Appendix J

Land Use and Economic Development Technical Memorandum

- Draft EIS Appendix J, Land Use and Economic Development Technical Memorandum, September 2015
  - Appendix A, Detailed Maps of Current Land Uses
  - Appendix B, 2014-2015 Red Line Extension Project Update

RED AHEAD
Moving Ahead to a Better Red

Red Line Extension

Chicago Red Line Extension Project

Land Use and Economic Development

Technical Memorandum

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Abbreviations

API	Area of Potential Impact
BRT	Bus Rapid Transit
CDOT	Chicago Department of Transportation
CHA	Chicago Housing Authority
CMAP	Chicago Metropolitan Agency for Planning
CN	Canadian National
CTA	Chicago Transit Authority
DCP	Developing Communities Project, Inc.
EIS	Environmental Impact Statement
FTA	Federal Transit Administration
IDOT	Illinois Department of Transportation
IHB	Indiana Harbor Belt
MWRD	Metropolitan Water Reclamation District
NEPA	National Environmental Policy Act
NICTD	Northern Indiana Commuter Transportation District
RLE	Red Line Extension
ROW	right-of-way
RTA	Regional Transportation Authority
TIF	tax increment financing
TIP	Transportation Improvement Program
TOD	transit-oriented development
UPRR	Union Pacific Railroad

Section 1
Summary

This technical memorandum analyzes the potential impacts of the Red Line Extension (RLE) Project on land use and economic development.

Per Federal Transit Administration (FTA) guidance, a land use change would cause an adverse impact if it would result in any of the following:

- An alignment would not be compatible with surrounding land uses.
- An alignment would encourage land use and development that is inconsistent with local plans, goals, and objectives.

The area of potential impact (API) for determining potential land use and economic development impacts and benefits for the RLE Project includes parcels directly adjacent to the build alternative alignments, for the full length of the alignments, as well as those parcels within a ½-mile radius of station locations per FTA guidance.

Each alternative was analyzed for potential impacts on existing and expected land use types, densities, and character resulting from permanent impacts, construction impacts, and cumulative impacts. This analysis determined the following:

- The Bus Rapid Transit (BRT) Alternative would improve land use accessibility between station areas and the 95th Street Terminal and downtown Chicago, but not as much as the Union Pacific Railroad (UPRR) Alternative options or the Halsted Rail Alternative. Travel time savings to downtown Chicago for each affected neighborhood would be greater for the BRT Alternative than for the No Build Alternative.
- Travel time savings would encourage new development or redevelopment within station areas for the UPRR Rail Alternative options or the Halsted Rail Alternative. The extent of such development activity would depend on factors such as local plans, policies, zoning, and financial incentives. The BRT Alternative would not encourage new development due to the lack of rail-like elements, such as exclusive travel lanes and substantial stations, which are typically cited as necessary to attract the attention of private developers.
- The UPRR Rail Alternative would be consistent with local and regional land use and economic development plans in the project area, as well as the U.S. Department of Transportation Livability Initiative. Because the UPRR Rail Alternative would provide new transit service to relatively isolated South Side neighborhoods, the permanent impacts would be beneficial for land use and economic development.

- The BRT Alternative would result in no adverse impacts on land use or economic development and would be consistent with existing land uses.
- Although it is not included in local and regional land use and economic development plans, the Halsted Rail Alternative would provide beneficial impacts on land use and economic impacts. The Halsted Rail Alternative would, however, result in an adverse impact on adjacent single-family residential land uses in West Pullman due to the proposed seven-story parking garage at the Vermont Avenue station.
- Property acquisitions would temporarily reduce the property tax base, but affected residences and businesses could be relocated within the same neighborhoods due to the availability of residential and commercial real estate.

Table 1-1 highlights the land use and economic development impacts of each alternative on the directly affected neighborhoods within the project area. These impacts are presented with mitigation factored into the analysis. If an alternative alignment would not pass through a neighborhood, the impact category assigned to that neighborhood is "Not Applicable," which is represented by dash marks. Section 5 of the technical memorandum provides the specific impact analysis for the proposed alternatives.

Table 1-1: Summary of Land Use and Economic Impacts after Mitigation

	Phase	Directly Affected Neighborhoods within Project Area						
		Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park*
No Build Alternative	Permanent	Land Use	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
		Economic Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
	Construction	Land Use	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
		Economic Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
	Cumulative	Land Use	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
		Economic Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
BRT Alternative	Permanent	Land Use	---	Beneficial	---	Beneficial	Beneficial	---
		Economic Development	---	Not Adverse	---	Not Adverse	Not Adverse	---
	Construction	Land Use	---	Not Adverse	---	Not Adverse	Not Adverse	---
		Economic Development	---	Beneficial	---	Beneficial	Beneficial	---

	Phase	Directly Affected Neighborhoods within Project Area						
		Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park*
	Cumulative	Land Use	---	Not Adverse	---	Not Adverse	Not Adverse	---
		Economic Development	---	Not Adverse	---	Not Adverse	Not Adverse	---
UPRR ROW Option	Permanent	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse	Not Substantially Adverse	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Cumulative	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
UPRR East Option	Permanent	Land Use	Beneficial	Not Substantially Adverse	---	Not Substantially Adverse	Beneficial	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse	Not Substantially Adverse	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Cumulative	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
UPRR West Option	Permanent	Land Use	Beneficial	Not Substantially Adverse	---	Not Substantially Adverse	Beneficial	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse	Not Substantially Adverse	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Cumulative	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
		Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---

	Phase	Directly Affected Neighborhoods within Project Area						
		Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park*
Halsted Rail Alternative	Permanent	Land Use	Beneficial	Beneficial	Beneficial	Adverse	---	Beneficial
		Economic Development	Beneficial	Beneficial	Beneficial	Beneficial	---	Beneficial
	Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse
		Economic Development	Beneficial	Beneficial	Beneficial	Beneficial	---	No Impact
	Cumulative	Land Use	Beneficial	Beneficial	Beneficial	Beneficial	---	No Impact
		Economic Development	Beneficial	Beneficial	Beneficial	Beneficial	---	No Impact

Notes: *Village of Calumet Park
Impact Categories:
Not Applicable (---)
Beneficial
No Impact
Not Adverse
Not Substantially Adverse
Adverse

Updated July 27, 2015
In August 2014, based on the technical analysis and public input until then, CTA announced the NEPA Preferred Alternative—the UPRR Rail Alternative. CTA is considering two alignment (route) options of this alternative: the East Option and the West Option. At this time, CTA is also considering only the South Station Option of the 130th Street Station. In late 2014 and early 2015, CTA conducted additional engineering on the East and West Options to refine the East and West Option alignments. Appendix B of this technical memorandum summarizes the refined alignments and any additional or different impacts that would result. The information in Appendix B supersedes information presented in other chapters of this technical memorandum.

Section 2
Project Description

The Chicago Transit Authority (CTA) is proposing to extend the Red Line from the existing 95th Street Terminal to the vicinity of 130th Street, subject to the availability of funding. The proposed RLE would include four stations. Each station would include bus transfer and parking facilities. This project is one part of the Red Ahead Program to extend and enhance the entire Red Line. The CTA is also planning 95th Street Terminal improvements that are anticipated to be completed prior to the proposed RLE construction.

The project area is 11 miles south of the Chicago central business district (commonly referred to as the Loop) and encompasses approximately 20 square miles. The boundaries of the project area are 95th Street on the north, Ashland Avenue on the west, Stony Island Avenue on the east, and the Calumet-Sag Channel/Little Calumet River and 134th Street on the south. The I-57 Expressway and I-94 Bishop Ford Freeway cross the western and eastern edges of the project area, respectively. Lake Calumet is in the eastern portion of the project area. The project area encompasses parts of nine community areas in the City of Chicago and the eastern section of the Village of Calumet Park. Chicago community areas include Beverly, Washington Heights, Roseland, Morgan Park, Pullman, West Pullman, Riverdale, Hegewisch, and South Deering. The project area comprises residential (primarily single family), industrial (both existing and vacant), transportation (including freight), and commercial development.

The Draft Environmental Impact Statement (EIS) focuses on the following alternatives (shown in Figure 2-1), which emerged from the Alternatives Analysis and the National Environmental Policy Act (NEPA) scoping process:

- No Build Alternative
- BRT Alternative
- UPRR Rail Alternative
    - Right-of-Way (ROW) Option
    - East Option
    - West Option
- Halsted Rail Alternative

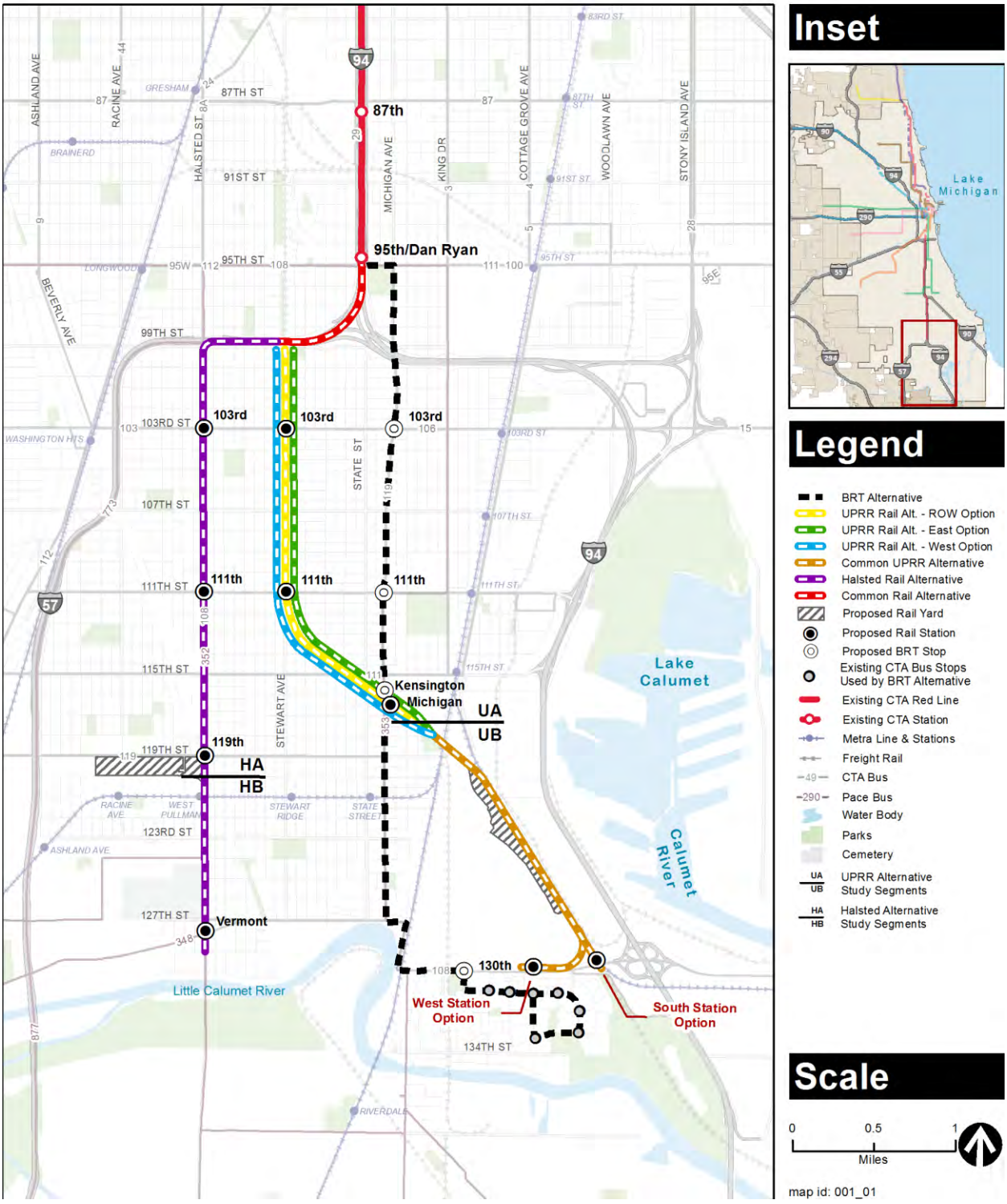

Figure 2-1: Red Line Extension Project Alternatives

The No Build Alternative is a required alternative as part of the NEPA environmental analysis and is used for comparison purposes to assess the relative benefits and impacts of extending the Red Line. The No Build Alternative is carried into the Draft EIS phase of the project development regardless of its performance versus the build alternatives under consideration. No new infrastructure would be constructed as part of the No Build Alternative other than committed transportation improvements that are already in the Chicago Metropolitan Agency for Planning (CMAP) Fiscal Year 2010–2015 Transportation Improvement Program (TIP) and the improvements to 95th Street Terminal. The TIP projects within the project area consist of four bridge reconstructions, several road improvement projects including resurfacing and coordination of signal timing on 95th Street, work on Metra's facilities, construction of a bicycle/pedestrian multi-use trail, and preservation of historic facilities. The No Build Alternative includes regular maintenance of existing track and structures, and bus transit service would be focused on the preservation of existing services and projects. All elements of the No Build Alternative are included in each of the other alternatives. Under this alternative, travel times would not improve from existing conditions.

The BRT Alternative (formerly referred to as the Transportation Systems Management Alternative) is a 5.0-mile, limited-stop, enhanced BRT route, which is assumed to operate 24 hours per day between the existing 95th Street Terminal and the intersection of 130th Street and Eberhart Avenue. No dedicated bus lanes would be provided for the BRT Alternative; however, parking lanes would be removed for some portions of the alignment and four stops with improved bus shelters and park & ride facilities would be created at 103rd Street and Michigan Avenue, 111th Street and Michigan Avenue, Kensington Avenue and Michigan Avenue, and 130th Street and Eberhart Avenue. Although BRT service elements would not continue south of the 130th Street stop, the bus route would continue through Altgeld Gardens along the existing route with six stops. The BRT Alternative would be consistent with bus routing changes that may occur as part of improvements to the 95th Street Terminal. Under this alternative, travel times between 130th Street and the Loop would improve over existing conditions.

The UPRR Rail Alternative is a 5.3-mile extension of the heavy rail transit Red Line from its existing 95th Street Terminal to 130th Street, just west of I-94. The Chicago Transit Board designated the UPRR Rail Alternative as the Locally Preferred Alternative at its August 12, 2009 board meeting. This alternative includes construction and operation of new heavy rail transit tracks, mostly in existing transportation corridors. The UPRR Rail Alternative has three options for alignment (ROW, East, and West), all of which would include operation on elevated structure from 95th Street to just past the Canadian National/Metra Electric District tracks near 119th Street. The alignment would then transition to at-grade through an industrial area with no public through streets, terminating at 130th Street in the vicinity of Altgeld Gardens. Four new stations would be constructed at 103rd Street, 111th Street, Michigan Avenue, and 130th Street. The 130th Street station would be the terminal station, with two options under evaluation: the South Station Option and the West Station Option. A new yard and shop facility would be sited near 120th Street and Cottage Grove Avenue. The bus routes in the vicinity of the UPRR Rail Alternative would be modified to enhance connectivity between the Red Line and the bus network. The hours of operation and service frequency for the UPRR Rail Alternative are assumed to be the same as

for the current Red Line. Under this alternative, travel times between 130th Street and the Loop would improve substantially over existing conditions.

The Halsted Rail Alternative is a 5.0-mile heavy rail transit extension of the existing Red Line. In this alternative, the Red Line would operate on an elevated structure running south from 95th Street along I-57 until Halsted Street. The alignment would then turn south and continue along Halsted Street to the intersection of Halsted Street and Vermont Avenue near 127th Street. This alternative would include four new stations at 103rd Street, 111th Street, 119th Street, and Vermont Avenue. The Vermont Avenue station would be the terminal station. A new yard and shop would be sited west of Halsted Street and between the 119th Street and Vermont Avenue stations. The bus routes in the vicinity of the Halsted Rail Alternative would be modified to enhance connectivity to the Red Line. The hours of operation and service frequency for the Halsted Rail Alternative are assumed to be the same as for the current Red Line. Under this alternative, travel times between 127th Street and the Loop would improve substantially over existing conditions. This alternative would not extend rail to Altgeld Gardens, which would be served by bus connecting to the Vermont terminal station.

Section 3
Methods for Impact Evaluation

This section describes the methods for analysis of potential impacts on land use and economic development. The types of impacts considered in this analysis include conflicts with or disruptions to existing land uses; inconsistencies with local and regional plans, policies, and regulations; and future land use and economic development benefits and opportunities presented by the alternatives.

3.1 Regulatory Framework

3.1.1 Federal

Sections 3 and 5 of the Urban Mass Transportation Act of 1964 require that federally funded transit projects be consistent with official plans for the comprehensive development of an area, as well as with a community's goals and objectives. To ensure compliance with this requirement, the FTA states that every environmental document should include maps that illustrate existing and proposed future land uses of the area around the proposed project alternative alignments. If a proposed project is fully consistent with existing and proposed land uses and will not be the impetus for new development that would be inconsistent with policies or plans, no further analysis is required.

In response to the U.S. Department of Transportation Livability Initiative, a 2010 FTA directive indicated that analysis of transit projects' potential to increase livability, promote economic development, and support community growth should be considered as part of the criteria for FTA's programs. According to the directive, the FTA will seek to do the following:

- Provide more transportation choices.
- Promote equitable, affordable housing.
- Enhance economic competitiveness - access to employment centers, education, services and other basic needs.
- Support existing communities - transit-oriented, mixed-use development, and land recycling.
- Coordinate policies and leverage investment - leverage funding to plan for future growth.
- Value communities and neighborhoods - invest in healthy, safe, and walkable neighborhoods.

The CTA desires to seek FTA New Starts Program funding for the capital cost of the proposed project; therefore, the FTA New Starts guidelines were utilized to document the affected environment for land use and economic development, which provides the foundation for determining potential impacts on existing land uses and plans and policies. As authorized by Section 5309 of Title 49, United States Code, the FTA created the New Starts Program to

efficiently and comparatively evaluate and rate major new capital investments nationwide. Section 5309(d)(6) requires the FTA to publish policy guidance on the major capital investment program review and evaluation process and criteria each time substantial changes are made.

