

Finding of No Significant Impact Wilmington Rail Realignment

Issued by:

Federal Railroad Administration (FRA)

Prepared pursuant to 23 C.F.R. 771

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1 INTRODUCTION

The Federal Railroad Administration (FRA) prepared this Finding of No Significant Impact (FONSI) to comply with the National Environmental Policy Act, 42 United States Code (U.S.C.) §§ 4321 et. seq. (NEPA); FHWA/FTA/FRA joint regulations implementing NEPA (23 CFR Part 771); Section 4(f) of the United States Department of Transportation Act (49 USC §303) and FHWA/FTA/FRA implementing regulations (23 CFR Part 774); and related laws. FRA issues this FONSI based on information included in the Environmental Assessment (EA) FRA published in July 2024 in cooperation with the City of Wilmington for the Wilmington Rail Realignment (the Project).

1.1 PROJECT DESCRIPTION

In 2018, the Federal Railroad Administration (FRA) awarded the City of Wilmington (City), the Project sponsor, a grant under the Consolidated Rail Infrastructure and Safety Improvements (CRISI) program to complete preliminary engineering and environmental studies for the City's proposed railroad realignment. The Project proposes rerouting existing and future-anticipated freight traffic traveling between the Port of Wilmington in Hanover County and CSXT's Davis Yard in the Town of Navassa, Brunswick County from the existing CSX Transportation Inc. (CSXT) Class I rail carrier freight rail line¹, commonly referred to as the "Beltline", to a new, approximately 4-mile rail alignment with two new crossings of the Cape Fear River. The goal of the Project is to improve freight rail operations, regional mobility, and public safety.

All current freight traffic moving from Davis Yard and the Port travels along the Port-owned railroad operated by the Wilmington Terminal Railroad (WTRY), a Class III rail carrier and a subsidiary of Genesee & Wyoming, to connect to CSXT's Beltline at South 2nd Street in Wilmington. The Beltline forms an east-west-oriented "V" through the City. There are 32 at-grade crossings (30 public and 2 private crossings) on the CSXT and WTRY lines, the latter of which are generally along South Front Street, where the WTRY tracks run parallel in the center of the street before crossing over to serve Colonial Oil. The Beltline crosses the Northeast Cape Fear River via the Hilton Bridge north of downtown Wilmington to access Davis Yard via the SE Line. Existing freight operations along the Beltline vary from day to day depending on shipper demand and CSXT and/or WTRY resource planning; however, all freight trains moving from Davis Yard and the Port currently travel the entirety of the Beltline, while other CSXT and WTRY trains move over portions of the Beltline in the performance of local switching operations for the three existing local shippers.

The Proposed Action would divert all current and future-anticipated freight traffic traveling between Davis Yard and the Port from the Beltline, resulting in the reduction of freight train traffic at the Beltline's at-grade crossings, to a new alignment with two new crossings over the Cape Fear River.

1.2 PROJECT AREA

The NEPA Study Area (Study Area) was established on the east side of the Cape Fear River/Northeast Cape Fear River², extends approximately one mile on both sides of the Beltline's centerline within the City; and on the west side of the rivers, includes undeveloped areas on Eagles Island and areas west of US 421 in Brunswick County (Figure 1). Within the City, land uses include single- and multi-family residential, business, and commercial, but does not include the downtown Wilmington business district. The parcels in Brunswick County are relatively undeveloped, contain a portion of the former railroad right-of-way, or

¹ The current threshold for Class I carriers is any carrier with an annual operating revenue greater than \$1.05 billion. See 49 C.F.R. § 1201.

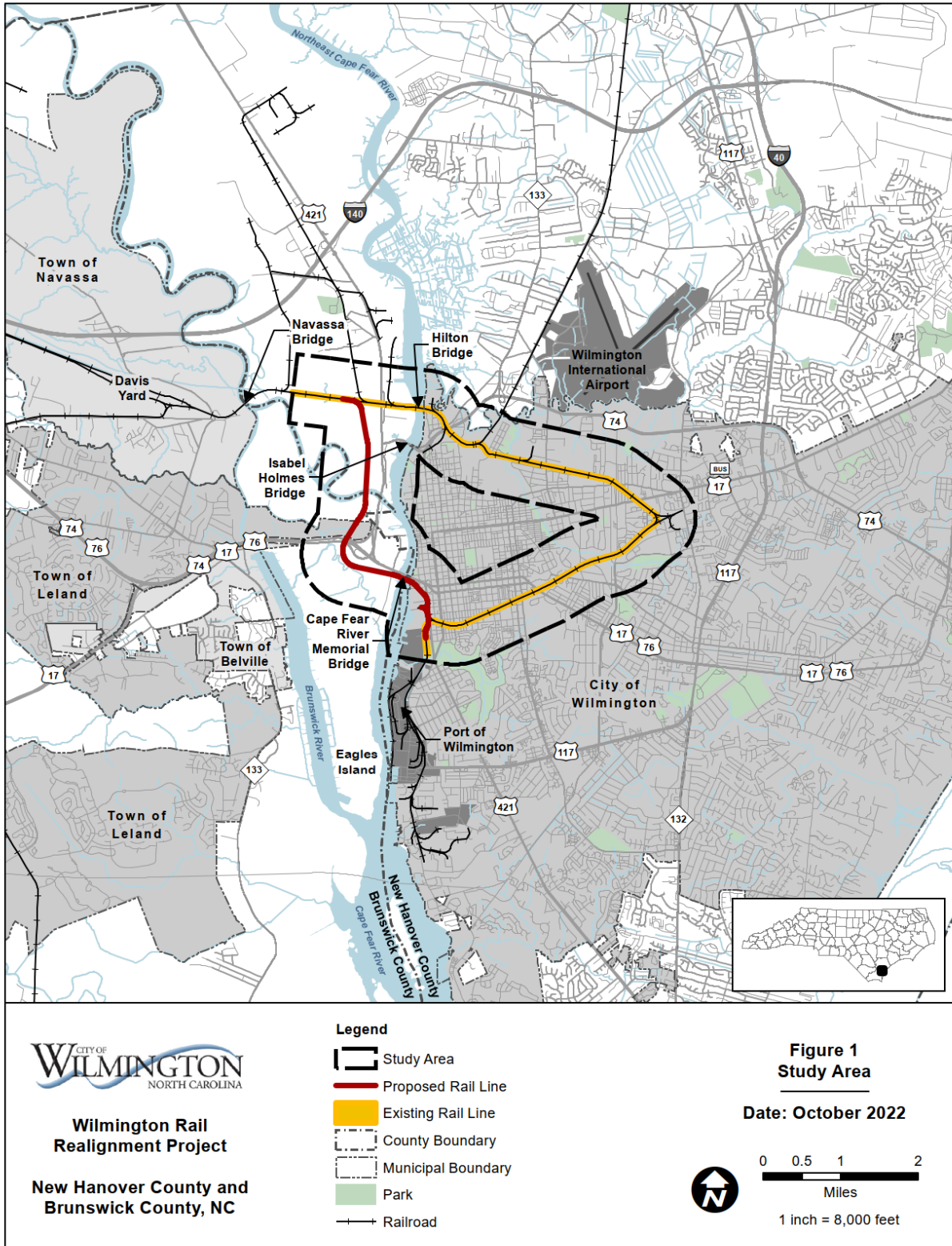
² The confluence of the two rivers is in the center of the Study Area.

