

Executive Summary





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EXECUTIVE SUMMARY

ES.1 Who is the Northern Indiana Commuter Transportation District?

The Northern Indiana Commuter Transportation District (NICTD) operates the South Shore Line (SSL) between South Bend International Airport in South Bend, Indiana (with most trains originating from Carroll Avenue in Michigan City, Indiana) and Millennium Station in downtown Chicago, Illinois. The SSL provides 20 round trips on weekdays, heavily focused on inbound trips to Chicago during the morning commute and outbound trips to Northwest Indiana during the evening commute. On weekends, the SSL provides nine round trips per day. The SSL carries approximately 3.6 million passengers annually.

ES.2 Why the West Lake Corridor?

An expansion of the SSL has long been recognized by local residents, stakeholders, municipalities, NICTD, and other agencies as a value to the Northwest Indiana regional community. As early as 1989, the Northwestern Indiana Regional Planning Commission (NIRPC) released a study that identified an extension to the SSL as a potentially viable means to expand mass transit in the region (NIRPC 1989). Since that time, multiple evaluations have occurred. In 2011, NICTD's *West Lake Corridor Study* concluded that a rail-based service between the Munster/Dyer area and Metra's Millennium Station in downtown Chicago would best meet the public transportation needs of the Study Area (NICTD 2011). In June 2014, NICTD and the Northwest Indiana Regional Development Authority (RDA) released the *20-Year Strategic Business Plan*, which highlighted the importance of a West Lake Corridor Project (NICTD and RDA 2014).

ES.3 What is the West Lake Corridor Project?

The West Lake Corridor Project (Project) would be an approximately 9-mile southern extension of the NICTD existing SSL between Dyer and Hammond, Indiana (see **Figure ES.3-1** and **Figure ES.3-2**). Trains on the new branch line would connect with the existing SSL and ultimately Metra Electric District's (MED) line to the north. The Project would provide new transit service between Dyer, Indiana, and Metra's Millennium Station in downtown Chicago, Illinois, a distance of approximately 29 miles.

The primary purpose of this Draft Environmental Impact Statement (DEIS) is to assist decisionmakers and the public in assessing potential impacts associated with the implementation of the Project. This DEIS documents the Project Purpose and Need and presents a discussion of the alternatives considered for implementation. It evaluates, in detail, the potential environmental, transportation, social, and economic impacts associated with the Project, and describes the recommended mitigation measures to offset the unavoidable impacts.

In accordance with federal regulations, full consideration of environmental effects as disclosed during the National Environmental Policy Act (NEPA) process is required before the Project can be advanced to final design, right-of-way (ROW) acquisition occurs, equipment and facilities are procured, or system construction begins.







Figure ES.3-1: Regional Setting for West Lake Corridor Project







Figure ES.3-2: West Lake Corridor Study Area





This DEIS will be made available and circulated for review for 45 days to interested parties, including members of the public, community groups, the business community, elected officials, and public agencies in accordance with federal and state requirements. At the conclusion of the 45-day public comment period, the Federal Transit Administration (FTA) and NICTD will consider all comments received on this DEIS. Responses to comments received will be documented in a combined Final Environmental Impact Statement/Record of Decision (FEIS/ROD). This Executive Summary provides an overview of the Project and a highlight of the key findings from this DEIS.

ES.4 Why is the Project Needed?

The identification and documentation of the Project Purpose and Need are important components of environmental review under NEPA and certain other federal laws and regulations. The Purpose and Need statement of a project is a key factor in determining the range of alternatives considered in an Environmental Impact Statement (EIS). The need describes the existing transportation problem and the purpose outlines the goals and objectives to address the need. The needs for the Project are:

- > Increase transportation options for accessing downtown Chicago
- Reduce travel time to downtown Chicago
- > Reduce the parking burden at existing transit stations
- Reduce travel costs
- Promote economic development

Existing transportation options available to residents in the Study Area (defined as ½-mile on either side of the proposed alignments) seeking access to Chicago jobs are limited to travel by automobile, or by automobile to MED and SSL commuter rail services. Forecasted population growth in the Study Area will exert increasing demands on regional roadways, Metra, and the SSL, which are already operating at or near capacity (Policy Analytics, LLC 2014). Thus, there is a need to increase transit options for Study Area residents to access downtown Chicago.

Under current conditions, travelers from the Study Area destined for downtown Chicago by automobile use the existing regional roadway network, comprised of key highways such as the Dan Ryan Expressway; Lake Shore Drive; the Bishop Ford Expressway; I-90 Skyway; Frank Borman Expressway (I-80/94); I-65; US Routes 30, 41, and 231; and portions of Indiana State Routes 2 and 53. Many of these roadways experience congestion during peak travel periods, yielding slow travel speeds and extra travel time compared with non-peak travel periods. Further, as population continues to grow, vehicle miles traveled (VMT) is projected to increase as well. Growth in VMT reflects the continuing regional dependence on automobile travel often associated with decentralized highway-oriented development. According to NICTD's *South Shore Line Onboard Passenger Survey* (2013), approximately 90 percent of riders access the SSL by driving to a station and parking. The SSL survey found that nearly 25 percent of passengers using the Hammond and East Chicago Stations originated more than 10 miles from their boarding station (NICTD 2013). The 2006 Metra *Systemwide Origin-Destination Passenger Survey* (Metra 2006) found that many Lake County residents are driving long distances to board the existing MED line to head north into Chicago. Commuters residing in Lake County travel an average of 12.2 miles to reach a MED station.

Limited transit options for Study Area residents are causing the nearest existing transit stations to experience parking conditions at or near capacity. These facilities are largely land-locked, and increasing capacity would require development of structured parking. In addition to very costly infrastructure, expanded parking would place additional burden on the local road network used to access the sites. As employment demand in Chicago increases, it is reasonable to expect that parking burdens will increase at existing SSL stations. The inability for transit users to park at their nearest





station will force commuters to either seek stations that are more distant, or encourage them to drive to Chicago.

