Chapter 10
Evaluation of Alternatives

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10 Evaluation of Alternatives

10.1 Introduction

Chapter 10 evaluates the effectiveness of the No Build Alternative and FEIS Preferred Alternative for the Project 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**. This evaluation provides a basis for decision-makers and the public to assess the benefits and consequences of implementing the Project.

Changes to This Chapter since Publication of the DEIS

The evaluation in this chapter differs from the evaluation in Chapter 10 of the DEIS in that this evaluation focused on the ability of the No Build Alternative and FEIS Preferred Alternative to meet the purpose of and need for the Project. This chapter summarizes the other Build Alternatives' attainment of broader goals and objectives and cost-effectiveness, as was included in the DEIS. These considerations were primarily used and presented in the DEIS to support the identification of the DEIS NEPA Preferred Alternative and to compare the DEIS NEPA Preferred Alternative with other alternatives being evaluated.

- **Section 10.2** discusses the effectiveness with which the No Build Alternative and the FEIS Preferred Alternative would address the needs and achieve the intended purpose of the Project.
- **Section 10.3** discusses the assessment of findings for the DEIS NEPA Preferred Alternative and other Build Alternatives, compared with the No Build Alternative as presented in the DEIS. The findings in this assessment consider agency and public input described in the DEIS.
- **Section 10.4** describes the basis for identifying the FEIS Preferred Alternative.
- **Section 10.5** discusses the alternative or alternatives that were considered to be environmentally preferable.

Table 10.1-1 compares the effects of all of the alternatives. For reference, engineering drawings for the FEIS Preferred Alternative are included in **Appendix E**. **Section 2.4** lists the alternatives considered and the design refinements included in the FEIS Preferred Alternative.

Table 10.1-1: Summary of Evaluation for No Build and Build Alternatives

Category	Alternative	Summary of Transportation Effects
Effectiveness in Meeting the Purpose and Need		
Increase Transportation Options for Accessing Downtown Chicago	No Build	The No Build Alternative would not add commuter rail or other high-capacity transit service to the Project Area and thus would not meet the purpose of and need for the Project.
	FEIS Preferred Alt.	The Project would introduce new commuter rail service to high-growth areas in central, southern, and western Lake County, Indiana, meeting the purpose and need of enhancing the Project Area's access to downtown Chicago. The Project would connect communities throughout the Project Area with employment and activity centers in downtown Chicago. The Project, including its new station parking lots and station access for pedestrian and bicycle traffic, would substantially improve both access and mobility to Chicago's centralized jobs, educational institutions, and activity centers. Further, the Project would provide an additional transportation option that would be more convenient for residents in the Project Area traveling to downtown Chicago.
	DEIS NEPA Preferred Alt., CR Alt. Opt. 1–4, IHB Alt. Opt. 1–4, and Hamm. Alt. Opt. 1 and 3	The Build Alternatives considered in the DEIS have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have a similar performance in meeting the Project's purpose and need to increase transportation options for accessing downtown Chicago, the same as the FEIS Preferred Alternative.
Reduce Travel Time to Downtown Chicago	No Build	The No Build Alternative would not introduce a new travel option that reduces travel time to downtown Chicago and, thus, it would not meet the purpose of and need for the Project.
	FEIS Preferred Alt.	The Project would introduce a new commuter rail line in the Project Area that would reduce transit travel times, improve transit reliability, increase the overall transit demand, and increase transit's mode share.
	DEIS NEPA Preferred Alt., CR Alt. Opt. 1–4, IHB Alt. Opt. 1–4, and Hamm. Alt. Opt 1 and 3	The Build Alternatives considered in the DEIS have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to reduce travel time to downtown Chicago, the same as the FEIS Preferred Alternative.