include industrial and/or commercial development along the Cape Fear River and US 421. Eagles Island, between the Cape Fear and Brunswick Rivers, is part dredge spoil and part pristine tracts of wetlands.

The Study Area's built environment includes infrastructure that encompasses regional and local community resources such as businesses, residential development, transportation networks, services and utilities, parks and recreational resources, cultural and religious resources, and other community gathering places.

There are four operable rail and highway bridges over the Cape Fear River or the Northeast Cape Fear River in the Study Area, consisting of two highway bridges north and south of downtown Wilmington and two railroad bridges north of downtown. The Cape Fear River Bridge carries US 17/US 76/US 421 over the main channel of the Cape Fear River south of downtown and just north of the Port of Wilmington. The Isabel Holmes Bridge carries US 74 over the Northeast Cape Fear River just north of downtown. The Hilton Bridge and Navassa Bridge carry only rail traffic across the Northeast Cape Fear River and the Cape Fear River north of downtown.

Figure 1: Study Area



2 PURPOSE AND NEED

2.1 PURPOSE OF PROPOSED ACTION

The purpose of the Project is to improve safety, regional transportation mobility, and freight rail operations while also improving resiliency from storms, regional travel reliability, and operational fluidity of the sole freight rail route connecting the Port of Wilmington and southeastern North Carolina with the national freight rail network.

2.2 NEED FOR PROPOSED ACTION

As described in Section 1.6 of the EA, the Project addresses three main needs: enhanced efficiency of freight movement, improved safety, and improved regional mobility and reliability. The challenges the City faces with rapid population growth and increasing traffic congestion, combined with increases in freight movement through the Port of Wilmington, are straining the existing transportation network. Of concern are the many at-grade crossings through the City that pose a risk to public safety, increase traffic delays, and travel times, and increase auto emissions due to longer idling. To access the Port of Wilmington, freight trains must currently travel through the City, crossing 32 at-grade crossings (30 public crossings and two private crossings) within the Study Area. Daily freight trains traveling over the at-grade crossings frequently cause traffic delays, present a safety risk, and reduce the quality of life for the approximately 50,000 residents in the Study Area. Due to increasing volumes at the Port and sustained population growth, compounded impacts are expected to amplify in the coming years.

Under future conditions, the Project assumes the local transportation system would evolve as currently planned without implementation of the Project. Except for routine maintenance and fiscally constrained programmed projects, such as the Wilmington Beltline Improvements Project (P-5740) and the Independence Boulevard Project (U-4434), no change would take place along the existing corridor within the Study Area.

3 ALTERNATIVES

As described in Section 2.1 of the EA, the results of the 2017 *Wilmington Rail Realignment and Right of Way Use Alternatives Feasibility Study*³ (Feasibility Study) served as the basis for alternatives development. The Project then underwent a two-step process to identify a Preferred Alternative – the development of a Corridor Screening Report⁴ followed by the development of an Alternatives Analysis Report (October 2021).⁵ New or modified corridors were also considered based on the Purpose and Need, including engineering feasibility and environmental considerations (at a qualitative level) during the corridor screening phase. Six end-to-end Build Alternatives were evaluated during the alternatives evaluation process, with Alternative 2 recommended as the Preferred Alternative.

The Preferred Alternative was chosen based on several factors, including its ability to meet the purpose and need, its consistency with planned transportation projects, operational considerations, historic property considerations, engineering considerations, and potential resource impacts to various human, socioeconomic, cultural, physical, and natural environmental resources. A comparison of the various considerations used to identify the Preferred Alternative is included in Section 2.1 of the EA.

3.1 ALTERNATIVES CARRIED FORWARD

As described in Section 2.2 of the EA, two alternatives were considered for evaluation in the EA – the No-Build Alternative and the Preferred Alternative.

3.1.1 No-Build Alternative

The No-Build Alternative assumes all existing and future-anticipated freight trains would continue to utilize the current route of traveling along the Port-owned railroad operated by the Wilmington Terminal Railroad (WTRY) to connect to the Beltline at South 2nd Street then traveling the approximately eight miles through the City and crossing the 32 at-grade crossings (30 public and 2 private crossings) on the CSX Transportation, Inc. (CSXT) and WTRY lines, to cross the Northeast Cape Fear River via the Hilton Bridge north of downtown Wilmington to access Davis Yard via the SE Line (Figure S-1). The Project does not propose any new elements or improvements to the existing route under the No-Build Alternative. All existing conditions would remain the same except for improvements planned as part of the Wilmington Beltline Improvement Project (NCDOT STIP Project P-5740) and the Independence Boulevard Project (NCDOT STIP Project U-4434). In general, existing conditions would remain the same as current conditions.

