



# Executive Summary



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## **S.1 What 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 present SSL weekday commuter service includes 19 inbound trains and 20 outbound trains, 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 9 round trips per day. The SSL carries about 3.5 million passengers annually.

## **S.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 Project 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).

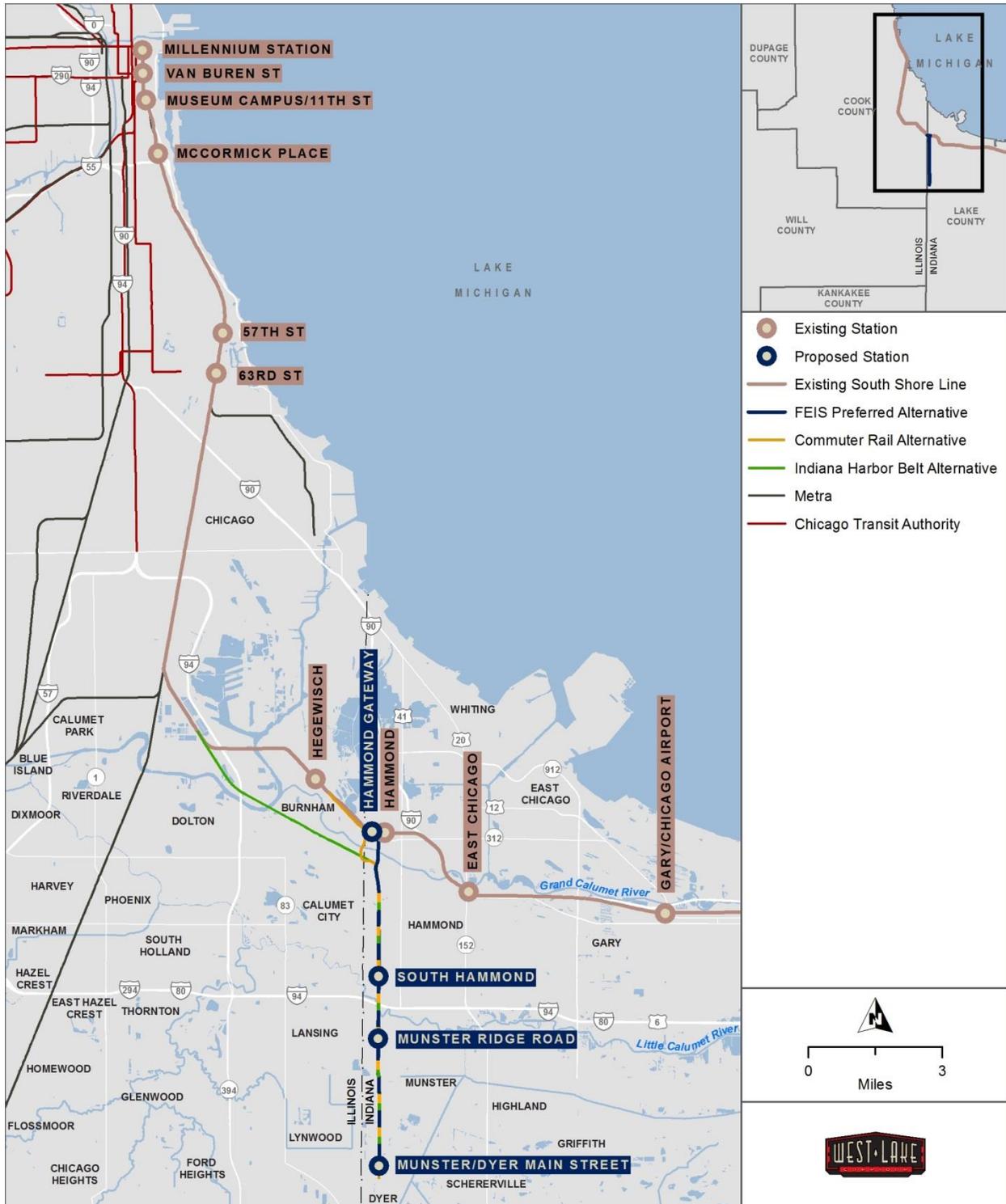
## **S.3 What Is the West Lake Corridor Project?**

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 S.3-1**). 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, for a total distance of about 29 miles.

The primary purpose of this Final Environmental Impact Statement/Record of Decision (FEIS/ROD) is to assist decision-makers and the public in assessing the impacts of the Project. This FEIS documents the Project's purpose and need, presents a discussion of the alternatives considered for implementation, and identifies the Preferred Alternative. It evaluates, in detail, the environmental, transportation, social, and economic impacts of the Project and describes the 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, procurement of equipment and facilities, or system construction.

**Figure S.3-1: Regional Setting for the West Lake Corridor Project**



Source: HDR 2017a.



The Draft Environmental Impact Statement (DEIS) was made available on December 16, 2016, and circulated for review until February 3, 2017, 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 considered all comments received on the DEIS. Responses to substantive comments received are documented in this combined FEIS/ROD. This Executive Summary provides an overview of the Project and highlights the key findings from this FEIS/ROD.

## **S.4 Why Is the Project Needed?**

Identifying and documenting the Project's 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 describes the goals and objectives to address the need.

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

The Project is needed to increase transportation options for accessing downtown Chicago, reduce travel time to downtown Chicago, reduce the parking burden at existing transit stations, reduce travel costs, and promote economic development.

Existing transportation options available to residents in the Project Area (defined as 0.5 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 Project Area would exert increasing demands on regional roads, 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 Project Area residents to access downtown Chicago.

Under current conditions, travelers from the Project Area destined for downtown Chicago by automobile use the existing regional roadway network, comprising key highways such as the Dan Ryan Expressway; Lake Shore Drive; the Bishop Ford Expressway; Interstate 90 (I-90) Skyway; Frank Borman Expressway (Interstate 80/94 [I-80/94]); Interstate 65 (I-65); US Routes 30, 41, and 231; and portions of Indiana State Routes 2 and 53. Many of these roads 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), about 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 Project 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 would increase at existing SSL stations. The inability for transit users to park at their nearest station would either force commuters to 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 Project Area residents. In addition, current planning documents incorporate a long-term vision for the growth of businesses and jobs in the Project 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 Project Area is that advancement of a commuter rail project is consistent with their respective visions and planning.

## **S.5 What Jurisdictions Are Participating in the Project?**

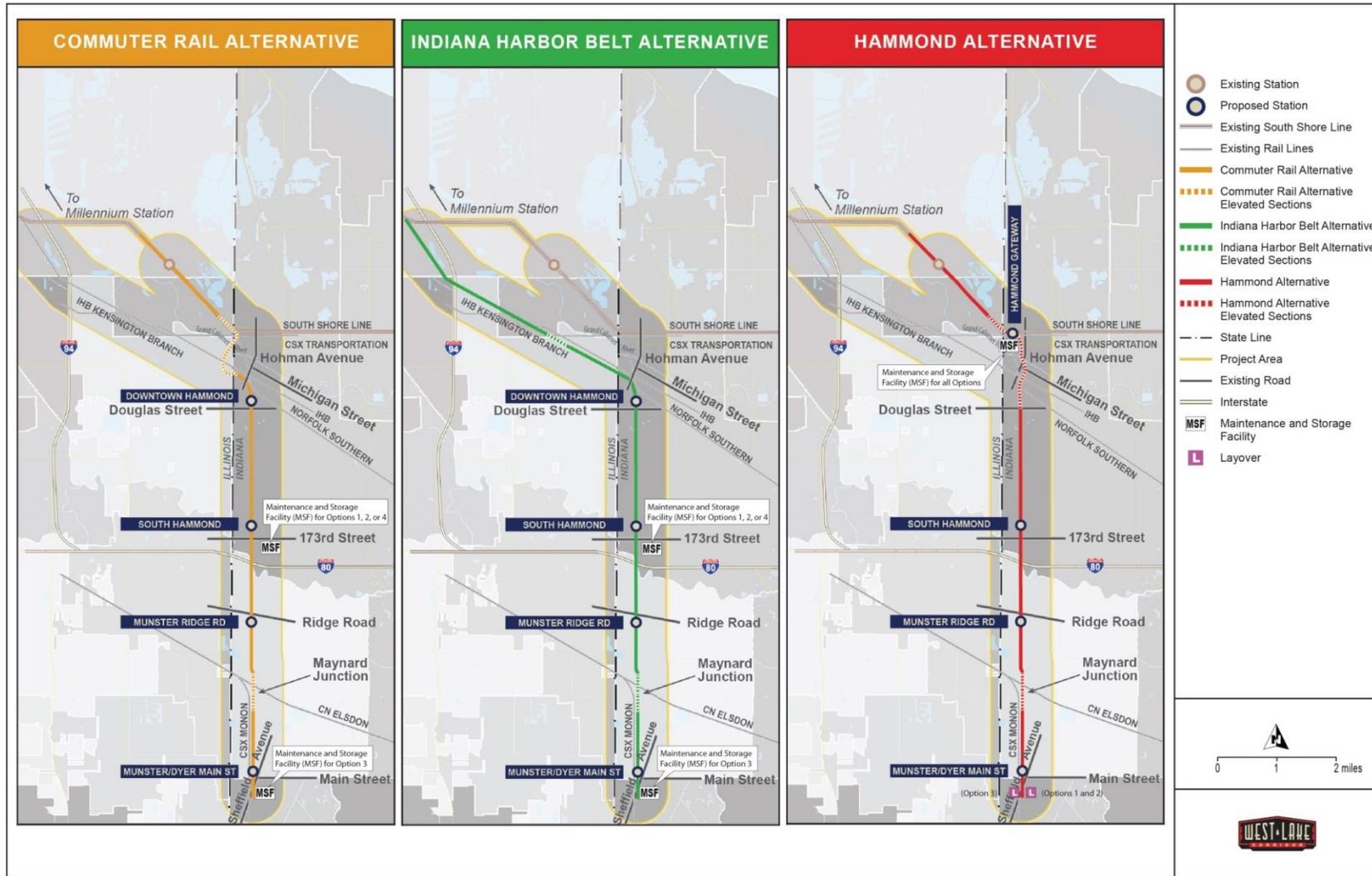
Local jurisdictions that are participating in the Project include the Town of Dyer, the Town of Munster, and the City of Hammond. **Chapter 9** of the FEIS provides more detail about the Project's participating agencies and agency coordination.

## **S.6 What Alternatives Were Considered in the DEIS for the Project?**

Three Build Alternatives were considered in the DEIS, as illustrated in **Figure S.6-1**. All Build Alternatives are variations of the Commuter Rail Alternative that would begin just south of the Munster–Dyer municipal boundary near Main Street at the southern terminus of the Project Area. Traveling north, all Build Alternatives would include new track operating at grade on a separate ROW adjacent to the CSX Transportation (CSX) Monon Subdivision line in Dyer and Munster, Indiana. The alignments would all be elevated from 45th Street to the Canadian National Railway (CN) Elsdon Subdivision railroad at the Maynard Junction in Munster. North of the CN line, the Build Alternatives would join with the publicly owned former Monon Railroad corridor in Munster and Hammond and would continue north to Douglas Street.

At this location, the three Build Alternatives differ slightly in their alignments. The Commuter Rail Alternative and the Hammond Alternative would continue north on new elevated track generally along the Indiana–Illinois state line until they turn west to become parallel to the existing SSL. Specifically, the Commuter Rail Alternative would have an at-grade Downtown Hammond Station before turning west to travel under Hohman Avenue and would then veer north over the Indiana Harbor Belt (IHB) and Norfolk Southern Railway (NS) lines and Grand Calumet River until it turns west to become parallel to the existing SSL alignment in Burnham Yard. The alignment would then turn northwest on unused NS ROW and connect to the existing SSL southeast of Hegewisch Station in Chicago.

**Figure S.6-1: Build Alternatives Evaluated in the DEIS**



Source: HDR 2017a.



In contrast, the Hammond Alternative would begin to elevate north of Douglas Street crossing over the IHB and NS lines and Hohman Avenue. The alignment would cross the Grand Calumet River immediately west of Hohman Avenue before crossing the CSX line. The Hammond Alternative would include a new elevated Hammond Gateway Station before returning to grade on the SSL alignment east of the Indiana–Illinois state line.