Category	Alternative	Summary of Transportation Effects
Reduce Parking Burden at Existing Transit Stations	No Build	The No Build Alternative would not introduce any new commuter rail stations with "Park-and-Ride" lots in the Project Area. Without additional "Park-and-Ride" capacity, the existing commuter rail stations would continue to be at or over capacity. Therefore, the No Build Alternative would not meet the purpose of and need for the Project.
	FEIS Preferred Alt.	The Project would introduce new commuter rail stations with "Park-and-Ride" lots in the Project Area, thereby maximizing the return on investment by reducing parking burdens at existing commuter rail stations. The FEIS Preferred Alternative would meet the purpose of and need for the Project.
	DEIS NEPA Preferred Alt., CR Alt. Opt. 1–4, IHB Alt. Opt. 1–4, and Hamm. Alt. Opt. 1 and 3	The Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to reduce the parking burden at existing transit stations, the same as the FEIS Preferred Alternative.
Reduce Travel Costs	No Build	The No Build Alternative would not introduce new commuter rail service that could lower the travel costs between the Project Area and downtown Chicago. Thus, the No Build Alternative would not meet the purpose of and need for the Project.
	FEIS Preferred Alt.	The Project would provide reasonably priced commuter rail service to downtown Chicago, especially compared with driving. It would also minimize costs to access and use local commuter rail stations while taking advantage of comparatively lower area housing costs in Lake County, Indiana. Therefore, the FEIS Preferred Alternative would meet the purpose of and need for the Project.
	DEIS NEPA Preferred Alt., CR Alt. Opt. 1–4, IHB Alt. Opt. 1–4, and Hamm. Alt. Opt. 1 and 3	The Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to reduce travel costs, the same as the FEIS Preferred Alternative.

Category	Alternative	Summary of Transportation Effects
Promote Economic Development	No Build	The No Build Alternative would not introduce new commuter rail stations around which RDA, NIRPC, and Project Area communities seek to develop new transit-oriented, mixed-use development and redevelopment. Given the lack of new commuter rail stations in the Project Area, the No Build Alternative would not meet the purpose of and need for the Project.
	FEIS Preferred Alt.	The Project would introduce new commuter rail stations around which RDA, NIRPC, and Project Area communities seek to develop new transit-oriented, mixed-use development and redevelopment. Therefore, the FEIS Preferred Alternative would meet the purpose of and need for the Project.
	DEIS NEPA Preferred Alt., CR Alt. Opt. 1–4, IHB Alt. Opt. 1–4, and Hamm. Alt. Opt. 1 and 3	The Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to promote economic development, the same as the FEIS Preferred Alternative.
Assessment of Findings[a]		
Ratings	No Build	9 Good, 4 Poor, and 6 Not Applicable
	FEIS Preferred Alt.	16 Good, 2 Fair, and 1 Poor
	DEIS NEPA Preferred Alt.	14 Good, 3 Fair, and 2 Poor
	CR Alt. Opt. 1	5 Good, 9 Fair, and 5 Poor
	CR Alt. Opt. 2	6 Good, 9 Fair, and 4 Poor
	CR Alt. Opt. 3	6 Good, 7 Fair, and 6 Poor
	CR Alt. Opt. 4	9 Good, 6 Fair, and 4 Poor
	IHB Alt. Opt. 1	3 Good, 8 Fair, and 8 Poor
	IHB Alt. Opt. 2	5 Good, 8 Fair, and 6 Poor
	IHB Alt. Opt. 3	5 Good, 6 Fair, and 8 Poor
	IHB Alt. Opt. 4	6 Good, 6 Fair, and 7 Poor
	Hamm. Alt. Opt. 1	12 Good, 4 Fair, and 3 Poor
	Hamm. Alt. Opt. 3	13 Good, 3 Fair, and 3 Poor

Sources: NICTD 2016; HDR 2017.

Shaded areas indicate alternatives evaluated in the DEIS.

[a] See Section 10.3 for an explanation of the ratings.