3.1.2 Preferred Alternative

Under the Preferred Alternative, all existing and future-anticipated freight traffic traveling between Davis Yard and the Port would use the proposed realignment. The Beltline would remain in place and limited freight service could continue to operate over the Beltline to serve three local shippers (Builders First Source, L&W Supply, and MCO Distribution and Logistics) (Figure 2). However, the connection between

³ Moffatt and Nichol. 2017. Wilmington Rail Realignment and Right of Way Use Alternatives Feasibility Study. June 2017. <https://www.wilmingtonnc.gov/home/showpublisheddocument/11206/637152921723230000>

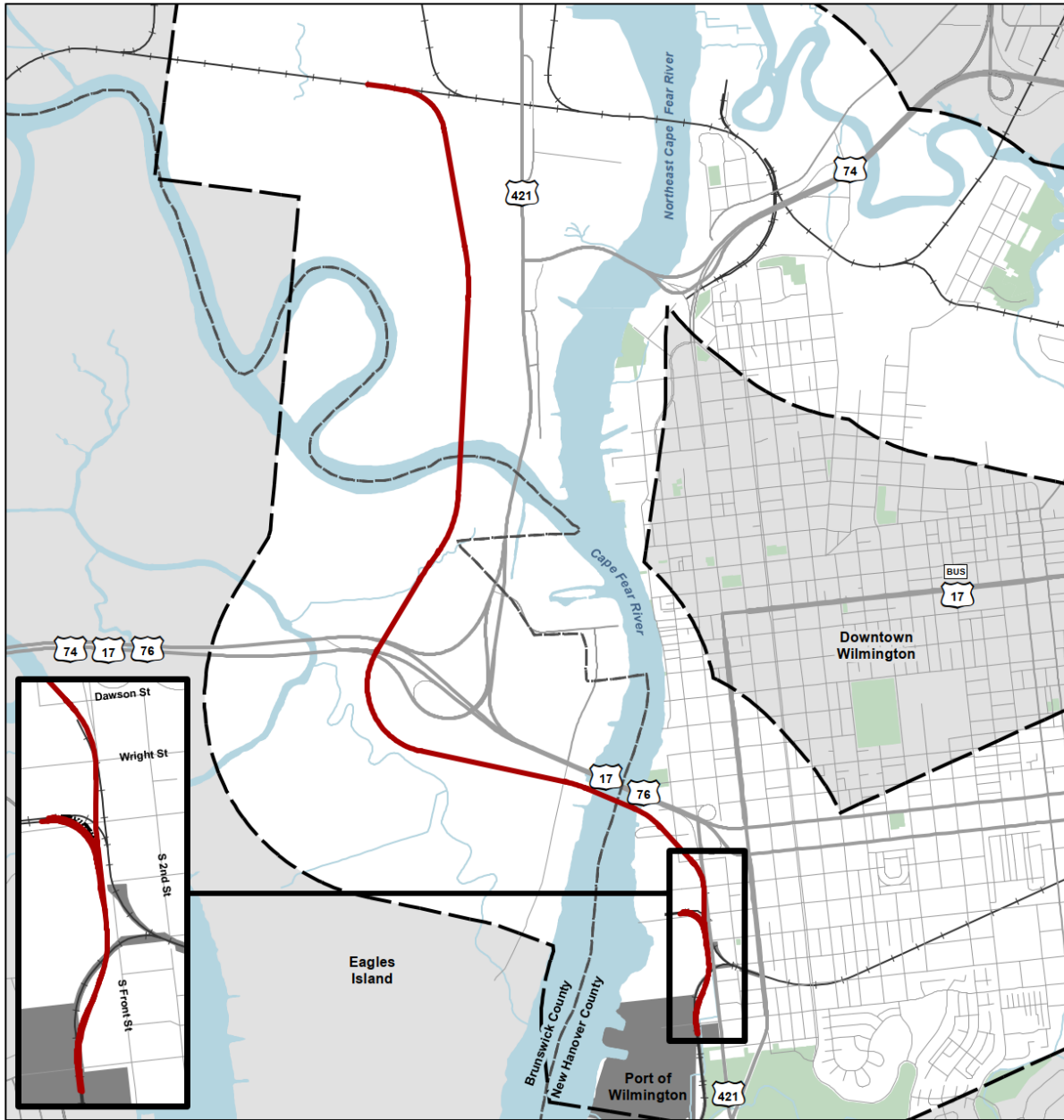
⁴ AECOM, 2021, Wilmington Rail Realignment Corridor Screening Report. January 2021. <https://www.wilmingtonnc.gov/home/showpublisheddocument/12840/637491697093000000>

⁵ AECOM, 2021, Wilmington Rail Realignment Alternatives Analysis Report. October 2021. <https://www.wilmingtonnc.gov/home/showpublisheddocument/13660/637720626365230000>

the WTRY and Beltline will be severed at South Front Street through the removal of track, meaning that freight trains traveling between Davis Yard and the Port would no longer be able to access the Beltline.

The Preferred Alternative is approximately four miles in length and begins at-grade by tying into existing trackage operated by WTRY near Greenfield Street, then follows along the west side of S. Front Street. North of Wright Street, the Preferred Alternative travels northwest across Dawson Street and Surry Street and then crosses the Cape Fear River on a vertical lift bridge. The closed elevation would be approximately 34 feet at top of rail and the partially open position would be 49 feet. The elevated structure continues approximately one mile before turning north and crossing over US 17 just west of the existing US 17/US 421/US 74/US 76 interchange at an approximate elevation of 41 feet (top of rail). After crossing the existing US 17/US 421/US 74/US 76 interchange, the alignment continues on elevated structure and gradually decreases in elevation and crosses the Cape Fear River again at approximately 21 feet in elevation utilizing a bascule-type moveable span bridge. The Preferred Alternative continues north parallel to US 421/US 74 on embanked fill and ties into the existing CSXT SE Line approximately 0.4 mile west of US 421/US 74. Approximately 50 percent of the alignment is proposed on structure. The rail line would remain single track and have a right-of-way width ranging from approximately 50 feet while on structure up to approximately 200 feet in some locations with embankments. The Preferred Alternative alignment is shown in Figure 2.

Figure 2: Preferred Alternative



**Wilmington Rail
Realignment Project**
**New Hanover County and
Brunswick County, NC**

Legend

- Study Area
- County Boundary
- Park
- Preferred Alternative
- Railroad

**Figure 2
Preferred Alternative**

Date: April 2022



0 0.125 0.25 0.5
Miles

1 inch = 2,250 feet

3.2 IDENTIFICATION OF SELECTED ALTERNATIVE

The Selected Alternative is the Preferred Alternative that was evaluated in the EA. The Selected Alternative was the only Build Alternative carried forward for further analysis in the EA. The No-Build Alternative was evaluated as a basis against which to compare the Build Alternative in evaluation of environmental impacts but was not identified as the Selected Alternative because it did not meet the Project purpose and need.

The Selected Alternative meets the purpose and need of the Project and provides numerous benefits, including:

- Improved safety and mobility by relocating existing rail traffic to a new route with fewer at-grade crossing conflicts between CSXT freight traffic traveling between Davis Yard and the Port.
- Reduction in vehicular travel times along the existing Beltline due to fewer at-grade crossing conflicts.
- Improved air quality due to fewer at-grade crossing conflicts resulting in reduced vehicle idling.
- Enhanced community connectivity and a reduction in noise levels along the existing Beltline.
- Minimized risk from sea level rise-induced inundation for approximately the next 75 years as a result of the Project being designed with an elevation of two feet above the projected Mean Higher High Water (MHHW) level in 2100 (10.9 feet).