The local planning context of the Project recognizes that improved transit service to downtown Chicago would result in economic benefits such as increased access to jobs for Study Area residents. In addition, current planning documents incorporate a long-term vision for the growth of businesses and jobs within the Study Area. These planning documents clearly articulate the addition of new transit service as being the focal point and means for achieving this vision, citing transit-oriented, mixed-use redevelopment, town center plans, walkable communities, and attracting young families and workers as specific goals. A common thread among entities responsible for making land use decisions and promoting economic development in the Study Area is that advancement of a commuter rail project is consistent with their respective visions and planning.

The purpose of the Project is to increase transportation options for central and southern Lake County residents traveling to downtown Chicago, reduce travel time and travel costs, and promote economic development opportunities for Lake County.

ES.5 What Alternatives Were Considered for the West Lake Corridor Project?

The NEPA review process builds upon NICTD's prior West Lake Corridor studies that examined a broad range of alignments, technologies, and transit modes. The studies concluded that a rail-based service between the Munster/Dyer area and Metra's Millennium Station in downtown Chicago would best meet the transportation needs of the Study Area. Thus, NICTD advanced three commuter rail build alternatives for more detailed analysis in this DEIS—the Commuter Rail Alternative, Indiana Harbor Belt (IHB) Alternative, and Hammond Alternative. In addition, NICTD considered other Project elements in this DEIS, including alternative alignments, station location alternatives, maintenance and storage facility site locations, and grade separation alternatives (see **Figure ES.3-2** and **Section ES.7**). NEPA also requires consideration of a "No Build" Alternative to provide a basis for comparison to the Build Alternatives.

ES.6 What is the No Build Alternative?

The No Build Alternative is defined as the existing transportation system, plus any committed transportation improvements included in the NIRPC *2040 Comprehensive Regional Plan* (CRP) (2011) and Chicago Metropolitan Agency for Planning's (CMAP) *GO TO 2040 Comprehensive Regional Plan* (CMAP 2014c) through the planning horizon year 2040. It also includes capacity improvements to the existing MED line and Millennium Station as part of NICTD's and the RDA *20-Year Strategic Business Plan* (NITCTD and RDA 2014). A No Build Alternative serves as a baseline, or benchmark, against which the Project Build Alternatives are evaluated.





ES.7 What are the Build Alternatives?

ES.7.1 What is the Commuter Rail Alternative?

The Commuter Rail Alternative would involve commuter rail service using electric-powered trains on an approximately 9-mile southern extension of NICTD's existing SSL between Dyer and Hammond, Indiana (see **Figure ES.7-1**). Heading north from the southern terminus near Main Street at the Munster/Dyer municipal boundary, the Project would include new track on a separate ROW adjacent to, and east of, the CSX Transportation (CSX) freight line south of the Maynard Junction in Munster. North of the proposed elevated crossing over another CSX freight line at the Maynard Junction, the proposed Commuter Rail Alternative alignment would use the publically-owned former Monon Railroad corridor in Munster and Hammond. North of downtown Hammond the track alignment would turn west under Hohman Avenue, and then continue north on new elevated track generally along the Indiana-Illinois state line to connect to the existing SSL southeast of the Hegewisch Station in Chicago. Project trains would operate on the existing MED line for their final 14 miles, terminating at Millennium Station in downtown Chicago. Station locations for the Commuter Rail Alternative would include Munster/Dyer Main Street, Munster Ridge Road, South Hammond, and Downtown Hammond. Four design options to the Commuter Rail Alternative near the southern Project terminus include:

- Commuter Rail Alternative Option 1: Under this design variation, parking for the Munster/Dyer Main Street Station would be located on the east side of the station, and a vehicle maintenance and storage facility would be located south of 173rd Street in Hammond near the South Hammond Station (see Figure ES.7-1).
- Commuter Rail Alternative Option 2: Under this design variation, parking for the Munster/Dyer Main Street Station would be located on the west side of the existing CSX freight line. Main Street would be extended west from Sheffield Avenue using an underpass to cross the CSX freight line and Project ROW. The vehicle maintenance and storage facility would be located south of 173rd Street in Hammond near the South Hammond Station (see Figure ES.7-1).
- Commuter Rail Alternative Option 3: Under this design variation, the vehicle maintenance and storage facility would be located south of the Munster/Dyer Main Street Station, on the east side of the existing CSX freight line, at Munster/Dyer Main Street, instead of south of the South Hammond Station. Parking for the Munster/Dyer Main Street Station would be located on the east side of the station (see Figure ES.7-1).
- Commuter Rail Alternative Option 4: Under this design variation, the rail alignment would be routed above the existing CSX freight line at Maynard Junction, to land on the west side of the CSX freight line, and then continue south to the Munster/Dyer Main Street area. The Munster/Dyer Main Street Station and parking would be located west of the existing CSX freight line. A Main Street extension west under the CSX freight line and the Project ROW would be required. The vehicle maintenance and storage facility would be located south of 173rd Street in Hammond near the South Hammond Station (see Figure ES.7-1).







Figure ES.7-1: Commuter Rail Alternative Options





ES.7.2 Indiana Harbor Belt (IHB) Alternative

The IHB Alternative is a design variation to the Commuter Rail Alternative, with the main difference between the two alternatives being the use of the IHB freight line ROW (see **Figure ES.7-2**). South of Douglas Street, the IHB Alternative duplicates the Commuter Rail Alternative Options described above. From downtown Hammond north of Douglas Street, the alignment of the IHB Alternative would turn west under Hohman Avenue in Hammond and would be constructed in the IHB freight line ROW west through Calumet City, Burnham, and Chicago, Illinois. West of Burnham Avenue, the IHB Alternative would bridge over the IHB and CSX freight lines, landing in the IHB Kensington Branch freight line ROW, and would include relocating and reconstructing the IHB freight line on new adjacent track within the existing railroad ROW. The Project would then continue northwest to the proposed connection with the existing SSL near I-94 and 130th Street in Chicago.