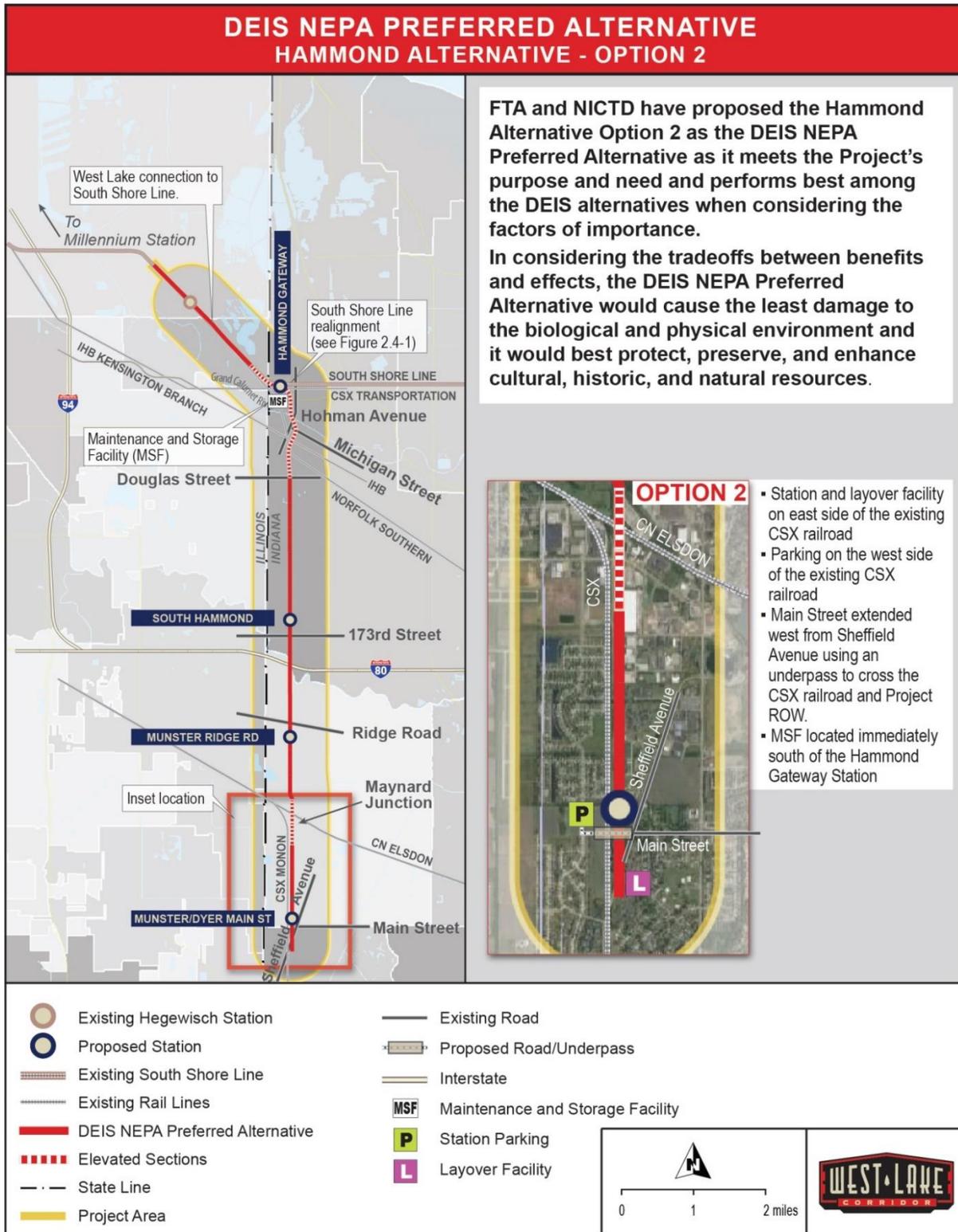
The IHB Alternative would have an at-grade Downtown Station before turning west to travel under Hohman Avenue and then would be constructed in the IHB ROW and would continue northwest to join the SSL near I-94 and 130th Street in Chicago.

For all DEIS Build Alternatives, Project trains would operate on the existing MED line for the final 14 miles, terminating at Millennium Station in downtown Chicago. The stations for the FEIS Preferred Alternative are Dyer Main Street, Munster Ridge Road, South Hammond, and Hammond Gateway.

Also evaluated in the DEIS were multiple design options for each Build Alternative. Four design options were evaluated for the Commuter Rail and IHB Alternatives, and three options were evaluated for the Hammond Alternative. In addition, a design variation, the Maynard Junction Rail Profile Option, was evaluated for each of the three DEIS Build Alternatives. Under this design variation, the alignment at Maynard Junction in Munster would cross the existing CSX railroad in an at-grade profile instead of an elevated profile. With this design variation, the Project track would be located east of the CSX ROW for Commuter Rail Alternative Options 1, 2, and 3; IHB Alternative Options 1, 2, and 3; and Hammond Alternative Options 1 and 2. The Maynard Junction at-grade design variation was not considered for the Commuter Rail Alternative Option 4, IHB Alternative Option 4, or Hammond Alternative Option 3. These exceptions were to avoid crossing the CSX railroad connecting track in the southwestern quadrant of the Junction.

Under federal regulations [40 Code of Federal Regulations (CFR) Part 1502.14(e)], an EIS must include identification of the preferred alternative. FTA and NICTD selected Hammond Alternative Option 2 as the DEIS NEPA Preferred Alternative (see **Figure S.6-2**).

**Figure S.6-2: DEIS NEPA Preferred Alternative**



Source: HDR 2017a.

## **S.7 How was the FEIS Preferred Alternative Identified?**

Scoping for the Project was held in an open house format on October 28, 2014, to solicit comments from the public and agencies invited to participate in the environmental review process. In addition to the scoping meetings, public workshops were also held. During these meetings, NICTD described the study objectives and solicited input on the purpose and need, alternatives considered, and environmental issues being studied for the Project. The input FTA and NICTD received during scoping helped them identify the appropriate alternatives and the depth and breadth of environmental analysis to be completed. The input received assisted with identifying and eliminating concerns that were not significant (or covered by prior studies) from detailed study.

A broad range of reasonable alternatives was considered for the Project. The alternatives were evaluated and screened based on operational and engineering constraints, constructability, cost, and environmental factors. This screening enabled FTA and NICTD to eliminate alternatives that were not feasible to finance, construct, and/or operate efficiently and to refine and further consider better-performing alternatives. Ultimately, the screening process yielded a more well-defined Project that advanced into the DEIS.

Several studies have been conducted that included extensive coordination with stakeholders and members of the public to develop, evaluate, and refine a range of transportation alternatives in the Project Area. All key studies included the use of the Monon Railroad ROW as an integral element of larger corridors. Following the previous planning studies, the identification of alternatives to advance in the DEIS involved a two-step analysis and evaluation process to identify and screen a wide range of possible alignments and design options that could meet the purpose of and need for the Project. Additions, deletions, and refinements to the initial set of alternatives from the two-step screening process were made during the NEPA process.

In the first step of research, NICTD identified a wide range of potential alignment alternatives for the Project. These alternatives were then evaluated to identify the alignment alternatives that would be practical and feasible to finance, construct, and/or operate efficiently. NICTD performed an initial fatal flaw and significant concern evaluation of the alignment alternatives using specified criteria (see Section 2.2.2.1 of the DEIS). The alignment alternatives that met the specified criteria were recommended for further analysis in the second stage of screening. The range of alternatives was narrowed from an initial 19 alternatives to 3 alternatives, which were advanced to the second stage of screening. The initial identification and screening involved an assessment of the alignments of 3 shortlisted alternatives and the Project elements. This resulted in the alternatives carried forward in the DEIS (see Section 2.2.2.4 of the DEIS).

Several alignment options were considered as part of the Build Alternatives evaluated in the DEIS (see Section 2.2.2.4 of the DEIS). Based on the analysis conducted in the DEIS and the public and agency comments received on the DEIS, the NICTD Board passed a resolution recommending the Hammond Alternative Option 2 as the Locally Preferred Alternative (LPA) for the West Lake Corridor on May 12, 2017. The DEIS NEPA Preferred Alternative is the alternative that NICTD and FTA, along with RDA, the Town of Dyer, the Town of Munster, and the City of Hammond, recommended for detailed study through further engineering and environmental review. The DEIS NEPA Preferred Alternative specified the alignment details, station locations, maintenance and storage facility (MSF) location, and TPSS locations.

Additional details on public input into the LPA selection process can be found in **Chapter 9**.

The No Build Alternative and DEIS NEPA Preferred Alternative were advanced for further study in the FEIS. During the FEIS process, NICTD refined the DEIS NEPA Preferred Alternative to

address public and agency comments, resolve technical design issues, and further minimize impacts. The term *FEIS Preferred Alternative* now refers to NICTD's current proposed action, which is the subject of this FEIS and ROD.

## S.8 What Alternatives Does the FEIS Address?

This FEIS evaluates the No Build Alternative and the FEIS Preferred Alternative.

**No Build Alternative.** The FEIS No Build Alternative reflects existing and committed improvements to the regional transit network for the planning horizon year 2040. The FEIS No Build Alternative includes transportation improvements identified in the *NIRPC 2040 Comprehensive Regional Plan* (NICTD 2011) and the *CMAQ GO TO 2040 Comprehensive Regional Plan* through the planning horizon year 2040 (CMAQ 2014). It also includes capacity improvements to the existing MED line and Millennium Station as part of NICTD's and RDA's *20-Year Strategic Business Plan* (NICTD and RDA 2014). The FEIS No Build Alternative does not include the Project.

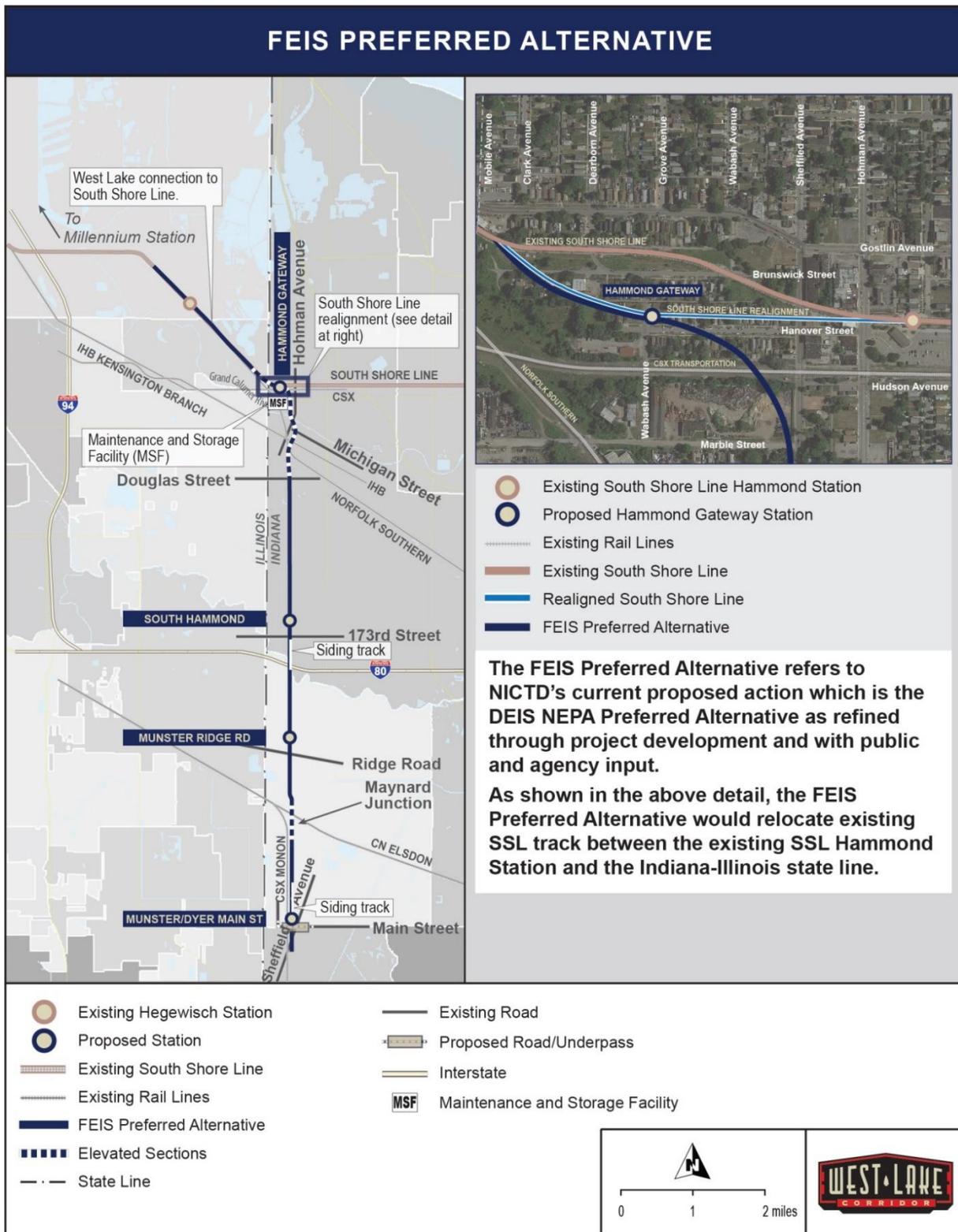
**FEIS Preferred Alternative.** The southern terminus of the FEIS Preferred Alternative begins just south of the Munster–Dyer municipal boundary near Main Street. Traveling north, the FEIS Preferred Alternative would include new track operating at grade on separate ROW adjacent to the CSX Monon Subdivision line in Dyer and Munster. The alignments would be elevated from 45th Street to the CN Elsdon Subdivision line at Maynard Junction in Munster. North of the CN line, the FEIS Preferred Alternative would return to grade on the publicly owned former Monon Railroad corridor in Munster and Hammond and continue north.