Based upon the EA, which is incorporated by reference with its appendices in this FONSI in its entirety, FRA has concluded that the Selected Alternative will have no foreseeable significant impact on the quality of the natural and human environments. The Selected Alternative is best able to achieve the purpose and need without significant environmental impacts. Mitigation Measures were included in the EA to further reduce environmental impacts.

4 ENVIRONMENTAL CONSEQUENCES AND ENVIRONMENTAL COMMITMENTS

Based on the EA, FRA has concluded that the Selected Alternative will have no foreseeable significant impact on the quality of the natural and human environment. FRA finds the Selected Alternative is best able to achieve the Purpose and Need for the Project without significant environmental impacts.

FRA's environmental review for the Project included an analysis of potential impacts to resources protected under Section 4(f) of the USDOT Act of 1966 and resources protected under Section 6(f) of the Land and Water Conservation Fund Act (LWCF) of 1965. There are no Section 4(f) or Section 6(f) resources that would be impacted by the Selected Alternative. However, existing bike lanes and sidewalks along South Front Street may be temporarily impacted by the Project during construction. The City will coordinate with local entities to plan for temporary detours during Project construction for the impacted bike lanes and sidewalks along South Front Street.

As described above, FRA has identified measures required to avoid, minimize, and mitigate environmental impacts of the Project. Table 1 below, itemizes the specific mitigation and commitments that the City will be required to implement as part of the Project. If FRA provides funding to construct the Project, the environmental commitments listed in Table 1 will be incorporated into the applicable funding agreement and implemented by the recipient of federal funds. FRA will monitor compliance with these measures through FRA's oversight of the funding agreement. In the absence of federal funding, the City may still need to adhere to commitments to be in compliance with state and local laws and permitting requirements.

Table 1: Summary of Selected Alternative’s Potential Impacts and Proposed Mitigation Measures