Figure ES.7-2: Indiana Harbor Belt Alternative

ES.7.3 Hammond Alternative

The Hammond Alternative is a design variation to the Commuter Rail Alternative, with the main difference between the two alternatives being the rail alignment and station location in the north part of Hammond, Indiana (see **Figure ES.7-3**). South of Douglas Street, the Hammond Alternative is similar to the Commuter Rail Alternative described above. From downtown Hammond north of Douglas Street, the Hammond Alternative would extend north on embankment and bridges crossing over the IHB and Norfolk Southern (NS) freight lines immediately east of the Hohman Avenue overpass. The alignment would then extend northward and cross over Hohman Avenue just south of Michigan Street. The alignment would then continue northwest, crossing over the existing CSX freight line, and connecting with the existing SSL.







Figure ES.7-3: Hammond Alternative Options





Under the Hammond Alternative, the Hammond Gateway Station would be constructed in North Hammond and would replace the existing SSL Hammond Station (see **Figure ES.7-3**). The Hammond Alternative also assumes the existing SSL track would be relocated between the existing SSL Hammond Station and the Indiana-Illinois state line to facilitate a passenger connection between the Project and the SSL at the Hammond Gateway Station on the Hammond Alternative. **Figure ES.7-4** illustrates the SSL track relocation. The alignments of both routes would be adjacent to one another at this location, allowing passengers to transfer at the combined station. During non-peak times, Project trains would operate as shuttles between Munster/Dyer Main Street Station and Hammond Gateway Station, making connections with SSL service.



Figure ES.7-4: South Shore Line Proposed Realignment

A maintenance facility would be located immediately south of the Hammond Gateway Station. A separate layover facility at the southern end of the Study Area, near the Munster/Dyer Main Street Station, would also be constructed, as shown on **Figure ES.7-3**. There are three design variations on how the layover facility, Munster/Dyer Main Street Station, and parking would be configured under the Hammond Alternative, as follows:

- Hammond Alternative Option 1: The Munster/Dyer Main Street Station, layover facility, and parking would be on the east side of the existing CSX freight line (see Figure ES.7-3).
- Hammond Alternative Option 2: The Munster/Dyer Main Street Station and layover facility would be on the east side of the existing CSX freight line, and the parking would be west of the CSX freight line. A Main Street extension west under the CSX freight line and Project ROW would be required (see Figure ES.7-3).





Hammond Alternative Option 3: This option would require routing the Project above the existing CSX freight line at the Maynard Junction, landing on the west side of the CSX freight line ROW, and continuing south to the Munster/Dyer Main Street area. The Munster/Dyer Main Street Station, layover facility, and parking would be located west of the existing CSX freight line. A Main Street extension west under the CSX freight line and the Project ROW would be required (see Figure ES.7-3).

ES.7.4 Maynard Junction Rail Profile Option

One design variation is being considered for each Build Alternative—the Maynard Junction Rail Profile Option. Under this design variation, at Maynard Junction in Munster, the alignment would cross the existing CSX freight line in an at-grade profile instead of an elevated profile. The proposed alignment would then remain east of the CSX freight line ROW for the Commuter Rail Alternative Options 1, 2, and 3 (see **Figure ES.7-1**), IHB Alternative Options 1, 2, and 3, and the Hammond Alternative Options 1 and 2 (see **Figure ES.7-3**). The Maynard Junction Rail Profile Option would not be combined with Commuter Rail Option 4, IHB Alternative Option 4, or Hammond Alternative Option 3.

ES.8 What is the NEPA Preferred Alternative?

Under current federal regulations (40 Code of Federal Regulations [CFR] § 1502.14(e)), a NEPA EIS must include identification of the preferred alternative. Identifying the NEPA Preferred Alternative for the Project involved consideration of the factors discussed in this DEIS and summarized in **Chapter 10**, including the ability to achieve the Project Purpose and Need, responsiveness to Project goals and objectives, performance ratings for engineering factors, transportation and environmental consequences, and public and agency input. Only one of the Build Alternatives can be considered the preferred alternative as the No Build Alternative fails to achieve the Project Purpose and Need and is ineffective at responding to the Project goals and objectives.

Since the three Build Alternatives perform similarly in achieving the Project Purpose and Need and Project goals and objectives, other factors became important to select the NEPA Preferred Alternative. The engineering factors, transportation and environmental consequences ratings indicated variable performance among the alternatives depending on the factor considered. Factors of importance to NICTD included freight railroad impacts, from railroad construction and operational perspectives, and community preferences.

Considering the many engineering, transportation, and natural and built environment factors as well as input from the three municipalities of Dyer, Munster and Hammond, FTA and NICTD propose Hammond Alternative Option 2 as the NEPA Preferred Alternative. While, at the current level of conceptual design, the NEPA Preferred Alternative is determined to have some negative effects on the natural and built environment, particularly in the areas of property acquisitions, wetlands, and floodplains, none of the other Build Alternatives performs substantially better. NICTD anticipates being able to reduce or potentially eliminate some of the potential impacts through future design refinement and mitigation. In considering the tradeoffs between benefits and effects, the NEPA Preferred Alternative would cause the least damage to the biological and physical environment and it best protects, preserves, and enhances cultural, historic, and natural resources.

