in-water construction activities to minimize adverse impacts to sturgeon and anadromous fish. A mussel salvage/relocation will be completed before in-water work begins. NYSDOT will ensure that tree clearing will occur only between November 1 to March 31 to avoid potential impacts to northern long-eared bats. NYSDOT will ensure that the osprey nest on the existing bridge will be removed in winter when it is inactive per NYSDEC and USFWS requirements. NYSDOT will implement best management practices (such as washing construction equipment) to avoid introducing new invasive species to the area.

Exhibit 3 (cont'd)
Summary of Temporary Construction-Period Impacts and Mitigation

Analysis Area	Temporary Construction-Related Impacts of the Selected Alternative	Mitigation/Commitment
Air Quality	Impacts are minimal with implementation of mitigation measures. Construction emissions would not exceed general conformity thresholds.	NYSDOT will ensure that the construction contractor adheres to NYSDOT standard specifications that relate to air quality and employs best management practices to minimize air pollutant emissions during Project construction, including use of newer, low-emission equipment; dust control measures; use of ultra-low-sulfur fuel in diesel engines; and measures to control exposure to diesel exhaust, such as limiting heavy duty vehicle idling to five minutes or less.
Energy and Greenhouse Gases	Construction of the Selected Alternative would involve energy use and emissions of greenhouse gases. The Selected Alternative is expected to reduce operational greenhouse gas emissions compared to the No Action Alternative, which would partially offset GHG emissions from construction.	To minimize the energy use and greenhouse gas emissions related to producing construction materials, NYSDOT will ensure that the existing bridge is recycled and reused to the fullest extent practicable.
Noise and Vibration	None with implementation of mitigation measures	During track realignment construction for the wye tracks, NYSDOT will ensure the use of a portable noise barrier/curtain with a Sound Transmission Class (STC) rating of STC 30 or greater for work occurring within 60 feet of residences and no nighttime construction (10 PM – 7 AM) within this distance of residences.
Utilities and Infrastructure	The Selected Alternative would require the relocation of a fiber optic cable beneath the western bridge abutment and may affect other utilities in the area.	NYSDOT will coordinate with utility owners (including CSX, the New York State Office of Technology, Niagara Mohawk Power Corporation, and Rensselaer County Sewer District) and will provide advance notice of any short-term outages that may occur as utilities are switched over to relocated lines.
Contaminated Materials	None with implementation of mitigation measures	NYSDOT will undertake sampling in coordination with the geotechnical investigation program prior to construction to identify existing contamination in river sediments and upland soils, and will share sampling results with USEPA. Dredged material will be collected onto a barge, dewatered, and disposed of to reduce the potential for resuspension of polychlorinated biphenyls (PCBs) or other sediment contaminants in the Hudson River during the installation of the bridge piers. Dewatering effluent will be treated in accordance with NYSDEC requirements prior to being discharged back to the river. NYSDOT will implement measures to prevent or minimize floodplain soils from entering the Hudson River. NYSDOT will ensure that dredged materials and floodplain soils are handled and disposed of in accordance with regulatory standards and permit conditions. Phase II subsurface investigations and asbestos and lead surveys will be conducted prior to construction in areas where excavation will occur. Materials will be tested, handled, stored, transported, and disposed of in accordance with all applicable regulations. A Construction Health and Safety Plan will be developed based on sampling results to protect workers, the community, and the environment during construction. A Demolition Plan will be prepared, containing details of best management practices to be incorporated into Project construction.

Exhibit 3 (cont'd)
Summary of Temporary Construction-Period Impacts and Mitigation

Analysis Area	Temporary Construction-Related Impacts of the Selected Alternative	Mitigation/Commitment
Environmental Justice	No disproportionately high and adverse effects. Some localized adverse effects, such as noise and potential dust, would be associated with construction of the Selected Alternative; these effects would occur throughout the study area in both environmental justice block groups and non-environmental justice block groups. Environmental justice communities closest to the Project site would be buffered from construction by distance and intervening vegetation. The closest construction activity to environmental justice communities (reconfiguration of the approach tracks in Rensselaer) would involve only limited work clearing and grading the new track alignment and placing new track. The Selected Alternative would require only a slight shift from existing track alignments. Mitigation measures described above would eliminate or minimize air quality and noise impacts from this construction work. Some road closures and detours would be located within environmental justice block groups; however, they would involve streets that are predominantly commercial or industrial in nature and would not affect residential areas. The detours would not substantially add to travel times and would maintain the current level of safe movement for pedestrians. Construction period effects would be temporary, and would be eliminated or minimized through the implementation of mitigation measures.	N/A. Mitigation measures described above, in particular those for air quality and noise, would eliminate or minimize effects on environmental justice communities.