On January 9, 2013, the FTA published a final rule implementing New Starts Program changes that are consistent with Moving Ahead for Progress in the 21st Century (MAP-21), which was signed into law in July 2012. Accompanying the final rule is FTA's Proposed New Starts and Small Starts Policy Guidance (January 9, 2013) to provide details on the measures and analytical techniques, which will be finalized later this year. The proposed guidance does not alter the basic criteria for analyzing existing land uses and economic development, with one exception. The quantity of affordable housing or certified public housing, and related plans and policies to increase affordable housing within a proposed transit corridor, was proposed as a new measure. The proposed guidance was used for the land use and economic development assessment for the RLE Project.

3.1.2 State

The Illinois Department of Transportation (IDOT) *Community Impact Assessment Manual* provides guidance for analyzing the impacts of a transportation project on land use and development as well as impacts on the regional and local economies (IDOT 2007).

3.1.3 Local

There are no local regulations requiring environmental analysis of land use impacts. Local and regional land use plans were reviewed to inform the land use and economic development assessment for the RLE Project. The applicable plans are listed below for reference.

Chicago Metropolitan Region:

- Chicago Metropolitan Agency for Planning (CMAP) *GO TO 2040 Regional Plan (2010)*

Cook County:

- *Cook County Comprehensive Economic Development Strategy Report (2009)*

City of Chicago:

- *Chicago Sustainable Industries, Phase One: A Manufacturing Work Plan for the 21st Century (2011)*
- *Transit-Friendly Development Guide (2009)*
- *The Chicago Central Area Plan (May 2003)*
- *City Space Plan for Chicago (1998)*

Village of Calumet Park:

Note: The Village does not have a recently adopted comprehensive plan; therefore, the Village Code and Zoning Map were utilized to assess future land use within the project area.

3.2 Impact Analysis Thresholds

NEPA does not set specific thresholds of significance for land use and economic development impacts. Guidance published by the FTA and IDOT was used as the basis for a qualitative evaluation of the potential for land use and economic development impacts at parcels adjacent to the RLE Project alternative alignments. The FTA and IDOT land use criteria, as described in the guidance manuals, were used as the basis for the thresholds of impact for this project. For the purposes of this technical memorandum, impacts on land use are based on the following:

- Will the project cause substantial changes in existing land use?
- Will the project facilitate or impede potential growth?
- Is the project located in a high growth region?
- Have there been recent zoning changes in the project area and will zoning changes occur due to project implementation?
- Will the project be compatible with surrounding land uses?
- Will the project encourage land use and development that is inconsistent with local plans, goals and objectives?

Per FTA and IDOT guidance, impacts on economic development are based on the following:

- Will the project result in taxation changes?
- Will the project affect a major employer?
- Which economic sectors might be affected by the project?
- Will the project result in substantial displacement of businesses and individuals?
- Will the project cause short-term and/or long-term disruption of business activities?
- Will the project have an influence on regional construction costs?

If one or more of the above impacts is anticipated, the expected impacts on the area and a discussion of alternative locations must be presented in the environmental document. In addition, the document must identify measures that would be used to mitigate any anticipated adverse impacts. There are no additional criteria at the state and local levels.

3.3 Area of Potential Impact

The API for determining potential land use and economic development impacts and benefits for the RLE Project includes parcels directly adjacent to the build alternative alignments, for the full length of the alignments, as well as those parcels within a ½-mile radius of stations per FTA's 2004 *Guidelines and Standards for Assessing Transit-Supportive Land Use* (see Figure 3-1).

3.4 Methods

The analysis of potential land use impacts associated with each alternative entailed the following components:

- Analysis of the potential for short-term and long-term conflict with, or disruption of access to, land uses adjacent to the alternative alignments.
- Identification of potential conflicts with applicable local land use plans, policies, or regulations.
- Identification of potential land use benefits of the alternatives, such as opportunities for economic development and transit-supportive land uses.

The EIS analyzed impacts at a general level and took into account the impacts of the project on the surrounding existing and future land use categories.

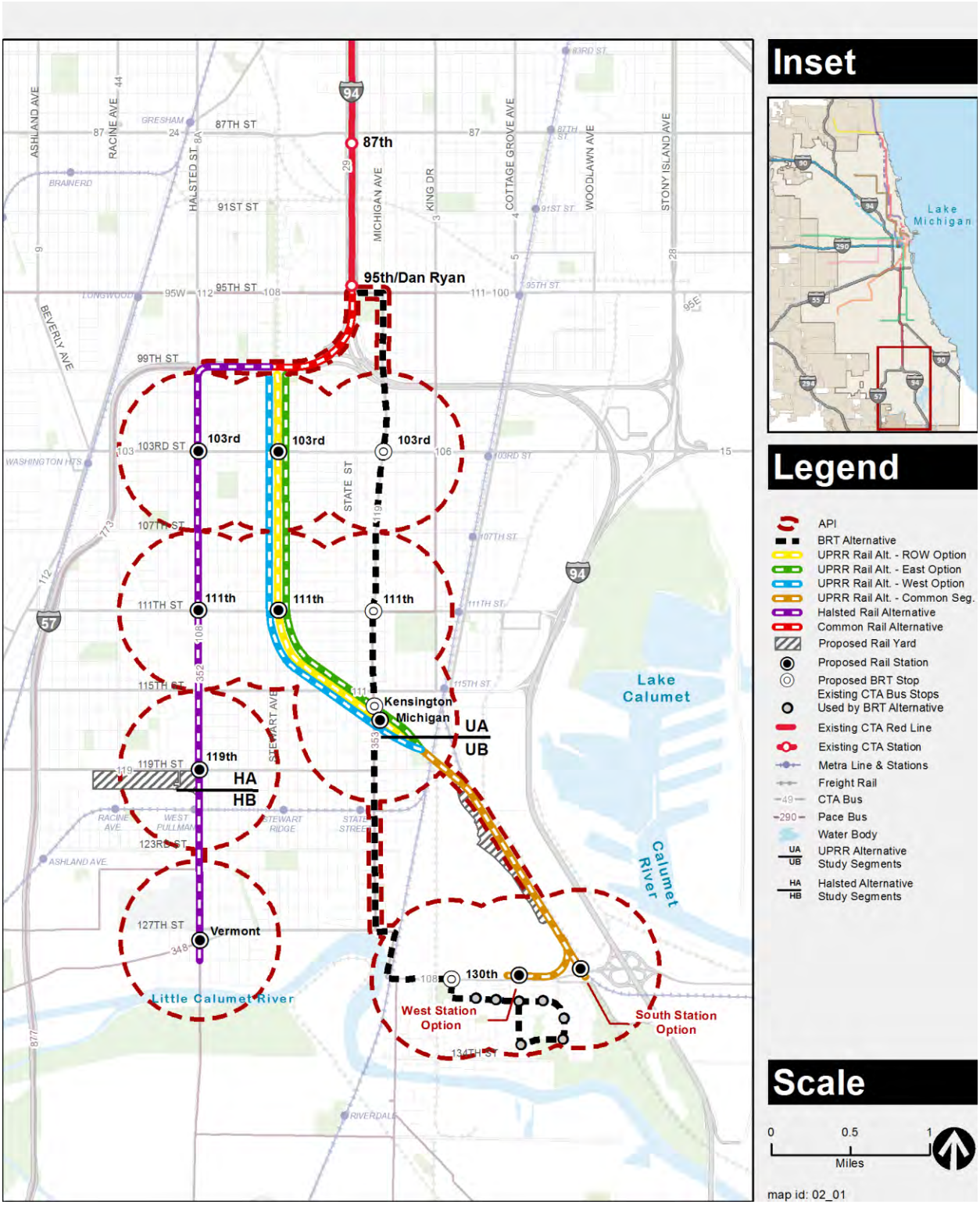

Figure 3-1: Land Use and Economic Development Area of Potential Impact

3.4.1 Land Use Incompatibility and Conflicts

The analysis began with an inventory of the existing land uses surrounding each alternative alignment, to identify the potential short- and long-term conflicts with land uses and potential disruption of access to land uses adjacent to the alternative alignments. The catalog of land uses relied on the land use designations provided by the applicable local land use plans, zoning ordinance designations, review of aerial photography, and observations made during field visits. Land use maps in the plans illustrate the land use designations for parcels near the alternative alignments.

Existing land uses were compared to the land uses that would be expected after implementation of each build alternative and/or the No Build Alternative to identify potential incompatibilities with and disruptions of existing land uses. The types of incompatibilities considered included the introduction of new transit facilities adjacent to sensitive land uses; the introduction of new land uses that are inconsistent with existing land uses; increased noise, security concerns, changes in lighting, transportation changes (e.g., pedestrian access to stations); and pedestrian safety concerns. The potential for land use incompatibility with regard to increased noise, security, lighting, transportation, and pedestrian safety is briefly summarized in this technical memorandum, but is discussed in greater detail in the separate technical memorandums that address those specific topics.

3.4.2 Policy Consistency

The analysis focused on each proposed alternative's consistency with the goals and policies presented in regional and local land use plans and regulations of the City of Chicago, Cook County, and CMAP, as well as the U.S. Department of Transportation Livability Initiative. The analysis determined whether the proposed alternatives would have differing levels of policy consistency.

3.4.3 Land Use and Economic Development Benefits

The analysis included an evaluation of the potential land use benefits associated with each of the proposed alternatives, such as opportunities for economic growth and development, increased transit-supportive development, enhanced livability, and the potential to boost local economic activity. Goals and policies presented in local land use plans and ordinances that encourage transit-supportive development were addressed, along with a comparison of how each proposed alternative would support these objectives. The potential for the proposed alternatives to generate public investment in transportation infrastructure, which would support economic vitality and environmentally sustainable communities, was also considered.

Section 4
Affected Environment

This section describes the existing and planned land use conditions, as well as the land use and economic development planning and policy framework, in the neighborhoods and jurisdictions affected by the proposed project. The analysis includes a description of existing and planned land uses within ½ mile of proposed station locations (referred to as station areas) and the alignment between station areas. The analysis also includes a review of land use and economic development plans and policies by jurisdiction. **Figure 4-1** identifies the City of Chicago neighborhoods affected by the RLE Project. Neighborhoods that may be directly affected by the proposed build alternatives include Washington Heights, Morgan Park, Roseland, West Pullman, and Riverdale.

4.1 Existing Land Uses

The overall project area has residential (primarily single family), commercial (urban mixed-use), industrial, transportation and utilities, and vacant land uses. **Figure 4-2** depicts the overall land uses affected by the RLE Project. The project area has numerous institutional land uses, including Chicago State University (7,200 students), Olive-Harvey College (4,300 students), and several high schools (including Harlan, Corliss, Fenger, Julian, Brooks, and Carver). Major activity centers in the project area include Halsted Street Commercial Corridor, Roseland Hospital, Sherwin-Williams, Ryerson, the Illinois International Port District, and Metron Steel. The Ford Motor plant at 130th Street and Torrence Avenue is just east of the project area and employs 2,800 people.

4.1.1 Bus Rapid Transit Alternative

The BRT Alternative alignment would begin at CTA's 95th Street Terminal, and continue east on 95th Street to Michigan Avenue, then on Michigan Avenue to 130th Street. The BRT route would pass through the Roseland, West Pullman, and Riverdale neighborhoods. The BRT stop locations would be at 103rd Street, 111th Street, Kensington Avenue, and 130th Street. The following subsections describe the existing land uses within ½ mile of the alignment and proposed bus stops. Appendix A contains detailed bus stop area land use maps.

95th Street Terminal to 99th Street

The adjacent land uses for the BRT Alternative alignment from the 95th Street Terminal to 99th Street include urban mixed and open space (Abbott Park) uses along 95th Street; and single-family residential and institutional (Harlan Community Academy High School) uses along Michigan Avenue to 99th Street.

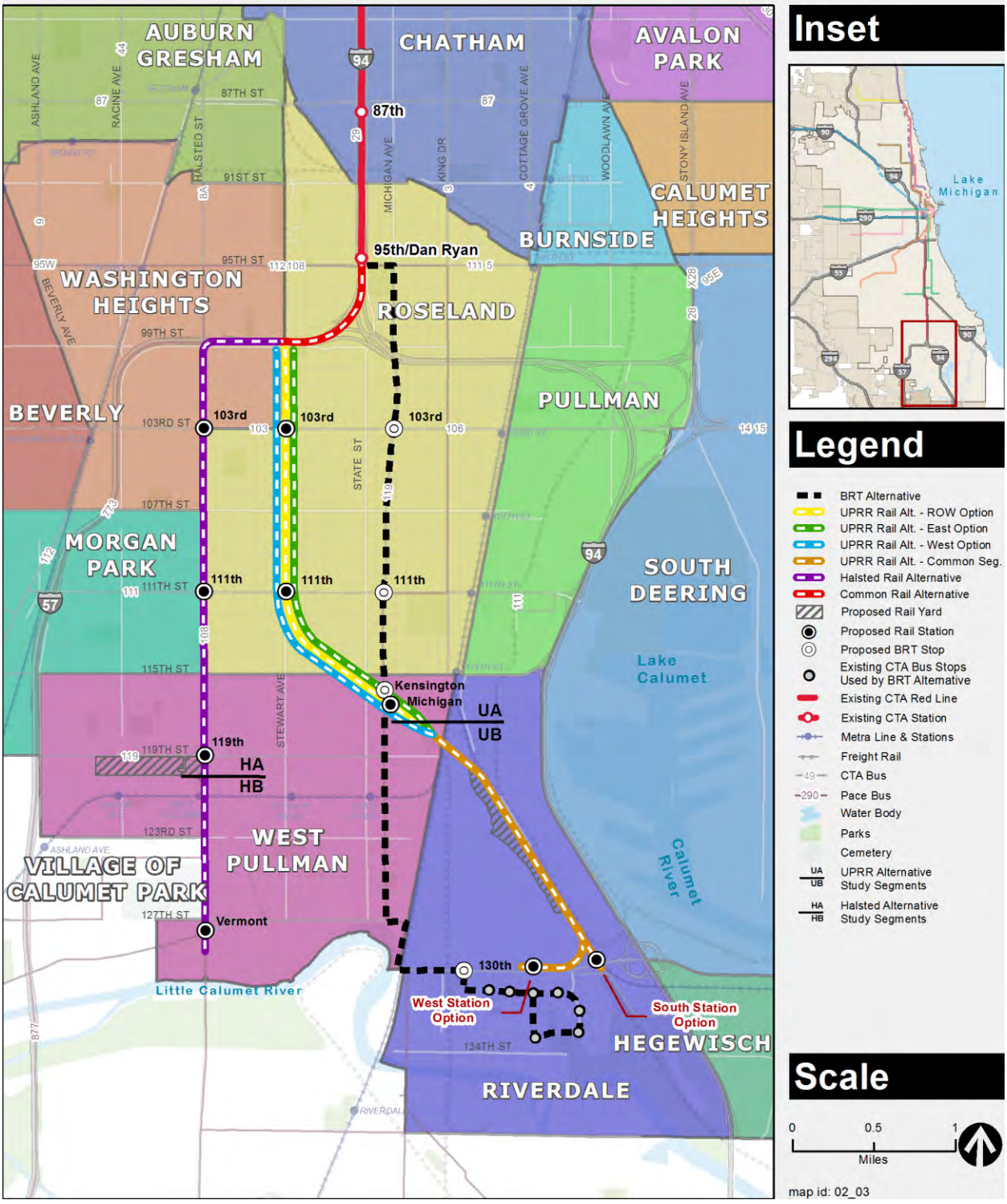

Figure 4-1: Community Areas in the Red Line Extension Project Area

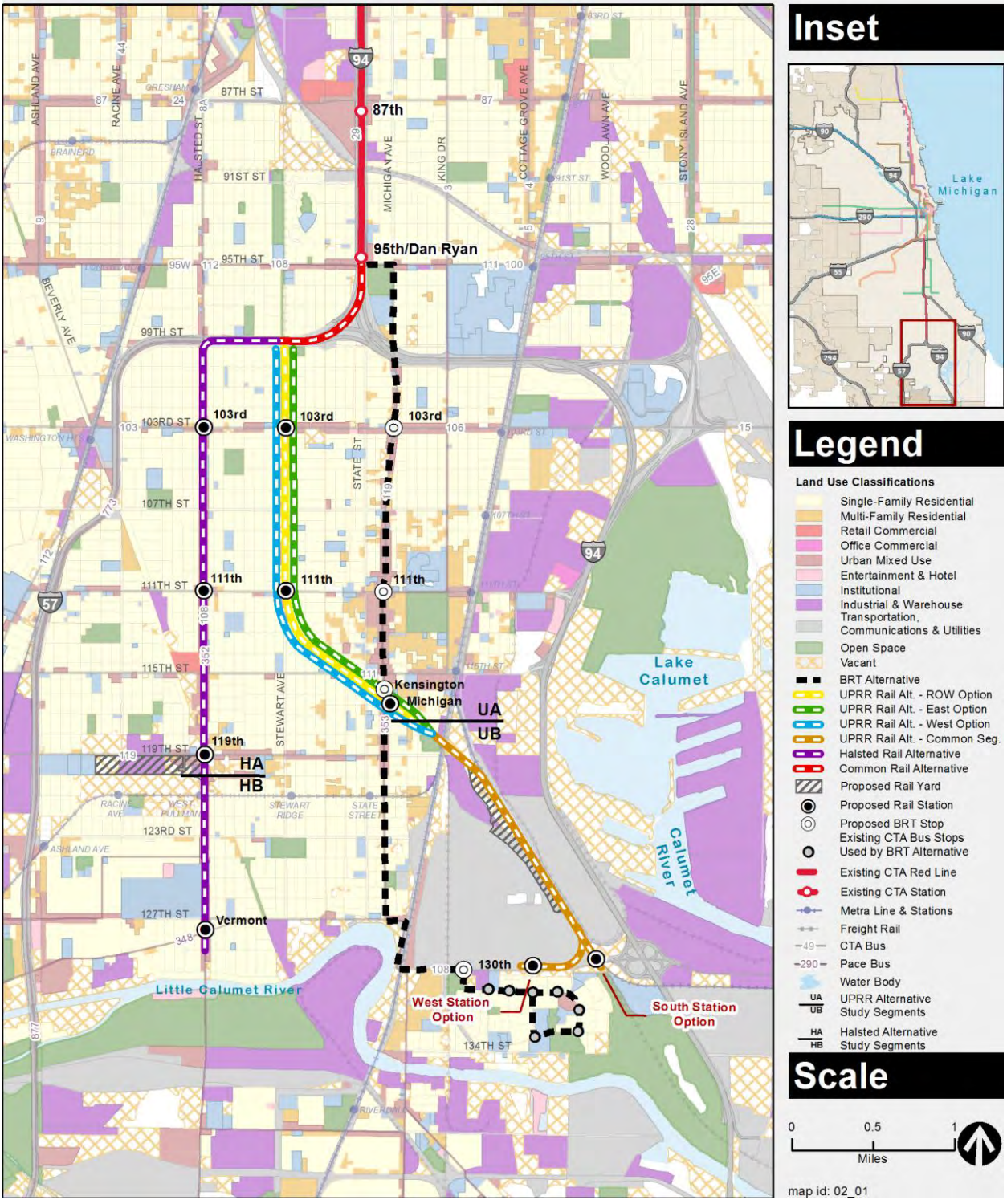

Figure 4-2: Existing Land Uses in the Red Line Extension Project Area

103rd Street Stop

Land uses within ½ mile of the 103rd Street stop location include urban mixed, institutional, multi-family residential, and vacant uses along Michigan Avenue; and primarily urban mixed-use along 103rd Street. The majority of uses beyond these two arterials are single-family residential uses. There are several institutions (schools and churches) throughout the stop area.