From downtown Hammond north of Douglas Street, the FEIS Preferred Alternative would extend north on embankment and use bridges to cross over the IHB and NS lines immediately east of the Hohman Avenue overpass. The FEIS Preferred Alternative would then extend northward and cross over Hohman Avenue just south of Michigan Street. It would then continue north and west, crossing over the Grand Calumet River and CSX line, before connecting with the existing SSL.

The FEIS Preferred Alternative would relocate existing SSL track between the current SSL Hammond Station at 4531 Hohman Avenue and the Indiana–Illinois state line so that the SSL could serve the new Hammond Gateway Station. The SSL and West Lake routes would be adjacent to one another at Hammond Gateway Station, allowing passengers to transfer between services. During non-peak times, Project trains would operate as shuttles between Munster/Dyer Main Street Station and Hammond Gateway Station, making timed connections with SSL service (see inset in **Figure S.8-1**).

The FEIS Preferred Alternative is described in the following sections and summarized in **Table S.8-1**, including the differences between the DEIS NEPA Preferred Alternative and the FEIS Preferred Alternative identified in this FEIS. The features presented in the following sections are based on NICTD's assumptions associated with the level of engineering conducted for the Project to date.

**Figure S.8-1: FEIS Preferred Alternative (or Locally Preferred Alternative)**



Source: HDR 2017a.



**Table S.8-1: Comparison of DEIS NEPA Preferred Alternative and FEIS Preferred Alternative**

Feature	DEIS NEPA Preferred Alternative	FEIS Preferred Alternative
Level of engineering design	< 10%	30%
Northern terminus	Southeast of SSL's Hegewisch Station in Chicago	Southeast of SSL's Hegewisch Station in Chicago
Length <sup>a</sup>	9 miles	9 miles
Capital cost (in 2020 dollars)	\$615 million	\$661 million
West Lake Corridor stations	Munster/Dyer Main Street Munster Ridge Road South Hammond Hammond Gateway	Munster/Dyer Main Street Munster Ridge Road <sup>b</sup> South Hammond <sup>c</sup> Hammond Gateway
Maintenance and storage facilities	<ul style="list-style-type: none"> <li>Maintenance in Hammond – between Grand Calumet River and CSX tracks</li> <li>Layover (storage) in Dyer south of Main Street</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance and storage facility sites are both in Hammond – between Grand Calumet River and CSX tracks</li> <li>No storage facility in Dyer (relocated to Hammond)</li> </ul>
Traction power substations	4 proposed	3 proposed
Other major design changes	<ul style="list-style-type: none"> <li>South Hammond Station Platform located between 169th and 173rd Streets – no overflow parking</li> </ul>	<ul style="list-style-type: none"> <li>South Hammond Station platform has been moved farther south toward 173rd with split parking north and south of 173rd</li> </ul>
	<ul style="list-style-type: none"> <li>Munster Ridge Road Station located southeast of Ridge Road, requiring acquisition of 3 homes</li> </ul>	<ul style="list-style-type: none"> <li>Munster Ridge Road Station and associated parking were moved north of Ridge Road, requiring no acquisition of homes</li> </ul>
	<ul style="list-style-type: none"> <li>Acquisition of the southwestern quadrant of the intersection of Sheffield Avenue and Main Street (9 homes) for a layover facility</li> </ul>	<ul style="list-style-type: none"> <li>Instead of a layover facility, some Munster/Dyer Main Street Station parking and access facilities would occupy land (9 homes)</li> </ul>

Source: HDR 2017a.

<sup>a</sup> The length represents the full end-to-end length of the alternatives.

<sup>b</sup> Munster Ridge Road Station relocated north of Ridge Road.

<sup>c</sup> South Hammond Station moved farther south toward 173rd Street.

## S.9 What Is the FEIS Preferred Alternative?

### S.9.1 Guideway

The FEIS Preferred Alternative would operate in a dedicated guideway within new or existing ROW. The guideway would include a single track throughout, with a 2,000-foot-long siding track near the center of the proposed alignment north of I-80/94 and a 1,900-foot-long siding track at Munster/Dyer Main Street Station. South of Douglas Street in Hammond, the alignment would generally be at grade, while north of Douglas the alignment would be elevated (on an elevated structure or retained fill). The proposed alignment would also be elevated at Maynard Junction, crossing over the CSX Elsdon Subdivision line and 45th Street in Munster. The proposed alignment would be designed to operate completely separately from freight rail.

### S.9.2 Vehicle Technology and Traction Power

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

**Appendix E** shows potential locations for the traction power substations (TPSSs). Three potential TPSS locations have been identified along the FEIS Preferred Alternative: at Munster/Dyer Main Street Station, the South Hammond Station parking lot, and the North Hammond maintenance and storage facility (MSF). The precise location of each TPSS would be refined during the Project's Engineering phase to minimize impacts on surrounding properties and resources and to balance safety, reliability, cost, and operational efficiencies. TPSSs would be about 4,000 square feet and would accommodate a single-story building measuring about 40 feet by 20 feet. The TPSSs would be enclosed to secure the electrical equipment and controls, but NICTD maintenance personnel would be able to access the buildings.

### S.9.3 Stations

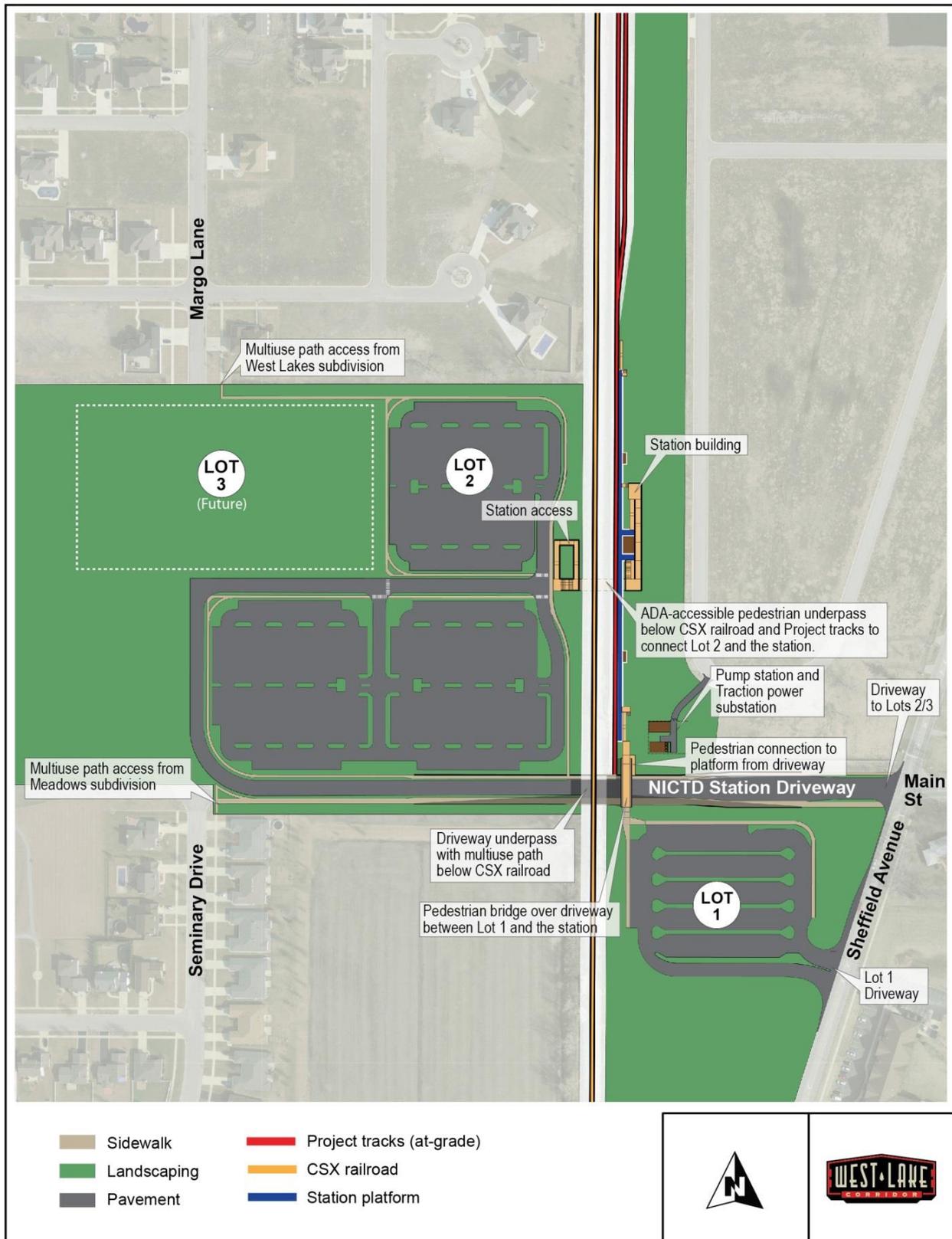
Four new stations would be constructed along the alignment. Each station would include station platforms, parking facilities, benches, trash receptacles, bicycle racks, and other site furnishings. Shelter buildings would be located at Munster/Dyer Main Street and Hammond Gateway Stations only. Station descriptions are as follows:

- **Munster/Dyer Main Street Station** would be on the eastern side of the Project's track, and the parking lot would be on the western side of the CSX railroad (see **Figure S.9-1**). The station would be accessed from Sheffield Avenue, with the driveway forming the western leg of the Sheffield Avenue and Main Street intersection. The driveway access to the western parking lot would require an underpass of the CSX line and Project ROW. Vehicular access to the parking lot would be from the station driveway only. A separate Americans with Disabilities Act (ADA)-compliant pedestrian underpass would pass under the CSX line and Project tracks to allow safe access between the western parking lot and the station. ADA-compliant parking, bus, and "Kiss-and-Ride" accommodations would be in a separate lot in the southwestern quadrant of the intersection of Sheffield Avenue and Main Street. An ADA-compliant pedestrian bridge would be provided over the station driveway to provide safe access between the southern parking lot and the station. The parking areas would be designed for up to 1,333 parking spaces and 99 "Kiss-and-Ride" spaces.