5 Section 106 Determination

FRA completed consultation in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800), which require Federal agencies to: 1) take into account the effects of their undertakings on historic properties that are listed in, or meet the eligibility criteria for listing in, the National Register of Historic Places; and 2) afford the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Office (SHPO) a reasonable opportunity to comment. Section 106 also requires that agency officials work with SHPO to identify parties to participate in the Section 106 process (consulting parties). Consulting parties may include, but are not limited to, local governments, Federally recognized Native American tribes, and individuals and organizations with a demonstrated interest in a project.

On behalf of FRA, NYSDOT sent information about the Project to Tribal Historic Preservation Officers (THPOs) for the Saint Regis Mohawk Tribe, the Stockbridge Munsee Community Band of Mohicans, and the Delaware Tribe. FRA, as lead Federal agency responsible for Section 106 compliance for the Project, extended invitations to local preservation groups, local planning agencies, neighborhood associations, and other organizations to participate in consultation. The following organizations agreed to be consulting parties for the Project's Section 106 consultation process: Capital District Transportation Committee, City of Rensselaer Historian, Historic Albany Foundation, Livingston Avenue Bridge Coalition, National Railway Historical Society Mohawk and Hudson Chapter, and New York Central Historical Society.

FRA and NYSDOT concluded that removal of the historic Livingston Avenue Bridge would constitute an adverse effect under Section 106. FRA determined that the rehabilitation and reconfiguration of the Water Street and Centre Street rail bridges, which are components of the NR-eligible Albany Railroad Viaduct, would not result in an adverse effect because character-defining features of the viaduct would not be affected and the change in its overall appearance would be minimal. FRA and NYSDOT developed measures to mitigate the adverse effect of the Project on the NR-eligible Livingston Avenue Bridge in consultation with SHPO, THPOs, and other consulting parties; these measures include the following:

- Documentation of the Livingston Avenue Bridge following HAER standards;
- Interpretive signage in waterfront parks on both sides of the river that conveys the history of the bridge, the railroad, and the area;
- A requirement that the new bridge be a truss bridge that incorporates key visual elements relating to the existing Livingston Avenue Bridge, the pulley housing and operator's building, as requested by SHPO on April 14, 2021;
- A requirement that NYSDOT actively seek new ownership of the Livingston Avenue Bridge for adaptive reuse or partial reuse at a new location. NYSDOT undertook marketing efforts for the bridge in coordination with publication of the EA in May 2022. These marketing efforts consisted of a combination of print and web-based ads that included an advertisement in the Albany Times-Union, a local newspaper, for 14 days and an announcement posted on the internet[3] for 2 months. NYSDOT would have considered only viable offers consistent with the MOA stipulations. If ownership of the bridge were to be transferred for reuse, the transfer deed would have included a preservation covenant that required the new owner to retain the feature intact for a specified period of time. However, NYSDOT did not receive any offers of new ownership.

These measures, as well as additional details regarding mitigation, are included and further described in the Section 106 Memorandum of Agreement (MOA), executed by FRA, NYSDOT, and SHPO, which is provided as **Attachment B** and incorporated into this FONSI.

[3] Bridge marketing materials were posted on https://historicbridgefoundation.com and https://bridgehunter.com.

6 Section 4(f) Determination

Pursuant to the requirements of Section 4(f), the EA included a Draft Section 4(f) Evaluation.

FRA has determined that the Project will require the Section 4(f) use of the historic Livingston Avenue Bridge. There are no feasible and prudent alternatives to the Project's use of the historic railroad bridge and, as documented in the Section 106 MOA provided in **Attachment B**, all possible planning to minimize harm has been identified as mitigation measures. Section 4(f) regulations (23 CFR § 744.3(d)) provide the authority to develop programmatic Section 4(f) evaluations as a time-saving alternative to individual evaluations for certain types of uses. In January 2021, FRA adopted FHWA's Nationwide Historic Bridges Programmatic Section 4(f) Evaluation. FRA has concluded that the Nationwide Historic Bridges Programmatic Section 4(f) Evaluation is applicable to the replacement of the Livingston Avenue Bridge. The Livingston Avenue Bridge Project qualifies for this evaluation because it will use a bridge that is eligible for the National Register of Historic Places (NR), there are no feasible and prudent alternatives to the use of the historic Livingston Avenue Bridge to be replaced as part of the Project, and the Project includes all possible planning to minimize harm resulting from such use.

In addition, FRA has concluded that the Project will have a Section 4(f) *de minimis* impact on the NR-eligible Albany Railroad Viaduct.