10.2 Effectiveness in Meeting the Purpose and Need

As presented in **Chapter 1**, the Project is intended to increase transportation options for central and southern Lake County residents traveling to downtown Chicago, reduce travel time and travel costs, and promote economic development opportunities in Lake County. The following sections discuss the effectiveness with which the No Build Alternative and the FEIS Preferred Alternative would address the needs and achieve the intended purpose of the Project, which is as follows:

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

10.2.1 Increase Transportation Options for Accessing Downtown Chicago

As described in detail in **Chapter 1**, Project Area residents seeking access to Chicago jobs are limited to travel by automobile, or by automobile to MED and SSL commuter rail services. Forecasted Project Area population growth will exert increasing demands on regional roadways, Metra, and the SSL, which already operate at or near capacity (Policy Analytics, LLC 2014). Thus, the Project purpose to increase transportation options is supported by the lack of direct transit service to downtown Chicago from the high-growth parts of the Project Area.

Since the decline in Rust Belt industries, northwest Indiana has become an exporter of workers. A lower cost of living in the Indiana portion of the region attracts many families who have jobs in Chicago but want more affordable housing. At the same time, Indiana residents want access to the higher-paying jobs in downtown Chicago (Policy Analytics, LLC 2014).

10.2.1.1 No Build Alternative

The No Build Alternative would not add commuter rail or other high-capacity transit service to the Project Area and thus would not meet the purpose of and need for the Project. With the No Build Alternative, no substantial increase in either the quantity or quality of transit service between the Project Area and downtown Chicago would occur. Therefore, transit access to the higher-paying jobs in Chicago would not substantially increase.

10.2.1.2 FEIS Preferred Alternative

The Project would introduce new commuter rail service to high-growth areas in central, southern, and western Lake County, meeting the purpose of and need for enhancing the Project Area's access to downtown Chicago. The Project would connect communities throughout the Project Area with employment and activity centers in downtown Chicago. The Project, including its new station parking lots and station access for pedestrians and bicyclists, would substantially improve both access and mobility to Chicago's centralized jobs, educational institutions, and activity centers. Further, the Project would provide an additional transportation option that would be more convenient for residents in the Project Area traveling to downtown Chicago. The Project would expand NICTD service coverage in underserved areas of northwest Indiana and increase NICTD ridership.

10.2.1.3 Other Build Alternatives Considered

The other Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU rail cars) and, therefore, would have similar performance in meeting the Project's purpose and need to increase transportation options for accessing downtown Chicago.

10.2.2 Reduce Travel Time to Downtown Chicago

The purpose of reducing travel time for Project Area residents is supported by the need to provide service with travel times that are competitive with automobile travel times on the ever-increasing congested roadway system connecting northwest Indiana to downtown Chicago. In addition, the purpose would be met by reducing travel time to commuter rail stations and parking facilities with available capacity.

Under current conditions, travelers from the Project Area destined for downtown Chicago travel by automobile either directly to downtown Chicago or to an existing commuter rail station, either Metra or SSL. Travel time for transit users is a combination of time spent in an automobile and on a transit vehicle. Travelers in automobiles use the existing regional roadway network, and many of these roadways experience congestion during peak travel periods, yielding slow travel speeds and extra travel time compared with nonpeak travel periods.

As population continues to grow, VMT is projected to increase as well. It is also noteworthy that VMT is projected to grow faster than the population. VMT is projected to increase by 37 percent between 2012 and 2040, while population is expected to grow by 22 percent (NIRPC 2014).

Taken together, there is a need to overcome the increasing unpredictability of automobile commuting time and to reduce the automobile component of transit travel time in the Project Area. Further, an alternative to driving is needed to increase the region's commuter capacity and to reduce congestion on roads and highways leading to and from downtown Chicago.

10.2.2.1 No Build Alternative

The No Build Alternative would not introduce a new travel option that reduces travel time to downtown Chicago and, thus, it would not meet the purpose of and need for the Project. First, the No Build Alternative would not introduce a new commuter rail line into the Project Area, and thus transit travel times from the Project Area to downtown Chicago would not become more competitive.