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Transportation	<p><u>Permanent:</u> While the Selected Alternative greatly reduces train traffic at 32 at-grade crossings (30 public and 2 private crossings) along the Beltline by removing all current and future-anticipated freight traffic traveling between Davis Yard and the Port, the Selected Alternative would cross existing transit routes.</p> <p><u>Temporary:</u> Existing bike lanes and sidewalks along South Front Street may be temporarily impacted by the Project during construction.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. No negative transportation impacts have been identified because of the Selected Alternative.</p> <p><u>Commitments:</u> The City will develop traffic management plans prior to construction activities that layout rerouting roadway as well as bicycle, pedestrian, and transit traffic. Consideration of timing of construction activities would also be given to minimize impacts during peak travel times.</p>
Land Use	<p><u>Permanent:</u> The Selected Alternative would be mostly compatible with existing land uses and no long-term significant adverse impacts to land use or zoning is expected.</p> <p>The Selected Alternative would impact 18.44 acres of areas used for conservation, including the Eagles Island Natural Area Dedicated Nature Preserve and the North Carolina Coastal Land Trust Easement.</p> <p><u>Temporary:</u> Any construction-related impacts to land use such as restrictions in access or delays would be temporary and minimal.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The Selected Alternative would minimize land used for conservation by using approximately 3,500 feet of former railroad right-of-way, which is excluded from the North Carolina Land Trust Easement conservation area. In addition, the Selected Alternative would pass through the Eagles Island Natural Area Dedicated Nature Preserve entirely on an elevated structure, allowing for natural movements under the rail line to continue after construction, further reducing impacts to these conservation areas.</p> <p><u>Commitments:</u> The City will work with the localities to obtain variances or apply for rezoning permits in areas where the rail line is determined incompatible with current land uses. The City will continue coordinating with affected communities and stakeholders to avoid or minimize changes in land use.</p>
Property Acquisition	<p><u>Permanent:</u> The Selected Alternative would require the full or partial acquisition of 35 properties, all but 3 of which are industrial. Of the two that are zoned residential, neither contains any residences. The other property is zoned mixed use.</p>	<p><u>Mitigation Measures:</u> The City will handle all property acquisitions and relocations in accordance with the Uniform Relocation Act.</p> <p><u>Commitments:</u> The City will continue coordinating with affected communities and stakeholders to avoid or minimize changes in land use where possible.</p>
Community Facilities	<p><u>Permanent:</u> The Selected Alternative would not impact any community facilities (places of worship, EMS facilities, schools, etc.). The Selected Alternative is expected to improve overall mobility in the City including to community facilities through the redirection of freight traffic traveling between Davis Yard and the Port from needing to cross the 32 at-grade crossing (30 public and 2 private crossings) on the Beltline.</p> <p><u>Temporary:</u> Temporary detours may be necessary to maintain access to some facilities during construction.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. No negative impacts to any community facilities have been identified because of the Selected Alternative.</p> <p><u>Commitments:</u> The City will continue to coordinate with local entities to plan for temporary detours and maintain access to community facilities and services during construction.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Demographics and Environmental Justice	<p><u>Permanent:</u> Since the Selected Alternative redirects all existing and future-anticipated freight traffic traveling between Davis Yard and the Port away from the City, minority and low-income community will experience positive changes to the current visual and noise impacts from this traffic using the Beltline. The Project would likely provide an overall benefit to the Environmental Justice populations surrounding the Beltline including enhancing community connectivity, reducing noise levels around the Beltline, enhancing visual quality, improving safety, and air quality improvements within the portions of the Study Area in the City.</p> <p><u>Temporary:</u> Construction of the Project would result in beneficial indirect effects on the economy during the construction period related to construction labor, the production of necessary services and materials, and construction workers patronizing local businesses.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. No disproportionately high or adverse impacts to minority or low-income populations is anticipated from the Selected Alternative.</p> <p><u>Commitments:</u> The City will continue to coordinate with community leaders throughout project development to discuss updates to keep them informed about the Project.</p>
Public Health and Safety	<p><u>Permanent:</u> The Project would not create any anticipated public health and safety impacts. Since the Selected Alternative redirects all existing and future-anticipated freight traffic traveling between Davis Yard and the Port away from the City and the Beltline, the Selected Alternative would greatly reduce the potential number of at-grade crossing conflicts between vehicles and freight, thereby improving public health and safety.</p> <p><u>Temporary:</u> Temporary detours may be necessary to maintain access to some facilities during construction and would be executed in compliance with all applicable health and safety regulations.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The Selected Alternative would not create any public health and safety impacts.</p> <p><u>Commitments:</u> The City will ensure all construction activities and future operations of the freight rail traffic would be done in compliance with federal laws and regulations.</p>
Parks and Recreational Facilities	<p><u>Permanent:</u> No parks and recreational facilities would be impacted by the Selected Alternative.</p> <p><u>Temporary:</u> Existing bike lanes and sidewalks along South Front Street may be temporarily impacted during construction.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. No parks or other recreational facilities would be impacted by the Selected Alternative.</p> <p><u>Commitments:</u> The City will coordinate with local entities to plan for temporary detours during construction for the impacted bike lanes and sidewalks along South Front Street.</p>
Historic Architecture	<p><u>Permanent:</u> The Selected Alternative will have No Adverse Effect on architecture/history historic properties. No historic properties will be destroyed, moved, neglected, repaired, or rehabilitated, or have a change of use. While 7 contributing resources to the Wilmington Historic District may experience severe noise impacts and 5 may experience moderate noise impacts, FRA found and the SHPO concurred that impacts to such a low percentage of contributing resources in the Wilmington Historic District did not rise to the level of an adverse effect under Section 106. FRA conditioned their finding to have the City address all severe noise impacts to the extent practicable.</p> <p><u>Temporary:</u> No construction-related noise or vibration impacts are anticipated on any architecture/history historic properties.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The Selected Alternative would not cause any adverse effects under Section 106.</p> <p><u>Commitments:</u> The City will address severe noise impacts to the 7 contributing resources to the Wilmington Historic District through appropriate noise mitigation (see Noise and Vibration row). If FRA funds are awarded for the final design and construction of the Project, FRA and the City will discuss potential noise mitigation strategies in more detail and coordinate with NCHPO and consulting parties during re-initiation of the Section 106 process.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Section 4(f) Resources	<p><u>Permanent:</u> The Selected Alternative will place piers in the Cape Fear River, which was included as a contributing resource in the Wilmington Historic District. FRA used its Section 106 No Adverse Effect finding as the basis of a <i>de minimis</i> finding for the Wilmington Historic District and notified the SHPO as the Official with Jurisdiction (OWJ). There are no other Section 4(f) uses of historic sites by the Selected Alternative.</p> <p>No parks and recreation areas would be impacted by the Selected Alternative, and no wildlife and/or waterfowl refuges exist in the Study Area.</p> <p><u>Temporary:</u> No temporary impacts to Section 4(f) resources are anticipated due to construction of the Selected Alternative.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The Selected Alternative would not result in any Section 4(f) use.</p> <p><u>Commitments:</u> No commitments are required. The Selected Alternative would not result in any Section 4(f) use.</p>
Archaeology	<p>There are no archaeological resources in the APE; therefore, no permanent or temporary effects to archaeological resources are anticipated because of the Selected Alternative.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. There are no archaeological historic properties in the Project's area of potential effect (APE).</p> <p><u>Commitments:</u> If FRA funds are awarded for the final design and construction of the Project, and if archeological historic properties are identified during construction, FRA will follow 36 CFR 800.13 regarding unanticipated discoveries.</p>