111th Street Stop

Land uses within ½ mile of the 111th Street stop location include urban mixed, institutional, multi-family residential, and vacant uses along Michigan Avenue north of 111th Street; and primarily dense urban mixed-use along Michigan south of 111th Street. West of Michigan Avenue, land uses along 111th Street include institutional (Roseland Community Hospital), urban mixed, and multi-family residential uses. East of Michigan Avenue, the primary land uses are institutional (Gwendolyn Brooks College Preparatory Academy) and open space (Palmer Park). The majority of land uses beyond the arterials are single-family residential uses and institutions.

Kensington Avenue Stop

There is a substantial overlap in land uses for the 111th Street stop location and the Kensington Avenue stop location north of 115th Street. Land uses along Michigan Avenue include urban mixed, institutional, and vacant land uses. Land uses along 115th Street include single-family residential, institutional, and vacant uses and a limited amount of urban mixed-use. The remainder of the area around the stop location contains a mix of single-family and multi-family residential uses and institutional uses (churches and schools).

Kensington Avenue Stop to 130th Street

South of the 115th Street stop location, the Michigan Avenue corridor contains primarily single-family residential uses. For areas that are within the API but not on Michigan Avenue, the majority of land uses are single-family residential with some institutions and open space. The Metra Electric District Blue Island Branch is parallel to 121st Street; the State Street Metra station is one block west of Michigan Avenue. Closer to 130th Street, there are industrial, transportation, and utility land uses.

130th Street Stop

North of 130th Street, the area within ½ mile of the 130th Street stop is dominated by a utility land use (Metropolitan Water Reclamation District [MWRD]). South of 130th Street, the area within ½ mile of the 130th Street stop location is dominated by single-family residential, multi-family residential, institutional, urban mixed, and open space uses such as the Beaubien Woods Forest Preserve. The BRT Alternative would serve the interior of the Altgeld Gardens public housing community south of 130th Street.

4.1.2 Union Pacific Railroad Rail Alternative

This section describes existing land use conditions for all three UPRR Rail Alternative options: the ROW Option, East Option, and West Option. The alignments for the three options are within 50 feet of each other; therefore, the affected environment analysis would be the same for all three options, except where noted.

The UPRR Rail Alternative would begin at CTA's 95th Street Terminal, continue south and west along the 1-94 and I-57 medians, and transition to the UPRR corridor south to 130th Street. The alignment passes through the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods. Under this alternative, the stations would be at 103rd Street, 111th Street, Michigan Avenue, and 130th Street (South Station Option or West Station Option).

The following subsections describe the existing land uses adjacent to the alignment and within ½ mile of the proposed station locations, or "station areas," in Segment UA (95th Street Terminal to Michigan Avenue station area) and Segment UB (south of Michigan Avenue station area to 130th Street station area). Appendix A contains detailed station area land use maps.

4.1.2.1 UPRR Rail Segment UA

95th Street Terminal to 99th Street

The alignment for all three UPRR Rail Alternative options would start from CTA's 95th Street Terminal and run within the median of I-94 and I-57. The adjacent land uses are primarily transportation and single-family residential uses beyond the highways.

103rd Street Station Area

Land uses within the 103rd Street station area include industrial, urban mixed, single-family residential, and open space uses along the UPRR ROW, and primarily urban mixed-use along 103rd Street. There are some vacant parcels along both corridors. The remainder of the station area consists of single-family residential uses, several institutional land uses (churches and schools), and a large recreational open space (Fernwood Park).

The UPRR Rail Alternative West Option alignment would be within a linear open space (Fernwood Parkway) along Eggleston Avenue between 99th and 103rd Streets. South of 103rd Street, the West Option alignment would be within urban mixed or vacant land uses. The East Option alignment would be within open space (Wendell Smith Park) and single-family residential land uses between 99th and 103rd Streets. South of 103rd Street, the East Option alignment would be within open space (Block Park), adjacent to the Roseland Pump House, and within single-family residential land uses.

111th Street Station Area

Land uses within the 111th Street station area include industrial, urban mixed, single-family residential, and vacant land uses along the UPRR ROW, and mostly single-family residential with some urban mixed and institutional uses along 111th Street, including Roseland Community

Hospital. The remainder of the station area consists of single-family residential uses, several institutional uses (churches and schools), and limited multi-family residential uses.

The UPRR Rail Alternative East Option alignment would be primarily through single-family residential land uses and a limited amount of industrial and institutional land uses. The West Option alignment would be through urban mixed-use, industrial, and vacant land uses.

Michigan Avenue Station Area

Land uses within the Michigan Avenue station area include urban mixed, single-family residential, open space, and vacant land uses along the UPRR ROW, and primarily urban mixed-use along Michigan Avenue. The remainder of the station area contains a mix of single-family and multi-family residential uses, institutional uses (churches and schools), and urban mixed-use along 119th Street.

The UPRR Rail Alternative East Option alignment would be through urban mixed, vacant, and single-family residential land uses. The West Option alignment would be through urban mixed-use and single-family residential land uses.

4.1.2.2 UPRR Rail Segment UB

Michigan Avenue Station Area to 130th Street Station

Between the Michigan Avenue station and 130th Street station, all three UPRR Rail Alternative options would have alignments through industrial and vacant uses, as well as land uses for transportation, communications, and utilities.

130th Street Station Area

Land uses within the 130th Street station area include utilities (MWRD), transportation (I-94), and industrial land uses north of 130th Street, and single-family residential, institutional, urban mixed-use, and open space (mostly within Altgeld Gardens). According to the *Plan for Transformation* (Chicago Housing Authority 2000), the Altgeld Gardens public housing community contains 1,998 units (approximately 8 percent) of the City's public housing stock (24,773 units).

The South Station Option location would be under the 130th Street bridge overpass to provide direct pedestrian access to/from Altgeld Gardens and Carver Military Academy High School. The West Station Option site would be within MWRD property on the north side of 130th Street across from Altgeld Gardens.

4.1.3 Halsted Rail Alternative

Halsted Street is a major north-south arterial about 1 mile west of I-94 and CTA's 95th Street Terminal. The corridor provides access to the Washington Heights, Roseland, Morgan Park, and West Pullman neighborhoods in the City of Chicago. Station locations would be on Halsted Street at 103rd Street, 111th Street, 119th Street, and Vermont Street. The following subsections describe the existing land uses adjacent to the alignment and within ½ mile of the proposed station

locations, or "station areas," in Segment HA (95th Street Terminal to 119th Street station area) and Segment HB (Vermont Street station area). Appendix A contains detailed station area land use maps.

4.1.3.1 Halsted Rail Segment HA

95th Street Terminal to 99th Street

The alignment for the Halsted Rail Alternative from the 95th Street Terminal to 99th Street would be within the median of I-94 and I-57. The adjacent land uses are primarily transportation and single-family residential uses beyond the highways.

103rd Street Station Area

Land uses within the 103rd Street station area include urban mixed-use (primarily one-story retail) and institutional uses along Halsted and 103rd Streets, with a few multi-family residential uses. These arterials also have some vacant parcels. The majority of uses beyond these two arterials are single-family residential uses. Fernwood Park, which is two blocks east of Halsted Street, is a large recreational open space.

111th Street Station Area

Land uses within the 111th Street station area include urban mixed-use (primarily one-story retail) along Halsted Street. A large vacant retail commercial mall is at 115th and Halsted Streets. There is a large warehouse use on 111th Street, west of Halsted Street. The majority of land uses beyond these two arterials are single-family residential uses.

119th Street Station Area

Land uses within the 119th station area include urban mixed-use (primarily one-story retail) along Halsted Street and on 119th Street east of Halsted Street. Some vacant parcels are on these arterials. Large industrial and vacant uses are in the southwest quadrant of the station area, including a solar panel facility along 120th Street. The Metra Electric District Blue Island Branch is parallel to 120th and 122nd Streets, and the West Pullman Metra station is at Halsted Street. The remaining land uses are primarily single-family residential uses.

4.1.3.2 Halsted Rail Segment HB

Vermont Street Station Area

Land uses within the Vermont Street station area include urban mixed-use (primarily one-story retail) along Halsted Street, surrounded by single-family residential uses. The northwest quadrant is within the Village of Calumet Park, including the Cedar Park Cemetery along the west side of Halsted Street and the north side of Burr Oak Street. The far south end of the station area includes the Cal-Sag Channel and open space within the Village of Riverdale.

4.2 Planned Land Uses

The City's zoning designations, along with various area plans, guide future land use development. The City of Chicago does not have a city-wide comprehensive plan with a future land use map.

The same situation exists within the Village of Calumet Park. Therefore, this section describes the zoned land uses within ½ mile of the alignments and features of the build alternatives.

The project area includes a variety of zoning districts designated by the Chicago Zoning Ordinance. Specific zoning districts fall within broader zoning types such as residential, business, commercial, manufacturing, parks and open space, planned development, and planned manufacturing. The general purpose of each zoning type is described below according to the Chicago Zoning Ordinance.

- Residential Districts - Create, maintain and promote a variety of housing opportunities for individual households and maintain the desired physical character of the city's existing neighborhoods.
- Business and Commercial - Accommodate retail, service and commercial uses and ensure that business and commercial-zoned areas are compatible with the character of existing neighborhoods.
- Manufacturing - Accommodate manufacturing, warehousing, wholesale, and industrial uses outside the central area.
- Parks and Open Space - Preserve, protect, and enhance lands set aside for public open space, public parks and public beaches.
- Planned Development - Ensure adequate public review of major development proposals; encourage unified planning and development; promote economically beneficial development patterns that are compatible with the character of existing neighborhoods; ensure a level of amenities appropriate to the nature and scale of the project; allow flexibility in application of selected use and development standards in order to promote creative building design and high-quality urban design; and encourage protection and conservation of natural resources.
- Planned Manufacturing - Foster the city's industrial base and maintain the city's diversified economy; strengthen existing manufacturing areas that are suitable in size, location, and character; and encourage industrial investment, modernization, and expansion by providing for stable and predictable industrial environments.

Each district type dictates allowable uses, density standards, parking requirements and other character standards for development with zoning district codes. **Figure 4-3** depicts the zoning classifications within the project area. All zoning district codes within the project area are listed in Table 4-1, including the typical uses and standards within each code.

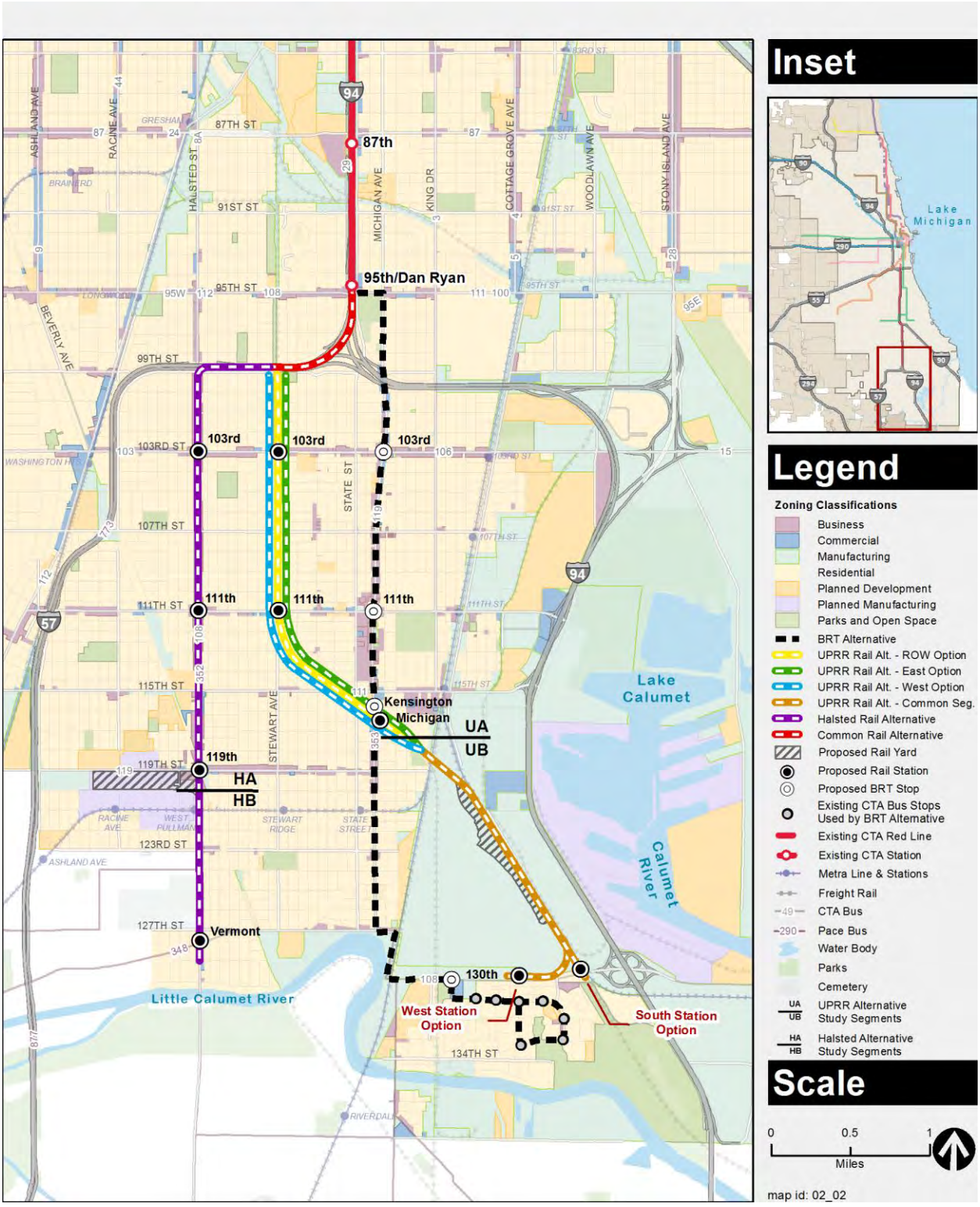

Figure 4-3: Zoning Classifications in the Red Line Extension Project Area

Table 4-1: Red Line Extension Project Area Zoning District Codes and Associated Standards

Type	Code	Title	Typical Uses	Floor to Area Ratio	Max Height (feet)	Front Setbacks	Mixed use Allowed	Parking Requirements
Residential	RS	Residential Single-Unit District	Single family detached, two flats	0.50-0.90	30	20 feet or 16% of lot depth, whichever is less	No	1 to 2 per unit
	RT	Residential Two-Flat, Townhouse, and Multi-Unit District	Single family detached, two to three flats, townhomes, multifamily	1.05-1.50	35-42	15 feet or 12% of lot depth, whichever is less	No	1 per unit
	RM	Residential Multi-Unit District	Townhomes, multifamily	1.70-6.60	47-None	15 feet or 12% of lot depth, whichever is less	Yes	1 per unit
Business	B1	Neighborhood Shopping District	Storefront-style shopping, residential dwelling above ground floor	1.20-5.00	38-80	None, or 50% of abutting residential lots	Yes	1 per residential unit; None for first 4,000 square feet, then 2.5 spaces per 1,000 square feet commercial
	B2	Neighborhood Mixed-Use District	Storefront-style shopping, residential dwelling at ground floor,	1.20-5.00	38-80	None, or 50% of abutting residential lots	Yes	1 per residential unit; None for first 4,000 square feet, then 2.5 spaces per 1,000 square feet commercial
	B3	Community Shopping District	Destination and auto-oriented retail and services, residential dwelling above ground floor	1.20-5.00	38-80	None, or 50% of abutting residential lots	Yes	1 per residential unit; None for first 4,000 square feet, then 2.5 spaces per 1,000 square feet commercial

Type	Code	Title	Typical Uses	Floor to Area Ratio	Max Height (feet)	Front Setbacks	Mixed use Allowed	Parking Requirements
Commercial	C1	Neighborhood Commercial District	Destination and auto-oriented retail and services, residential dwelling above ground floor	1.20-5.00	38-80	None, or 50% of abutting residential lots	Yes	1 per residential unit; None for first 4,000 square feet, then 2.5 spaces per 1,000 square feet commercial
	C2	Motor Vehicle-Related Commercial District	Motor vehicle-related commercial district	1.20-5.00	38-80	None, or 50% of abutting residential lots	Yes	1 per residential unit; None for first 4,000 square feet, then 2.5 spaces per 1,000 square feet commercial
	C3	Commercial, Manufacturing, and Employment District	Commercial, manufacturing uses	1.20-5.00	38-80	None, or 50% of abutting residential lots	No	None for first 4,000 square feet, then 2.5 spaces per 1,000 square feet commercial
Manufacturing	M1	Limited Manufacturing/Business Park District	Low impact manufacturing, wholesaling, and warehousing	1.20-3.00	None	10 feet, or equal to abutting and opposite residential lots	No	1 space per 4 employees
	M2	Light Industry District	Moderate impact manufacturing, wholesaling and warehousing	1.20-3.00	None	None, or equal to abutting and opposite residential lots	No	1 space per 4 employees
	M3	Heavy Industrial District	High impact manufacturing and waste related uses	1.20-3.00	None	None, or equal to abutting and opposite residential lots	No	1 space per 4 employees
Parks and Open Space	POS	Parks and Open Space District	Parks, cemeteries, and open spaces				No	
Planned Development	PD	Planned Development District	Hospitals, Water Plants, Entertainment Grounds	Per district ordinance		Per district ordinance	Yes	Per district ordinance
Planned Manufacturing	PMD	Planned Manufacturing District	Processing assemblies, construction shops	3.00 maximum		None, or equal to abutting and opposite residential lots	No	Based on use

Source: Chicago Zoning Ordinance and Land Use Ordinance, Municipal Code of Chicago, March 14, 2012

The Chicago Zoning Ordinance allows for transit-supportive development patterns that support residential, commercial, and business densities within the RLE station areas. Medium-to-high-density residential areas, neighborhood commercial and mixed-use developments are allowable

within the existing codes. These districts have various requirements for minimum lot sizes, lot widths or maximum heights.