Second, automobile travel in the Project Area with the No Build Alternative would continue to use local roads and regional highways that will become increasingly congested. Congested roads and intersections will result in longer delays for automobile travel to existing commuter rail stations. Compared with today, transit travel times to downtown Chicago with the No Build Alternative would tend to increase and transit reliability would tend to decrease. Most importantly, transit service in the Project Area would tend to have no, or reduced, competitive advantages in travel time or reliability relative to automobiles alone. As traffic volumes exceed the capacity of roads and intersections in the Project Area, travel times will increase. Longer traffic delays and reduced transit service reliability would be detrimental to the quality of life of residents and employees in the Project Area.

10.2.2.2 FEIS Preferred Alternative

The Project would introduce a new commuter rail line in the Project Area that would reduce transit travel times, improve transit reliability, increase the overall transit demand, and increase transit's mode share. That is, the new commuter rail transit service introduced by the Project would provide a competitive and reliable transit option that maximizes total transit riders. The Project is projected to have average weekday boardings of 3,750 in 2037. Average weekday boardings on the SSL, including the West Lake Corridor Project and DT-NWI Project, are expected to increase from 12,050 in 2015 to 26,900 in 2037. When compared with the No-Build scenario, which includes the DT-NWI Project but not the West Lake Corridor Project, the SSL with the West Lake Corridor Project is expected to have an additional 6,300 weekday passenger trips in 2037. These additional 6,300 weekday boardings are directly attributable to the improved travel time in the Project Area. Taken together, these measures demonstrate that the Project would meet the purpose of and need for reliable transit travel times between the Project Area and downtown Chicago.

Further, transit travel times for commuter trips in both directions on the new commuter rail service are projected to be substantially reduced compared with existing and 2040 travel times with the No Build Alternative. Travel time by automobile would be 86 minutes from Munster/Dyer Main Street Station to Millennium Station. For the No Build Alternative—which combines driving by automobile from Munster/Dyer Main Street Station to the existing Hammond Station and then boarding the existing SSL to Millennium Station—the travel time would be 67 minutes, a 19-minute savings over driving. The Project's travel time would be 47 minutes from Munster/Dyer Main Street Station to Millennium Station, saving 39 minutes over driving and 20 minutes over the No Build Alternative. In addition, those commuter transit travel times would be much more reliable because the new commuter rail service would not operate on congested roads, and it would be less likely to be impeded by adverse weather affecting roads. Those improvements in transit travel times and reliability would substantially improve mobility for commuter trips.

10.2.2.3 Other Build Alternatives Considered

The other Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need for reduced travel time to downtown Chicago.

10.2.3 Reduce the Parking Burden at Existing Transit Stations

Limited transit options for Project Area residents are causing the nearest existing transit stations to experience parking conditions at or near capacity. Considering that 90 percent of SSL riders use a "Park-and-Ride" to access stations, Project Area riders would be affected by constrained parking at existing SSL stations and would benefit from facilities in their home communities.

10.2.3.1 No Build Alternative

The No Build Alternative would not introduce any new commuter rail stations with "Park-and-Ride" lots in the Project Area; however, an additional 142 parking spaces would be added to the existing lot at Hammond Station. The additional spaces would provide relief only in the short term. The existing commuter rail stations will continue to be at or over capacity. Therefore, the No Build Alternative would not meet the purpose of and need for the Project.

10.2.3.2 FEIS Preferred Alternative

The Project would introduce four new commuter rail stations with "Park-and-Ride" lots in the Project Area, thereby maximizing the return on investment by reducing parking burdens at existing commuter rail stations. In addition, the Project would provide easily accessible stations in the Project Area that support multiple modes of travel including automobile users at the parking lots, drop-off passengers at the "Kiss-and-Ride" locations, bicyclists, and pedestrians. With the new commuter rail stations and additional "Park-and-Ride" capacity in the Project Area, the FEIS Preferred Alternative would meet the purpose of and need for the Project.