Visual Resources	<p><u>Permanent:</u> The Selected Alternative would result in visual changes to the Study Area due to the addition of rail line on elevated structure with new lift span bridges. Visual impacts are anticipated to be moderately low and neutral in Landscape Area #1 and moderately low in Landscape Area #2; and therefore, would not be adverse.</p> <p><u>Temporary:</u> Visual impacts during construction could include vegetation removal, construction lighting, and staging areas.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. Visual resources will not be adversely impacted because of the Selected Alternative.</p> <p><u>Commitments:</u> The final Project design will include details to address local context in sensitive locations to help minimize visual impacts; construction phase requirements to minimize vegetation removal and prevent unintended disturbance; development of construction and operational lighting plans to focus lighting on areas requiring illumination; and the selection of staging areas and staging area design features that limit visual and aesthetic effects on neighboring uses.</p>
Water Quality	<p><u>Permanent:</u> Impacts on water quality could result from operation of the Selected Alternative; however no adverse impacts are anticipated.</p> <p><u>Temporary:</u> Impacts on water quality could result from the construction and operation of the Selected Alternative through vegetation removal, excavation, fill placement, use of equipment, and installation of water crossing structures. Construction of the Selected Alternative would require in-water work, resulting in minimal, temporary, and localized effects on the water quality of the Cape Fear River within the limits of disturbance (LOD). No adverse impacts are anticipated by the Selected Alternative after implementation of Best Management Practices (BMP) during construction and the adherence to permitting conditions to avoid and minimize potential water quality impacts.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The proposed use of construction Best Management Practices (BMP) results in no adverse impacts.</p> <p><u>Commitments:</u> The City will ensure the implementation of BMPs during construction as necessary, including preparation of a Stormwater Pollution Prevention Plan, and the adherence to a Clean Water Act Section 404 Individual Permit, a Clean Water Act Section 401 Water Quality Certification (WQC), and a Clean Water Act Section 408 approval from the USACE, as required.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Water Bodies and Waterways	<p><u>Permanent:</u> The Selected Alternative would result in impacts to high and medium quality wetlands and streams.</p> <p><u>Temporary:</u> Construction of the Selected Alternative would result in minimal temporary impacts to high and medium quality wetlands and streams.</p>	<p><u>Mitigation Measures:</u> If it is determined that compensatory mitigation will be required for impacts to WOTUS as a result of the Project, mitigation opportunities will be investigated in consultation with USACE as part of the Section 404 permitting process.</p> <p><u>Commitments:</u> Prior to permitting and final design activities, the City will coordinate/consult with the U.S. Army Corps of Engineers (USACE). USACE would make the final jurisdictional determination for Waters of the U.S. (WOTUS), and determine what type of Section 404 permit would be required for the Project.</p>
Navigation	<p><u>Permanent:</u> No impacts to navigation have been identified. The Selected Alternative proposes two new moveable span, single-track bridges crossing the Cape Fear River in two separate locations. Several commercial waterway users are located downstream of the proposed bridge locations, the largest of which is the North Carolina State Ports Authority's (NCSPA) Port of Wilmington.</p> <p><u>Temporary:</u> No temporary impacts are anticipated due to construction of the Selected Alternative.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. Navigation will not be impacted because of the Selected Alternative.</p> <p><u>Commitments:</u> The City will coordinate any future proposed mitigation with the U.S. Coast Guard during the bridge permitting process.</p>
Floodplains and Flood Zones	<p><u>Permanent:</u> Potential impacts of the Selected Alternative to floodplains may result from filling, grading, new bridge structures, and other activities. The exact impact of this activity remains unknown at this time.</p> <p><u>Temporary:</u> Potential impacts during construction are unknown at this time and will be evaluated further as design progresses.</p>	<p><u>Mitigation Measures:</u> Since the exact impact of the Project to floodplains and flood zones is unknown, no mitigation is currently identified. As design progresses, a detailed Special Flood Hazard Area (SFHA) evaluation will be prepared. This evaluation would identify specific mitigation measures and required permits for developing the rail line within these areas. The Selected Alternative would be designed to meet the relevant requirements of Executive Order 11988 and USDOT Order 5650.2, <i>Floodplain Management and Protection</i> for developing in floodplains. All conveyance structures in FEMA 100-year floodplains would be designed to obtain a no-rise certification and carry the 100-year storm event.</p> <p><u>Commitments:</u> The City will continue to coordinate with local units of government, the state, and FEMA as the Project progresses.</p>
Coastal Zones and AECs	<p><u>Permanent:</u> Coastal Area Management Act (CAMA) Areas of Environmental Concern (AEC) would be impacted by the Selected Alternative, including public trust areas, public trust area shorelines, estuarine waters, coastal shorelines, and coastal wetlands.</p> <p><u>Temporary:</u> As the Project design progresses, a coastal zone consistency determination will be prepared to assess any temporary impacts to AECs during construction.</p>	<p><u>Mitigation Measures:</u> During the Project's permitting process compensatory mitigation may be required and if necessary, will be undertaken by the City. Before the coastal zone consistency determination, the City will need to conduct a topographic survey and analyze with tidal datum to determine the mean high-water line to identify specific mitigation measures within the AECs.</p> <p><u>Commitments:</u> The proposed action would be subject to regulation under the CAMA Major Permit program as a non-federal development activity involving work in AECs; therefore, the City would need to acquire a CAMA Major Permit from the NCDEQ DCM for all impacts to designated CAMA AECs. As design progresses, the City would avoid, minimize, and mitigate impacts to AECs to the maximum extent practicable in coordination with regulatory and environmental resource agencies.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Threatened and Endangered Species	<p><u>Permanent:</u> Federally protected species have the potential to occur within the Selected Alternative's limits of disturbance. Suitable habitat for the northern long-eared bat, west Indian manatee, and the American alligator is present within the Limits of Disturbance (LOD). Suitable habitat is also present for the two sturgeon species. Habitat Areas of Particular Concern (HAPCs) for fish species exist within the Selected Alternative's limits of disturbance and are also identified as Primary Nursery Areas (PNA). Due to the presence of a bald eagle nest approximately 300 feet from the Selected Alternative, it has been determined that the Project may affect this species pursuant to the Bald and Golden Eagle Protection Act. In a letter dated September 8, 2022, the USFWS concurred that the Project is not likely to adversely affect any federally listed endangered or threatened species [under USFWS purview], or species currently proposed for listing under the ESA, and that requirements of Section 7 have been satisfied.</p> <p><u>Temporary:</u> There is suitable habitat for several species in the study area; however, guidelines will be followed to avoid any adverse impacts to species during construction.</p>	<p><u>Mitigation Measures:</u> No mitigation measures have been identified at this time. However, completion of the commitments listed below could result in the future identification of mitigation measures..</p> <p><u>Commitments:</u> However, coordination with USFWS will be reinitiated during the Project's final phase of engineering design due to the reclassification of the northern long-eared to endangered and the addition of the tri-color bat as a proposed endangered species. Section 7 consultation with the NMFS will also occur during the Project's final design. During this consultation, a Biological Assessment will be required to assess impacts that may result from the Project on the shortnose sturgeon, the Atlantic sturgeon, and the Atlantic sturgeon designated critical habitat. The City will follow guidelines or requirements for avoiding impacts to the west Indian manatee and northern long-eared bats during construction in locations of suitable habitat for these species. The City will obtain an Incidental Take permit as required by USFWS prior to construction due to the presence of the bald eagle nest near the Selected Alternative. Prior to construction the City will survey the Project Area to ensure that no additional bald eagle nests are present. The City prepared an EFH Assessment to assess impacts to EFH and HAPC that may result from the Project and notes the project design incorporates several structural and routing measures to avoid and minimize impacts on EFH/HAPC habitats. Per USFWS recommendation, no in-water work will occur during anadromous fish spawning season from February 15 to June 30. Additional in-water work restrictions may also be applicable for the Project and the City will continue coordination with USFWS to address any restrictions prior to permitting. Per USFWS recommendation, all practicable measures will be taken by the City to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. The City will prepare an erosion and sedimentation control plan for approval by the North Carolina Division of Land Resources, Land Quality Section prior to construction. The City will install and maintain Erosion and sedimentation controls between the construction site and any nearby down-gradient surface waters. In addition, the City will maintain natural, vegetated buffers on all streams and creeks adjacent to the project site. Should any listed species be encountered during construction all work would be halted and the City would inform FRA and USFWS to determine appropriate next steps prior to work activities resuming.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Anadromous Species	<p><u>Permanent:</u> The Cape Fear River contains NCDEQ Division of Marine Fisheries (DMF)-designated Primary Nursery Areas (PNA) and anadromous fish spawning areas (AFSA); however, the Selected Alternative is unlikely to impact any anadromous species.</p> <p><u>Temporary:</u> Impacts from sedimentation suspension during construction would degrade water quality but are expected to be localized.</p>	<p><u>Mitigation Measures:</u> No mitigation measures have been identified at this time. However, completion of the commitments listed below could result in the future identification of mitigation measures.</p> <p><u>Commitments:</u> The Design Standards for Sensitive Watersheds (15A NCAC 04B .0124) should be considered for erosion and sedimentation control measures.</p> <p>Per USFWS recommendation, no in-water work will occur during anadromous fish spawning season from February 15 to June 30. Additional in-water work restrictions may also be applicable for the Project and the City will continue coordination with USFWS to address any restrictions prior to permitting. Per USFWS recommendation, all practicable measures will be taken by the City to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. The City will prepare an erosion and sedimentation control plan for approval by the North Carolina Division of Land Resources, Land Quality Section prior to construction. The City will install and maintain Erosion and sedimentation controls between the construction site and any nearby down-gradient surface waters. In addition, the City will maintain natural, vegetated buffers on all streams and creeks adjacent to the project site.</p>