ES.8.1 Alignment of the NEPA Preferred Alternative

From the proposed southern terminus near the border of the Towns of Dyer and Munster heading north, the NEPA Preferred Alternative alignment would include new track on a separate ROW adjacent to, and east of, the CSX freight line south of the Maynard Junction. North of the proposed elevated crossing over the Maynard Junction, the proposed alignment would follow the original Monon





Railroad corridor to downtown Hammond. The NEPA Preferred Alternative alignment would connect to the SSL at the Indiana-Illinois state line at which point the Project peak period trains would operate on the SSL to Kensington, where they would continue on the existing MED/SSL to Millennium Station. The NEPA Preferred Alternative is depicted on **Figure ES.7-3** as Hammond Alternative Option 2.

An element of the NEPA Preferred Alternative includes the realignment of the existing double-track SSL between the existing SSL Hammond Station and the Indiana-Illinois state line to remove a curve and facilitate development of the Hammond Gateway Station, which would serve both the SSL and Project trains. The realignment would involve shifting the existing SSL south by about 375 feet (see **Figure ES.7-4**).

ES.8.2 Guideway

The Project would operate in a dedicated guideway within new or existing ROW from Dyer, Indiana, near Main Street to Millennium Station in Chicago, Illinois. The guideway would include a single track throughout, with one approximately 2,000-foot siding track near the center of the Project alignment. South of Douglas Street in Hammond, the alignment would generally be at-grade, while north of Douglas Street the alignment would be elevated (elevated structure or retained fill). The alignment would also be elevated at the Maynard Junction, crossing over the CSX Elsdon Subdivision freight line as well as 45th Street in Munster. The Project's guideway would be designed to operate completely separated from any freight rail operations.

ES.8.3 Vehicle Technology and Traction Power

The preferred vehicle type is electric multiple unit (EMU), which would be electrically powered by an overhead contact system (OCS) using poles to support overhead wires. The EMU vehicle would have a passenger seating capacity of approximately 100 per vehicle, and would operate in train consists of up to eight cars. It is proposed that the Project fleet would be comprised of 36 rehabilitated existing SSL vehicles.

The OCS and traction power substations (TPSS) are integral elements of the NEPA Preferred Alternative. Recommendations on pole spacing and designs would be made in the Engineering phase, consistent with NICTD standards and specifications. Substations would be placed at 3- to 5-mile intervals along the alignment to supply electrical power to the traction power networks. The proposed locations of the TPSSs are included in **Appendix G**.

ES.8.4 Stations in the NEPA Preferred Alternative

There are four proposed stations that would contain walkways, ramps, or stairways as necessary. A station building would serve waiting passengers, and may include a vendor. The station platforms would be high-level (level with car floors) and would generally accommodate trains eight cars in length (i.e., minimum of 680 feet long). Stations would be supported by parking, which would vary in size based on demand and the availability of land.

Munster/Dyer Main Street Station would be located north of an extended Main Street in Munster, and would serve as the Project's terminal station. The station site is 29 miles from Millennium Station. The station building and platform would be on the east side of the CSX freight line and would be accessed from Sheffield Avenue/Columbia Avenue. The station's parking area would contain up to 1,850 parking spaces and would be located on the west side of the CSX freight line. Vehicle access to the parking area would require an underpass of the Project's proposed alignment and the CSX freight line ROW. The underpass would also include a walkway for pedestrians.





- Munster Ridge Road Station would be located east of the proposed alignment and south of Ridge Road. The station location is 26 miles from Millennium Station. The primary station access would be from Ridge Road, using an entrance at Harrison Avenue. Parking would be located east of the proposed alignment with an optional, overflow parking lot proposed between Ridge Road and Broadmoor Avenue on the west side of the rail corridor. Each parking area would contain up to 500 parking spaces.
- South Hammond Station would be located east of the proposed alignment and north of 173rd Street. The station location is 24 miles from Millennium Station. The station would be accessed on the north end from 169th Street (from points east only) and on the south from 173rd Street. The parking area would contain up to 1,000 parking spaces.
- Hammond Gateway Station would be located in north Hammond approximately 1/3 of a mile west of the existing SSL Hammond Station, which would be replaced by this proposed station. The combined SSL/Hammond Gateway Station would be designed to serve passengers transferring between the two services. The Project portion of the combined station would have one boarding platform accommodating four cars. The platform length is restricted to only accommodate four cars due to physical constraints of the track grade in this area. The adjacent SSL station would have two platforms that would each serve eight cars. The Project platform would be at a higher elevation and would be connected via elevators and stairs to the SSL platforms. The station location is 21 miles from Millennium Station. The parking area would contain up to 700 spaces and would be located to the north of the station. Roadway access would be facilitated by the City of Hammond's project to realign Chicago Street, which is currently in development. See Figure ES.8-1 for a rendering of the proposed Hammond Gateway Station.



Figure ES.8-1: Proposed Hammond Gateway Station Rendering, View South

ES.8.5 NEPA Preferred Alternative Maintenance Facility and Layover Facility

The NEPA Preferred Alternative involves separate facilities to maintain and store train cars. The maintenance facility would be located just south of the Hammond Gateway Station and would include a shop building for maintenance, storage tracks, and support facilities. The layover facility would be located south of the Munster/Dyer Main Street Station and would store trains overnight to position equipment for the next day's service. Train crews would report to this location and the facility would be include parking and a welfare building for employees. Work performed at the layover facility would be limited to car cleaning and required daily inspections.





ES.8.6 Proposed Service and Operating Plan

The proposed service plan for the NEPA Preferred Alternative involves two service patterns. Trains in the peak periods would operate between the Munster/Dyer Main Street Station and downtown Chicago with most trains operating in the peak direction (i.e., AM Peak to Chicago; PM Peak from Chicago). Peak periods are from 5:30 a.m. to 9:00 a.m. and 4:00 p.m. to 7:30 p.m.; weekday off-peak times are 9:00 a.m. to 4:00 p.m. and 7:30 p.m. to 12 a.m. A reverse peak train would be offered during each peak period. The second service pattern would involve one trainset to operate during off-peak periods between the Munster/Dyer Main Street and Hammond Gateway Stations. Timed connections with SSL trains would allow passengers to transfer to the SSL service and continue their travel either west to Chicago or east towards South Bend. **Table ES.8-1** shows the number of proposed trains by service period and station pairs. The shuttle trains proposed on weekends (i.e., 20) would be the same on Saturdays and Sundays.