FRA made the Draft Section 4(f) Evaluation available for public and agency review and comment on May 9, 2022, concurrent with the EA. FRA received no public comments regarding the Draft Section 4(f) Evaluation. Because the Nationwide Historic Bridges Programmatic Section 4(f) Evaluation is applicable to the replacement of the Livingston Avenue Bridge, concurrence from the U.S. Department of the Interior (USDOI) is not required.

The Final Section 4(f) Evaluation is provided as **Attachment C** to this FONSI.

7 Environmental Commitments

As described in the sections above, FRA and NYSDOT have identified measures required to avoid, minimize, and mitigate environmental impacts of the Project. **Exhibit 4** below itemizes the specific mitigation commitments that NYSDOT is required to implement as part of the Selected Alternative. The exhibit incorporates commitments that are new since publication of the EA, including commitments related to the new elements of the Selected Alternative described in Section 3.5 of this FONSI and new commitments added in response to public comments (see **Attachment D**).

Exhibit 4
List of Environmental Commitments

Resource	Commitments

Transportation	• During final design, NYSDOT will coordinate with the Cities of Rensselaer and Albany as well as CSX, CP, and Amtrak related to operation and maintenance of the shared-use path on the bridge.
	• NYSDOT will coordinate with the City of Albany to ensure continued access to events at Jennings Landing during the closure of Quay Street.
	• NYSDOT will ensure that the construction contractor uses construction methods that minimize disruption to transportation services to the greatest extent practicable, including the following measures:
	  • Provide proper notice for closures.
	  • Implement NYSDOT Work Zone Traffic Control Program.
	  • Maintain pedestrian and cyclist access to the Mohawk-Hudson Hike-Bike Trail via erection of a canopy through the work area.

Land Use and Community Character	• NYSDOT will compensate owners of property to be acquired for the Project in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act) and its established equitable land acquisition procedures. • NYSDOT will coordinate with the City of Rensselaer regarding the Kiliaen's Landing development to minimize impacts to the proposed development to the extent practicable. • NYSDOT and its contractor will use cones or construction fencing to prevent the public from entering the work zone at the shared-use path tie-in point to the Albany Skyway, and will stage the work to ensure no disruption to bidirectional traffic on the Skyway.
Social Conditions	*None (no impacts identified)*
Economic Conditions	*None (no impacts identified)*
Cultural Resources	• As stated in the Section 106 Memorandum of Agreement (MOA) among FRA, NYSDOT and SHPO (see **Attachment B** for detailed list of mitigations incorporated herein), NYSDOT will document the Livingston Avenue Bridge following Historic American Engineering Record standards, install interpretive signage on both sides of the river, and design the new bridge as a truss bridge incorporating key visual elements relating to the existing Livingston Avenue Bridge (the pulley housing and operator's building). NYSDOT also actively sought new ownership of the existing Livingston Avenue Bridge for adaptive reuse, or, because of its overall size, partial reuse at a new location, in accordance with stipulations of the MOA. However, NYSDOT did not receive any serious offers of new ownership. • To avoid accidental damage to adjacent resources, NYSDOT will develop a Construction Protection Plan (CPP) in consultation with SHPO and the property owners to set forth the specific measures to be used to protect architectural resources during the construction period. The CPP will set forth protocols and specifications to prevent inadvertent damage during construction.
Visual and Aesthetic Considerations	*None (no impacts identified)*