Soils and Prime Farmland	<p><u>Permanent:</u> The creation of new impervious surfaces would be limited, but where it occurs, it would result in an increase in stormwater runoff and a potential increase in soil erosion. No farmland would be adversely impacted by the Project.</p> <p><u>Temporary:</u> Construction of the Selected Alternative would cause potential impacts on soils where excavation and/or fill activities occur and could include small, localized increases in erosion and sedimentation.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. No farmland would be adversely impacted by the Project.</p> <p><u>Commitments:</u> The City will ensure the use of best management practices such as soil erosion and sediment control measures, to minimize the potential for increased soil erosion. In addition, the City may need to acquire a National Pollutant Discharge Elimination System (NPDES) permit for discharges of stormwater associated with construction activities once final designs have been completed.</p>
Contaminated Sites	<p><u>Permanent:</u> The Selected Alternative's LOD revealed the occurrence of approximately 20 sites from which soil and groundwater contamination could originate.</p> <p><u>Temporary:</u> Prior to any earthmoving activities, more detailed investigations would need to be completed by the City closer to construction to determine where temporary impacts may occur.</p>	<p><u>Mitigation Measures:</u> No mitigation is required.</p> <p><u>Commitments:</u> The City will update information during subsequent phases of project design to account for newly added sites or changed status of known sites; conduct a Phase 2 environmental site assessment for all properties along the Selected Alternative alignment, including construction staging and laydown areas; review EPA online EJSCREEN database to consider hazardous waste and demographic data to consider potential human health risk factors; consult with regulatory agencies on sites where regulatory status is uncertain or where more information would be needed.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Air Quality	<p><u>Permanent:</u> The Project would not create any anticipated air quality impacts. Since the Selected Alternative redirects all existing and future-anticipated freight traffic traveling between Davis Yard and the Port away from the City and the Beltline, the Selected Alternative would greatly reduce the potential number of at-grade crossing conflicts between vehicles and freight, thereby reducing locomotive running time and the associated emissions (including GHG) as well as cars idling at the 32 at-grade crossings (30 public and 2 private crossings) along the current Beltline route.</p> <p><u>Temporary:</u> Construction impacts would be temporary and could include the following:</p> <ul style="list-style-type: none"> • Localized increases in emissions from construction equipment, particularly diesel-powered equipment. Increased concentrations could occur in the areas of work activities, access points, and haul routes. • Increases in motor vehicle emissions associated with potential disruption of traffic operations during construction. Effects could occur if temporary lane closures and detours cause congestion and travel delays. • Localized dust and airborne particulate matter are generated by temporarily exposed soils, earth-moving activities, and equipment operating in unpaved areas. Effects could occur in the area of work activities and access points. 	<p><u>Mitigation Measures:</u> No mitigation is required. There are no anticipated air quality impacts from the Project.</p> <p><u>Commitments:</u> Best Management Practices will be implemented by the City to control dust and vehicle emissions during construction. The City will include these measures and practices in the Project construction plan. Air quality control measures (such as wetting unpaved surfaces and limiting equipment idle time while on site) are typically utilized to minimize temporary impacts during construction.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Noise and Vibration	<p><u>Permanent:</u> For all 2,024 receptors, severe noise impacts are predicted at 40 residences under the Selected Alternative Scenario 1 (10,000-foot trains), while moderate noise impacts are predicted at an additional 27 residences. Similarly, severe noise impacts are predicted at 41 residences under Selected Alternative Scenario 2 (6,000-foot trains), while moderate noise impacts are also predicted at an additional 27 residences. These noise impacts are due completely to the sounding of the train warning horn within 20 seconds of the public grade crossings at Wright and Dawson Streets.</p> <p>No operational vibration impacts are predicted.</p> <p><u>Temporary:</u> Overall, Project construction activities are not predicted to exceed the FTA' daytime' or 'nighttime' noise impact criteria at any residences. Overall, construction vibration levels would not be predicted to exceed the Project damage criteria anywhere.</p>	<p><u>Mitigation (Noise):</u> Because FTA <i>severe</i> noise impacts are predicted due to train warning horns at the at-grade crossings at Wright and Dawson Streets during future Project operations, noise mitigation measures have been identified for consideration, which include the closing of Dawson Street and reassignment of Wright Street from a public to private driveway. Both measures would eliminate the need for train warning horns as described in Section 3.19. Reassignment of Wright Street from public access to private access would potentially require approvals from the Wilmington City Council and Planning Boards and agreement with the private property owners accessed by this roadway. The effectiveness and efficacy of these control measures will be investigated in more detail during the future final design phase of the Project when details of the bypass alignment and other engineering considerations are better defined.</p> <p><u>Commitments (Noise):</u> The City and its contractors will follow Federal, state, and local regulations and guidelines and implement construction techniques and control measures to eliminate or minimize construction noise. Typical BMPs for minimizing noise and vibration during construction include: sound barriers, vibration isolation mats, dampening materials, strategically placed equipment, scheduling limitations, using quieter machinery, regular maintenance of equipment, public notification, and coordinating with nearby residents to minimize disruption.</p> <p><u>Mitigation (Vibration):</u> No mitigation is required. No operational vibration impacts are predicted.</p> <p><u>Commitments (Vibration):</u> The City and its contractors will follow Federal, state, and local regulations and guidelines and implement construction techniques and control measures to eliminate or minimize vibration. Typical BMPs for minimizing noise and vibration during construction include: sound barriers, vibration isolation mats, dampening materials, strategically placed equipment, scheduling limitations, using quieter machinery, regular maintenance of equipment, public notification, and coordinating with nearby residents to minimize disruption.</p>
Utilities	<p><u>Permanent:</u> Construction of the Selected Alternative requires some adjustment, relocation, or modification of existing public utilities.</p> <p><u>Temporary:</u> Construction of the Project would require some adjustment, relocation, or modification to existing utilities, which could result in temporary disruption to services provided by existing utilities.</p>	<p><u>Mitigation Measures:</u> No mitigation measures have been identified at this time. However, completion of the commitments listed below could result in the future identification of mitigation measures.</p> <p><u>Commitments:</u> For unavoidable utility conflicts, the City will coordinate with utility owners and operators prior to construction to identify appropriate mitigation measures such as relocating, raising, lowering, burying and protecting utility lines and services.</p>
Energy Resources	<p><u>Permanent:</u> While increased operations would result in greater energy consumption under both the No-Build or Build Alternatives, the reduction in miles traveled and delays at grade crossings under the Selected Alternative would likely provide an overall net benefit to freight rail energy consumption within the Study Area.</p> <p><u>Temporary:</u> Energy consumption during the construction period would be temporary and would place minimal additional demand on the local energy supply.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The Selected Alternative significantly lessens many of the effects on energy resources.</p> <p><u>Commitments:</u> No commitments. The Selected Alternative significantly lessens many of the effects on energy resources.</p>