Zoning in the project area consists of a mix of residential, office, and commercial space and allows for opportunities for greater density, encouraging transit-supportive, compact urban design. Small building setbacks and street level, pedestrian-oriented buildings are encouraged to enhance pedestrian activity and create a friendly street environment for pedestrian users.

The Ordinance has parking and loading requirements to manage the supply of off-street parking, improving mobility, promoting the use of alternative modes of transportation, supporting existing and new economic development, and enhancing the urban environment surrounding CTA or Metra rail station entrances. Minimum off-street parking ratios are reduced by 50 percent from otherwise applicable standards for rehabilitation or reuse of existing structures within 600 feet of a CTA or Metra rail station entrance for parking regulations within the station areas.

4.2.1 Bus Rapid Transit Alternative

Zoning districts adjacent to the BRT Alternative stop locations are listed in Table 4-2. The northern stop locations (103rd, 111th, and Kensington) would best support transit-supportive development. The 130th Street stop location contains a mix of allowable uses, with the majority heavily reliant on the automobile.

Table 4-2: Bus Rapid Transit Alternative Stop Location Zoning Codes

Type	Code	District Description	103rd	111th	Kensington	130th
Residential	RS	Residential Single-Unit	x	x	x	x
	RT	Residential Two-Flat, Townhouse, and Multi-Unit	x	x	x	
	RM	Residential Multi-Unit	x	x	x	x
Business	B1	Neighborhood Shopping	x	x	x	
	B2	Neighborhood Mixed-Use	x	x	x	
	B3	Community Shopping	x	x	x	x
Commercial	C1	Neighborhood Commercial	x	x	x	
	C2	Motor Vehicle-Related Commercial			x	x
	C3	Commercial, Manufacturing, and Employment				
Manufacturing	M1	Limited Manufacturing/Business Park	x	x	x	x
	M2	Light Industry				
	M3	Heavy Industrial			x	x

Type	Code	District Description	103rd	111th	Kensington	130th
Parks and Open Space	POS	Parks and Open Space		x	x	x
Planned Development	PD	Planned Development	x	x	x	x
Planned Manufacturing	PMD	Planned Manufacturing				

Source: Chicago Zoning Ordinance and Land Use Ordinance, Municipal Code of Chicago, September 12, 2012

4.2.2 Union Pacific Railroad Rail Alternative

Zoning districts within the station areas of all UPRR Rail Alternative options are listed in **Table 4-3**. The zoning profiles of the northern station areas (103rd Street, 111th Street, and 115th Street) would best support transit-supportive development. The 130th Street station option areas contain a mix of allowable uses heavy in business, commercial, and manufacturing with minimal opportunity for mixed-use development.

Table 4-3: Union Pacific Railroad Rail Alternative Station Area Zoning Code Designations

Type	Code	District Description	103rd	111th	115th	130th South	130th West
Residential	RS	Residential Single-Unit	x	x	x	x	x
	RT	Residential Two-Flat, Townhouse, and Multi-Unit	x	x	x		
	RM	Residential Multi-Unit		x	x		
Business	B1	Neighborhood Shopping	x	x	x	x	x
	B2	Neighborhood Mixed-Use	x		x		
	B3	Community Shopping	x	x	x	x	x
Commercial	C1	Neighborhood Commercial	x	x	x		
	C2	Motor Vehicle-Related Commercial	x		x		x
	C3	Commercial, Manufacturing, and Employment					
Manufacturing	M1	Limited Manufacturing/Business Park	x	x	x	x	x
	M2	Light Industry					
	M3	Heavy Industrial			x		x
Parks and Open Space	POS	Parks and Open Space	x		x	x	x
Planned Development	PD	Planned Development	x	x	x	x	x
Planned Manufacturing	PMD	Planned Manufacturing				x	

Source: Chicago Zoning Ordinance and Land Use Ordinance, Municipal Code of Chicago, September 12, 2012

4.2.3 Halsted Rail Alternative

Zoning districts within the Halsted Rail Alternative station areas are listed in **Table 4-4**. As shown below, all four station areas are similar in zoning profiles and would equally support transit-supportive development.

Table 4-4: Halsted Rail Alternative Station Area Zoning Code Designations

Type	Code	District Description	103rd	111th	119th	Vermont
Residential	RS	Residential Single-Unit	x	x	x	x
	RT	Residential Two-Flat, Townhouse, and Multi-Unit	x	x	x	x
	RM	Residential Multi-Unit			x	
Business	B1	Neighborhood Shopping	x	x	x	x
	B2	Neighborhood Mixed-Use			x	
	B3	Community Shopping	x	x	x	x
Commercial	C1	Neighborhood Commercial	x	x	x	x
	C2	Motor Vehicle-Related Commercial	x	x	x	x
	C3	Commercial, Manufacturing, and Employment				
Manufacturing	M1	Limited Manufacturing/Business Park	x	x	x	x
	M2	Light Industry				
	M3	Heavy Industrial				x
Parks and Open Space	POS	Parks and Open Space	x		x	
Planned Development	PD	Planned Development	x	x	x	x
Planned Manufacturing	PMD	Planned Manufacturing			x	

Source: Chicago Zoning Ordinance and Land Use Ordinance, Municipal Code of Chicago, September 12, 2012

4.3 Land Use and Economic Development Plans and Policies

In the Chicago metropolitan area, land development is guided by regional planning goals and objectives implemented through local land use plans, economic development plans, and interrelated policies, zoning, and incentives. The land use and economic development plans and policies that are summarized below are applicable to the entire project area, unless otherwise noted for a particular alternative. Relevant transportation plans are discussed in the *Transportation Technical Memorandum*.

4.3.1 Summary of Land Use Plans

4.3.1.1 Chicago Metropolitan Agency for Planning *GO TO 2040* Regional Plan

The CMAP serves as the regional planning body and produced *GO TO 2040* (CMAP 2010) as the comprehensive regional plan to help the seven counties and 284 communities in the Chicago metropolitan area plan together for sustainable growth through mid-century and beyond. The link between transportation and land use is recognized by CMAP as an important element of building livable communities. Notably, the RLE Project is a project of regional significance and is on the list of "fiscally constrained projects."

GO TO 2040 states that "growth that emphasizes access to transit and other transportation alternatives can reduce our reliance on cars, helping to reduce congestion and transportation costs for everyone." It also states that "the public sector cannot create a market for redevelopment where none exists, but it can invest in infrastructure and institute regulatory changes to make redevelopment more viable." Finally, *GO TO 2040* states that "community choices about land use and housing should also emphasize principles that improve livability, such as support for transit, walking, and bicycling."

While *GO TO 2040* talks in broad terms, it prioritizes updating and maintaining the existing transit system over expansion. The regional plan also discusses livability—the ability to access services easily within a community—as a main goal for the region, and specifically discusses how access for disabled populations is an important element towards achieving livability.

GO TO 2040 states that local land use decisions should focus on the interrelationship of transportation, land use, and housing, with an emphasis on development patterns that support the use of public transit and access to jobs. Improving public transit is a central element of the regional plan, and supportive land use planning is needed to make transit work well.

4.3.1.2 Transit-Friendly Development Guide

The *Transit-Friendly Development Guide* (CTA 2009) designates each of the CTA's 144 rail stations with one of seven typologies that are common across the rail system. The designations are intended to shape the public's expectations about potential development while identifying the nearby zoning and infrastructure assets that maximize each station as a community anchor. The CTA's 95th Street Terminal is designated as an "Urban Neighborhood."

4.3.1.3 What Will Your Station Look Like?

What Will Your Station Look Like? (2010) was prepared by Developing Communities Project, Inc. (DCP) in conjunction with CMAP, the Metropolitan Planning Council, and the Center for Neighborhood Technology to summarize a community vision of the proposed RLE Project stations. Nearly 130 residents, stakeholders, and public officials attended a vision session on September 14, 2010 to define their use of the RLE Project, and this report includes a preliminary assessment of station area uses, urban design, and densities produced in conjunction with the local stakeholders.

4.3.1.4 Calumet Area Land Use Plan

The *Calumet Area Land Use Plan* (City of Chicago Department of Planning and Development 2002) provides historical background, vision and goals, and a land use plan for largest industrial area in Chicago. The Calumet area has over 1,000 acres suitable for manufacturing, or almost 60 percent of Chicago's available industrial land. Created simultaneously with the Land Use Plan, the Lake Calumet Industrial Corridor Tax Increment Finance (TIF) District is a key method for the Plan's implementation and covers roughly 12,000 acres. A center for industrial development is the Illinois International Port District, which operates the largest intermodal center in the United States, with over 9 million containers per year (2001). In addition, about 4,000 acres are to be managed as the Calumet Open Space Reserve for wildlife habitat and recreation.

4.3.1.5 City Space: An Open Space Plan for Chicago

The *City Space: An Open Space Plan for Chicago* (City of Chicago, Chicago Park District, and Forest Preserve District of Cook County 1998) is a comprehensive plan for creating and preserving open space throughout the City of Chicago. The Plan has two basic goals for the City: (1) each community needs enough acres of open space available to serve the residents who live there, and (2) residents of every community deserve to have parks or other open spaces that are within reasonable travel distances. The Plan singles out the Lake Calumet area as the City's most substantial wetland and natural area, containing 1,000 acres out of the approximately 3,700 acres within the Forest Preserve District of Cook County.

4.3.2 Summary of Economic Development Plans and Studies

4.3.2.1 Chicago Sustainable Industries: A Manufacturing Work Plan for the 21st Century

The *Chicago Sustainable Industries, Phase One: A Manufacturing Work Plan for the 21st Century* (City of Chicago Department of Housing and Economic Development 2011) is a comprehensive planning initiative to support existing manufacturers, manufacturing sub-sectors, and the city's competitive advantages. In the 1990s, Chicago designated 24 Industrial Corridors to focus its industrial retention efforts. Most of these corridors have multi-modal access, favorable zoning, and TIF financing incentives. Three of the 24 Industrial Corridors are completely or partially within the project area: Calumet, Pullman, and West Pullman.

4.3.2.2 Cook County Comprehensive Economic Development Strategy Report

The Cook County *Comprehensive Economic Development Strategy Report* (Cook County Department of Economic Development 2009) is a cooperative regional approach to business development and retention. The County supports planning and development for new public transit lines and transit-oriented development (TOD). One of the ten regional objectives states that expanding access to public transit is a critical factor in making sure that residents in all areas of the region can access affordable transportation options to get to and from job centers. In addition, 1 of 19 regional strategies is to "join other local, state and national organizations to advocate for and plan new commuter rail options that expand existing rail lines, particularly in areas south, southeast, southwest and northwest in the region," and specifically supports the CTA's Red Line Extension.

4.3.2.3 What Will Your Station Look Like?

As described in Section 4.3.1.3, *What Will Your Station Look Like?* summarizes a community vision of the proposed RLE Project stations, desired station amenities, and ideas for station area development, such as small retail, neighborhood grocery, affordable housing, and a bank. Conceptual station area plans for the 103rd, 111th, 115th, and 130th stations were developed in a visioning session with community input. Based on public feedback, the proposed station on the east (i.e., the South Station Option) was preferred by the local community for the 130th Street station.

4.3.2.4 130th Street Station Market/Access Study

The *130th Street Station Market/Access Study* (Chicago Department of Transportation [CDOT] 2010) built upon the CTA's RLE Alternatives Analysis and examined TOD opportunities for the 130th Street station options. The study analyzed market potential, identified development options, evaluated overall accessibility, and provided station concept plans and a vision statement. The study provides information to support the land use and economic development ratings of the FTA's New Starts Program.

4.3.2.5 Transit Equity Matters

*Transit Equity Matters: A Regional Analysis of the Red Line and Two Other proposed CTA Transit Line Extensions (*Voorhees Center, University of Illinois at Chicago 2009) evaluates the RLE Project relative to the CTA's Orange and Yellow line extensions. The study compared these projects using a regional Equity Index with 19 indicators based on transportation equity, environmental justice, and livability. In summary, the RLE Project would affect a high priority area for transit investment with a score of 32 out of a possible 38 points. The RLE Project would also support the U.S. Department of Transportation-Housing and Urban Development-Environmental Protection Agency Interagency Partnership for Sustainable Communities and its livability principles. The TOD opportunities are also evaluated according to the FTA's New Starts criteria.

4.3.2.6 The Case for Transit-Oriented Development in the Greater Roseland Area

The Case for Transit-Oriented Development in the Greater Roseland Area (Voorhees Center, University of Illinois at Chicago 2005) is a report produced for DCP as part of its efforts to promote the RLE Project, to link jobs and economic development, and pursue TOD in Greater Roseland. Specifically, the report focuses on the proposed Michigan Avenue station and the context for future development, with a focus on unmet consumer demand, available vacant land, and potential land uses.

4.3.2.7 Improving Access, Increasing Livability: The CTA Red Line South Extension

Improving Access, Increasing Livability: The CTA Red Line South Extension (CMAP 2012) highlights the livability impacts of the RLE Project and provides a quantitative analysis of its benefits for the Greater Roseland Area. This report also provides data on station area existing conditions in anticipation of future development, as well as projected changes in commute times, access to jobs, and access to community amenities.

4.3.2.8 Chicago Housing Authority Plans

Plan Forward: Communities That Work (Chicago Housing Authority [CHA] 2013) is the latest plan for public housing in Chicago. The new plan takes as its starting point the successes and lessons of the *Plan for Transformation* (CHA 2000; see description below). According to *Plan Forward*, "CHA's new approach accounts for recent economic uncertainty and changing market conditions, reconsiders existing strategies, and develops forward-thinking, creative policies that will help people and communities prosper. It identifies how CHA will work to fulfill its existing commitments, and sets forth how the agency, with a wide array of partners, will provide housing that promotes the health and vitality of neighborhoods and plays the positive role that it can in people's lives, and how it will assist residents along a path to greater economic independence."

Plan for Transformation (CHA 2000) is a long-term plan to rehabilitate or redevelop the entire stock of public housing in Chicago. According to the plan, the City's public housing stock in 2000 was 38,776 units. After the plan's completion, the City will have approximately 25,000 remaining units. The plan calls for the demolition of high-rise developments, the rehabilitation of scattered-site, senior and lower-density family properties, and the construction of new mixed-income developments. Relative to the RLE Project and the UPRR Alternative, CHA has invested $250 million in renovations within Altgeld Gardens and has plans to renovate more units. Altgeld Gardens contains approximately 2,000 units, or 8 percent of the City's projected public housing stock of 25,000 units.

4.3.3 Summary of Transit-Supportive Policies

As described in Sections 4.3.1 and 4.3.2, the City of Chicago has a number of transit-supportive plans and studies that relate to the project area. These plans contain numerous policies that could serve as a catalyst for transit-supportive development if one of the RLE build alternatives is constructed. The following subsections summarize these transit-supportive policies, as well as related programs, according to the criteria established by the FTA New Starts Program that could provide federal funding for the RLE Project.

4.3.3.1 Growth Management

The growth management factors that influence transit-supportive development include (1) regional policies to concentrate development around established activity centers and transit, and (2) local plans, zoning, and capital improvement programs that support the regional policies. Another factor that influences transit-supportive development relates to regional policies on land conservation and management. The relevant growth management policies for the project area are summarized below.

<u>Concentration of Development around Established Activity Centers and Regional Transit</u>

- CMAP's *GO TO 2040* (2010) is the region's first comprehensive long-range plan. The plan addresses livability through land use and housing, TOD strategies, and new transit investments. Notably, the RLE Project is a highlighted project of regional significance and on the list of fiscally constrained projects.

- The *Cook County Comprehensive Economic Development Strategy Report* (2009) promotes a regional objective to expand access to public transit as an affordable transportation option to and from job centers. This report also promotes regional strategies to use TOD as a green development tool and to expand existing rail lines, including CTA's Red Line Extension.

- CTA's *Transit-Friendly Development Guide* (2009) is a site planning tool for future transit-supportive development. All CTA stations were designated into one of the following station typologies: major activity center, local activity center, dense urban neighborhood, urban neighborhood, service employment district, and manufacturing employment district. General design guidelines are provided for each station type, parking, connectivity, and placemaking. A development guidelines matrix simplifies all recommendations into one spreadsheet.

- The Regional Transportation Authority (RTA) has financial and budget oversight of the CTA, Pace (suburban buses), and Metra (commuter trains), and has a history of promoting TOD through planning and policies. The RTA's *Moving Beyond Congestion Strategic Plan* (2007) supports TOD and specifically calls for the regional transit system to integrate transit investments with local and regional planning processes and to integrate funding with TOD.