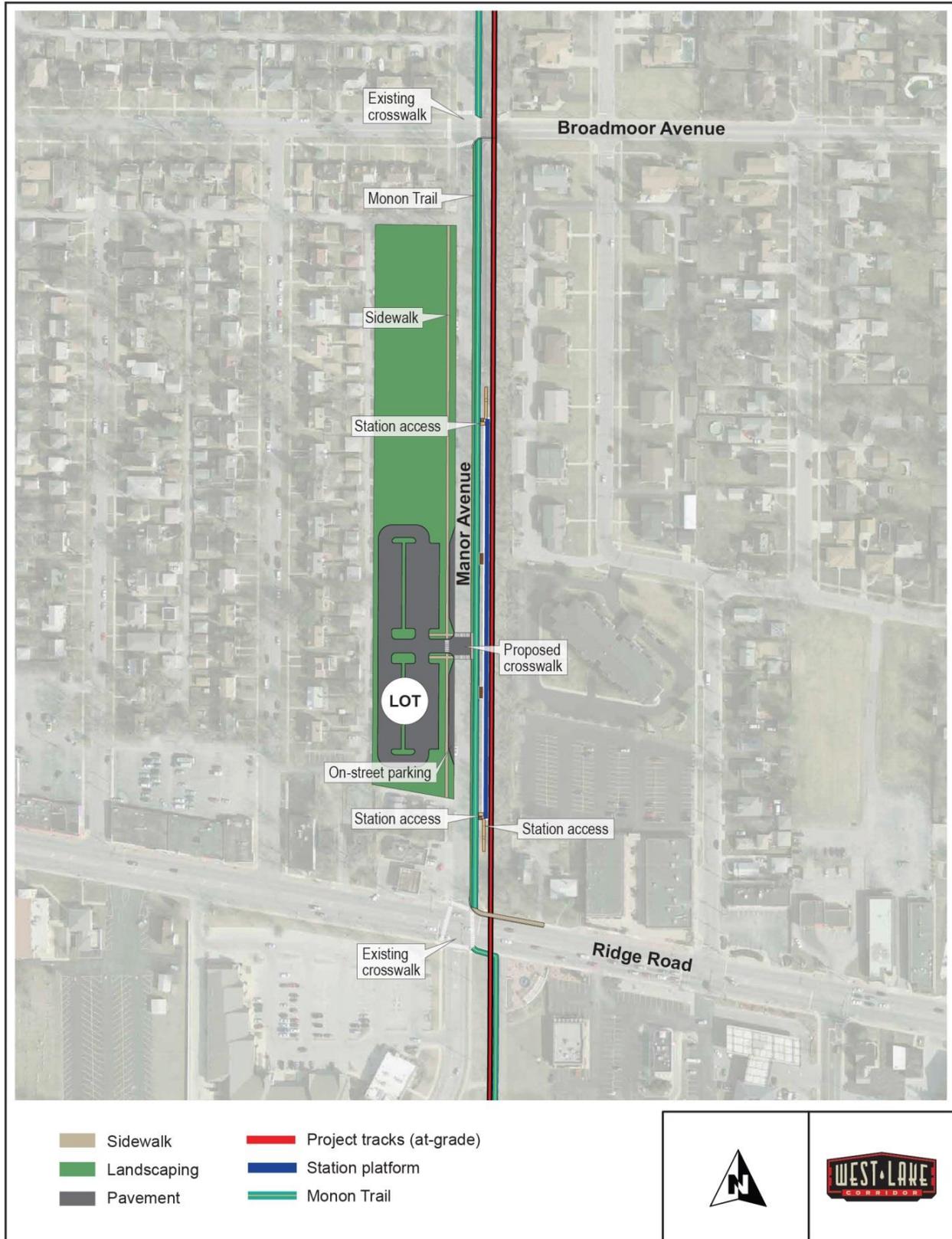


- **Munster Ridge Road Station** would be east of Manor Avenue and north of Ridge Road in a developed residential neighborhood (see **Figure S.9-2**). The station would be west of the Project track. Parking for the station, including ADA-compliant parking and “Kiss-and-Ride” accommodations, would be on the west side of Manor Avenue on several vacant residential parcels owned by the Town of Munster. The station would provide access to shopping, restaurants, and services near the Project. The parking area would be designed for up to 100 parking spaces and 12 “Kiss-and-Ride” spaces.
- **South Hammond Station** would be north of 173rd Street and east of Lyman Avenue on the east side of the Project track (see **Figure S.9-3**). Parking for the station, including ADA-compliant parking, bus, and “Kiss-and-Ride” accommodations, would be divided between vacant parcels north and south of 173rd Street. One driveway located east of Lyman Avenue on 173rd Street would provide access to the north parking lot to and from all directions. The parking lot to the south would be accessed from two driveways. One driveway is the western leg of the 175th Street and Harrison Avenue intersection with access to and from all directions. The second driveway, located east of Lyman Avenue on 173rd Street, would allow right turns into and right turns out of the parking lot. The parking areas would be designed for up to 761 parking spaces and 34 “Kiss-and-Ride” spaces.
- **Hammond Gateway Station** would be located in the northern part of Hammond about 0.15 mile west of the existing SSL Hammond Station, which would be replaced (see **Figure S.9-4**). The Hammond Gateway Station and parking, including ADA-compliant parking, bus, and “Kiss-and-Ride” accommodations, would be south of the Project track. Access to the SSL platform (north of the Project track) from the parking lot would be accommodated by a paved plaza area under the elevated Project track. Two driveways, both full access, would be provided. One driveway would be on Sheffield Avenue across from Hanover Street, and the second driveway would be on Wabash Avenue just north of the extension of Hudson Street (Allman Street). The station and parking would be in the northern portion of the Project corridor in an area of mixed residential and vacant land. Several changes to the local street network are proposed by others (i.e., Hammond’s Chicago Street Widening Project) that would complement Hammond Gateway Station and improve access for residential neighborhoods and nearby businesses. The parking areas would be designed for up to 631 parking spaces and 45 “Kiss-and-Ride” spaces.

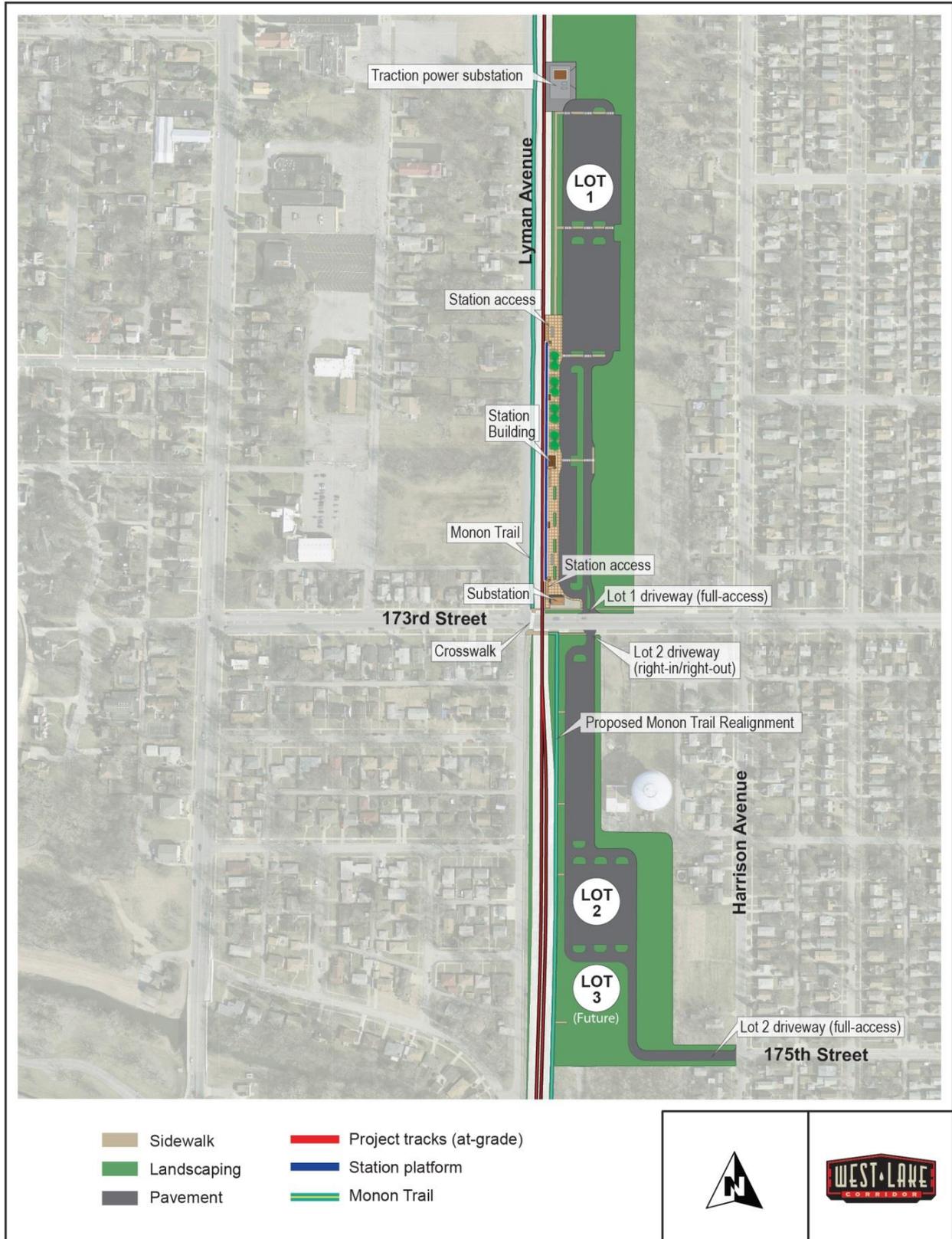
**Figure S.9-1: Munster/Dyer Main Street Station**



**Figure S.9-2: Munster Ridge Road Station**



**Figure S.9-3: South Hammond Station**



**Figure S.9-4: Hammond Gateway Station**



### **S.9.4 Maintenance and Storage Facility and Layover Facility**

The North Hammond MSF would be west of Sheffield Avenue, south of the CSX Barr Subdivision line, east of the NS line, and north of the Grand Calumet River (shown in **Appendix E**). This facility would require the acquisition of about 21 acres of industrial and residential properties. The North Hammond MSF would consist of a maintenance shop building, an employee welfare and administrative area, rail car wash building, substation, yard storage tracks, and maintenance of way open storage area.

### **S.9.5 Proposed Service and Operating Plan**

The proposed service plan for the FEIS Preferred Alternative involves two service patterns: peak periods on weekdays and off-peak periods. Proposed operating hours for the new service would be generally from 5:30 AM to 12:00 AM on weekdays and 6:00 AM to 1:00 AM on Saturdays and Sundays (weekends). Peak periods on weekdays would be from 6:00 AM to 9:30 AM and 3:30 PM to 6:30 PM; off-peak periods would be weekdays from 5:30 AM to 6:00 AM, 9:30 AM to 3:30 PM, and 6:30 PM to 12:00 AM and would include weekends from 6 AM to 1:00 AM. Twelve trains per weekday would be scheduled to travel between Munster/Dyer Main Street Station and Millennium Station (downtown Chicago).

- **Peak Periods Weekdays:** Most trains would operate in the peak direction (i.e., AM peak to Chicago; PM peak from Chicago). A reverse-peak train would enable one train and crew to operate two peak-direction trips during each peak period. Peak-period service would add 12 trains to the current MED/SSL weekday commuter services during peak periods.
- **Off-peak Periods (including weekends):** The second service pattern would involve one train and crew that would shuttle during off-peak periods between Munster/Dyer Main Street Station and Hammond Gateway Station, where timed connections to SSL trains would allow passengers to transfer to continue their trip. This would give Project riders the opportunity to travel either west to Chicago or east toward South Bend. Off-peak-period service would add 12 trains to the current MED/SSL weekday commuter services during off-peak hours and 20 trains on the weekends.

Travel times between Munster/Dyer Main Street Station and Millennium Station would range from 38 to 46 minutes, depending on the scheduled station stops. Travel time for the shuttle between Munster/Dyer Main Street Station and Hammond Gateway Station would be 13 to 14 minutes. The operating plan assumes that cars would be stored overnight at the North Hammond MSF, where service would be initiated each day. Three of the trainsets serving Millennium Station on weekdays would be stored during the day in Chicago at or near Millennium Station. Cars from one trainset would return to Hammond Gateway Station to operate the shuttle.

The operating plan would include a weekly cycle of equipment into the North Hammond MSF for maintenance and inspection. Daily required inspections and testing would occur nightly at the North Hammond MSF. The proposed service would require 30 cars, consisting of three 8-car trains and one 6-car train. The fleet of cars available for Project service would include 6 spares, for a total of 36 EMU cars.