Exhibit 4 (cont'd)
List of Environmental Commitments

Resource	Commitments
Water Resources	• NYSDOT will acquire and adhere to all requirements and conditions associated with the permits and approvals for the project, including the USCG Section 9 and USACE Section 10/404 and Section 408 permits and federal coastal consistency review as required by the federal Coastal Zone Management Act. Other potential permits include SPDES and NYSDEC floodplain and water quality certification. • NYSDOT will acquire and adhere to all requirements and conditions associated with a NYSOGS permit for activities affecting the bed of the Hudson River, if necessary. • The NYSDOT Regional Hydraulics Engineer will perform a floodplain hydraulic analysis during the advance detail plan phase. • FRA and NYSDOT will assess the need for stormwater treatment during final design. • NYSDOT will ensure that the construction contractor performs all work in accordance with USCG, USACE, and NYSDEC permit conditions. This will include the use of turbidity barriers and other measures to protect water quality as warranted and as specified by permit conditions. This will also include implementation of a storm water pollution prevention plan (SWPPP) and compliance with NYSDEC technical standards for erosion and sediment control. • NYSDOT will employ green infrastructure techniques to manage and treat stormwater and maintain natural hydrology and ecological function.
Ecology	• Prior to construction of the temporary pier, NYSDOT will undertake a survey of submerged aquatic vegetation and the pier will be installed so as to minimize the potential to affect submerged aquatic vegetation. • NYSDOT will ensure that the construction contractor follows timing restrictions for construction work in the Hudson River to protect spawning shortnose and Atlantic sturgeon and their eggs and larvae: no in-water construction from March 1 through September 30 (work could still occur within cofferdam cells that were installed outside the no-in-water-work window). Avoidance of this time period will also minimize impacts to migratory and breeding anadromous fish. • NYSDOT will implement other construction best management practices developed in consultation with NMFS during final design to reduce turbidity and noise due to in-water construction activities to minimize adverse impacts to sturgeon and anadromous fish. Examples of measures that could be required include use of small-diameter piles that produce less underwater noise during installation; use of pre-drilling to install piles and vibratory hammering (if necessary, after pre-drilling) to the greatest extent practicable to minimize underwater noise levels; and tapping of piles prior to the start of impact hammering in order to give fish an opportunity to relocate before underwater sound levels become increasingly greater. • NYSDOT will have a mussel salvage/relocation performed before in-water works begins. All mussels found will be relocated to avoid being impacted by construction equipment or sedimentation from construction. • NYSDOT will ensure that tree clearing will occur only between November 1 to March 31 to avoid potential impacts to northern long-eared bats. • NYSDOT will ensure that the construction contractor removes the osprey nest on the existing bridge in winter when it is inactive. • NYSDOT will implement best management practices (such as washing construction equipment) to be established during final design to avoid introducing new invasive species to the area. • NYSDOT will use low-maintenance native plant material for landscaping.

Exhibit 4 (cont'd)
List of Environmental Commitments

Resource	Commitments
Geology	• NYSDOT will perform a geotechnical investigation prior to construction to identify design and construction requirements for the new bridge.
Air Quality	• NYSDOT will ensure that the construction contractor adheres to NYSDOT standard specifications that relate to air quality and employs best management practices to minimize air pollutant emissions during Project construction, including use of newer, low-emission equipment; dust control measures; use of ultra-low-sulfur fuel in diesel engines; and measures to control exposure to diesel exhaust, such as limiting heavy duty vehicle idling to five minutes or less.
Energy and Greenhouse Gas Emissions	• To minimize the upstream energy use and greenhouse gas emissions associated with producing construction materials, NYSDOT will ensure that the existing bridge is recycled and reused to the fullest extent practicable.
Noise and Vibration	• During track realignment construction for the wye tracks, NYSDOT will ensure that the construction contractor uses a portable noise barrier/ curtain with a Sound Transmission Class (STC) rating of STC 30 or greater for work occurring within 60 feet of residences • During track realignment construction for the wye tracks, NYSDOT will ensure that the construction contractor does not undertake nighttime construction (10 PM – 7 AM) within 60 feet of residences.
Utilities and Infrastructure	• NYSDOT will coordinate with utility owners (including CSX, the New York State Office of Technology, Niagara Mohawk Power Corporation, and Rensselaer County Sewer District) and provide advance notice to affected utility customers of any short-term outages that may occur as utilities are switched over to relocated lines.
Contaminated Materials	• NYSDOT will undertake environmental sampling in coordination with the geotechnical investigation program prior to construction to identify existing contamination in river sediments and upland soils; NYSDOT will share the results of this sampling program with USEPA. • NYSDOT will ensure that dredged material will be collected onto a barge, dewatered, and disposed of to reduce the potential for resuspension of polychlorinated biphenyls (PCBs) or other sediment contaminants in the Hudson River during the installation of the bridge piers. NYSDOT will require that the construction contractor treat dewatering effluent in accordance with NYSDEC requirements prior to discharging it back to the river. NYSDOT will implement controls and best management practices to prevent or minimize floodplain soils from entering the Hudson River. NYSDOT will ensure that all dredged materials and floodplain soils are handled and disposed of in accordance with appropriate regulatory standards and pursuant to conditions of any permits issued for the Selected Alternative. • Prior to construction, NYSDOT will conduct a Phase II subsurface investigation in areas where excavation would occur. This would include the collection and laboratory analysis of soil samples and groundwater samples to characterize subsurface conditions prior to construction. • Water quality testing would be performed on any groundwater encountered during construction to ensure compliance with applicable discharge permit/approval requirements and, if necessary, pre-treatment would be conducted prior to discharge. Requirements could include treatment measures such as settling basins to separate sediments from the groundwater prior to their discharge to surface waters.