- The Center for Neighborhood Technology and its partner, the Center for Transit-Oriented Development, developed a planning tool called the Housing + Transportation Affordability Index (H+T Index) that measures the affordability of housing by factoring in both housing and transportation costs for a specific neighborhood. First developed in 2008, this planning tool can be used to promote more affordable housing choices by leveraging existing infrastructure.

<u>Land Conservation and Management</u>

- Reaching back to the Burnham Plan of 1909, CMAP's *GO TO 2040* (2010) promotes a regional green infrastructure network that follows waterway corridors, expands existing preserves, and creates new preserves. The plan specifically recommends the preservation of an additional 150,000 acres of land across the seven county regions within the next 30 years.

- The City of Chicago's *Calumet Area Land Use Plan* (2001) calls for the redevelopment of 1,000 acres of vacant industrial land (60 percent of the city's available industrial land), while at the same time restoring and preserving about 4,000 acres as the Calumet Open Space Reserve.

- The *City Space: An Open Space Plan for Chicago* (1998) singles out the Lake Calumet area as the City's most substantial wetland and natural area. The proposed 130th Street station could provide access to this area via a bus transfer.

4.3.3.2 Transit-Supportive Corridor Policies

According to the FTA New Starts guidelines, the transit corridor planning process should include a substantial focus on land use planning and may involve conceptual plans, local plans, and capital improvement programs. The factors that determine the influence of transit-supportive corridor policies include (1) plans and policies to increase corridor and station area development; (2) plans and policies to enhance transit-friendly character of corridor and station area

development; (3) plans to improve pedestrian facilities and facilities for persons with disabilities; and (4) parking policies. The relevant corridor plans and policies for the project area are summarized below.

Plans and Policies to Increase Corridor and Station Area Development

- *What Will Your Station Look Like?* (2010) is a report that summarizes a community vision session on the RLE Project and potential station area development including infill, density, land uses, parking, streetscape improvements, and conceptual plans and renderings.

- The *130th Street Station Market/Access Study* (2010) analyzes the proposed station options for the 130th Street station relative to the FTA's New Starts criteria. The study includes conceptual station area plans with access and land use recommendations.

- *Transit Equity Matters: A Regional Analysis of the Red Line and Two Other proposed CTA Transit Line Extensions* (2009) evaluates the RLE Project using a regional Equity Index with 19 indicators based on transportation equity, environmental justice, and livability. In addition, TOD potential for the 103rd Street, 111th Street, Michigan Avenue, and 130th Street stations is evaluated according to the following FTA New Starts criteria: development potential of land; transit-supportive plans and policies; and economic climate.

- *The Case for Transit-Oriented Development in the Greater Roseland Area* (2005) is a report that supports the RLE Project, promotes better access to jobs and economic development, and evaluates TOD at the proposed Michigan Avenue station.

Plans and Policies to Enhance Transit-Friendly Character of Corridor and Station Area Development

- The CDOT's "Model Block Program" allocates money for sidewalk improvements by ward. Each alderman can use this fund to build or reconstruct sidewalks in the community.

- Halsted Street has recently undergone a number of streetscape improvements, including street resurfacing, streetscaping, and a landscaped median.

Plans to Improve Pedestrian Facilities and Facilities for Persons with Disabilities

- The *Chicago Pedestrian Plan* (CDOT 2012) was developed by CDOT with collaboration with the Mayor's Pedestrian Advisory Council to identify new opportunities and ongoing initiatives that will strengthen Chicago's pedestrian environment. Chicago has double the national average for hit and run pedestrian fatalities; therefore, the City has set a goal to reduce pedestrian fatalities to zero over the next ten years. The tools for safer streets and action items for short-, mid-, and long-term implementation are key elements of the Plan.

- The Mayor's Office for People with Disabilities coordinates the planning and installation of all sidewalk ramp projects in the city.

- The CTA/CDOT "Walk to Transit" is a program designed to add and improve pedestrian connections and accessibility at transit stations.

- The CDOT Pedestrian Program is the primary lead on pedestrian issues and has a wide range of programs directed toward improving safety and activity, including Safe Streets for Chicago, Safe Routes Ambassadors, Safe Routes to Schools, Walk to Transit, Safe Routes for Seniors, WalkChicago!, pedestrian fatality investigations, and education initiatives.

- Safe Streets for Chicago is a citywide initiative to improve safety on city streets, particularly related to pedestrian safety. One recent effort was crosswalk enforcement to alert motorists that they must yield to pedestrians in crosswalks.

- The City of Chicago has a Complete Streets policy to design the entire roadway ROW to accommodate all users: pedestrians, bicyclists, motorists, and transit users.

- The CDOT Streetscape program is charged with enhancing the public way to support the revitalization of commercial corridors. Enhancing the pedestrian environment is one of the goals. The City has published Streetscape Guidelines.

Parking Policies

- Within the Chicago Zoning Ordinance, specific parking requirements are included for transit-served locations. In B, C, or D districts, minimum off-street parking ratios are reduced by 50 percent from otherwise applicable standards for rehabilitation or reuse of existing structures within 600 feet of a CTA or Metra rail station entrance.

- The Chicago Zoning Ordinance states that bicycle parking must be provided in accordance with the off-street parking ratios. The Zoning Code provides details on design and location.

- The CTA has a program to install bicycle parking at rail stations.

- The terminal station is proposed to include parking facilities with approximately 2,300 spaces in the year 2030. Intermediate stations at 103rd and 111th Streets are proposed to include approximately 200 parking spaces, while the 119th Street (Halsted Rail) and the Michigan Avenue (UPRR Rail) stations are proposed to include approximately 1,000 spaces by 2030.

4.3.3.3 Supportive Zoning Regulations Near Transit Stations

Zoning establishes a framework for future development. According to the FTA, existing and proposed zoning should allow transit-supportive densities and uses, incentives to increase station area development, provisions to enhance transit-supportive character and pedestrian access, and provisions for reduced parking. The relevant zoning regulations and provisions for the project area are summarized below.

Zoning Ordinances that Support Increased Development Density in Transit Station Areas

- Existing zoning along the corridor and around station areas is transit-supportive. Floor area bonuses are included in the Chicago Zoning Ordinance. These are intended to provide an economic incentive for developers to provide affordable housing and public amenities that improve the quality of life for city residents, employees, and visitors, and are a benefit to the

public. Specific menu items are included in the Ordinance that relate to transit-supportive actions, include public plazas, sidewalk widening, streetscape improvements, transit station improvements, and concealed parking.

Zoning Ordinances that Enhance Transit-Oriented Character of Station Area Development

- The Chicago Zoning Ordinance and Land Use Ordinance address "Pedestrian Streets." The regulations of this section are intended to preserve and enhance the character of streets and intersections that are widely recognized as Chicago's best examples of pedestrian-oriented shopping districts. The regulations are intended to promote transit, economic vitality, and pedestrian safety and comfort. While Halsted Street or Michigan Avenue south of downtown Chicago has not been designated as a Pedestrian Street, they contain some of the relevant characteristics. As TOD occurs around station areas, either corridor could receive this designation.

Zoning Allowances for Reduced Parking and Traffic Mitigation

- The Chicago Zoning Ordinance and Land Use Ordinance address Parking and Zoning. In B, C, or D districts, minimum off-street parking ratios are reduced by 50 percent from the otherwise applicable standards for rehabilitation or reuse of existing structures within 600 feet of a CTA or Metra rail station entrance.

4.3.3.4 Tools to Implement Land Use Policies

According to the FTA, the availability and effectiveness of tools for transit agencies and local jurisdictions to implement transit-supportive policies are as important as the plans and policies. Outreach to government agencies and the community, regulatory and financial incentives, and efforts to engage developers are primary tools to facilitate transit-supportive development. The relevant tools to implement land use policies within the project area are summarized below.

Outreach to Government Agencies and the Community in Support of Land Use Planning

- *Improving Access, Increasing Livability: The CTA Red Line South Extension* (CMAP 2012) highlights the livability impacts of the RLE Project and provides a quantitative analysis of its benefits to the Greater Roseland Area. CMAP launched its Local Technical Assistance program, through which it provides planning and grant assistance to advance the principles of *GO TO 2040*. Through the Local Technical Assistance program, DCP, CTA, CMAP, and Loyola University Chicago's Center for Urban Research and Learning worked to better understand how the proposed Red Line South Extension to 130th Street would affect the livability of the Greater Roseland area and the region as a whole. Substantial input from the local community was recorded through 15 focus groups and 20 interviews, with a goal of reaching approximately 175 community stakeholders.

- CMAP's *GO TO 2040* (2010) is the region's first comprehensive long-range plan. The planning process entailed an extensive outreach program to solicit input from local municipalities, agencies, civic groups, private sector interests, and the general public. The RLE Project is a highlighted project of regional significance and on the list of "fiscally constrained projects."

- *What Will Your Station Look Like?* (2010) summarizes a community vision meeting facilitated by DCP, in conjunction with CMAP, Metropolitan Planning Council, and the Center for Neighborhood Technology. Nearly 130 residents, stakeholders and public officials attended the meeting to define station area development and land uses.

- The *130th Street Station Market/Access Study* (2010) analyzes the proposed station options for the 130th Street station relative to the FTA's New Starts criteria. The study includes conceptual station area plans with access and land use recommendations. The study was produced with input from residents of Altgeld Gardens and the non-profit DCP.

- The RTA's Community Planning Program provides funding for local planning projects that focus on TOD and local transit improvements. The RTA program provided funding for *Transit Equity Matters: A Regional Analysis of the Red Line and Two Other proposed CTA Transit Line Extensions (*2009), which among other topics evaluated the TOD potential for the 103rd Street, 111th Street, Michigan Avenue, and 130th Street stations. The RTA, CTA, and DCP were key participants.

- *The Case for Transit-Oriented Development in the Greater Roseland Area* (2005) provides a vision for TOD at the proposed Michigan Avenue station. The report was produced with substantial input from the non-profit DCP, which is a local community group representing businesses, residents, and institutions.

Regulatory and Financial Incentives to Promote Transit-Supportive Development

- As documented in the *Chicago Sustainable Industries* (2011), three industrial corridors are within the project area. New industrial development in these corridors could provide local jobs or could be accessible via the RLE stations with bus transfers. Relevant to the UPRR Rail Alternative, the Pullman Industrial Corridor is off 115th Street, east of Michigan Avenue, and the Lake Calumet Industrial Corridor is off 130th Street, east of I-94. The West Pullman Industrial Corridor is one block west of the Halsted Rail Alternative 119th Street station location. These corridors are the focus of numerous City programs to encourage industrial development and job retention.

- Four TIF districts are within the project area. Funds from TIF districts can be used for capital improvements to support development. The West Pullman TIF and 119th/Halsted TIFs are relevant to the Halsted Rail Alternative corridor. The Lake Calumet Industrial Corridor TIF is relevant to the UPRR Rail Alternative. The Roseland/Michigan TIF is relevant to all build alternatives.

- Portions of the UPRR corridor are within Enterprise Zone 3, and portions of the Halsted Street corridor are within Enterprise Zone 3 and 6.

- The area around 119th Street and Halsted Street was designated as a Redevelopment Project Area in 2001.

Efforts to Engage the Development Community in Station Area Planning & Development

- The City of Chicago is working with a developer (Crown Commercial Real Estate & Development, Inc.) on the Roseland Plaza redevelopment proposal, which would be adjacent to the Michigan Avenue station. The proposal provides for 49,000 square feet of commercial space and includes a grocery store, pharmacy, clothing store, and a bank. The City provided TIF financing of $4,000,000 and land write-down costs of $3,000,000. The developer provided a 25-foot easement for the RLE alignment along the UPRR corridor.

4.3.3.5 Performance of Transit-Supportive Policies

The FTA New Starts guidelines encourage project sponsors, such as the CTA, to demonstrate the relative performance of transit-supportive policies in facilitating development within a proposed project area or within the region. For example, the successful application of policies to facilitate new urbanist developments anywhere in the region is an indicator of the region's potential success in applying transit-supportive policies within the project area. Demonstrated cases of development within the region and station area development proposals in the project area are listed and summarized below.

Demonstrated Cases of Development Affected by Transit-Supportive Policies

- Chicago West Side - Bethel Center at Green Line Pulaski station
- Chicago North Side - Senior housing, parking garage, and Target at Red Line Wilson station

Station Area Development Proposals and Status

The City of Chicago is working with a developer on the Roseland Plaza redevelopment proposal, adjacent to the proposed Michigan Avenue station. The City's Community Development Commission designated the developer in February 2005. The City approved the sale of its land and land write-down costs in May 2009. The developer modified its proposal and received approval of its Planned Development application from the Chicago Plan Commission in October 2011.

4.3.3.6 Plans and Policies to Maintain or Increase Affordable Housing

Any plans and policies to identify and address specific housing affordability needs along the corridor, as well as financial commitments to preserve or build new affordable housing, is an important consideration under newly proposed guidelines for FTA funding. The UPRR Alternative corridor would benefit the Altgeld Gardens public housing community, which has approximately 2,000 units or 8 percent of the City's 25,000 public housing units. CHA has invested $250 million to rehabilitate existing units, and is working to identify future opportunities within Altgeld Gardens.

4.3.3.7 Transit Investment and Regional Land Use

The existing context of a project area, including the availability of developable land and the corridor economic environment, are key factors in determining the likelihood of transit-supportive land use changes in the future due to a major transit investment. These factors also

help determine the potential for a major transit investment to influence regional land use patterns. The available vacant land within the ½-mile station areas and corridor economic conditions for each alternative are summarized below.

Adaptability of Station Area Land for Development

The station areas along the UPRR corridor include vacant parcels and abandoned industrial sites, particularly along the railroad and near 115th and 130th Streets. These sites have redevelopment potential for transit-oriented uses.

- 103rd Street station area - 3.6 percent vacant land
- 111th Street station area - 2.3 percent vacant land
- Michigan Avenue station area - 5.5 percent vacant land
- 130th Street - South Option station area - 7.4 percent vacant land
- 130th Street - West Option station area - 5.8 percent vacant land

The station areas along the Halsted corridor include some vacant parcels, particularly near the 119th Street station location. These sites have redevelopment potential for transit-oriented uses.

- 103rd Street station area - 1.3 percent vacant land
- 111th Street station area - 2.6 percent vacant land
- 119th Street station area - 20.6 percent vacant land
- Vermont Street station area - 1.4 percent vacant land

The station areas along the Michigan Avenue corridor include some vacant parcels, particularly near 115th Street. These sites have redevelopment potential for transit-oriented uses.

- 103rd Street station area - 3.0 percent vacant land
- 111th Street station area - less than 0.1 percent vacant land
- Kensington Street station area - 3.9 percent vacant land
- 130th Street station area - 8.2 percent vacant land

Corridor Economic Environment

The overall economy within the project area was affected by the decline in the manufacturing and steel-producing industries in the Lake Calumet area during the 1980s. In addition, the Pullman Company closed down in 1982. Local suppliers and businesses for these industries began to close as well. Thousands of people lost their jobs, so there was less money to spend in the local economy. The economic fallout of this industrial downturn is still felt within the project area; however, the City of Chicago is promoting new development and redevelopment through plans and policies, financial incentives, and interagency initiatives. Consequently, CMAP is projecting growth within all of the alternative corridors of the project area, as summarized below.

- The BRT Alternative alignment would be primarily along the Michigan Avenue corridor. The Michigan Avenue corridor would have steady growth between 2010 Base Year and year 2030 No Build conditions, according to CMAP forecasts. Population growth within the corridor, at 18 percent, would exceed the average population growth within the metropolitan area, at 15 percent. Employment growth would be at its highest rate within the Kensington Avenue stop area, at 28 percent; however, the 111th Street stop area would contain the highest concentration of jobs within the corridor. Table 4-5 contains the quantitative land use and economic development data for the 2010 Base Year and 2030 No Build conditions along the Michigan Avenue corridor.

Table 4-5: Quantitative Land Use and Economic Development Data for Bus Rapid Transit Alternative Alignment*

Data	2010 Base Year	2030 No Build	Growth
Metropolitan Area			
Total Population	2,653,719	3,053,595	15%
Total Employment	1,241,492	1,437,387	16%
Central Business District			
Total Employment	537,369	628,882	17%
Employment - Portion of Metropolitan Area	43%	44%	---
Central Business District Land Area (square mile)	3.65	3.65	---
Employment Density (jobs per square mile)	147,189	172,255	---
Corridor			
Total Population	45,873	54,159	18%
Total Employment	3,230	3,501	8%
Population - Portion of Metropolitan Area	1.73%	1.77%	---
Employment - Portion of Metropolitan Area	0.26%	0.24%	---
Corridor Land Area (square mile)	6.65	6.65	---
Population Density (persons per square mile)	6,899	8,145	---
Employment Density (jobs per square mile)	486	527	---
All Bus Rapid Transit Stops			
Housing Units	8,433	9,365	11%
Population	25,411	29,704	17%
Employment	1,684	1,892	12%
Land Area (square mile)	2.92	2.92	---
Housing Unit Density (units per square mile)	2,891	3,211	---
Population Density (persons per square mile)	8,712	10,183	---
Employment Density (persons per square mile)	577	649	---
103rd Street Stop			
Housing Units	2,943	3,168	8%
Population	8,579	9,711	13%
Employment	318	353	11%

Data	2010 Base Year	2030 No Build	Growth
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,748	4,034	---
Population Density (persons per square mile)	10,925	12,367	---
Employment Density (persons per square mile)	405	450	---
111th Street Stop			
Housing Units	2,559	2,938	15%
Population	7,555	9,108	21%
Employment	846	967	14%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,259	3,742	---
Population Density (persons per square mile)	9,621	11,598	---
Employment Density (persons per square mile)	1,077	1,232	---
Kensington Avenue Stop			
Housing Units	2,149	2,518	17%
Population	7,023	8,624	23%
Employment	485	623	28%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,736	3,207	---
Population Density (persons per square mile)	8,943	10,982	---
Employment Density (persons per square mile)	618	793	---
130th Street Stop			
Housing Units	1,400	1,505	8%
Population	4,218	4,753	13%
Employment	315	308	-2%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	1,782	1,917	---
Population Density (persons per square mile)	5,372	6,053	---
Employment Density (persons per square mile)	401	392	---

Source: Chicago Metropolitan Agency for Planning 2030 Forecast by Subzone, March 22, 2012 (No Build Supplemental March 12, 2013)
Note: * Quantitative data for the corridor and for stop area is measured for the area within ½ mile of the alignment.