10.2.3.3 Other Build Alternatives Considered

The other Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to reduce the parking burden at existing transit stations.

10.2.4 Reduce Travel Costs

The Project purpose of reducing the cost of travel to downtown Chicago is supported by the need to offer alternatives to the high cost of driving to downtown Chicago. This need is primarily driven by the cost to park in downtown Chicago. The North America Central Business District Parking Rate Survey found that median monthly rates in downtown Chicago averaged $289, well above the national average of $165 for central business districts (Collier's International 2012).

In a study of working family spending patterns for 27 metropolitan areas, costs associated with transportation represented 29 percent of incomes, about the same as housing costs overall. The research also found that families tend to trade off lower housing costs (e.g., Lake County, Indiana) for higher transportation costs (Center for Housing Policy 2006). Providing transit alternatives in the Project Area at a lower cost would minimize the burden of being farther away from jobs, while still allowing Project Area residents to take advantage of comparatively lower area housing costs.

10.2.4.1 No Build Alternative

The No Build Alternative would not introduce new commuter rail service that could lower the travel costs between the Project Area and downtown Chicago. Thus, the No Build Alternative would not meet the purpose of and need for the Project.

10.2.4.2 FEIS Preferred Alternative

The Project would provide reasonably priced commuter rail service to downtown Chicago, especially compared with driving. It would also minimize costs to access and use local commuter rail stations while taking advantage of comparatively lower area housing costs in Lake County, Indiana. Therefore, the FEIS Preferred Alternative would meet the purpose of and need for the Project.

10.2.4.3 Other Build Alternatives Considered

The other Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit

technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to reduce travel costs.

10.2.5 Promote Economic Development

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. Additionally, current planning documents incorporate a long-term vision for the growth of businesses and jobs in the Project Area. Previously completed studies emphasized the addition of new transit service as a critical means for achieving this vision, citing transit-oriented, mixed-use redevelopment, town center plans, walkable communities, and the attraction of young families and workers as specific goals. The advancement of a commuter rail project consistent with these visions and planning is a common thread uniting entities responsible for making land use decisions and promoting economic development in the Project Area. The purpose of promoting economic development is supported by the recognition of entities responsible for land use decisions to view the Project as a catalyst for development.

In addition to recognizing the economic benefits of improved transit service to Chicago, the long-term vision of the RDA, NIRPC, and communities in the Project Area includes developing and sustaining a reverse commute travel pattern. This is a vision in which transit users from other locations would come to central, southern, and western Lake County when the demand for access to local employment and other destinations in the region matures.

10.2.5.1 No Build Alternative

The No Build Alternative would not introduce new commuter rail stations around which RDA, NIRPC, and Project Area communities could seek to develop new transit-oriented, mixed-use development and redevelopment. Given the lack of new commuter rail stations in the Project Area, the No Build Alternative would not meet the purpose of and need for the Project.

10.2.5.2 FEIS Preferred Alternative

The Project would introduce new commuter rail stations around which RDA, NIRPC, and Project Area communities could seek to develop new transit-oriented, mixed-use development and redevelopment. Therefore, the FEIS Preferred Alternative would meet the purpose of and need for the Project.

These new commuter rail stations would complement regional and local plans for economic development and encourage transit-supportive land use patterns. The Project would minimize outmigration of existing residents by improving links to downtown Chicago jobs while encouraging mixed-use, mixed-income development in northwest Indiana. It would also create northwest Indiana jobs through the construction and operation of the Project and would stimulate job-based development in station areas.

10.2.5.3 Other Build Alternatives Considered

The other Build Alternatives considered in the DEIS would have similar alignments in many locations and would serve essentially the same travel markets using the same transit technology (EMU) and, therefore, would have similar performance in meeting the Project's purpose and need to promote economic development.