Exhibit 4 (cont'd)
List of Environmental Commitments

Resource	Commitments
Contaminated Materials (cont'd)	• NYSDOT will ensure that construction is performed in accordance with Occupational Safety and Health Administration (OSHA) lead regulation (29 CFR 1926.62) and NYSDOT Standard Specifications, including Section 202 Demolition of Buildings and Structures, Section 570 Paint Removal Operations, and Section 571 Disposal of Paint Removal Waste. NYSDOT will ensure that the construction contractor will prepare a written Lead-Exposure Control Plan (LECP), with worker exposure assessment and engineering and work practice controls.NYSDOT will ensure that the construction contractor performs a comprehensive asbestos survey of any potential asbestos-containing materials prior to construction. • NYSDOT will ensure that the construction contractor handles and disposes of creosote-treated wood or other creosote products in accordance with ECL Article 27, Title 25. • NYSDOT will require that the construction contractor test, handle, store, transport, and dispose of materials in accordance with all applicable regulations. • NYSDOT will develop and implement a Construction Health and Safety Plan based on sampling results to protect workers, the community, and the environment during construction. • NYSDOT will require the construction contractor to prepare a Demolition Plan containing details of best management practices to be incorporated into Project construction. These best management practices may include environmental ground protection, environmental water protection, plans to contain and collect paint waste, dust control methods, and containment systems (such as cover panels, screens, tarps, scaffolds, supports, and shrouds).
Safety and Security	*None (no impacts identified)*
Environmental Justice	*None (no impacts identified)*
Indirect and Cumulative Impacts	*None (no impacts identified)*

8 Public and Agency Coordination

Throughout the NEPA process, FRA solicited input on the Selected Alternative from several government and transportation agencies including but not limited to: USACE, USCG, SHPO, and other Federal, state, and local government entities. Extensive coordination was conducted among FRA, NYSDOT, USACE, USCG, and SHPO prior to publication of the EA.

The EA was distributed for a 38-day public and agency review and comment period between May 9, 2022 and June 15, 2022. It was also posted to FRA's website[4] and NYSDOT's website[5] and advertised in the *Albany Times-Union*. A notice of availability of the EA was distributed via email and postcard to the Project mailing list and residents of the Project area. Public informational meetings were held virtually on May 31, 2022 and in person at the Palace Theater in Albany on June 1, 2022.

[4] https://railroads.dot.gov/environment/environmental-reviews/livingston-avenue-bridge-replacement-project.

[5] https://www.dot.ny.gov/livingstonavebridge.

9 Public and Agency Comments

Public and agency comments received on the EA are provided in **Attachment E, "Comments Received on the EA,"** and summaries of the comments with FRA and NYSDOT's responses to those comments are provided in **Attachment D, "Summary of and Responses to Comments Received on the EA."**

10 Conclusion

FRA has carefully considered the Project record, including the EA and associated technical reports and analysis; the Section 4(f) evaluation; the mitigation measures required including commitments made in the Section 106 MOA; and the written and oral comments offered by agencies, stakeholders, and the public on this record. Based on this consideration, FRA has determined the Project as presented and assessed in the attached EA satisfies the requirements of NEPA (42 U.S.C. §§ 4321 et seq.), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and the FRA *Procedures for Considering Environmental Impacts* (FRA's Environmental Procedures, 64 FR 28545, May 26, 1999), and the Selected Alternative would have no foreseeable significant impact on the quality of the human or natural environment provided it is implemented in accordance with the commitments identified in this FONSI. FRA has also satisfied requirements under Section 4(f) of the USDOT Act. FRA has determined that there is no prudent and feasible alternative to the proposed use of Section 4(f) properties and that the Project includes all measures to minimize harm. The EA provides sufficient evidence and analysis for FRA to determine that an environmental impact statement is not required for the Project as presented.

Marlys Osterhues

10/31/2022

Marlys Osterhues
Acting Director
Office of Environmental Program Management
Federal Railroad Administration

Date

This document has been prepared in accordance with FRA's Procedures for Considering Environmental Impacts by the Office of Railroad Policy and Development (64 FR 28545, May 26, 1999) and NEPA (42 USC § 4321), with assistance from the Office of Chief Counsel. This document was prepared in 2022. For further information regarding this document, please contact:

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Attachments:

Attachment A. Errata Sheet

Attachment B. Section 106 Memorandum of Agreement

Attachment C. Final Section 4(f) Evaluation

Attachment D. Summary of and Responses to Comments Received on the EA

Attachment E. Comments Received on the EA

Attachment F. General Conformity and Greenhouse Gas Analysis

Attachment G. Design Drawings