- Between the 2010 Base Year and 2030 No Build conditions, the UPRR corridor would have population growth and varying employment growth, according to CMAP forecasts. Population growth within the UPRR corridor, at 16 percent, would remain consistent with the average population growth within the metropolitan area, at 15 percent. Employment growth would vary widely throughout the corridor's station areas. Employment changes would range from growth of 53 percent within the 103rd Street station area to a reduction of 35 percent within the 130th Street South Station Option area. The highest concentration of jobs would be within the 111th Street station area. Table 4-6 contains the quantitative land use and economic

development data for the 2010 Base Year and 2030 No Build conditions for all UPRR Rail Alternative options.

Table 4-6: Quantitative Land Use and Economic Development Data for Union Pacific Railroad Rail Alternative Alignments*

Data	2010 Base Year	2030 No Build	Growth
Metropolitan Area			
Total Population	2,653,719	3,053,595	15%
Total Employment	1,241,492	1,437,387	16%
Central Business District			
Total Employment	537,369	628,882	17%
Employment - Portion of Metropolitan Area	43%	44%	---
Central Business District Land Area (square mile)	3.65	3.65	---
Employment Density (jobs per square mile)	147,189	172,255	---
Corridor			
Total Population	43,001	49,918	16%
Total Employment	3,128	3,435	10%
Population - Portion of Metropolitan Area	1.62%	0	---
Employment - Portion of Metropolitan Area	0.25%	0.00	---
Corridor Land Area (square mile)	6.45	6.45	---
Population Density (persons per square mile)	6,663	7,735	---
Employment Density (jobs per square mile)	485	532	---
All Station Areas			
Housing Units	8,162	9,146	12%
Population	26,031	30,743	18%
Employment	2,136	2,309	8%
Land Area (square mile)	3.51	3.51	---
Housing Unit Density (units per square mile)	2,324	2,604	---
Population Density (persons per square mile)	7,411	8,753	---
Employment Density (persons per square mile)	608	657	---
103rd Street Station Area			
Housing Units	2,460	2,658	8%
Population	7,716	8,923	16%
Employment	231	353	53%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,132	3,385	---
Population Density (persons per square mile)	9,826	11,364	---
Employment Density (persons per square mile)	294	449	---

Data	2010 Base Year	2030 No Build	Growth
111th Street Station Area			
Housing Units	2,502	2,743	10%
Population	8,027	9,145	14%
Employment	1,035	1,137	10%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,186	3,493	---
Population Density (persons per square mile)	10,221	11,646	---
Employment Density (persons per square mile)	1,318	1,448	---
Michigan Avenue Station Area			
Housing Units	2,024	2,362	17%
Population	6,600	8,090	23%
Employment	359	468	30%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,578	3,008	---
Population Density (persons per square mile)	8,405	10,302	---
Employment Density (persons per square mile)	457	596	---
130th Street Station Area - South Station Option			
Housing Units	417	602	44%
Population	1,332	2,029	52%
Employment	301	195	-35%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	532	767	---
Population Density (persons per square mile)	1,696	2,584	---
Employment Density (persons per square mile)	383	249	---
130th Street Station Area - West Station Option			
Housing Units	1,196	1,298	9%
Population	3,760	4,314	15%
Employment	476	317	-33%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	1,523	1,654	---
Population Density (persons per square mile)	4,788	5,494	---
Employment Density (persons per square mile)	606	403	---

Source: Chicago Metropolitan Agency for Planning 2030 Forecast by Subzone, March 22, 2012 (No Build Supplemental March 12, 2013)
Note: * Quantitative data for the corridor and for each station or stop area is measured for the area within ½ mile of the alignment.

- The Halsted Street corridor would have slow population growth and substantial employment growth between the 2010 Base Year and 2030 under No Build conditions, according to CMAP forecasts. Population growth within the corridor, at 10 percent, would be below the average population growth within the metropolitan area, at 15 percent. Employment growth within the corridor, at 56 percent, would be well above the metropolitan average at 16 percent. The

most substantial growth in employment would be at the 119th Street and Vermont Avenue station areas, with growth rates of 184 percent and 169 percent, respectively. The highest concentration of jobs within the corridor would shift geographically, from 111th Street station to 119th Street station, between 2010 and 2030. Table 4-7 contains the quantitative land use and economic development data for the 2010 Base Year and 2030 No Build conditions for the Halsted Rail Alternative along the Halsted Street corridor.

Table 4-7: Quantitative Land Use and Economic Development Data for Halsted Rail Alternative Alignment*

Data	2010 Base Year	2030 No Build	Growth
Metropolitan Area			
Total Population	2,653,719	3,053,595	15%
Total Employment	1,241,492	1,437,387	16%
Central Business District			
Total Employment	537,369	628,882	17%
Employment - Portion of Metropolitan Area	43%	44%	---
Central Business District Land Area (square mile)	3.65	3.65	---
Employment Density (jobs per square mile)	147,189	172,255	---
Corridor			
Total Population	46,556	50,644	9%
Total Employment	2,930	4,530	55%
Population - Portion of Metropolitan Area	1.75%	1.66%	---
Employment - Portion of Metropolitan Area	0.24%	0.32%	---
Corridor Land Area (square mile)	5.74	5.74	---
Population Density (persons per square mile)	8,108	8,819	---
Employment Density (jobs per square mile)	510	789	---
All Station Areas			
Housing Units	8,314	8,775	6%
Population	25,044	27,346	9%
Employment	1,748	3,037	74%
Land Area (square mile)	3.14	3.14	---
Housing Unit Density (units per square mile)	2,647	2,794	---
Population Density (persons per square mile)	7,973	8,706	---
Employment Density (persons per square mile)	556	967	---

Data	2010 Base Year	2030 No Build	Growth
103rd Street Station Area			
Housing Units	2,502	2,501	0%
Population	7,377	7,638	4%
Employment	351	427	22%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,186	3,184.30	---
Population Density (persons per square mile)	9,394	9,727	---
Employment Density (persons per square mile)	447	544	---
111th Street Station Area			
Housing Units	2,384	2,592	9%
Population	6,999	7,737	11%
Employment	774	854	10%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,036	3,300	---
Population Density (persons per square mile)	8,913	9,853	---
Employment Density (persons per square mile)	985	1,087	---
119th Street Station Area			
Housing Units	1,797	1,995	11%
Population	5,919	6,730	14%
Employment	562	1,591	183%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,289	2,540	---
Population Density (persons per square mile)	7,537	8,571	---
Employment Density (persons per square mile)	716	2,026	---
Vermont Avenue Station Area			
Housing Units	1,631	1,688	4%
Population	4,749	5,240	10%
Employment	62	166	169%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,076	2,150	---
Population Density (persons per square mile)	6,048	6,673	---
Employment Density (persons per square mile)	78	211	---

Source: Chicago Metropolitan Agency for Planning 2030 Forecast by Subzone, March 22, 2012 (No Build Supplemental March 12, 2013)
Note: * Quantitative data for the corridor and for each station area is measured for the area within ½ mile of the alignment.

Section 5
Impacts and Mitigations

For the purpose of this analysis, the impacts and mitigations discussion has been organized into three impact categories—permanent, construction, and cumulative—with references to affected neighborhoods (see Figure 4-1). Permanent impacts relate to system operations after the project has been constructed, as well as land acquisitions necessary for the permanent ROW. Construction impacts are temporary and would occur for 1 year of construction staging and utility relocations, and for the 3-year construction phase of the project. Cumulative impacts are those of the project combined with other past, present, or foreseeable future projects within the project area.

5.1 No Build Alternative

The No Build Alternative is defined as the existing transportation system plus committed transportation improvements within CMAP's Fiscal Year 2010–2015 TIP, which are included in all alternatives (see *Transportation Technical Memorandum* for TIP improvements). In part, the No Build Alternative serves as a means to compare the benefits and impacts of the build alternatives. Table 5-1 highlights the overall impacts and the following subsections describe the specific impacts for the directly affected neighborhoods.

Table 5-1: Summary of No Build Alternative Impacts*

Phase	Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park
Permanent	Land Use	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
	Economic Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Construction	Land Use	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
	Economic Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Cumulative	Land Use	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
	Economic Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact

* Impact Categories: Not Applicable (---), Beneficial, No Impact, Not Adverse, Not Substantially Adverse, Adverse

5.1.1 Permanent Impacts - No Build Alternative

5.1.1.1 Land Use

The No Build Alternative would be inconsistent with the goals of CMAP's *GO TO 2040* Plan, which lists the RLE Project as a fiscally constrained project; however, the No Build Alternative would not create any new inconsistencies beyond those that already exist, and would have no impact on land use.

5.1.1.2 Economic Development

The No Build Alternative would be inconsistent with Cook County's *Comprehensive Economic Development Strategy Report,* which supports the Red Line Extension; however, the No Build Alternative would not create any new inconsistencies beyond those that already exist, and would have no impact on the project area with regard to economic development.

5.1.2 Construction Impacts - No Build Alternative

There would be no construction activity as a result of the No Build Alternative, so there would be no impact on land use or economic development.

5.1.3 Cumulative Impacts - No Build Alternative

5.1.3.1 Land Use

When considered with past, present, and reasonably foreseeable projects, land use conditions under the No Build Alternative would remain unchanged and would have no impact.

5.1.3.2 Economic Development

When considered with past, present, and reasonably foreseeable projects, economic development conditions under the No Build Alternative would remain unchanged and would have no impact.

5.2 Bus Rapid Transit Alternative

The BRT Alternative includes a 5.0-mile route from the CTA's 95th Street Terminal, along Michigan Avenue to 130th Street, and through Altgeld Gardens. New bus shelters and park & ride facilities would be constructed near 103rd Street, 111th Street, Kensington Avenue, and 130th Street; therefore, the BRT Alternative would directly affect the Roseland, West Pullman, and Riverdale neighborhoods only. Table 5-2 highlights the overall impacts after mitigation and the following subsections describe the specific impacts for the directly affected neighborhoods. If the alternative would not pass through a neighborhood, the impact category assigned to that neighborhood is "Not Applicable," which is represented by dash marks.

Table 5-2: Summary of Bus Rapid Transit Alternative Impacts after Mitigation*

Phase	Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park
Permanent	Land Use	---	Beneficial	---	Beneficial	Beneficial	---
	Economic Development	---	Not Adverse	---	Not Adverse	Not Adverse	---
Construction	Land Use	---	Not Adverse	---	Not Adverse	Not Adverse	---
	Economic Development	---	Beneficial	---	Beneficial	Beneficial	---
Cumulative	Land Use	---	No Impact	---	No Impact	No Impact	---
	Economic Development	---	No Impact	---	No Impact	No Impact	---

* Impact Categories: Not Applicable (---), Beneficial, No Impact, Not Adverse, Not Substantially Adverse, Adverse

5.2.1 Permanent Impacts and Mitigations - Bus Rapid Transit Alternative

The BRT Alternative alignment would be primarily along the Michigan Avenue corridor. The Michigan Avenue corridor would have steady growth between the 2010 base year and 2030 with the BRT Alternative, according to CMAP forecasts. With the BRT Alternative, population growth within the corridor, at 20 percent, would exceed the average population growth within the metropolitan area, at 15 percent. Employment growth would be at its highest rate within the 115th Street stop area, at 32 percent; however, the 111th Street stop area would contain the highest concentration of jobs within the corridor. Table 5-3 contains the quantitative land use and economic development data for the 2010 Base Year and 2030 with the BRT Alternative along the Michigan Avenue corridor.

Table 5-3: Quantitative Land Use and Economic Development Data for the Bus Rapid Transit Alternative Alignment*

Data	2010 Base Year	2030 with Bus Rapid Transit Alternative	Growth
Metropolitan Area			
Total Population	2,653,719	3,056,567	15%
Total Employment	1,241,492	1,439,154	16%
Central Business District			
Total Employment	537,369	629,690	17%
Employment - Portion of Metropolitan Area	43%	44%	---
Central Business District Land Area (square mile)	3.65	3.65	---
Employment Density (jobs per square mile)	147,189	172,476	---
Corridor			
Total Population	45,873	54,992	20%
Total Employment	3,230	3,544	10%

Data	2010 Base Year	2030 with Bus Rapid Transit Alternative	Growth
Population - Portion of Metropolitan Area	1.73%	1.80%	---
Employment - Portion of Metropolitan Area	0.26%	0.25%	---
Corridor Land Area (square mile)	6.65	6.65	---
Population Density (persons per square mile)	6,899	8,271	---
Employment Density (jobs per square mile)	486	533	---
All BRT Stops			
Housing Units	8,433	9,450	12%
Population	25,411	29,993	18%
Employment	1,684	1,926	14%
Land Area (square mile)	2.92	2.92	---
Housing Unit Density (units per square mile)	2,891	3,240	---
Population Density (persons per square mile)	8,712	10,282	---
Employment Density (persons per square mile)	577	660	---
103rd Street Stop			
Housing Units	2,943	3,187	8%
Population	8,579	9,776	14%
Employment	318	354	11%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,748	4,059	---
Population Density (persons per square mile)	10,925	12,450	---
Employment Density (persons per square mile)	405	451	---
111th Street Stop			
Housing Units	2,559	2,956	15%
Population	7,555	9,172	21%
Employment	846	993	17%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,259	3,764	---
Population Density (persons per square mile)	9,621	11,680	---
Employment Density (persons per square mile)	1,077	1,265	---
Kensington Avenue Stop			
Housing Units	2,149	2,547	19%
Population	7,023	8,727	24%
Employment	485	642	32%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,736	3,243	---
Population Density (persons per square mile)	8,943	11,113	---
Employment Density (persons per square mile)	618	818	---

Data	2010 Base Year	2030 with Bus Rapid Transit Alternative	Growth
130th Street Stop			
Housing Units	1,400	1,532	9%
Population	4,218	4,835	15%
Employment	315	309	-2%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	1,782	1,950	---
Population Density (persons per square mile)	5,372	6,157	---
Employment Density (persons per square mile)	401	393	---

Source: Chicago Metropolitan Agency for Planning 2030 Forecast by Subzone, March 22, 2012

Note: * Quantitative data for the corridor and for each station area is measured for the area within ½ mile of the alignment.

5.2.1.1 Land Use

The BRT Alternative would be inconsistent with the region's comprehensive plan, which supports the RLE Project along the UPRR corridor; however, implementation of the BRT Alternative would not create any new inconsistencies beyond those that already exist, would not create an adverse impact on land use, and would provide modest benefits to some neighborhoods.

A limited number of displacements would occur as a result of park & ride lots and parking garages as these facilities are proposed primarily on vacant land. Nevertheless, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended (Uniform Act) guarantees just compensation and relocation assistance for affected residential and business property owners and tenants. With just compensation and relocation assistance per the Uniform Act, these displacement impacts would be considered not adverse due to the availability of similar real estate in the project area and because the land is primarily vacant and underutilized. The park & ride lots and parking garages would be inconsistent with adjacent land uses, and zoning designations do not permit large, stand-alone surface parking lots or parking garages. Mitigation for the parking facilities would include a rezoning and screening, landscaping, and lighting appropriate for adjacent land uses.

Implementation of the BRT Alternative would result in modest travel time savings in the corridor compared to the No Build Alternative. The travel time savings between 95th and 130th Streets would be approximately five minutes when compared to the No Build Alternative (see Table 5-4). The proposed bus stops would improve land use accessibility for local residents who need goods and services from existing businesses in the corridor and need to transfer to the 95th Street Terminal. The proposed park & ride lots and parking garages would improve multi-modal accessibility for auto, bus, and rail transfers. As a result, existing land uses within the ½-mile area of proposed bus stops would benefit from improved travel times and access to the corridor and the 95th Street Terminal and CTA's regional rail network.

Table 5-4: Summary of Travel Time Saving for All Alternatives

Alternative	Total Travel Time (95th Street to 130th Street)*	Time Savings Compared to the No Build Alternative
No Build Alternative	28 minutes	0 minutes
Bus Rapid Transit Alternative	23 minutes	5 minutes
Union Pacific Railroad Rail Alternative (all options)	14 minutes	14 minutes
Halsted Rail Alternative *	10.5 minutes	17.5 minutes

* Halsted Rail Alternative travel time is calculated from 95th to 129th Streets per the RLE Alternatives Analysis Report

Based on improved land use accessibility and modest travel time savings, the BRT Alternative would be beneficial for the Roseland, West Pullman, and Riverdale neighborhoods.

5.2.1.2 Economic Development

The BRT Alternative would be inconsistent with implementation of local and regional economic development plans that support the RLE Project along the UPRR corridor. The only mitigation to remedy this inconsistency with local and regional plans would be to construct the UPRR Rail Alternative. Because implementation of the BRT Alternative would not create any new inconsistencies beyond those that already exist, the alternative would not create an adverse impact.

As stated in Section 5.2.1.1, a limited number of building acquisitions would occur as a result of park & ride lots and parking garages. Because no existing businesses or industries would be displaced, there would be no adverse impact on property tax revenues. The commercial real estate market would not be adversely affected by these park & ride lots and parking garages due to the availability of other commercial real estate in the corridor.

Implementation of the BRT Alternative would not provide any substantive economic development benefits because it would only include limited stop bus service and parking facilities. The lack of rail transit elements, such as a dedicated travel lane and substantial stations, would limit the economic development benefit of the BRT Alternative relative to the rail alternatives.

Based on the overall impacts, the BRT Alternative would have no impact on economic development in Roseland, West Pullman, and Riverdale compared to the UPRR Rail Alternative.

5.2.2 Construction Impacts and Mitigations - Bus Rapid Transit Alternative

5.2.2.1 Land Use

Construction of the proposed bus stops would occur within the public ROW on sidewalks. Construction of the proposed park & ride lots would occur on land acquired for the project. Due to the isolated site improvements and short timeframe for construction, the construction impacts of the BRT Alternative would be considered not adverse on existing land uses.