Service Period ¹	Direction	Station Pairs	Trains per Weekday	Trains per Sat. / Sun.
Weekday	Peak	Munster/Dyer Main Street-Millennium	10	
Peak Period Re	Reverse	Munster/Dyer Main Street-Millennium	2	
Weekday Off-Peak	Both	Munster/Dyer Main Street-Hammond Gateway	12	
Weekend	Both	Munster/Dyer Main Street -Hammond Gateway		20
		Total	24	20

Table ES.8-1: West Lake Corridor Project NEPA Preferred Alternative Service

SOURCE: AECOM 2016.

Note: ¹Peak: 5:30 a.m. to 9:00 a.m. and 4:00 p.m. to 7:30 p.m.; Off-Peak: 9:00 a.m. to 4:00 p.m. and 7:30 p.m. to 12 a.m.; Weekend: 6:00 a.m. to 1:00 a.m.

Proposed operating hours for the new service would generally be between 5:30 a.m. and 12 a.m. on weekdays and 6:00 a.m. to 1:00 a.m. on Saturdays and Sundays. Travel times between the Munster/Dyer Main Street and Millennium Stations would be approximately 47 minutes. Running time for the shuttle trip between the Munster/Dyer Main Street Station and the Hammond Gateway Station is proposed at 14 minutes.

The operating plan assumes vehicles would be stored overnight at the Munster/Dyer Layover Facility, where service would be initiated each day. Three of the trainsets providing service to Millennium Station on weekdays would be stored during the day in Chicago, at or near Millennium Station. Cars from one trainset would return to the proposed alignment to operate the shuttle. The operating plan would also include a weekly cycle of equipment into the North Hammond Maintenance Facility for maintenance and inspection requirements. Daily clearing and required inspections and testing would occur nightly at the Munster/Dyer Layover Facility. The proposed service requires 30 cars, comprised of three 8-car train consists and one 6-car train consist. A consist is a set of cars that make up a train. The fleet of cars available for the Project would include 6 spares, for a total of 36 EMU cars.

ES.9 How is the DEIS Organized?

This DEIS is organized into 10 chapters:

- Chapter 1: Purpose and Need describes the Project background and Purpose and Need for transportation improvements within the Study Area.
- Chapter 2: Alternatives Considered describes the alternatives considered during the planning process, including the alternatives considered and evaluated in this DEIS. This DEIS considers a





No Build Alternative and three Build Alternatives (Commuter Rail Alternative, IHB Alternative, and Hammond Alternative).

- Chapter 3: Transportation describes the existing conditions of the multi-modal transportation system in the Study Area, effects of the Project on the transportation network, and proposed mitigation of potential impacts. Areas of transportation analysis include public transportation, freight rail, bicycle and pedestrian, traffic, and parking.
- Chapter 4: Community and Social Analysis describes the social characteristics and conditions in the Study Area, effects of the Project on community and social resources, and proposed mitigation of potential impacts. Resources assessed include Land Use and Zoning, Land Acquisitions and Displacements, Socioeconomics and Economic Development, Neighborhoods and Community Resources, Cultural Resources, Visual Resources, Safety and Security, and Environmental Justice.
- Chapter 5: Physical and Environmental Analysis describes the physical and environmental characteristics and conditions in the Study Area, effects of the Project on physical and environmental resources, and proposed mitigation of potential impacts. Resources assessed include Noise; Vibration; Air Quality; Energy; Soils, Geologic Resources, and Farmlands; Water Resources; Biological Resources; Hazardous Materials; and Utilities.
- Chapter 6: Secondary and Cumulative Effects describes the direct and indirect effects of the No Build Alternative and three Build Alternatives (Commuter Rail Alternative, IHB Alternative, and Hammond Alternative) in relation to similar effects from other past, present, and reasonably foreseeable future actions.
- Chapter 7: Section 4(f) Evaluation analyzes the Project pursuant to Section 4(f) of the Department of Transportation Act of 1966, which protects publicly-owned parks, recreation areas, wildlife or waterfowl refuges, or any historic sites of national, state, or local significance. This chapter describes the potential uses of those resources and whether such use is permanent, temporary, or constructive use; if a property is used, the potential impacts are also considered.
- Chapter 8: Section 6(f) Evaluation analyzes the Project pursuant to Section 6(f) of the Land and Water Conservation Act, which requires that the conversion of lands or facilities acquired with Land and Water Conservation Act funds be coordinated with the Department of Interior. This chapter describes the potential uses of those resources and whether such use is permanent, temporary, or constructive use; if a property is used, the potential impacts are also considered.
- Chapter 9: Public and Agency Involvement documents the dialogue between NICTD, interested residents, stakeholders, and government agencies regarding issues raised by the Project. It also summarizes public and stakeholder involvement during the NEPA Scoping and Project Development phases through the publication of this DEIS.
- Chapter 10: Evaluation of Alternatives presents a summary comparison of the Project Alternatives in the DEIS. The intent of this evaluation is to demonstrate the relative effectiveness of the three Build Alternatives (Commuter Rail Alternative, IHB Alternative, and Hammond Alternative) compared with the No Build Alternative in meeting the project's Purpose and Need statement.

ES.10 What are the Anticipated Transportation and Environmental Impacts of the Project?

Potential adverse and beneficial transportation and environmental impacts associated with the Project are summarized in **Table ES.10-1**. Specific mitigation measures in response to anticipated impacts are also identified. **Chapter 10** of this DEIS provides a detailed comparison of the No Build and Build Alternatives.