10.3 Assessment of Findings for Other Build Alternatives and Selection of the DEIS NEPA Preferred Alternative

This section discusses the assessment of findings of the DEIS NEPA Preferred Alternative and other Build Alternatives, compared with the No Build Alternative, as presented in the DEIS (see **Table 10.3-1**). The findings in this assessment consider agency and public input described in the DEIS.

Ratings to assess how well each of the other Build Alternatives performed compared with each other and the No Build Alternative were based on the following rating system:

- **Good**: Good performance and/or minor negative impacts (open circle in **Table 10.3-1**)
- **Fair**: Fair performance and/or moderate negative impacts (half-filled circle in **Table 10.3-1**)
- **Poor**: Poor performance and/or severe negative impacts (filled circle in **Table 10.3-1**)

The three ratings were assigned using the quantitative and qualitative performance results and professional transportation planning judgment. For example, the Build Alternative option with the least negative impacts within a factor was assigned the highest, “Good,” rating, while the Build Alternative option with the most negative impacts was assigned the lowest, “Poor” rating. Build Alternative options that performed neither “Good” nor “Poor” received a “Fair” rating. Ratings were not weighted based on the nature of the factor. It was understood that a “Good” performer for wetlands impacts, for example, may still warrant further evaluation as the Project advanced.

Identifying the DEIS NEPA Preferred Alternative involved consideration of the factors discussed in the DEIS and summarized in Chapter 10 of the DEIS, including the ability to achieve the Project purpose and need, responsiveness to Project goals and objectives, performance ratings for engineering factors, transportation and environmental consequences, and public and agency input. Since the No Build Alternative would fail to achieve the Project purpose and need and is ineffective at responding to the Project goals and objectives, only one of the Build Alternatives could be considered the DEIS NEPA Preferred Alternative.

Because the DEIS Build Alternatives would all perform similarly in achieving the Project purpose and need and in meeting Project goals and objectives, other factors became important to select the DEIS NEPA Preferred Alternative. The engineering, transportation, and environmental ratings indicated variable performance among the alternatives depending on the factor considered. Factors of particular importance to NICTD included freight railroad impacts, operational perspectives, and community preferences. combination of these factors pointed to Hammond Alternative Option 2 as the best performer. Hammond Alternative Option 2 would have the least potential impact on area freight railroads, a critical factor in the decision-making process. Additionally, the Town of Munster and City of Hammond preferred Hammond Alternative Option 2.

These factors led FTA and NICTD to propose Hammond Alternative Option 2 as the DEIS NEPA Preferred Alternative because it would meet the Project’s purpose and need and performed best among the DEIS Build Alternatives when considering the other factors of importance. In considering the tradeoffs between benefits and effects, the DEIS NEPA Preferred Alternative would cause the least damage to the biological and physical environment while best protecting, preserving, and enhancing cultural, historic, and natural resources. **Table 10.3-1** has been updated to include the FEIS Preferred Alternative ratings.