5.2.2.2 Economic Development

There would be isolated temporary disruptions to business and residential access during construction at parcels directly adjacent to the proposed bus stops and park & ride lots. Due to the short timeframe for construction, the construction impacts of the BRT Alternative would be considered not adverse for local economic development.

There would be short-term economic benefits from the creation of construction jobs. The CTA will consider adding incentives or requirements on contractors to encourage hiring of workers from the affected communities. The staff estimate is derived from an approach recommended within *Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009 (May 2009)*, by the President's Council of Economic Advisers.

The methodology identifies an approximate government capital spending amount of $92,000 (in 2009 dollars) that would create or maintain one job-year (one full time job for one calendar year) of employment. This figure was escalated to current (2013) equivalent dollars through use of the US Department of Labor, Bureau of Labor Statistics "CPI Inflation Calculator." The equivalent 2013 government spending amount was calculated as approximately $100,300, with an average annual increase of approximately 2.18% from 2009-2013. The average annual increase was then applied to the 2013 spending level to project equivalent government spending levels required to create one job-year for the forecast years of capital expenditure for RLE Alternative Project Development, construction, and subsequent closeout activities.

The total estimated cost of the BRT Alternative is approximately $36.7 million, which is the year-of-expenditure. The annual capital expenditure for project development and construction activities was forecast by applying an annual inflation rate to the estimated base year cost based on a standard, design-bid-build schedule to meet the proposed opening years of 2017 (revenue operations) and 2022 (parking garage construction). During mobilization and peak construction, up to approximately 213 total jobs would be created by the BRT Alternative. Additionally, CTA is proposing construction of 2,400 structured parking spaces approximately 5 years after opening of BRT service (opening year 2022). The total cost of the additional parking facilities is estimated at $123.5 M in YOE dollars, generating up to approximately 1,009 total jobs during peak mobilization and construction.

5.2.3 Cumulative Impacts and Mitigations - Bus Rapid Transit Alternative

5.2.3.1 Land Use

When considered with past, present, and reasonably foreseeable projects, land use conditions under the BRT Alternative would generally remain unchanged and would have no impact.

5.2.3.2 Economic Development

When considered with past, present, and reasonably foreseeable projects, economic development conditions under the BRT Alternative would generally remain unchanged and would have no impact.

5.3 Union Pacific Railroad Rail Alternative - Right-of-Way Option

The UPRR Rail Alternative ROW Option (UPRR ROW Option) is a proposed rail extension from the CTA's 95th Street Terminal, along elevated structure within I-94 and 1-57 medians, and then south and southeast along elevated structure within the centerline of the vacated ROW of the UPRR. East of Prairie Avenue, the alignment would cross over Canadian National (CN)/Metra tracks and then transition to an at-grade alignment until its terminus near 130th Street. The UPRR and Amtrak trains would relocate to another corridor as part of a separate and independent project. Rail stations would be at 103rd Street, 111th Street, Michigan Avenue, and 130th Street (West Station Option and South Station Option). The UPRR ROW Option would directly affect the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods. Table 5-5 highlights the overall impacts after mitigation and the following subsections describe the specific impacts for the directly affected neighborhoods in Segment UA (95th Street to 117th Street) and Segment UB (117th Street to 130th Street). If the alternative would not pass through a neighborhood, the impact category assigned to that neighborhood is "Not Applicable," which is represented by dash marks.

Table 5-5: Summary of Union Pacific Railroad Rail Alternative - Right-of-Way Option Impacts after Mitigation

Phase	Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park
Permanent	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse	Not Substantially Adverse	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
Cumulative	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---

* Impact Categories: Not Applicable (---), Beneficial, No Impact, Not Adverse, Not Substantially Adverse, Adverse

5.3.1 Permanent Impacts and Mitigations - Union Pacific Railroad Rail Alternative - Right-of-Way Option

As described in Section 4, the UPRR ROW Option would be consistent with local and regional land use and economic development plans that support the RLE Project along the UPRR corridor to 130th Street. The DCP, with support from project area neighborhoods, has strongly advocated

for the RLE Project along the UPRR corridor to 130th Street as a major capital project for the following reasons: to connect residents to regional jobs, shopping, and destinations; to provide a direct connection between affordable housing and regional jobs; to encourage new development and redevelopment near stations; and to improve overall livability in the Greater Roseland Area. The alternative's travel time savings would greatly benefit land use and economic development. The travel time savings between 95th and 130th Streets would be approximately 14 minutes when compared to the No Build Alternative (see Table 5-4). This travel time savings would be the same for all UPRR Rail Alternative options.

Between the 2010 base year and 2030 with the UPRR Rail Alternative, the UPRR corridor would have steady population growth and varying employment growth, according to CMAP forecasts. With the UPRR Rail Alternative, population growth within the UPRR corridor, at 19 percent, would well surpass the average population growth within the metropolitan area, at 15 percent. Employment growth would vary widely throughout the corridor's station areas. Changes in employment would range from a growth of 56 percent within the 103rd Street station area to a reduction of 34 percent within the 130th Street South Station Option area. The highest concentration of jobs would be within the 111th Street station area. Table 5-6 contains the quantitative land use and economic development data for the 2010 Base Year and 2030 Build conditions for all UPRR Rail Alternative options.

Table 5-6: Quantitative Land Use and Economic Development Data for Union Pacific Railroad Rail Alternative Alignments*

Data	2010 Base Year	2030 with UPRR Rail Alternative	Growth
Metropolitan Area			
Total Population	2,653,719	3,056,567	15%
Total Employment	1,241,492	1,439,154	16%
Central Business District			
Total Employment	537,369	629,690	17%
Employment - Portion of Metropolitan Area	43%	44%	---
Central Business District Land Area (square mile)	3.65	3.65	---
Employment Density (jobs per square mile)	147,189	172,476	---
Corridor			
Total Population	43,001	50,982	19%
Total Employment	3,128	3,517	12%
Population - Portion of Metropolitan Area	1.62%	1.67%	---
Employment - Portion of Metropolitan Area	0.25%	0.24%	---
Corridor Land Area (square mile)	6.45	6.45	---
Population Density (persons per square mile)	6,663	7,900	---
Employment Density (jobs per square mile)	485	545	---
All Station Areas			
Housing Units	8,162	9,359	15%

Data	2010 Base Year	2030 with UPRR Rail Alternative	Growth
Population	26,031	31,462	21%
Employment	2,136	2,377	11%
Land Area (square mile)	3.51	3.51	---
Housing Unit Density (units per square mile)	2,324	2,665	---
Population Density (persons per square mile)	7,411	8,957	---
Employment Density (persons per square mile)	608	677	---
103rd Street Station Area			
Housing Units	2,460	2,708	10%
Population	7,716	9,092	18%
Employment	231	359	56%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,132	3,449	---
Population Density (persons per square mile)	9,826	11,579	---
Employment Density (persons per square mile)	294	458	---
111th Street Station Area			
Housing Units	2,502	2,787	11%
Population	8,027	9,297	16%
Employment	1,035	1,185	14%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,186	3,550	---
Population Density (persons per square mile)	10,221	11,840	---
Employment Density (persons per square mile)	1,318	1,509	---
Michigan Avenue Station Area			
Housing Units	2,024	2,390	18%
Population	6,600	8,189	24%
Employment	359	479	34%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,578	3,043	---
Population Density (persons per square mile)	8,405	10,428	---
Employment Density (persons per square mile)	457	611	---
130th Street Station Area - South Station Option			
Housing Units	417	678	62%
Population	1,332	2,282	71%
Employment	301	199	-34%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	532	864	---
Population Density (persons per square mile)	1,696	2,905	---
Employment Density (persons per square mile)	383	253	---

Data	2010 Base Year	2030 with UPRR Rail Alternative	Growth
130th Street Station Area - West Station Option			
Housing Units	1,196	1,348	13%
Population	3,760	4,478	19%
Employment	476	317	-33%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	1,523	1,717	---
Population Density (persons per square mile)	4,788	5,703	---
Employment Density (persons per square mile)	606	404	---

Source: Chicago Metropolitan Agency for Planning 2030 Forecast by Subzone, March 22, 2012
Notes: * Quantitative data for the corridor and for each station area is measured for the area within ½ mile of the alignment. UPRR = Union Pacific Railroad.

The following subsections focus on more localized beneficial and adverse impacts on existing land use and economic development conditions in the project area neighborhoods.

5.3.1.1 Segment UA

5.3.1.1.1 Land Use

Washington Heights

From 95th Street to 99th Street, the alignment would be located within the I-57 median, which is owned and maintained by IDOT. There would be no adverse land use impacts because the UPRR ROW Option would be consistent with the existing transportation land uses in that area. The alignment would cross into and also be within the UPRR corridor, which was previously a transportation land use. Between 99th Street and 103rd Street, the adjacent land use in Washington Heights is a linear open space called Fernwood Parkway. Implementation of the UPRR ROW Option would have impacts on this open space, comparable to those of the UPRR (noise and vibration). Therefore, the impacts would be considered not adverse. A CTA rail station would be at 103rd Street, which would provide improved access to residences and businesses within the ½-mile station area. The northwest quadrant of this station area is within Washington Heights, which would benefit from improved access in the local area and region. Due to the improved access and lack of any land acquisitions, the overall impact on Washington Heights' existing land uses would be considered beneficial.

Roseland

Like the alignment in Washington Heights, the alignment in Roseland would be within the I-94 and I-57 medians and the UPRR corridor; however, the transition between the I-57 median and the UPRR ROW centerline at 99th Street would directly affect the northwest corner of the adjacent open space, called Wendell Smith Park (see *Parklands and Community Facilities Technical Memorandum*). Between 99th Place and 103rd Street, the adjacent land uses are primarily single-family residential. The impacts from implementation of the UPRR ROW Option on these residential areas would be comparable to those of the UPRR (noise and vibration), so the impacts would be considered not adverse.

A CTA rail station would be at 103rd Street, which would provide improved access to existing land uses within the ½-mile station area. A park & ride lot would be located on either side of the station. A limited number of displacements would occur as a result of park & ride lots, as they are proposed primarily on vacant land. With just compensation per the Uniform Act, these impacts would be considered not adverse; however, the park & ride lots would be inconsistent with adjacent land uses, and zoning designations do not permit large, stand-alone surface parking lots. Mitigation for the park & ride lots would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses and open space.

Between the 103rd Street and 111th Street stations, the UPRR ROW Option alignment is flanked by substantial vacant land and urban mixed uses (commercial and industrial) on the west side and by single-family residential uses, one public utility, one private school, two industrial uses, and vacant land on the east side. The impacts from implementation of the UPRR ROW Option on these land uses would be comparable to impacts from previous activities of the UPRR (noise and vibration), so the impacts would be considered not adverse. In addition, a substation is proposed on vacant land along the west side of the corridor at 105th Street. The substation would be similar in use to other heavy commercial and light industrial uses along the west side; therefore, it would be considered not adverse on existing and adjacent land uses.

A CTA rail station would be at 111th Street, which would provide improved access to existing land uses within the ½-mile station area. A park & ride lot would be located on either side of the station. No displacements would occur as a result of the park & ride lots, as they are proposed on vacant land; therefore, the land use impacts would not be adverse. The park & ride lots would, however, be inconsistent with adjacent land uses, and zoning designations do not permit large, stand-alone surface parking lots. Mitigation for the park & ride lots would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses. Overall, the impacts from the 111th Street station would be considered beneficial due to improved land use access, new multi-modal access, and reuse of vacant land.

Between 111th and 115th Streets, the UPRR Option alignment is flanked by mostly single-family residential uses on both sides. There are limited amounts of vacant land, industrial, and urban mixed-use. The impacts from implementation of the UPRR ROW Option on these land uses would be comparable to impacts from previous activities of the UPRR (noise and vibration), so the impacts would be considered not adverse.

A CTA rail station would be at Michigan Avenue, which would provide improved access to existing land uses within the ½-mile station area. Roseland's southernmost border is 115th Street, and the land uses north of 115th Street would benefit from improved access. This area includes the mixed-use business district along Michigan Avenues between 113th and 115th Streets, as well as a substantial amount of multi-family residential uses. All of these land uses would receive beneficial impacts from improved access to the Michigan Avenue station and the CTA rail network.

West Pullman

Just north of the Michigan Avenue station, a substation would be on vacant land along the western side of the corridor at Lafayette Street. Although there would be no direct impacts, the substation would be inconsistent with the adjacent single-family residential uses on Lafayette Street. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, and considering the land use benefits discussed below, the impact on adjacent residential land uses would be not substantially adverse.

The Michigan Avenue station would provide improved access to existing land uses within the ½-mile station area. West Pullman's northernmost border is 115th Street, and the land uses south of 115th Street would benefit from improved access. This area includes the mixed-use business district along Michigan Avenue between 115th and 120th Streets, and a substantial amount of single-family residential and some multi-family residential uses. In addition, the proposed "Roseland Plaza" commercial development on the eastern side of the corridor would benefit from adjacent access. All of these land uses would receive beneficial impacts from improved access to the Michigan Avenue station and the CTA rail network.

A three-story parking garage with ground-floor retail and community facilities would be on the western side of the corridor and bordered by Michigan Avenue, 116th Street, and State Street. Approximately 19 residences would be displaced by this mixed-use parking garage. With just compensation and relocation assistance per the Uniform Act, these impacts would be considered not substantially adverse due to the availability of residential real estate in the same neighborhood and considering the overall land use benefits to the neighborhood.

Across the street from the garage, single-family residential uses along State Street and 116th Street would be adversely affected by changes to the existing land use character. Although there would be no direct impacts, the mixed-use parking garage would be inconsistent with the single-family residential uses on State Street and 116th Street. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

A park & ride lot would be located along Michigan Avenue and 116th Street on the eastern side of the corridor. Because the park & ride lot would affect vacant land and a vacant building, the impacts would be considered not adverse. The park & ride lot would, however, be inconsistent with adjacent land uses, and zoning designations do not permit large, stand-alone surface parking lots. Mitigation for the park & ride lot would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses.

Between 116th and 117th Streets, the UPRR ROW Option alignment is flanked by mostly single-family residential uses on both sides of the corridor. The impacts from implementation of the UPRR ROW Option on adjacent land uses would be comparable to impacts from previous activities of the UPRR (noise, vibration, and visual), so the impacts would be considered not substantially adverse.

5.3.1.1.2 Economic Development

The UPRR ROW Option would provide beneficial travel time savings to all neighborhoods within the ½-mile station area. The travel time savings would benefit residents that desire improved access to job opportunities within the region, to downtown cultural and recreational events, and to shops and services adjacent to Red Line stations. In addition, travel time savings would benefit the local economy through new opportunities for business or residential development within the station areas. Regional TOD studies conducted by the RTA have shown a correlation between station access, business opportunities, and residential home prices.[1] These new development opportunities are also dependent on local plans, zoning, incentives, and market conditions adjacent to each station.

The following subsections highlight the economic development impacts within the project area neighborhoods that would directly benefit from a new station.

Washington Heights

There would be no acquisitions or displacements associated with the UPRR ROW Option within Washington Heights. The proposed rail station at 103rd Street would improve access for properties within ½ mile of the station. National and local experience has shown that property values tend to increase in proximity to a rail station. As such, residential and commercial properties within Washington Heights could increase in value the closer they are to the 103rd Street station. The extent to which property values would be affected also relates to local plans, policies, incentives, and economic climate, all of which influence property values near rail stations. Also, the new station would increase the potential to attract new residential and/or commercial development. For these reasons, the overall impact on Washington Heights would be considered beneficial for local economic development.

Roseland

As described in Section 5.3.1.1.1, there would be a limited number of property acquisitions related to the park & ride lots at the 103rd and 111th Street stations, and a nearby substation. The conversion of these properties to public use would not adversely affect property tax revenues, because these properties contain vacant land and/or buildings. These property acquisitions would not adversely affect the local commercial real estate market due to the availability of comparable real estate within this neighborhood. As it would be in Washington Heights, the new rail stations could increase property values in relation to their proximity to the stations. Also, the new stations would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on Roseland would be considered beneficial for local economic development.

West Pullman

As described in Section 5.3.1.1.1, there would be several property acquisitions and displacements related to the substation, three-story mixed-use parking garage, and park & ride lot near the

[1] Transit-Oriented Development: The Future of Development (RTA 2011)

Michigan Avenue station. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced single-family homes; however, the affected families would be offered relocation assistance and the new businesses on the ground floor of the mixed-use parking garage would generate retail tax revenue. These property acquisitions would not adversely affect the local real estate market due to the availability of comparable real estate within this neighborhood. As it would be in Washington Heights and Roseland, the new rail station could increase property values in relation to their proximity to the stations. Also, the new station would increase the potential to attract new residential and/or commercial development, especially after construction of the Roseland Plaza development adjacent to the station. The overall impact would be considered beneficial for local economic development.

5.3.1.2 Segment UB

5.3.1.2.1 Land Use

West Pullman

Between 117th Street and the CN/Metra tracks, the UPRR ROW Option alignment is flanked by mostly single-family residential uses on both sides of the corridor. There is an open space called Kensington Park along the western side, but the alternative would not directly affect it. The impacts from implementation of the UPRR ROW Option on adjacent land uses would be comparable to impacts from previous activities of the UPRR (noise, vibration, and visual), so the impacts would be considered not substantially adverse. There would be one industrial displacement where the UPRR ROW Option transitions from the embankment to an aerial structure over the CN/Metra railroad tracks on the opposite side of Front Avenue. With just compensation per the Uniform Act to the affected landowner and tenants, the direct impact on this industrial use would be considered not adverse.

Riverdale

The UPRR ROW Option alignment would cross the CN/Metra tracks on an aerial structure and then transition to an at-grade alignment within a vacated railroad ROW until the proposed station at 130th Street (South and West Station Options). The adjacent land uses are transportation, utility, industrial, and vacant land, so the alternative would be consistent with existing land use character.

The 130th Street South Station Option would be accessible from both sides of 130th Street. The South Station Option would include a stationhouse, kiss & ride, bus bays, and seven-story parking garage on the north side of 130th Street, all of which would require negotiations with MWRD for use of land. The South Station Option would also include an auxiliary entrance on the south side of 130th Street, which would provide direct pedestrian access to and from the Altgeld Gardens public housing and the Carver Military Academy High School.