Factor	Potential Impact and Benefit Summary		Potential Mitigation Measure	
Factor	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary
Public Transportation Section 3.2	• Travel time: 67 minutes from Munster/Dyer Main Street Station to Millennium Station	 2040 average weekday boardings: 7,120 Travel time: 47 minutes from Munster/Dyer Main Street Station to Millennium Station 	 2040 average weekday boardings: Between 5,750 and 7,120 Travel time: 46 to 50 minutes from Munster/Dyer Main Street Station to Millennium Station 	The Project would result in increased access to transit; therefore, no mitigation would be necessary.
Freight Rail Section 3.3	None.	Minimal impacts on the daily rail operations for freight or passenger rail service.	Minimal with Hammond Alternative Options 1 and 3 and Commuter Rail Alternative to Major with the IHB Alternative Options.	Mitigation would not be warranted for the implementation of the Project; however, coordination with CSX, IHB, NS, and others (as needed) would continue through design and construction for use of the required ROW.
Bicycle and Pedestrian Section 3.4	None.	All bicycle and pedestrian crossings would occur at streets or would be grade- separated from rail tracks. Existing Monon and Erie Lackawanna Trail alignments would be shifted in selected locations.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Fencing to prohibit pedestrians and cyclists from crossing the track where facilities do not exist would be provided where deemed important from a safety perspective.
Traffic Section 3.5	 LOS: decrease at two intersections VMT savings: 0 miles per year VHT savings: 0 hours per year 	 LOS: decrease at two intersections VMT savings: up to 122,350 miles per year VHT savings: up to 4,700 hours per year 	 LOS: decrease at two intersections (all alternatives) VMT savings: 113,000 to 122,000 miles per year VHT savings: 4,300 to 4,600 hours per year 	Intersection improvements such as adding turn lanes, upgrading the traffic control devices, and improving the signal timing would be implemented to improve LOS at intersections with unacceptable LOS as a result of increased traffic from the Project.
Parking Section 3.6	None.	114 on-street parking spaces removed.	 Commuter Rail Alternative Options and IHB Alternative Options: 68 on-street and 110 off-street parking spaces removed. Hammond Alternative Option 1: 114 on- street parking spaces removed Hammond Alternative Option 3: 114 on- street and 110 off-street parking spaces removed 	No mitigation for potential on-street parking impacts proposed. For off-street parking, replacement parking would be coordinated with the affected property owner.
Land Use and Zoning Section 4.2	Inconsistent with local planning efforts.	No impacts anticipated: consistent with local planning efforts.	No impacts anticipated: consistent with local planning efforts.	Impacts are considered beneficial, and as such, no mitigation would be required.

Table ES.10-1: Anticipated Environmental I	mpacts by	Project Alternative
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Factor		Potential Impact and Benefit Su	mmary	Potential Mitigation Measure	
Facior	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary	
Land Acquisitions and Displacements ¹ Section 4.3	None.	 Partial Acquisitions: 42R; 11C Full Acquisitions: 147R; 14C Displacements: 91R; 14C 	 Commuter Rail Alternative Options: Partial Acquisitions: 2-14 R; 5-11C Full Acquisitions: 41-102 R; 31-32C Displacements: 16-29 R; 10-11C IHB Alternative Options: Partial Acquisitions: 1-13 R; 6-12C Full Acquisitions: 45-106 R; 12-13C Displacements: 16-29 R; 7-8C Hammond Alternative Options 1 and 3: Partial Acquisitions: 38-42 R; 14C Full Acquisitions: 129-171 R; 92-94C Displacements: 92-94R; 13-14C 	Acquisition and relocation process would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR § 24), as amended.	
Socioeconomics and Economic Development Section 4.4	Limited job opportunities; no support for transit-oriented development (TOD)-style development.	No adverse impacts anticipated: expected to increase job access; supports TOD-style development. The tax revenue losses due to property acquisitions would be minimal in comparison to the overall tax base and anticipated longer-term development that would help to replenish the tax revenue.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Impacts are considered beneficial. NICTD and RDA would continue to promote redevelopment, infill, and economic development opportunities in the affected areas.	





Factor	Potential Impact and Benefit Summary		Potential Mitigation Measure	
Facior	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary
Neighborhoods and Community Resources Section 4.5	No benefits from improved transit service.	 Co-alignment of the rail line primarily along existing transportation corridors would not impact community cohesion. Improved access to community resources and services near proposed stations. Access to Monon and Erie Lackawanna trails, Eggers Middle School, and Harrison Park in Hammond would be restricted to at-grade street crossing locations. Park experience would change at bicycle trails in the Munster and Hammond portions due to proximity to proposed alignment and change in background noise. 	 No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives. 110 off-street parking spaces would be acquired from the Family Christian Center Church in Munster. 	NICTD would continue to engage in ongoing coordination and collaboration with community stakeholders during final design and construction. BMPs for minimizing noise, dust, and fumes and maintaining safety of construction sites would be implemented. These BMPs would buffer the construction activities from surrounding neighborhoods and minimize adverse temporary effects to the extent feasible and practical.
Cultural Resources Section 4.6	None.	1 adverse effect.	1 adverse effect under the Commuter Rail Alternative Options and Hammond Alternative Options 1 and 3; no adverse effects under the IHB Alternative Options.	For Historic Architectural Resources, archival documentation; educational materials; NRHP Amendment for State Street Commercial Historic District; and NRHP Nomination of a historic property. For Archaeological Resources, none proposed at this time since no adverse impacts are anticipated.