## S.10 How Is This FEIS Organized?

- **Chapter 1** gives an overview of the Project, including its location and setting within the local communities and the region, and the context of previous planning studies for the alternatives considered in the DEIS, including the DEIS NEPA Preferred Alternative and the FEIS Preferred Alternative being evaluated in more detail in this FEIS. It also describes the purpose of and need for the Project.
- **Chapter 2** describes the alternatives-development process that could meet the purpose of and need for the Project. The alternatives-development process builds on prior NICTD studies that examined a broad range of alignments, technologies, and transit modes within the Project Area, and the DEIS. The FEIS Preferred Alternative, also referred to as the Locally Preferred Alternative for the Project, is evaluated in more detail in this FEIS. This chapter summarizes the primary decision-making for the Project to date, including the selection and approval of the Locally Preferred Alternative.
- **Chapter 3** describes the current conditions of the multimodal transportation system and the effects on this system from the alternatives considered in the DEIS, including the DEIS NEPA Preferred Alternative, and the FEIS Preferred Alternative being evaluated in more detail in this FEIS. This chapter describes the effects of the Project on the transportation network and the proposed mitigation of significant impacts. Areas of analysis for this chapter are public transportation, freight rail, bicycle and pedestrian, traffic, and parking. The analysis is organized by resource area (i.e., mode of transportation).
- **Chapter 4** describes the characteristics and conditions of community and social resources and effects on these resources from the alternatives considered in the DEIS, including the DEIS NEPA Preferred Alternative, and the FEIS Preferred Alternative being evaluated in more detail in this FEIS. This chapter describes the effects of the Project on the community and the proposed mitigation of significant impacts. Areas of analysis for this chapter are land use and zoning, land acquisitions and displacements, socioeconomic and economic development, neighborhoods and community resources, cultural resources, visual resources, safety and security, and environmental justice.
- **Chapter 5** describes the characteristics and conditions of physical and environmental resources and the effects on these resources from the alternatives considered in the DEIS, including the DEIS NEPA Preferred Alternative, and the FEIS Preferred Alternative being evaluated in more detail in this FEIS. This chapter describes the effects of the Project on physical and environmental resources and the proposed mitigation of significant impacts. Areas of analysis for this chapter are noise; vibration; air quality; energy; soils, geologic resources, and farmlands; water resources; biological resources; hazardous materials; and utilities.
- **Chapter 6** addresses potential secondary (indirect) and cumulative effects of the alternatives considered in the DEIS, including the DEIS NEPA Preferred Alternative, and the FEIS Preferred Alternative being evaluated in more detail in this FEIS.
- **Chapter 7** identifies and evaluates the effects of the FEIS Preferred Alternative on properties protected by Section 4(f) of the Department of Transportation Act of 1966.
- **Chapter 8** identifies and evaluates the effects of the alternatives considered in the DEIS, including the DEIS NEPA Preferred Alternative, and the FEIS Preferred Alternative being evaluated in more detail in this FEIS, on properties protected by Section 6(f) of the Land and Water Conservation Fund Act of 1965.



- **Chapter 9** describes the comprehensive agency coordination and public involvement program conducted by FTA and NICTD for the duration of the Project. Public involvement was initiated as part of the EIS process. To facilitate this process, a *Public and Agency Coordination Plan* (see DEIS, Appendix F) was prepared to identify actions needed for obtaining meaningful agency and public participation. These consultation and coordination efforts were designed to satisfy the requirements of NEPA, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, Title VI of the Civil Rights Act of 1964, Environmental Justice Executive Order 12898, and Section 106 of the National Historic Preservation Act.
- **Chapter 10** evaluates the effectiveness of the No Build Alternative and the FEIS Preferred Alternative based on the information in **Chapters 2 through 9** of this FEIS. The comparison of these alternatives is based on the Project's Purpose and Need, as described in **Chapter 1** of this FEIS. This evaluation provides a basis for decision-makers and the public to assess the benefits and consequences of implementing the Project.
- **Chapter 11** has been added to the FEIS since the publication of the DEIS to summarize the financial considerations for the Project, describe the Project funding partners, and detail the partners' financial capacity to implement the Project while continuing to operate and maintain the existing SSL commuter rail service. NICTD is advancing the Project in partnership with FTA, RDA, the Indiana Finance Authority, and the State of Indiana.

## **S.11 What Are the Anticipated Transportation and Environmental Impacts of the Project?**

**Table S.11-1** summarizes the environmental effects of the Project and the minimization and mitigation measures by environmental and transportation category.



**Table S.11-1: Anticipated Environmental Effects, Commitments, and Mitigation Measures for the FEIS Preferred Alternative**

Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Public Transportation</b> <i>Section 3.2</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• The Project would result in 3,750 daily boardings in 2037.</li> <li>• The Project would share rail infrastructure with existing commuter rail service on the SSL and MED and would add 12 trains per day during peak periods to the nearly 200 existing trains.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Intermittent impacts on bus operations in construction areas: temporary stop relocations, route detours, or suspension of service on segments of routes.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• No mitigation is required because no long-term adverse impacts would occur.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Minimize disruption to the existing transit service to the extent reasonably feasible.</li> <li>• Coordinate with transit authorities to develop work zone traffic-control plans.</li> <li>• Provide advance warning for lane closures and detours.</li> <li>• Issue construction updates and post to Project website.</li> <li>• Establish 24-hour construction hotline.</li> <li>• Prepare materials with information about construction.</li> <li>• Assign staff to serve as liaisons between the public and contractors during construction.</li> <li>• Post information at bus stops and regional transit centers indicating temporary stop closures or detour details.</li> <li>• Publish information in advance on Metra’s website and in its on-board brochure.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Freight Rail</b> <i>Section 3.3</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• Placement of bridge structure piers located near privately owned railroad property would require close coordination with the railroads.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Construction requires access to CSX, NS, and IHB properties and would include activities in proximity to their operations to span existing freight rail ROW.</li> <li>• A temporary shoofly track would be constructed around Munster/Dyer Main Street Station while the vehicle and pedestrian underpasses are constructed.</li> <li>• Construct new track adjacent to the CSX Monon Subdivision from Project's southern terminus in Dyer to 45th Street in Munster.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• No mitigation required because the placement of bridge structure piers would be resolved in the Project's engineering phase as the freight railroad entities would review design plans, minimizing any long-term adverse impacts.</li> <li>• Third-party agreements would be executed for use of property not owned by CSX, NS, or IHB.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Develop construction staging plans that would be submitted for approval by the freight railroad entities.</li> <li>• Work with affected freight rail entities to sequence construction to reduce effects on freight rail.</li> <li>• Use flaggers to allow freight rail operations to continue during construction.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Bicycle and Pedestrian</b> <i>Section 3.4</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• New separated crossing south of Fisher Street in Munster for Pennsy Greenway.</li> <li>• New railroad-highway grade crossing at Fisher Street for Pennsy Path.</li> <li>• Relocation of Pennsy Path from Manor Avenue to the Monon Trail.</li> <li>• Relocation of several segments of the Monon Trail in Munster and Hammond.</li> <li>• Restricted pedestrian crossings.</li> <li>• Restricted east-to-west connectivity at Russell Street (Hammond).</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Temporary closures or detours.</li> <li>• Construction traffic and debris (such as excess dirt) would pose obstacles or issues for pedestrians and bicyclists, particularly on the Monon Trail.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Fencing would be provided to prohibit pedestrians and bicyclists from crossing the track where east-to-west facilities do not exist or where NICTD deems fencing important for safety.</li> <li>• All railroad-highway grade crossings would include east-to-west pedestrian access to maintain the sidewalk network's existing continuity.</li> <li>• Signs would be provided at Russell Street and the Project track directing bicyclists and pedestrians to the north or south.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• A plan to manage the closure of pedestrian crossings and other restrictions on nonmotorized transportation facilities would be developed for construction.</li> <li>• Alternative crossings would be provided for temporary crosswalk closures.</li> <li>• Sidewalks and crosswalks would be required to meet minimum standards for accessibility and to be free of slipping and tripping hazards.</li> <li>• Special facilities such as temporary handrails, fences, barriers, ramps, and walkways would be implemented to maintain bicyclist and pedestrian safety as needed.</li> <li>• A plan for appropriate access provisions in the work zone, traffic-control plans, and best management practices (BMPs) to manage debris would be developed for construction.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Traffic</b> Section 3.5	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• Three intersections would operate at an unacceptable level of service (LOS) with the No Build Alternative, which would increase to six intersections with the Project. Improvements would be completed for the three intersections affected by the Project.</li> <li>• Ten new railroad-highway grade crossings would be constructed at Fisher Street and Ridge Road in Munster and at 173rd Street, 165th Street, Kenwood Street, Conkey Street, Detroit Street, Highland Street, Waltham Street, and Douglas Street in Hammond.</li> <li>• Road closure would occur at Russell Street and the Project track, but local access would be maintained.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Temporary disruptions to traffic operations, including lane closures; short-term intersection and roadway closures; and detours that would cause local temporary increases in congestion.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would coordinate with agencies having jurisdiction over and/or maintenance responsibility for affected roadways as well as emergency services and school districts regarding railroad-highway grade crossings, road closures, and changes to the roadway network connectivity.</li> <li>• Existing traffic signal at Sheffield Avenue and Main Street in Munster and Dyer would be upgraded to accommodate the parking lot driveway as a fourth leg to the intersection.</li> <li>• Intersection of 173rd Street and Harrison Avenue near South Hammond Station would be restriped to provide a shared left-turn/through lane and a right-turn lane to maintain acceptable LOS.</li> <li>• Traffic operations of the roundabout at Hohman Avenue and Chicago Street being built by others near Hammond Gateway Station would be monitored by the City of Hammond.</li> <li>• Signalized intersections within 200 feet of the railroad-highway grade crossings would be upgraded to include traffic signal interconnection with the rail warning system.</li> <li>• Russell Street in Hammond would be converted to a two-way street from Hohman Avenue to Lyman Avenue and from the Project track to Oakley Avenue. Signs would direct pedestrians and bicyclists to safe crossings. The traffic signal, signage, and striping at Hohman Avenue and Russell Street would be modified accordingly.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Work zone traffic-control plans would be coordinated with agencies having jurisdiction over and/or maintenance responsibility for affected roadways as well as emergency services, and would identify requirements for maintaining access to businesses and medical and emergency facilities.</li> <li>• Lane closures required for construction would be limited to off-peak hours of traffic operation to the extent feasible.</li> <li>• Traffic detours would be restricted to maximum durations through the contract and work zone traffic-control plans.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Parking</b> Section 3.6	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>Loss of 76 on-street parking spaces in Hammond; 6 parking spaces on Russell Street and 70 parking spaces on Hanover Street near the proposed Hammond Gateway Station.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>Street parking spaces could be temporarily unavailable at construction locations.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>No on-street parking space loss in Hammond would be mitigated because of the availability of off-street parking at Russell Street and no demand for on-street parking on Hanover Street.</li> <li>NICTD would work with municipalities to address the potential for parking to spill over onto nearby streets from new stations in Dyer, Munster and Hammond. Mitigation measures by the municipalities would include the use of signs and enforcement of parking restrictions. All NICTD parking lots can be expanded should demand exceed capacity.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>Work zone traffic control plans would be coordinated with the agency having jurisdiction over the road, as appropriate. Advance warning for parking restrictions would be provided in accordance with the work zone traffic-control plans.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Land Use and Zoning</b> <i>Section 4.2</i>	Operating-Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• <b>Munster/Dyer Main Street Station</b> parking would be incompatible with surrounding residential land uses and inconsistent with the suburban residential zoning.</li> <li>• <b>Munster Ridge Road Station</b> could be incompatible with adjacent residential uses but would support the high-density residential zoning for that area. Additionally, the ADA parking, “Kiss-and-Ride” accommodations, and surface parking lot west of the tracks would be incompatible with existing residential uses and zoning, although the station and parking areas would not substantially alter access or land use patterns.</li> <li>• <b>South Hammond Station</b> would not conflict with existing land uses, and no changes to overall land use patterns are anticipated. The station and parking would be incompatible with adjacent areas zoned for single-family residential on small lots.</li> <li>• The <b>North Hammond MSF</b> and <b>Hammond Gateway Station</b> would not conflict with existing land uses and zoning in the area.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Limited temporary difficulties accessing properties during construction.</li> <li>• Temporary increases in noise and vibration levels, dust, fumes, traffic congestion and visual changes from construction activities would affect land use compatibility; there would be no construction-related impacts on zoning.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would make improvements to four intersections to reduce congestion and access impacts: Sheffield Avenue and Main Street (upgraded traffic signal), 173rd Street and Harrison Avenue (striped to include right-turn lane), Russell Street and Hohman Avenue (modified traffic signal), and new roundabout in Hammond (monitored by the City of Hammond for traffic operations).</li> <li>• For safety, noise, and vibration concerns that would disrupt land use patterns, mitigation measures would include noise barriers or receiver-based treatments to specific buildings, ballast mats, sleeper pads or other track support system modifications as described in the evaluations for those resources in <b>Sections 4.8, 5.2, and 5.3</b> of this FEIS.</li> <li>• NICTD would collaborate with community stakeholders, local elected officials, and the state and county transportation departments on proposed station parking lots.</li> <li>• Where the alternative would be incompatible with existing zoning designations, NICTD would work with local officials during the engineering phase to make the alternative compatible, to the extent feasible and practical, with the intended purposes and design standards of the applicable zoning.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would develop a <i>Maintenance and Protection of Traffic Plan</i> to address disruptions to travel.</li> <li>• BMPs for minimizing visual changes, noise and vibration levels, dust, and fumes due to traffic detours, staging areas, and maintaining safety of construction sites would be implemented.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Land Acquisitions and Displacements<sup>a</sup></b> <i>Section 4.3</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>● Acquisitions               <ul style="list-style-type: none"> <li>◦ 226 acquisitions totaling 106.68 acres</li> <li>◦ 202 total acquisitions and 24 partial acquisitions</li> </ul> </li> <li>● Displacements               <ul style="list-style-type: none"> <li>◦ 107 displacements</li> <li>◦ 94 residential, 4 commercial, and 9 industrial land uses displaced</li> </ul> </li> <li>● Easement               <ul style="list-style-type: none"> <li>◦ 0.33 acre of permanent easement</li> </ul> </li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>● 5.59 acres of temporary easements</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>● Acquisition and displacements would be done in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USC § 4601).               <ul style="list-style-type: none"> <li>◦ Relocation advisory assistance would be provided to eligible persons.</li> <li>◦ Ample notice would be given to those being relocated. Minimum 90 days written notice would be given to vacate prior to requiring possession.</li> <li>◦ Reimbursement for moving and reestablishment expenses would be provided.</li> <li>◦ Relocation planning and services would be provided to businesses.</li> </ul> </li> <li>● NICTD would continue proactive communication, coordination, and engagement with local community organizations to work with displaced business owners to:               <ul style="list-style-type: none"> <li>◦ Identify preferred relocation options and prepare for a smooth transition to a new location for both the business and its employees; and</li> <li>◦ Provide information to the communities where businesses would be displaced about the businesses' new locations, with transit options to access the new business location and/or other options to meet their needs.</li> </ul> </li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>● NICTD would restore properties affected through a temporary easement to an acceptable pre-construction condition following construction activities, in accordance with the individual easement agreements.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Socioeconomics and Economic Development</b> <i>Section 4.4</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• <b>Socioeconomics and Demographic Effects:</b> The Project would shift population, housing, and employment growth.</li> <li>• <b>Government Finance and Tax Sources:</b> The FEIS Preferred Alternative would decrease the property tax base for Lake County by 0.043 percent.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Temporary disruptions to business access or operations from construction equipment or activities, as well as from noise, vibration, dust, and/or fumes, could occur.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Mitigation would include identifying and promoting redevelopment, infill, and economic-development opportunities as well as proactive policies to relocate businesses near their existing location to offset any potential loss of property tax revenue.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Temporary and short-term socioeconomic impacts would be mitigated through the following measures:               <ul style="list-style-type: none"> <li>◦ NICTD would coordinate with individual businesses to ensure that critical business activities are not disrupted and that reasonable access during regular operating hours is maintained.</li> <li>◦ NICTD would notify property owners, businesses, and residences of major construction activities on a real-time basis.</li> <li>◦ NICTD would coordinate with the affected utility companies to minimize disruption of service.</li> </ul> </li> </ul>
<b>Neighborhoods and Community Resources</b> <i>Section 4.5</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• Introduction of commuter rail service would affect the perceived or actual connectivity of neighborhoods where no rail operations currently exist.</li> <li>• Neighborhood housing would be affected by localized changes in visual context, noise, and vibration from adjacent commuter rail-related facilities.</li> <li>• The FEIS Preferred Alternative would be adjacent to community resources within the Project Area, such as trails, parks, and schools. Users of the community resources could experience changes in the visual context and/or noise and vibration levels.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Traffic detours would increase traffic through residential neighborhoods or change access to community facilities.</li> <li>• Sidewalk closures and detours would affect pedestrian traffic patterns.</li> <li>• Increased levels of noise, vibration, and dust and the presence of large construction equipment would temporarily affect neighborhood character, primarily in relatively quiet areas.</li> <li>• Residences and community resources would experience short-term disruptions of utility services, as utilities need to be moved or replaced.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
Commitments and Mitigation Measures		<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Noise and vibration mitigation measures would include noise barriers or receiver-based treatments to specific buildings, ballast mats, sleeper pads, or other track support system modifications.</li> <li>• NICTD would conduct ongoing coordination and collaboration with community stakeholders and local elected officials to mitigate impacts that would diminish the value of community resources or pose a nuisance to residents.</li> <li>• NICTD would make improvements to four intersections to reduce traffic congestion and access impacts.</li> <li>• NICTD would collaborate with community stakeholders, local elected officials, and the state and county transportation departments on proposed station parking lots.</li> <li>• Displaced businesses and residents would be relocated in accordance with the Uniform Act. NICTD would continue to coordinate with affected residents, businesses, and community facilities to identify strategies to minimize the effects on the employees and customers of the displaced businesses.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Work zone traffic-control plans would be coordinated with agencies having jurisdiction over and/or maintenance responsibility for affected roadways. The plans would identify requirements for maintaining access to neighborhoods, businesses, medical facilities, and emergency facilities.</li> <li>• BMPs for minimizing visual changes, noise and vibration levels, dust, and fumes and for maintaining safety of construction sites would be implemented including those from United States Environmental Protection Agency (USEPA).</li> <li>• NICTD would coordinate with the jurisdictional agency of the roadway regarding the construction and detour plan.</li> <li>• The State Archaeologist at the Indiana SHPO, represented by the INDNR Division of Historic Preservation and Archaeology (DHPA), reviewed and concurred with the Oak Hill Cemetery Development Plan on December 8, 2017. The Memorandum of Agreement between FTA, NICTD, and Indiana SHPO is included in <b>Appendix B</b>.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Cultural Resources</b> <i>Section 4.6</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• Adverse effect on one historic property: the OK Champion Building, resulting from demolition.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• No adverse effects on historic properties.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Implement the December 12, 2017 Section 106 Memorandum of Agreement. Mitigation measures would include:               <ul style="list-style-type: none"> <li>◦ Prior to any alterations to or demolition of the OK Champion Building, Historic American Building Survey documentation of the existing building would be completed by a Secretary of the Interior–qualified professional in history or architectural history (36 CFR Part 61)</li> <li>◦ A public exhibit discussing the history and context of the OK Champion Building, specifically highlighting the industrial development of Hammond, would be designed in consultation with a qualified historian who meets the Secretary of the Interior’s Professional Qualification Standards (36 CFR Part 61) and who would assess the context and presentation to ensure that the important history and associations that contribute to the significance of the property are incorporated into the exhibit.</li> <li>◦ A National Register of Historic Places (NRHP) nomination for the P.H. Mueller Sons Hardware Building at 416–418 Sibley Street in Hammond would be completed.</li> </ul> </li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Appropriate noise- and vibration-control measures and BMPs would be implemented by NICTD to minimize any potential temporary impacts during construction of the Project.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Visual Resources</b> <i>Section 4.7</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>The FEIS Preferred Alternative is not expected to substantially change the visual character of the Project Area as a whole. Moderately high visual effects would occur where full or partial acquisitions would be required, where the alignment would be elevated, and where residential or recreational uses are located adjacent to the Project Area.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>Visually intrusive views would be associated with construction staging areas, concrete and form installation, removal of existing structures and/or vegetation, lights and glare from construction areas, and generation of dust and debris in the Project Area.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>Operational effects on the visual environment would be minimized or mitigated through high-quality design and construction.</li> <li>NICTD would coordinate with the local communities and responsible agencies to create visual design guidelines for the Project, such as through the selection of landscape treatments, which would be consistent with applicable local policies and would be compatible with the character of the affected community.</li> <li>NICTD would coordinate with affected viewers and would consider strategies to avoid or minimize and mitigate visual effects.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>Short-term construction effects would be minimized or mitigated by carefully managing construction activities, including minimizing lighting during nighttime work, limiting work to daytime hours in the vicinity of particularly sensitive receptors, and restoring staging areas following Project completion.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<p><b>Safety and Security</b> Section 4.8</p>	<p>Operating Phase (Long-term) Direct Impacts</p>	<ul style="list-style-type: none"> <li>• The Project would introduce 10 new railroad-highway grade crossings (see <b>Figure 3.5-4</b>) that would run adjacent to nearby activity areas including schools, parks, churches, residential developments, and trails.</li> <li>• Stations could pose safety and security concerns for pedestrians and transit users in parking areas due to increased potential for pedestrian/automobile collisions.</li> </ul>
	<p>Construction Phase (Short-term) Impacts</p>	<ul style="list-style-type: none"> <li>• Construction could cause temporary negative safety concerns including temporary increased traffic congestion and road closures for the public.</li> <li>• Contractors would be working on freight railroad property.</li> <li>• Construction activities would result in temporary increased congestion along adjacent roads that could affect access and response times for emergency service providers.</li> </ul>
	<p>Commitments and Mitigation Measures</p>	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would implement a <i>Safety and Emergency Preparedness Plan</i> (SEPP) and a <i>Safety and Security Management Plan</i> (SSMP) to consider safety and security, operational staff training, and emergency response measures.</li> <li>• NICTD police and local law enforcement would maintain safety and security during Project construction and operations.</li> <li>• To reduce potential risks in station areas, NICTD would include security cameras and would work closely with municipal police services to develop and implement measures to deter loitering and criminal activity.</li> <li>• Pedestrian safety in station areas would be enhanced through improved intersections and crosswalks in key locations.</li> <li>• Pedestrian safety at Munster/Dyer Main Street Station would be enhanced by constructing a pedestrian underpass under the CSX railroad from the “Park-and-Ride” lot to allow access to the platform. At this station, a pedestrian bridge would also be constructed over the station driveway to allow platform access from the south.</li> <li>• Pedestrian safety at the Hammond Gateway Station would be accommodated by a paved plaza area under the elevated Project track to access the SSL platform from the parking lot to the south.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would develop and implement a <i>Construction and Site Safety Plan</i> to address key topics including road closures, lane closures, bridge construction, excavations, access control, worker safety, public safety, and other relevant safety topics.</li> <li>• NICTD would provide construction barriers, signs, and fences to secure construction sites and staging areas and would evaluate the need for additional security measures such as security personnel.</li> <li>• If temporary road closures are necessary, advance notice would be provided to neighbors and local businesses, and alternative routes and detours would be clearly identified. To minimize inconvenience to the local population, the duration of closures would be limited to the extent feasible.</li> <li>• NICTD would comply with each freight railroad operator’s access, safety, and operational requirements during Project construction on or near the respective freight railroad operator’s property.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Environmental Justice</b> <i>Section 4.9</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>The FEIS Preferred Alternative would displace four commercial and nine industrial businesses, all located in EJ neighborhoods. Impacts to business owners would be mitigated according to the Uniform Act. With the implementation of mitigation measures, the Project-wide finding is that the FEIS Preferred Alternative would not result in disproportionately high and adverse effects on EJ populations.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>The FEIS Preferred Alternative has the potential to result in short-term effects on socioeconomics by temporarily affecting business access and/or causing noise, dust, and/or fumes that could disrupt business operations. These impacts may primarily affect EJ populations.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating-Phase (Long-Term):</b></p> <ul style="list-style-type: none"> <li>NICTD would work with displaced business owners to (1) identify preferred relocation options and prepare for a smooth transition to a new location for both the business and its employees and (2) provide information to the communities where businesses would be displaced about the businesses' new locations, with transit options to access the new business location and/or other options to meet their needs.</li> </ul> <p><b>Construction-Phase (Short-Term):</b></p> <ul style="list-style-type: none"> <li>NICTD would: (1) develop construction staging plans that maintain access to all businesses during construction to the extent possible, (2) incorporate noise- and dust-control measures that minimize environmental effects on businesses adjacent to project construction activities, and (3) continually communicate with affected businesses prior to and during construction to understand and address their needs and concerns.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Noise</b> <i>Section 5.2</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• Without mitigation: 376 residences would experience moderate noise impacts and 107 residences would experience severe noise impacts.</li> <li>• Without mitigation: 377 residences with moderate and 107 residences with severe noise impacts. With mitigation, no severe noise impacts would occur. Lower range moderate noise impact will still occur at 237 residences.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Elevated noise levels from construction equipment.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Receiver-based treatments would be applied as follows:               <ul style="list-style-type: none"> <li>◦ For 2 single-family homes in Dyer, between mileposts (MP) 61.5 and 61.6</li> <li>◦ For 5 single-family homes in Hammond, between MP 66.9 and 67.2</li> </ul> </li> <li>• Barriers ranging in height from 4 to 5 feet above top-of-rail would be constructed as follows:               <ul style="list-style-type: none"> <li>◦ In Munster:                   <ul style="list-style-type: none"> <li>▪ Between MP 63.4 and 63.6, a barrier approximately 1,210 feet long on the eastern side of the Project alignment</li> <li>▪ Between MP 63.7 and 63.9, a barrier approximately 1,330 feet long on the western side of the Project alignment.</li> </ul> </li> <li>◦ In Hammond:                   <ul style="list-style-type: none"> <li>▪ Between MP 65.3 and 65.5, a barrier approximately 580 feet long on the western side of the Project alignment.</li> <li>▪ Between MP 66.3 and 66.4, a barrier approximately 700 feet long on the eastern side of the Project alignment.</li> </ul> </li> </ul> </li> <li>• A noise barrier wall 370 feet long and 3 feet above the top-of-rail would be constructed in the vicinity of the Jefferson Hotel in Hammond south of MP 68.1. This noise barrier would be on the western side of an elevated portion of the Project alignment.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would include noise performance specifications in the construction contract documents and would develop a construction noise management plan.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Vibration</b> <i>Section 5.3</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>The Project would cause vibration impacts at three residential structures that represent 13 dwelling units.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>Elevated vibration levels from construction equipment.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>Between MP 63.7 and 63.9 in Munster, ballast mats or other track support system modifications would be implemented. This treatment would extend the length of one full trainset on either side of the affected receptor, which would result in approximately 2,360 feet of treatment.</li> <li>Between MP 66.3 and 66.4 in Hammond, ballast mats or other track support system modifications would be implemented. This treatment would extend the length of one full trainset on either side of the affected receptor, which would result in approximately 1,360 feet of treatment.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>NICTD would include vibration performance specifications and would specify vibration limits for construction activities in the construction contract documents.</li> <li>NICTD would develop a construction vibration management plan.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Air Quality</b> <i>Section 5.4</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• No impacts expected. Annual regional vehicle miles travelled (VMT) would be reduced from the No Build Alternative.</li> <li>• No violations of air quality standards are predicted.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• The short-term increases in pollutant concentrations, as described below, are not expected to exceed any National Ambient Air Quality Standards (NAAQS), and the construction-related air quality impacts are considered minor.</li> <li>• Temporary increases in emissions and concentrations of air pollutants may be caused by increased traffic volumes and operations on detour routes.</li> <li>• Localized increases in pollutant concentrations would persist for the duration of the construction activities along the corridor and at station locations. Because construction activities would be spread out along the corridor, the duration of construction at any one location would be relatively short (e.g., several weeks), which would tend to limit localized air quality impacts at any given location.</li> <li>• Construction equipment powered by fossil fuels would emit air pollutants similar to those produced by highway vehicles.</li> <li>• Exposed earthen materials may produce increased particulate matter when they are moved during construction or disturbed by wind.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• No mitigation has been identified or recommended.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would prepare and implement a dust-control plan, a work zone traffic-management plan, and a strategy to control emissions from diesel-powered equipment.</li> <li>• Mitigation measures would include the following:               <ul style="list-style-type: none"> <li>◦ Limit idling of construction equipment during periods of inactivity.</li> <li>◦ Maintain construction equipment in proper working condition.</li> <li>◦ Use water or other dust suppressants to ensure that fugitive dust does not leave the construction site.</li> <li>◦ Limit the speed of construction vehicles on unpaved areas.</li> <li>◦ Promptly clean up spills and dirt tracked onto paved roads.</li> </ul> </li> <li>• NICTD would require the construction contractor to monitor construction activities near residential areas to help ensure that construction does not become a nuisance to nearby residents.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Energy</b> Section 5.5	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• The Project would result in an increase in electricity consumption and a decrease in gasoline consumption attributable to reduced VMT when compared with the No Build Alternative.</li> <li>• The Project would result in a daily reduction of 163,050 VMT in 2037.</li> <li>• The net change in total energy consumed over the Project's operational life would be negligible when compared with the No Build Alternative.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Construction would result in a minor increase in the use of energy resources compared with the No Build Alternative and would not significantly change regional energy use.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• No mitigation has been identified or recommended.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD would require the construction contractor to limit idling of machinery and optimize construction methods and staging areas in order to reduce fuel use in trucks and construction equipment.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Soils, Geologic Resources, and Farmlands</b> <i>Section 5.6</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>No long-term impacts on soils would occur, and the underlying geology would not be affected. No prime farmland parcels exist in the Project Area and, therefore, no impacts on farmlands would occur.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>Impacts on soils would include soil disturbance as a result of clearing, grading, and excavating; compaction from heavy-machinery traffic; potential reduction of soil quality as a result of mixing rock with topsoil; and loss of soil from water and wind erosion.</li> <li>Soil units that are characterized as having “very limited” suitability for shallow excavations are hydric soils, which may influence ponding and drainage. Impacts on soils would include soil disturbance as a result of clearing, grading, and excavating; compaction from heavy-machinery traffic; potential reduction of soil quality as a result of mixing rock with topsoil; and loss of soil from water and wind erosion.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>No impacts have been identified; therefore, no mitigation is required.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>Impacts would be minimized through the implementation of BMPs and erosion and sediment control plans.</li> <li>The Project would comply with applicable permit conditions.</li> <li>NICTD would follow INDNR recommendations where appropriate, including revegetation, clearing of trees and brush, stabilizing soils with temporary vegetation, debris and materials management, use of erosion controls, and application of seed mixes on disturbed areas at the time of restoration.</li> <li>On-site soil and geotechnical investigations would be completed by NICTD to identify soils within the Project footprint showing limitations for suitability. Soils with limited suitability would require additional engineering and special design in order to minimize poor performance and high maintenance.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Water Resources</b> <i>Section 5.7</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• The Project would fill 3.43 acres in 14 jurisdictional wetlands and 0.76 acre in 2 nonjurisdictional wetlands in Indiana. The construction limits of the Project would not extend beyond the Indiana border. No water resources in Illinois would be affected. No anticipated impacts to high-quality wetlands are expected.</li> <li>• No direct impacts on the Grand Calumet and Little Calumet Rivers.</li> <li>• No impacts on floodways. For floodplains, preliminary design would not require compensatory storage. During final design, if fill is placed within the floodplain, determination of compensatory storage would be done in accordance with the volume lost.</li> <li>• The one water well within the construction limits would be acquired.</li> <li>• Approximately 48.4 acres of additional impervious area would be created.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Temporary impacts on floodplains would consist primarily of minor grading and erosion and sediment-control impacts.</li> <li>• The water well within the construction limits, the existing rail bed (to be restored), and the site development of the station and MSF would be directly affected by construction. Construction has the potential to pollute groundwater.</li> <li>• Construction activities would disturb soils and could cause increased runoff that could potentially erode slopes and drainageways, form gullies, and deposit sediment in adjacent water bodies.</li> <li>• Construction activities could disturb soils and affect water quality by carrying sediment in runoff and discharging it into storm drains.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Only fill of jurisdictional wetlands within the construction limits require mitigation. 3.43 acres of wetlands will be affected by the Project. In the NEPA concurrence letter dated January 9, 2018 (<b>Appendix D</b>), USACE stated that jurisdictional palustrine emergent wetlands would be required to be mitigated at a minimum 1.5:1 ratio, and jurisdictional palustrine forested wetlands would need to be mitigated at a 3:1 ratio. Based on these mitigation ratios, a minimum of 6.56 acres of wetland mitigation would be provided to ensure no net loss of wetlands.</li> <li>• Impacts on non-jurisdictional wetlands are not included in wetland impact calculations for mitigation because they are human-made bio-retention areas that are not under federal or state jurisdiction.</li> <li>• Track that spans the Grand Calumet River and Little Calumet River would have no piers or abutments in the river channel.</li> <li>• The relocated Monon Trail bridge would use new support structures that would fully span the river. No abutments, piers, or sheet pile walls would be constructed in the river channel.</li> <li>• The well near Munster/Dyer Main Street Station would be acquired by NICTD and would be properly capped and abandoned.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
		<ul style="list-style-type: none"> <li>• In addition to detention facilities, other practices such as vegetated basins/buffers, infiltration basins, and bioswales will be evaluated to minimize transport of sediment, heavy metals, and other pollutants.</li> <li>• Necessary regional stormwater detention storage per watershed would be developed to ensure that the overall watershed release rate to the designated waterway crossings is not increased.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Erosion- and sediment-control plans would be included with the contract drawings to prevent or reduce the displacement of soil and other sediments via stormwater runoff within the land development area.</li> </ul>
<p><b>Biological Resources (Wildlife Habitat and Endangered Species)</b> <i>Section 5.8</i></p>	<p>Operating Phase (Long-term) Direct Impacts</p>	<p><b>Threatened and Endangered Species</b></p> <ul style="list-style-type: none"> <li>• No federally protected species are within the Project Area.</li> <li>• For the northern leopard frog (state species of special concern), approximately 6.92 acres of low-quality habitat and 1.99 acres of moderate-quality habitat would be cleared.</li> <li>• For the state endangered Blanding's turtle, approximately 0.26 acre of low-quality habitat would be cleared.</li> <li>• There are 80.10 acres of vegetated habitat within the Project footprint that would potentially be cleared by the Project; direct impacts may occur for three state-listed plants.</li> </ul> <p><b>Wildlife and Habitat</b></p> <ul style="list-style-type: none"> <li>• The Project would clear 15.97 acres of woodland habitat.</li> </ul>
	<p>Construction Phase (Short-term) Impacts</p>	<ul style="list-style-type: none"> <li>• Construction-related physical and noise disturbances could temporarily disrupt wildlife habitat use.</li> <li>• No effects on threatened and endangered species are anticipated.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
Commitments and Mitigation Measures		<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• Threatened and Endangered Species:               <ul style="list-style-type: none"> <li>◦ <i>Indiana Bat and Northern Long-eared Bat</i>: Only candidate roost trees showing no or low potential for bats exist within the Project footprint. No mitigation is proposed.</li> <li>◦ <i>Amphibians and Reptiles</i>: INDNR does not have any record of the northern leopard frog (state species of special concern) or Blanding’s turtle (state endangered) within the Project Area, nor does it foresee any impacts on these species as a result of the Project. No mitigation is proposed.</li> <li>◦ <i>Insects</i>: No suitable habitat for the federally endangered Karner blue butterfly exists within the Project footprint. No mitigation is proposed.</li> <li>◦ <i>State-listed Plant Species</i>: INDNR did not suggest any long-term mitigation for state-listed plant species. However, measures were taken to avoid potential impacts to Bebb’s sedge (<i>Carex bebbii</i>) during Project design. Bebb’s sedge can grow only in wetland habitats, and impacts to wetlands were avoided where possible.</li> </ul> </li> <li>• Woodland Habitat: To mitigate the loss of trees as a result of Project construction, NICTD would continue to coordinate with INDNR regarding the appropriate mitigation for tree replacement. NICTD would comply with INDNR’s tree-replacement guidelines.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• Construction impacts include removal of woodland habitat and suitable habitat for state-listed plant species, but are not anticipated to affect the northern leopard frog, Blanding’s turtle, or state-listed plant species. No mitigation is proposed.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Hazardous Materials</b> Section 5.9	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>• Operation of the MSF would result in additional storage and generation of regulated wastes including oils, greases, solvents, and other waste materials.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>• Construction would potentially disturb five areas of concern: three with identified contamination and two that would be investigated prior to property acquisition and construction since access to properties has not been granted.</li> <li>• The Project would require ground disturbance for bridge piers (elevated track), stations, facilities, utility relocation, and other construction-related activities.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>• NICTD's safety plan would establish procedures and staff training for proper use, storage, and maintenance of equipment and disposal of regulated materials.</li> <li>• All regulated materials generated as part of maintenance would be disposed of in accordance with state and local guidelines.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>• To address contamination identified in the Phase II Environmental Site Assessment (ESA) at Areas of Concern (AOCs) 2, 3, and 4, a <i>Contaminated Media Management Plan</i> and <i>Health and Safety Plan</i> would be prepared by NICTD and would include special provisions beyond normal construction recommendations. These provisions may include detailed handling and disposal requirements and additional safety measures to limit worker exposure to contaminated media.</li> <li>• NICTD would provide additional coordination of construction activity and mitigation measures at AOC 2 (Northern Indian Public Service Company [NIPSCO] Corporation manufactured gas plant site) since the property is undergoing active remediation with engineering controls in place.</li> <li>• Disturbance of the protective cap installed by USEPA, located within the Grand Calumet River and along the northern side of AOC 2, would be avoided during construction and operation by NICTD.</li> <li>• Prior to property acquisition and construction, NICTD would provide subsurface investigation of AOC 1 and 5 after site access is granted. These sites would be evaluated relative to the original work plan submitted for the Phase II ESA for the Project. Any remediation and construction safety measures needed following the investigation would be incorporated with the construction plans.</li> <li>• If inactive water wells, underground storage tanks, or hazardous materials/wastes are encountered during Project planning or construction, Project construction would cease and they would be properly closed and removed in accordance with state and local requirements.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Utilities</b> Section 5.10	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>No substantial impacts on utilities are expected.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>Construction would result in intermittent impacts on utility service to facilitate utility relocations. Temporary connections would be provided to customers before permanent relocation activities. Utility owners would ultimately decide when and whether disruptions to service would be necessary.</li> <li>Utility locations that are uncertain or misidentified may be unintentionally damaged during construction. The large number of utilities present in the Project Area increases the likelihood of encountering previously unidentified utilities. Coordination with utility providers would be conducted during the engineering and construction phases to determine accurate locations of utilities within the construction footprint.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>NICTD would coordinate with public and private utility owners to identify utility facilities that would conflict with the Project and to develop conceptual plans and cost estimates for the expected relocation, replacement, or protection of such utilities.</li> <li>Where the Project would conflict with overhead power lines, the lines would be raised by the utility owner to ensure vertical clearance from the track.</li> <li>Ongoing coordination would continue as the engineering phase progresses to identify additional conflicts and minimize service disruptions, in coordination with utility owners and appropriate local agencies.</li> <li>Existing utilities would be surveyed during the engineering phase and efforts would be made to avoid or limit conflicts with existing utilities when practical. Where the Project may conflict with existing utilities, the utilities would be protected in place, relocated, replaced, or abandoned (if possible) in consultation with the utility owner.</li> <li>Where relocation would be required, efforts would be made to consolidate existing utilities where practical as permitted by the utility owners.</li> <li>To the extent possible, NICTD would minimize utility service outages and schedule them with the utility owner and customers such that they would present the least inconvenience. Special measures may be incorporated to ensure continuous service to life safety functions such as hospitals, fire protection, emergency response, and other facilities providing critical support such as private medical offices/care facilities</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>Prior to any construction, NICTD would use the Indiana utility-locating service (811now.com) to identify and mark underground utilities within the Project footprint.</li> <li>NICTD would continue to coordinate with utility companies and customers throughout the Project to minimize temporary</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures
	<p>effects during construction.</p> <ul style="list-style-type: none"><li>• Planned service interruptions would be limited in duration and geographic area. NICTD would provide those affected with advance notification.</li><li>• NICTD would develop a Project construction, education, and outreach plan that would identify how NICTD would educate the public and stakeholders about ongoing and upcoming construction and construction impacts.</li></ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<p><b>Secondary and Cumulative Effects</b> <i>Section 6.4</i></p>	<p>Operating Phase (Long-term) Direct Impacts</p>	<ul style="list-style-type: none"> <li>• Continued development and enhancement of the existing transportation network in the Project Area, combined with reasonably foreseeable future actions (non-transportation growth and development) and the direct and secondary effects of the Project, would increase demand for transportation as a whole.</li> <li>• Continued development of transit and transportation facilities in the Project Area over time, combined with future actions and the Project's direct and secondary impacts, could result in land use changes and a redistribution of development or redevelopment in the cumulative effects Project Area.</li> <li>• Development of transportation infrastructure in the Project Area, including the Chicago Street Improvement Project (City of Hammond 2016), combined with the direct and secondary effects of the Project, could result in acquisitions and displacements of residents and/or businesses.</li> <li>• New employment centers, along with greater access to jobs provided by the Project, would provide a beneficial cumulative effect on individual and regional business economic stability.</li> <li>• Growth and redevelopment by others and the catalytic effect of the Project could result in neighborhood change over the long term, which would be beneficial to some and burdensome for others.</li> <li>• TOD around stations would add a new mixed-use visual element to the suburban-style visual character of existing residential areas.</li> <li>• Planned transportation improvements and residential and commercial development adjacent to the Project alignment would put more transit riders, pedestrians, and bicyclists in proximity to transit vehicles, tracks, crossings, and freight rail, potentially creating safety conflicts. This condition could place a cumulative demand on security providers and/or require changes in current patrol routes, schedules, and equipment needs.</li> <li>• As planned projects proceed throughout the Project Area, including transportation and non-transportation projects, EJ populations could experience beneficial as well as negative effects such as changes in property values, more housing choices, loss of housing, new business opportunities, displacement of businesses, and increased access to transportation and jobs.</li> <li>• If construction of multiple reasonably foreseeable projects occurred simultaneously, noise levels would likely be temporarily increased.</li> <li>• Reasonably foreseeable projects including the Project would temporarily disturb soils during construction.</li> <li>• Reasonably foreseeable projects could further affect surface waters where crossings or adjacent activities are planned and would decrease the total area of surface waters.</li> <li>• Reasonably foreseeable land development and transportation projects could further affect natural areas and habitat for common and threatened and endangered species and state-protected species through proximity or direct land alteration.</li> <li>• Many of the reasonably foreseeable projects would involve excavation as part of the construction. These projects,</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
		<p>combined with the Project, could encounter and be negatively affected by contaminated sites and hazardous materials during construction, particularly during the excavation process.</p> <ul style="list-style-type: none"> <li>Induced development could likely result in more demand for electricity compared with the demand from existing land uses, more sewer capacity to accommodate potentially higher water use rates, and increases in the amounts of other utility services required in the Project Area.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>NICTD and the City of Hammond would coordinate to assess and address the potential cumulative effects of the Project and the Chicago Street Improvement Project on the north Hammond residential area.</li> <li>NICTD would make every reasonable effort to coordinate with other project sponsors on new or ongoing projects in our near the Project area to avoid or minimize and mitigate the Project's role in potentially causing cumulative effects in affected communities.</li> <li>To ensure that noise levels at sensitive receptors are not adversely increased, construction of the Project would be coordinated with nearby projects.</li> </ul>