Table 10.3-1: Performance Ratings of All Alternatives Considered

Factor	No Build Alternative	FEIS Preferred Alternative	DEIS NEPA Preferred Alternative	Commuter Rail Alternative Options				IHB Alternative Options				Hammond Alternative Options	
				1	2	3	4	1	2	3	4	1	3
Avoids Connecting to the SSL in Illinois	○	○	○	●	●	●	●	●	●	●	●	○	○
Provides Peak Period Service	●	○	○	○	○	○	○	○	○	○	○	○	○
Provides Off-Peak and Weekend Services	●	○	○	●	●	●	●	●	●	●	●	○	○
Minimizes Added Track	○	○	○	◒	◒	◒	◒	●	●	●	●	○	○
Enables Co-Aligned Hammond Gateway Station	●	○	○	●	●	●	●	●	●	●	●	○	○
Eliminates New Crossing in Munster	○	○	○	○	○	○	○	○	○	○	●	○	●
Freight Railroad Impacts	N/A	○	○	◒	◒	◒	◒	●	●	●	●	○	○
Hammond-Preferred "Gateway" Alignment	N/A	○	○	◒	◒	◒	◒	◒	◒	◒	◒	○	○
Hammond-Preferred Maintenance Facility Location	N/A	○	○	◒	◒	○	◒	◒	◒	○	◒	○	○
Munster-Preferred East-Side Alignment with Parking West of CSX Freight Line ROW at Munster/Dyer Main Street Station	N/A	○	○	◒	○	◒	○	◒	○	◒	○	◒	◒
Enables Main Street Crossing of the CSX Freight Line	●	○	○	●	○	●	○	●	○	●	○	●	○
Forecast Average Weekday Boardings	N/A	○	○	○	○	○	○	◒	◒	◒	◒	○	○
Travel Time (Minutes from Munster/Dyer Main Street Station to Millennium)	N/A	○	○	○	○	○	○	○	○	○	○	○	○
Residences - Partial Acquisitions	○	○	●	◒	◒	○	○	◒	◒	○	○	●	●
Commercial - Partial Acquisitions	○	◒	◒	◒	◒	◒	○	◒	◒	◒	○	◒	○
Residences - Full Acquisitions	○	●	●	◒	◒	●	◒	●	◒	●	◒	●	●
Commercial - Full Acquisitions	○	◒	◒	●	●	●	●	◒	◒	◒	◒	◒	◒
Wetlands Impacts (Acreage)	○	○	○	○	◒	◒	○	●	●	●	●	○	○
Floodplain Impacts (Acreage)	○	○	◒	◒	◒	◒	◒	◒	◒	◒	◒	◒	◒

Note: ○ Good: Good performance and/or minor negative impacts
◒ Fair: Fair performance and/or moderate negative impacts
● Poor: Poor performance and/or severe negative impacts

Sources: NICTD 2016; HDR 2017a.

10.4 FEIS Preferred Alternative

Based on comments received on the DEIS, design changes and other adjustments to the DEIS NEPA Preferred Alternative were made to accommodate local goals and objectives, improve the Project's performance, and avoid or minimize adverse environmental impacts. **Section 2.4** provides a list of the alternatives considered and the design refinements included in the FEIS Preferred Alternative.

10.5 Environmentally Preferable Alternative

NEPA requires that, in cases where an EIS has been prepared, the ROD must identify all alternatives that were considered, specifying the alternative or alternatives that were considered to be environmentally preferable [40 CFR Part 1505.2(b)]. The environmentally preferable alternative (or alternatives) would promote the national environmental policy as expressed in NEPA's Section 101 (42 USC § 4331). Ordinarily, this means the alternative (or alternatives) that would cause the least damage to the biological and physical environment and the alternative (or alternatives) that would best protect, preserve, and enhance historic, cultural, and natural resources. However, CEQ recognizes that identifying the environmentally preferable alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. By identifying the environmentally preferable alternative, the decision-maker may be faced with a choice between that alternative and others, and must consider whether the decision accords with the declared policies of NEPA (CEQ 1981).

Design refinements for the FEIS Preferred Alternative were made, modifying the DEIS NEPA Preferred Alternative to further avoid or minimize impacts on the natural, developed, and cultural environments. The FEIS Preferred Alternative would avoid or minimize effects associated with the DEIS NEPA Preferred Alternative (as identified in the DEIS) as follows:

- Impacts on wetlands would be reduced from 8.18 acres disclosed in the DEIS to 3.43 acres in 14 jurisdictional wetlands and 0.76 acre in 2 nonjurisdictional wetlands; none are high-quality aquatic resources.
- Impacts on floodplains would be reduced from 1.47 acres disclosed in the DEIS to 0 acres. Impacts on floodways would also be reduced from 1.17 acres disclosed in the DEIS to 0 acres.
- The woodland habitat impact was reduced from 20.78 acres disclosed in the DEIS to 15.97 acres.
- Impacts on cultural resources would result in adverse effects on one historic resource, similar to the DEIS.
- Impacts on recreational resources protected by Section 4(f) would be reduced from two to one *de minimis* impact.
- The Project Area's visual character as a whole would not be substantially changed.
- Noise effects from the Project would result in 107 residential and 0 institutional severe impacts and 376 residential and 0 institutional moderate impacts on sensitive receptors. With implementation of mitigation measures, no severe noise impacts or upper-range moderate noise impacts would occur. Lower-range moderate noise impacts would still occur at 237 residences with implementation of mitigation measures.

- Vibration effects from the Project would result in 13 dwelling unit impacts. One exceedance of the FTA occasional vibration impact criteria was predicted in the DEIS. Vibration effects for all impacts would be eliminated with implementation of mitigation measures.
- The DEIS disclosed the acquisition of 243 full parcels and 76 partial parcels, resulting in 139.4 acres of acquisitions and 174 displacements. Property acquisitions required for the FEIS Preferred Alternative would affect 202 full parcels and 24 partial parcels, with a combined acquisition area of 106.68 acres and 107 displacements. In addition, 5.92 acres would be affected with temporary or permanent easements.
- Short- and long-term effects on property access and loss of on-street parking would be reduced to 76 on-street parking spaces from 114 on-street parking spaces identified in the DEIS; no mitigation for loss of on-street parking would be proposed. Parking replacement would be coordinated with local jurisdictions to identify whether suitable replacement locations are necessary. Traffic impacts would be similar to those disclosed in the DEIS.
- The FEIS Preferred Alternative has the potential to result in adverse effects predominantly borne by EJ populations regarding the acquisition and displacement of businesses (long-term) and disruption to local business during construction (short-term). With the implementation of mitigation measures to provide assistance to the communities serviced by the displaced businesses and to mitigate temporary construction impacts, the Project-wide finding is that the FEIS Preferred Alternative would not result in disproportionately high and adverse effects on minority or low-income populations, similar to the finding disclosed in the DEIS.

The following are affirmative ways that the FEIS Preferred Alternative was changed to address community concerns:

- The layover facility proposed for Munster/Dyer Main Street Station was moved to the North Hammond MSF in response to community concerns regarding noise, vibration, and visual impacts of a yard in a largely residential area.
- The Munster/Dyer Main Street Station ADA parking, “Kiss-and-Ride” facility, and a stormwater detention area were moved to occupy the land acquired at the southeastern corner of Main Street at the West Lake Corridor tracks in response to community concerns regarding commuters driving and parking west of the station and using the pedestrian underpass to access the station.
- Munster Ridge Road Station and associated parking were moved north of Ridge Road in response to community concerns regarding the Koester Farm south of Ridge Road. The community was also concerned about disruption to neighborhood cohesiveness due to the acquisition of several homes needed to accommodate the station and parking. The concern was that it would add noise, traffic, and a visual intrusion to the homes that would remain.
- The South Hammond Station platform was moved farther south toward 173rd Street with split parking north and south of 173rd Street in response to the City of Hammond’s desire to use the land north of 173rd Street for future TOD opportunities.
- The alignment of State Street has been modified to relocate a portion of State Street to maintain the intersection with Willow Street at its current location in response to the City of Hammond’s concern regarding impacts to the adjacent historic district associated with the originally planned street closure.

The FEIS Preferred Alternative meets the purpose of, and need for, the Project. It would best protect, preserve, and enhance social, historic, cultural, and natural resources. Consistent with CEQ guidance on selecting the environmentally preferable alternative, FTA and NICTD were faced with a tradeoff between the Project's benefits and ensuing environmental impacts. FTA and NICTD have determined that the Project's FEIS Preferred Alternative is the environmentally preferable alternative and believe that their decision is in accordance with the declared policies of NEPA.