Footor	Potential Impact and Benefit Summary			Potential Mitigation Measure
Factor	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary
Visual Resources Section 4.7	None.	Changes to the visual environment from the introduction of new visual elements, or the removal or replacement of existing elements. New elements could negatively affect visually sensitive resources by altering the view to and/or from the resource, or by adding an element that would be out of scale or character of the existing visual context. Visual impact of Munster/Dyer Main Street Station parking area and layover facility in low-density residential/commercial area.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	NICTD would coordinate with affected viewers and consider strategies to avoid or minimize and mitigate visual effects of the Project. NICTD would coordinate with the local communities and responsible agencies to create visual design guidelines for the Project.
Safety and Security Section 4.8	None.	Provisions for safe at-grade crossings with roadways and bicycle/pedestrian facilities; appropriate barriers such as fencing of the rail alignment; emergency services access across rail line at elevated and designated at-grade crossings; station area best practices for public access and safety.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Safety and security would be achieved through implementation of safety and security and emergency preparedness plans by NICTD. The primary purpose of these plans is to consider safety and security, operational staff training, and emergency response measures. For temporary construction impacts, NICTD and its contractors would provide construction barriers and fencing to secure construction sites and staging areas, and evaluate the need for additional security measures such as guards, if needed.
Environmental Justice (EJ) Section 4.9	None, but also no benefit from improved transit service.	No disproportionately high and adverse effects on EJ populations; benefits of improved access and connectivity.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Mitigation measures are not warranted.





Factor		Potential Impact and Benefit Su	Immary	Potential Mitigation Measure
Factor	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary
Noise Section 5.2	None.	 Moderate: 290R; 201 Severe: 145R; 31 Impacts due to warning horn noise. Zero impacts after mitigation. 	 Commuter Rail Alternative: Moderate: 288R; 20I Severe: 147R; 3I IHB Alternative: Moderate: 290R; 45I Severe: 145R; 11I Hammond Alternative: Moderate: 290R; 20I Severe: 145R; 3I Impacts due to warning horn noise. Zero impacts after mitigation. 	Noise impacts would be mitigated through design and the use of wayside horns at grade crossings.
Vibration Section 5.3	None.	1 impact; Elevated vibration levels would be primarily due to rail discontinuities at track turnout switches. Zero impacts after mitigation.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Potential mitigation measures include placing track turnout switches away from residences so there would be no vibration impacts due to switches and using resilient track fasteners, ballast mats, and other measures that would decouple the proposed track from the track bed.
Air Quality Section 5.4	No violation of NAAQS.	No violation of NAAQS.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Mitigation measures are not warranted.
Energy Section 5.5	None.	No impacts anticipated: energy savings of 0.5% compared to the No Build Alternative for the region.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Mitigation measures are not warranted.
Soils, Geologic Resources, and Farmlands Section 5.6	None.	Ground disturbance would occur to build Project tracks and related infrastructure. Surface soils would be impacted in work areas; underlying geology would not be affected. No impacts to farmland.	No substantial variation between the NEPA Preferred Alternative and the other Build Alternatives.	Impacts to soils during construction would be temporary in nature and minimized through the implementation of BMPs and erosion and sediment control plans. Areas would be revegetated using appropriate seed mixes native to Northern Indiana and Illinois.





Factor	Potential Impact and Benefit Summary			Potential Mitigation Measure
Facior	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary
		In-water work in Little Calumet River	In-water work in Little Calumet River	
Water Resources Section 5.7	None.		Commuter Rail Alternative: 5 to 9 acres of wetland impacts	
		8 acres of wetland impacts.	 IHB Alternative: 19 to 21 acres of wetland impacts Hammond Alternative: 5 to 8 acres of wetland impacts 	Impacts due to erosion and sedimentation during construction would be minimized through the use of proper erosion and sediment control measures, which would be required as part of CWA Sections 401/404 permits. In addition, impacts to wetland or waters of the United States would be mitigated based on applicable
		Impacts to 1.5 acres of 100-year floodplain.	All alternatives: 1.5 acres of 100-year floodplain	
			Commuter Rail Alternative: 72 to 76 acres of new impervious surface	
		70 acres of new imperious surface.	IHB Alternative: 82 to 85 acres of new impervious surface	regulations.
			Hammond Alternative: 67 to 72 acres of new imperious surface	
		No impacts to coastal zones.	No impacts to coastal zones.	



Factor	Potential Impact and Benefit Summary		Potential Mitigation Measure	
Factor	No Build Alternative	NEPA Preferred Alternative	Other Build Alternatives	Summary
Biological Resources (Wildlife and Habitat, and Threatened and Endangered Species) Section 5.8	None.	Approximately 21 acres of habitat would be affected. No substantial adverse impacts to terrestrial or aquatic wildlife anticipated. No impacts to federal or state-listed threatened or endangered species anticipated.	 Commuter Rail Alternative: 21 to 32 acres of habitat affected IHB Alternative: 33 to 44 acres of habitat affected Hammond Alternative: 22 acres of habitat affected 	Removal of trees would be in compliance with the applicable requirements. No work would be allowed in waterways from April 1 through June 30 without prior written approval from the INDNR Division of Fish and Wildlife. Riprap that is a minimum 6 inches in grade would be used below the normal water level in order to provide habitat for aquatic organisms in the voids. In-water work may be required to refurbish or replace the northernmost original pier of the Monon Bridge over the Little Calumet River. Any impacts to migratory bird species would be mitigated as required by USFWS consultation and USACE permit requirements.
Hazardous Materials Section 5.9	None.	32 high risk sites.	 Commuter Rail Alternative: 23 high risk sites IHB Alternative: 25 high risk sites Hammond Alternative: 32 high risk sites 	If hazardous materials were to be encountered during construction, the appropriate precautions would be taken to prevent worker exposure and to minimize the spread of contaminants into the environment.
Utilities Section 5.10	None.	Adjustment or relocation of utilities that cross or are adjacent to the proposed alignment.	No substantial variation	Ongoing coordination would continue as the Project design progresses to identify additional impacts and minimize service disruptions, in coordination with respective utility owners and appropriate local agencies.

Table ES.10-1: Anticipated Environmental Ir	mpacts by Project Alternat	ve (cont.)
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SOURCE: AECOM 2016.