Topic	Summary of Effects, Commitments, and Mitigation Measures	
<b>Section 4(f) Resources</b> <i>Chapter 7</i>	Operating Phase (Long-term) Direct Impacts	<ul style="list-style-type: none"> <li>The Project would have a <i>de minimis</i> impact on the Pennsy Greenway and Path. The finding of de minimis impact includes temporary closure of the corridor and path during Project construction.</li> <li>The Project would permanently incorporate the OK Champion Building into a transportation facility and would permanently remove the historic OK Champion Building.</li> </ul>
	Construction Phase (Short-term) Impacts	<ul style="list-style-type: none"> <li>Temporary closure of the crossing within the Pennsy Greenway ROW while the underpass or culvert and guideway are constructed and temporary closure of the Pennsy Path while the railroad-highway grade crossing is constructed.</li> </ul>
	Commitments and Mitigation Measures	<p><b>Operating Phase (Long-term):</b></p> <ul style="list-style-type: none"> <li>The loss of the OK Champion Building would be documented, and an appropriate display or interpretive material depicting the OK Champion Building would be prepared. In addition, a nomination to the National Register of Historic Places would be prepared for the P.H. Mueller Sons Hardware Building.</li> </ul> <p><b>Construction Phase (Short-term):</b></p> <ul style="list-style-type: none"> <li>The Pennsy Greenway and Path would be treated in a manner that continues their availability for public use after interruptions attributable to construction.</li> </ul>
<b>Section 6(f) Resources</b> <i>Chapter 8</i>	Operating Phase (Long-Term) Direct Impacts	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
	Operating Phase (Long-Term) Indirect Impacts	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
	Construction Phase (Short-Term) Impacts	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
	Commitments and Mitigation Measures	<ul style="list-style-type: none"> <li>None identified.</li> </ul>