Resource	Potential Impacts of Selected Alternative	Mitigation Measures and Commitments
Resiliency	<p>The Selected Alternative and its associated structures included in the Project are designed with an elevation of two feet above the projected MHHW level in the year 2100 (10.9 feet), which should minimize the risk of sea level rise-induced inundation and promote resiliency for approximately the next 100 years.</p> <p>The Selected Alternative crosses the Cape Fear River and associated floodplains, which is an area that is highly susceptible to inundation for the future year 2040. The majority of the Selected Alternative will be designed to exceed the elevations needed to be above inundation levels, except for the northern and southern limits where it ties into the existing rail.</p>	<p><u>Mitigation Measures:</u> No mitigation is required. The City included design measures such as two feet of freeboard and the addition of water transmission piping for water equalization in the event of flooding.</p> <p><u>Commitments:</u> The City will evaluate additional resiliency adaptation measures through the design process to mitigate future needs for additional maintenance on the rail line.</p>

5 COORDINATION AND CONSULTATION

5.1 PUBLIC OUTREACH

Public outreach for the EA included a press release, area bulletins, and web page updates on both the FRA (<https://www.regulations.gov/docket/FRA-2023-0088>) and the City of Wilmington (www.wilmingtonnc.gov/rail) websites. Additional information on public outreach throughout the study, including identified organizations, civic groups, and other interested parties, is included in Chapter 4 of the EA.

5.2 AGENCY COORDINATION

Throughout the NEPA process, FRA solicited input on the Selected Alternative from several government and transportation agencies as identified in Section 4.2 of the EA.

5.3 TRIBAL COORDINATION

FRA completed Tribal consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA), with the tribes identified having lands or resources in the Study Area. The following tribes were identified:

- Catawba Indian Nation
- Lumbee Tribe of North Carolina
- Tuscarora Nation
- Waccamaw-Siouan Indian Tribe

Additional information on the Section 106 tribal coordination can be found in Appendix B4 of the EA.

5.4 SECTION 106 FINDING

As described in Section 3.7 of the EA, FRA initiated Section 106 in February 2021. FRA identified and invited parties that may be interested in the Project's effects on historic properties to be consulting parties and included: North Carolina Commission of Indian Affairs, USS North Carolina Commission, Historic Wilmington Foundation, US Coast Guard, USACE, City of Wilmington, Eagles Island Coalition, Gullah Geechee Cultural Heritage Corridor Commission, and Catawba Indian Nation. Parties that accepted the invitation to be a consulting party include Historic Wilmington Foundation, City of Wilmington, Eagles Island Coalition, and USS North Carolina Commission.

In accordance with 36 CFR § 800.5, FRA found that the proposed Project will have no adverse effect on architecture/history historic properties and submitted these findings in a letter dated July 3, 2023. No historic properties will be destroyed, moved, neglected, repaired, or rehabilitated, or have a change of use. The Project will not diminish the seven aspects of integrity identified by the NRHP – location, design, setting, materials, workmanship, feeling, and association – of architecture/history historic properties. The SHPO concurred with FRA's finding by letter on August 9, 2023.

While the Project will substantially reduce noise impacts within the Wilmington Historic District by redirecting freight traffic traveling between Davis Yard and the Port to the Selected Alternative, the NCHPO and Section 106 consulting parties have concerns about noise impacts to 12 contributing resources (eight individual residences and four as part of a residential complex) within the district along South Front Street. Per noise criteria guidelines, as discussed in Section 3.19.2, seven of those 12 contributing elements are predicted to have a severe noise impact and the remaining five are predicted to have a moderate noise impact due to their proximity to the future rail line and associated sounding of warning horns from future rail traffic.

In order to mitigate noise impacts to the contributing resources noted above, the City will address severe noise impacts to these resources through appropriate noise mitigation. Mitigation measures will likely include closing Dawson Street and reassigning Wright Street to a private driveway to eliminate the need for sounding warning horns along the bypass. Such measures require City Council approval, which would be obtained during the final design process. Additional mitigation measures for the Selected Alternative may also be considered during the final design process and will be coordinated with NCHPO and consulting parties.

5.5 SECTION 4(F) DETERMINATION

The Project will place piers in the Cape Fear River, which was included as a contributing resource in the Wilmington Historic District. While rivers are typically excluded from categorization as a contributing resource under the National Register of Historic Places because it was included in the nomination for the historic district, FRA needed to assess its use under Section 4(f). No other historic properties or portions of the Wilmington Historic District will have a Section 4(f) use.

As discussed in Section 3.7 of the EA, the NCHPO concurred with FRA's finding that the proposed Project will have No Adverse Effect on architecture/history historic properties. Therefore, NCHPO was notified on August 10, 2023, of FRA's intention to use their concurrence of No Adverse Effect as the basis of a *de minimis* finding for the Wilmington Historic District.

5.6 EA PUBLIC COMMENT PERIOD

The EA was distributed for a 30-day public and agency review and comment period from August 8, 2024 to September 8, 2024. It was posted to FRA's website, the City of Wilmington's website, and announced both by way of press release and area bulletins. No comments were received on the EA.

6 CONCLUSION

FRA carefully considered the Project record, including the EA and associated technical reports and analysis, the identified mitigation measures and environmental commitments, 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), FHWA/FTA/FRA joint regulations implementing NEPA (23 CFR 771), and the Selected Alternative described in this FONSI will not significantly impact the quality of the human or natural environment. FRA has also satisfied requirements under Section 4(f) of the USDOT Act (49 USC §303) and FHWA/FTA/FRA implementing regulations (23 CFR Part 774); and related laws. In addition, the EA identifies measures, included in this FONSI, that would avoid, minimize, and/or mitigate the adverse effects of the Selected Alternative. The EA provides sufficient evidence and analysis for FRA to determine that an environmental impact statement is not required for the Project as presented.

**STEPHANIE
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12/18/2024

Stephanie B. Perez, PG
Chief, Environmental Review Division
Federal Railroad Administration

Date

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