Notes: ¹Full acquisitions entail the purchase of an entire parcel, whereas "partial acquisitions" entail the purchase of a portion of a parcel. Displacements occur when a full acquisition is necessary, or when a partial acquisition would result in an impact that would affect the continued economic viability or use of a property.

BMPs: Best Management Practices, C: Commercial; CFR: Code of Federal Regulations; CWA: Clean Water Act; EJ: Environmental Justice; I: Institutional; IHB: Indiana Harbor Belt; IN DNR: Indiana Department of Natural Resources; LOS: Level of Service; NAAQS: National Ambient Air Quality Standards; NEPA: National Environmental Policy Act; NICTD: Northern Indiana Commuter Transportation District; NS: Norfolk Southern Railroad; R: Residential; RDA: Regional Development Authority; TOD: Transit Oriented Development; USACE: United States Army Corps of Engineers; USFWS: United States Fish and Wildlife Service; VHT: Vehicle Hours Traveled; VMT: Vehicle Miles Traveled





ES.11 How Have the Public and Local Agencies Been Engaged in the Project?

In addition to the technical analyses in this DEIS, input provided by the public and relevant agencies was a critical element in the decision-making process.

ES.11.1 Public Input

As described in **Chapter 9**, public engagement has been important to the alternatives development and evaluation process. Study Area residents have shown support as well as opposition for the Project. Supporters cite the following benefits of new transit service in their community: economic growth, improved connectivity, expanded access, and overall positive benefits. Opponents are concerned about Project cost, citing taxpayer burden, and the need to focus expenditures on other basic infrastructure improvement priorities such as roads and bridges. Opponents also are concerned that the Project does not reflect the needs of the larger community and would impact residential properties. Other key issues heard from the public include:

- > Noise and vibration impacts to residential properties
- Effects on property values
- Impacts to adjacent businesses and residences
- > Property acquisitions and potential displacements
- Impacts on the Monon Trail
- > Impacts on parking in adjacent neighborhoods
- Safe access to stations

NICTD has considered public input during alternatives development in this DEIS, and has worked to address concerns through alignment and infrastructure refinement to avoid or minimize negative effects and provide local benefits. As the Project advances, NICTD will continue to work with federal, state, and local agencies to address issues related to design to avoid or minimize and mitigate negative impacts to the extent reasonably feasible.

ES.11.2 Agency Input

As described in **Chapter 9**, FTA and NICTD engaged local officials, regulatory agencies, and other entities during the EIS process. The following key themes distinguish among the alternatives and contributed to the selection of the NEPA Preferred Alternative:

- The City of Hammond prefers the alignment of the NEPA Preferred Alternative and Hammond Alternative Options 1 and 3 as the "gateway" entrance to the city. City officials feel strongly that the Project should lead into Hammond from the SSL below Hegewisch Station, the "front door" of the city. The City of Hammond passed a resolution on August 8, 2016 in support of the NEPA Preferred Alternative (see **Appendix F**).
- Hammond Alternative Option 2 includes the preferred location for the proposed maintenance facility compared to the South Hammond location, which is not supported by city officials. The proposed location is a commercial, industrial area with a rail network already in place. In contrast, the South Hammond location is residential in character.
- The Town of Munster favors the NEPA Preferred Alternative because of the alignment of the rail line on the east side of the existing CSX ROW, with the west side location of the parking facility for the Munster/Dyer Main Street Station. Town officials foresee the west side location as being more





conducive to potential future transit-oriented development (TOD) zoning and land use compared to the traditional suburban-style development pattern on the east side of the alignment. These officials foresee the Project as a much-needed opportunity for new housing and economic development in the town. The Town of Munster passed a resolution on May 16, 2016 in support of the NEPA Preferred Alternative (see **Appendix F**).

- NICTD would operate the last 14 miles of Project peak period trains over MED tracks, which are controlled by Metra. NICTD's trackage rights agreement with Metra would need to be amended to include Project peak operations. NICTD has collaborated with Metra in a rail simulation study to assess whether sufficient capacity on the MED exists to accommodate Project trains. While not officially committing to this expansion of NICTD services on the MED, Metra acknowledged the simulation work, and expressed a willingness to continue to work with NICTD in evaluating medium- and long-term MED needs required by both Metra and NICTD.
- Governmental and environmental agencies identified a variety of concerns related to the natural and built environment, including potential Project effects on trails, air quality, noise, contamination and hazardous materials, the Grand Calumet River, wetlands, habitat and nature preserves, protected species, soil stabilization, historic districts, environmental justice populations, induced development, freight traffic, and grade crossing safety. The agencies wanted to ensure that this DEIS evaluates these issues.

FTA and NICTD considered agency input during alternatives development and preparation of this DEIS, and has worked to address concerns through alignment and infrastructure refinement to avoid or minimize negative effects, and provide local benefits. As the Project advances, FTA and NICTD will continue to work with the agencies to address issues related to design to avoid or minimize and mitigate negative impacts to the extent reasonably feasible.

ES.12 What are the Next Steps?

This DEIS document will be circulated for public and agency comment over a 45-day review period. During this time, three public hearings will be held to present the results of this DEIS and formally record all comments received. In order to complete the environmental review process, a combined FEIS and ROD would be prepared by FTA and NICTD. The combined FEIS/ROD will respond to the substantive comments received on this DEIS, and state the proposed action, environmental findings, and mitigation requirements. In accordance with the Fixing America's Surface Transportation Act (FAST) and 23 United States Code (USC) § 139(n), FTA intends to issue a single document that consists of the FEIS and ROD unless it is determined that circumstances, such as changes to the proposed action, anticipated impacts, or other new information, preclude issuance of such a combined document.

Local elected officials and the public have been, and would continue to be, involved in the Project throughout design and construction through public meetings, advisory committee and stakeholder meetings, and individual briefings.