Source: HDR 2017a.

<sup>a</sup> *Full 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.



## S.12 How Have the Public and Local Agencies Been Engaged in the Project?

The *Public and Agency Coordination Plan* was re-evaluated after publication of the DEIS. Based on comments and as part of the process to finalize the EIS, two new documents were developed: a *Public Involvement Plan* (**Appendix D**) and a *Social Media Protocol and Strategy Plan* (**Appendix D**).

To meet the goals of public involvement for completing the FEIS, several outreach tools were used to communicate with the public and agencies. For the completion of the FEIS/ROD, NICTD continued using a Project website and database, written materials, and email as a means to communicate with the public and agencies as described in the DEIS, Section 9.2.4, but also focused on in-person and online engagement and outreach.

To enhance outreach for the remainder of the EIS process, NICTD developed and distributed two newsletters, a fact sheet, the project schedule, three press releases, legal notifications, several maps, station concept plans, and project images; began using social media (<https://www.facebook.com/WestLakeCorridorProject>); released an enhanced version of the Project website (<http://www.nictdwestlake.com>); used a dedicated Project telephone hotline [(219) 250-2920]; used a dedicated email address ([project.email@nictdwestlake.com](mailto:project.email@nictdwestlake.com)) to record stakeholder comments; and increased the use and scope of in-person engagement. These tools and related materials are provided in **Appendix D**.

The Draft EIS 45-day comment period began on December 16, 2016, when notice of the availability of the document was published, and ended on February 3, 2017. Within the comment period, FTA and NICTD received 1,443 comments from agencies, Project stakeholders, and the general public on the DEIS from 464 distinct commenters.

**Table S.12-1** identifies the 31 general comment topics and the number of comments that were captured per category. The following topic areas received the most comments: general support (15 percent of comments received), general opposition (10 percent), roadway connectivity to subdivisions (9 percent), and automobile traffic (8 percent).

Other comments included concerns about funding/taxes/referendum, property relocation, noise and vibration, and alternatives. There were 80 requests for additional information. Comments were also submitted regarding cultural resources, Section 6(f) resources, recreational/Section 4(f) resources, EJ, and ADA compliance.



**Table S.12-1: Summary of Comments by General Topic**

Topic	Frequency	Topic	Frequency
Support	15%	Property Values	2%
Oppose	10%	Purpose and Need	2%
Roadway Connectivity to Subdivisions	9%	Water Resources	2%
Automobile Traffic	8%	Air Quality	1%
Alternatives	7%	Cultural/Section 6(f)/ Section 106 Resources	1%
Noise/Vibration	5%		
Other	5%	Freight Traffic	1%
Property Acquisitions	5%	Hazardous Materials	1%
Funding/Taxes/Referendum	4%	Recreational/Section 4(f) Resources	1%
Public Involvement/NEPA Process	4%	Roadway	1%
Safety and Security	4%	Socioeconomics	1%
Bicycle/Pedestrian	3%	Americans with Disabilities Act (ADA)	<1%
Neighborhoods/Quality of Life	3%	Environmental Justice	<1%
Transit-oriented Development	3%	None	<1%
Aesthetics/Visual	2%	South Shore Line	<1%
General Environmental/Ecological Resources	2%	Utilities	<1%

Source: HDR 2017a.

All comments received on the DEIS have been documented, and substantive comments responded to in the FEIS. NICTD received a total of 464 communications in the form of letters, website comments, emails, phone calls, public testimony at the public hearings (court reporter), and comment cards during the 45-day DEIS comment period. Many of the communications contained multiple comments. Many comments were very similar, and master responses to these comments were prepared. Where comments included more-specific and detailed questions, detailed responses were drafted by FTA and NICTD. As shown in **Table S.12-1**, 1,443 comments were extracted from the 464 communications. **Appendix H** contains all comments received on the West Lake Corridor Project DEIS and corresponding responses.



### **S.13 Where Can I Read the FEIS/ROD?**

The FEIS/ROD and supporting documentation are available on the NICTD's website at [www.nictdwestlake.com](http://www.nictdwestlake.com). A printed copy of the FEIS/ROD and supporting documents are available for review during regular business hours at NICTD's Office (33 East US Highway 12, Chesterton, IN 46304). Printed copies and/or electronic copies are also available at city halls and libraries in Dyer, Munster, and Hammond. A notice will be sent to persons, organizations, and agencies that made substantive comments to direct them to the Project website and locations where the FEIS/ROD is available for review. CDs will be sent to interested businesses, individuals, and organizations when requested.

For additional information about the FEIS/ROD or to request a copy, contact:

Michael Noland  
General Manager  
Northern Indiana Commuter Transportation District  
33 East US Highway 12  
Chesterton, IN 46304  
Email: [project.email@nictdwestlake.com](mailto:project.email@nictdwestlake.com)

*or*

Marisol Simón  
Regional Administrator  
Federal Transit Administration  
200 West Adams Street, Suite 320  
Chicago, IL 60606

### **S.14 What Are the Next Steps?**

The DEIS was circulated for public and agency comment over a 45-day review period. During that time, three public hearings were held to present the results of the DEIS and formally record all substantive comments received. In order to complete the environmental review process, this combined FEIS/ROD responds to substantive comments received on the DEIS and states the proposed action, environmental findings, and mitigation requirements. Detailed design and engineering began in late 2017, and construction is expected to take place from late 2019 to 2022. Opening-day service is anticipated in mid-2022.