The proposed 130th Street West Station Option would be located along 130th Street directly across the street from Altgeld Gardens, with a new signalized intersection at Evans Avenue. The West Station Option would include a stationhouse, kiss & ride, bus bays, park & ride lot, and four-story

parking garage on the north side of 130th Street, which would require negotiations with MWRD for use of land.

The South and West Station Options would equally serve the Altgeld Gardens public housing, which is isolated due to physical boundaries, its geographic position relative to the City, and the surrounding industrial, utility, and transportation land uses. The West Station Option would not only serve Altgeld Gardens, but also the adjacent residential neighborhoods along 130th Street. As is evident from Table 5-6, the West Station Option would serve a larger number of homes and people than the South Station Option. The South Station Option would be at the furthest point east on 130th Street, which would make pedestrian access challenging for half of the residential neighborhoods in this area. The South Station Option would provide easier pedestrian access for Carver High School than the West Station Option.

Both station options would serve as a regional park & ride for commuters using I-94, which would help reduce commuter traffic heading north into Chicago. In addition, the stations would serve as a bus transfer for employees within the Lake Calumet industrial area or visitors to the Lake Calumet nature preserves. Due to improved access for residents, commuters, employees, and visitors, the overall land use impact would be considered beneficial for Riverdale.

5.3.1.2.2 Economic Development

West Pullman

As described in Section 5.3.1.2.1, there would be one industrial displacement associated with the UPRR ROW Option. Due to compensation and relocation assistance within the same neighborhood, the impact would be considered not adverse. The overall economic development impacts for the remaining properties in the ½-mile station area would be considered beneficial, as described in Section 5.3.1.1.2.

Riverdale

As described in Section 5.3.1.2.1, there would be a limited number of property acquisitions related to the 130th Street station and parking facilities. The conversion of these properties to a public use would not adversely affect property tax revenues, because these properties are already tax exempt. Unlike the other proposed stations, the 130th Street station would not increase property values in relation to their proximity to the stations because the closest property is a public housing site. The Chicago Housing Authority supports the RLE Project to 130th Street in order to improve regional job accessibility for the isolated residential population at Altgeld Gardens. The Chicago Housing Authority has reinvested $250 million in residential renovation within Altgeld Gardens, and has plans to renovate more residential units. Lastly, the 130th Street station would be unlikely to increase the potential to attract new residential and/or commercial development due to the limited availability of developable land as well as the isolated nature of this area. This conclusion is supported by the findings of the *130th Street Station Access/Market Study,* which only found support for small retail near the station. Nevertheless, the overall impact on Riverdale would be considered beneficial for local economic development due to improved accessibility to the regional job market and improved access to the Lake Calumet area and communities south of 130th Street.

5.3.2 Construction Impacts and Mitigations - Union Pacific Railroad Rail Alternative - Right-of-Way Option

Construction of the proposed UPRR ROW Option, including construction staging activities, would occur on land acquired for the project's permanent ROW. As such, there would be no acquisition or displacement impacts from construction.

5.3.2.1 Segment UA

5.3.2.1.1 Land Use

Construction would take up to 5 years and would cause temporary impacts on adjacent residential neighborhoods due to noise, vibration, fugitive dust, truck traffic, and roadway detours. Mitigation methods would include daytime construction activities and other best management practices (see *Construction Impacts Technical Memorandum* for more details). Based on these mitigations and the beneficial impacts of the project, the land use impacts from construction would be considered not substantially adverse in the affected neighborhoods: Washington Heights, Roseland, and West Pullman.

5.3.2.1.2 Economic Development

Construction would take up to 5 years and would cause temporary impacts on adjacent commercial uses on Michigan Avenue due to noise, vibration, fugitive dust, truck traffic, and roadway detours. Mitigation methods would include daytime construction activities, commercial signage during detours, and special advertising for businesses within the ½-mile API. Due to mitigation, the construction impacts on existing businesses would be considered not adverse. Construction activities would occur throughout the corridor and would be more extensive than for the BRT Alternative, but would not substantially influence regional construction costs due to the large size of Chicago's construction industry.

There would be short-term economic beneficial impacts from construction jobs. CTA has developed estimates for the number and types of jobs that would be created by the construction of the RLE Project. RLE Project construction is currently not funded and is contingent upon federal approvals and funding availability. However, the possibility of leveraging Federal capital funding programs to reduce the local financing burden has led CTA to incorporate the job creation methodology identified within *Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009 (May 2009)*, by the President's Council of Economic Advisers.

The methodology identifies an approximate government capital spending amount of $92,000 (in 2009 dollars) that would create or maintain one job-year (one full time job for one calendar year) of employment. This figure was escalated to current (2013) equivalent dollars through use of the US Department of Labor, Bureau of Labor Statistics "CPI Inflation Calculator." The equivalent 2013 government spending amount was calculated as approximately $100,300, with an average annual increase of approximately 2.18% from 2009-2013. The average annual increase was then applied to the 2013 spending level to project equivalent government spending levels required to create one job-year for the forecast years of capital expenditure for RLE Alternative Project Development, construction, and subsequent closeout activities.

The job estimates presented are based on the range of YOE (2026) capital costs calculated for the various UPRR alternative alignment and station configuration options, projected at approximately $2.2 billion to $2.3 billion dollars. Any future changes in the project cost or advancement in construction technologies would affect the actual number and types of jobs that would be created. CTA will revise these job estimates as the planning progresses and more or revised information becomes available.

Based on the above considerations, it is estimated that construction of the RLE Project would create approximately 5,180 total jobs during the year with peak mobilization and construction. All construction jobs would be under the General Contractor, who would be selected for this project per CTA's procurement process through competitive bidding. This competitive bidding would happen only after CTA has secured funding and federal approval for all the interim phases and for construction.

Based on the mitigations and the beneficial impacts of the project, the overall economic development impact from construction would be considered beneficial to the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods.

5.3.2.2 Segment UB

5.3.2.2.1 Land Use

Similar to the impacts and mitigation described in Section 5.3.2.1.1, the land use impacts from construction would be considered not substantially adverse in West Pullman and Riverdale.

5.3.2.2.2 Economic Development

Similar to the impacts and mitigation described in Section 5.3.2.1.2, the economic development impacts from construction would be considered beneficial due to short-term job creation.

5.3.3 Cumulative Impacts and Mitigations - Union Pacific Railroad Rail Alternative - Right-of-Way Option

5.3.3.1 Segment UA

5.3.3.1.1 Land Use

Conditions under the UPRR ROW Option would have a cumulative beneficial impact on those neighborhoods in the project area that are focused on improving employment accessibility to the Chicago region, attracting development adjacent to RLE stations, and improving the overall livability of neighborhoods through local and regional planning. These neighborhoods include Washington Heights, Roseland, and West Pullman. Furthermore, the UPRR ROW Options would only be implemented if the UPRR is relocated as part of a separate, independent project prior to the construction of the UPRR ROW Option. This action will benefit adjacent residential neighborhoods that are relieved of the noise, vibration, and traffic delays caused by the Union Pacific Railroad, and that would benefit from new heavy rail transit services.

5.3.3.1.2 Economic Development

As described in Section 5.2.3.2, the overall economy within the project area was affected by the decline in the manufacturing and steel-producing industries in the 1980s and that the planning and economic development efforts of the City of Chicago and community organizations are showing modest results in the form of new private and public sector investment. For these reasons, implementation of the UPRR ROW Option would have a beneficial cumulative impact on economic development due to new employment accessibility, attraction of new development, and overall livability improvements. The private sector would likely perceive the UPRR ROW Option as a public sector commitment to improve the overall project area and regain confidence in the area's economic development market. The affected neighborhoods include Washington Heights, Roseland, and West Pullman.

5.3.3.2 Segment UB

5.3.3.2.1 Land Use

Similar to the impacts described in Section 5.3.3.1.1, the cumulative land use impacts would be considered beneficial in West Pullman and Riverdale.

5.3.3.2.2 Economic Development

Similar to the impacts described in Section 5.3.3.1.2, the cumulative economic development impacts would be considered beneficial in West Pullman and Riverdale.

5.3.4 120th Street Yard and Shop

A new maintenance yard and shop for 270 train cars would be constructed as part of the RLE Project. The new yard and shop would be built on a combination of industrial and vacant land east of the CN/Metra tracks and west of the Indiana Harbor Belt/Northern Indiana Commuter Transportation District (IHB/NICTD) tracks at approximately 120th Street and Cottage Grove Avenue.

5.3.4.1 Permanent Impacts and Mitigations

5.3.4.1.1 Land Use

The yard and shop would be located within an industrial area; therefore, the facilities would be consistent with existing land uses. The new facilities would require the partial land acquisition of an industrial property, as well as vacant land. With just compensation per the Uniform Act to affected landowners and tenants, the direct impact on existing land uses would be considered not adverse. The maintenance yard would cut off roadway access between contiguous properties of the MWRD property; however, a new road and bridge would be built to maintain connectivity between these properties. The overall land use impacts would not be adverse.

5.3.4.1.2 Economic Development

The yard and shop would partially affect a low-intensity industrial property; therefore, there would be no adverse impacts on local economic development.

5.3.4.2 Construction Impacts and Mitigations

Because the yard and shop would be located in a heavy industrial area, the construction activities would be considered not adverse for land use or economic development. The CTA would coordinate construction activities with MWRD.

5.4 Union Pacific Railroad Rail Alternative - East Option

The UPRR Rail Alternative East Option (UPRR East Option) is a proposed rail extension from the CTA's 95th Street Terminal, along elevated structure within I-94 and 1-57 medians, and then on elevated structure south and southeast along the eastern perimeter of the UPRR. East of Prairie Avenue, the alignment would cross over CN/Metra tracks and then transition to at-grade alignment until its terminus near 130th Street. Rail stations would be at 103rd Street, 111th Street, Michigan Avenue, and 130th Street (West Station Option and South Station Option). The UPRR East Option would directly affect the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods. Table 5-7 highlights the overall impacts after mitigation and the following subsections describe the specific impacts for the directly affected neighborhoods in Segment UA (95th Street to 117th Street) and Segment UB (117th Street to 130th Street). If the alternative would not pass through a neighborhood, the impact category assigned to that neighborhood is "Not Applicable," which is represented by dash marks.

Table 5-7: Summary of Union Pacific Railroad Rail Alternative East Option Impacts after Mitigation*

Phase	Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park
Permanent	Land Use	Beneficial	Not Substantially Adverse	---	Not Substantially Adverse	Beneficial	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse	Not Substantially Adverse	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
Cumulative	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---

* Impact Categories: Not Applicable (---), Beneficial, No Impact, Not Adverse, Not Substantially Adverse, Adverse

5.4.1 Permanent Impacts and Mitigations - Union Pacific Railroad Rail Alternative - East Option

The UPRR East Option would be consistent with local and regional land use and economic development plans, as described in Section 4, that support the RLE Project along the UPRR corridor to 130th Street. This option would offer beneficial impacts, as described for the ROW Option in Section 5.3.1. The following subsections focus on more localized beneficial and adverse impacts on existing land use and economic development conditions in the project area neighborhoods.

5.4.1.1 Segment UA

5.4.1.1.1 Land Use

Washington Heights

The alignment would be within the I-94 and I-57 medians and would transition to the eastern perimeter of the UPRR ROW. A new CTA rail station would be at 103rd Street, which would provide improved access to residences and businesses within the ½-mile station area. The northwest quadrant of this station area is within Washington Heights, which would benefit from improved access in the local area and region. Due to the improved access and lack of any land acquisitions or building displacements, the overall impact on Washington Heights' existing land uses would be considered beneficial.

Roseland

The transition between the I-57 median and the UPRR East Option centerline at 99th Street would directly affect the western portion of the adjacent open space called Wendell Smith Park (see *Parklands and Community Facilities Technical Memorandum*).

Between 99th Place and 103rd Street, three or four homes at the end of each block would be displaced by the alternative's proposed ROW and station at 103rd Street. Mitigation for these impacts would include just compensation and relocation assistance, as required by the Uniform Relocation Act. The UPRR East Option also would introduce an elevated rail line adjacent to single-family residential land uses. The impacts from implementation of the UPRR East Option on these land uses would be comparable to those of the UPRR (noise and vibration), so the impacts would be considered not substantially adverse.

The 103rd Street station would provide improved access to existing land uses within the ½-mile station area. The station would be located adjacent to a single-family residential street, a local arterial with commercial and residential uses, and within a portion of Block Park. A park & ride lot on either side of the station's alignment would affect vacant land and a vacant building. With just compensation per the Uniform Act, these impacts would be considered not substantially adverse because the land is vacant and underutilized. The park & ride lots would, however, be inconsistent with adjacent land uses, and zoning designations do not permit large, stand-alone surface parking lots. Mitigation for the park & ride lots would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses and open space.

Block Park is a passive open space, which would be directly affected by the UPRR East Option; however, the underutilized park could become integrated as a gateway to and from the station and Roseland neighborhood as mitigation for the direct impacts. Additional park amenities or park space elsewhere in the Roseland neighborhood are other mitigation options (see *Parklands and Community Facilities Technical Memorandum*). Overall, the impacts from the 103rd Street station would be considered beneficial due to improved land use access, new multi-modal access, reuse of vacant properties, and reuse of a passive open space.

A substation would be on vacant land along the west side of the UPRR ROW at 105th Street. The substation would be similar in use to other heavy commercial and light industrial uses along the west side; therefore, the impact on existing and adjacent land uses would be considered not adverse.

Between the 103rd and the 111th Streets, a number of homes at the end of each block would be displaced by the alternative's ROW and station at 111th Street. The proposed ROW also would directly affect a private school's open space, two industrial uses, and vacant land. Mitigation for this affected area would be just compensation and relocation assistance. The UPRR East Option also would introduce an elevated rail line adjacent to single-family residential land uses. The impacts from implementation of the UPRR East Option on these land uses would be comparable to those of the UPRR (noise and vibration), so the impacts would be considered not substantially adverse.

The 111th Street station would provide improved access to existing land uses within the ½-mile station area. The station would be located adjacent to single-family residential streets and a local arterial with commercial and residential uses. A park & ride lot would be located on vacant land on either side of the station's alignment. The park & ride lots would be inconsistent with adjacent

land uses and zoning. Mitigation for the park & ride lots would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses. Overall, the impacts from the 111th Street station would be considered beneficial due to improved land use access, new multi-modal access, and reuse of vacant land.

Between 111th and 115th Streets, a number of homes at the end of each block would be displaced by the alternative's proposed ROW, as well as a limited amount of vacant land, industrial uses, and urban mixed uses. Mitigation for this affected area would be just compensation and relocation assistance. The UPRR East Option also would introduce an elevated rail line adjacent to single-family residential land uses. The impacts from implementation of the UPRR East Option on these land uses would be comparable to impacts from the UPRR (noise and vibration), so the impacts would be considered not substantially adverse.

A new CTA rail station would be at Michigan Avenue, which would provide improved access to existing land uses within the ½-mile station area. Roseland's southernmost border is 115th Street, and the land uses north of 115th Street would benefit from improved access. This area includes the mixed-use business district along Michigan Avenue between 113th and 115th Streets, as well as a substantial amount of multi-family residential uses. All of these land uses would receive beneficial impacts from improved access to the Michigan Avenue station and the CTA rail network.

West Pullman

Between 115th and 116th Streets, the UPRR East Option impacts would be similar to those described for the UPRR ROW Option under Section 5.3.1.1.1 with a few exceptions, noted below.

Between 115th and 116th Streets, the UPRR East Option alignment would displace two single-family residential uses. Between State Street and Michigan Avenue, the alignment would be within a negotiated easement area of the proposed Roseland Plaza.

A three-story parking garage with ground-floor retail and community facilities would be located on the western side of the corridor and bordered by Michigan Avenue, 116th Street, and State Street. Approximately 19 residences would be displaced by this mixed-use parking garage. With just compensation and relocation assistance per the Uniform Act, these impacts would be considered not substantially adverse due to the availability of residential real estate in the same neighborhood and considering the overall land use benefits to the neighborhood.

Across the street from the garage, single-family residential uses along State Street and 116th Street would be adversely affected by changes to the existing land use character. Although there would be no direct impacts, the mixed-use parking garage would be inconsistent with the single-family residential uses on State Street and 116th Street. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

Between the 1116th and 117th Streets, the alignment would displace a limited number of single-family residential uses and a public use. With just compensation and relocation assistance per the

Uniform Act, the existing land use impact would be considered not substantially adverse. The impacts from implementation of the UPRR East Option on adjacent land uses would be comparable to those of the UPRR (noise, vibration, and visual), so the impacts would be considered not substantially adverse.

5.4.1.1.2 Economic Development

The UPRR East Option would provide beneficial travel time savings and new opportunities for business or residential development within the ½-mile station areas, as described for the UPRR ROW Option in Section 5.3.1.1.2.

Washington Heights

As described in Section 5.4.1.1.1, there would be no acquisitions or displacements associated with the UPRR East Option within Washington Heights. Hence, the UPRR East Option impacts on economic development would be similar to those described for the UPRR ROW Option in Section 5.3.1.1.2.

Roseland

As described in Section 5.4.1.1.1, there would be numerous property displacements related to the UPRR East Option alignment, stations, and park & ride lots at the 103rd and 111th Streets, as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced single-family homes and businesses; however, the affected families and businesses would be offered relocation assistance within Roseland. These property acquisitions would not adversely affect the local commercial real estate market due to the availability of comparable real estate within this neighborhood. As it would be in Washington Heights, the new rail stations could increase property values in relation to their proximity to the stations. Also, the new stations would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on Roseland would be considered beneficial for local economic development.

West Pullman

As described in Section 5.4.1.1.1, there would be several property acquisitions and displacements related to the UPRR East Option alignment, three-story mixed-use parking garage, and park & ride lot near the Michigan Avenue station, as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced single-family homes and businesses; however, the affected families and businesses would be offered relocation assistance and the new businesses on the ground floor of the mixed-use parking garage would generate retail tax revenue. These property acquisitions would not adversely affect the local real estate market due to the availability of comparable real estate within this neighborhood. As it would be in Washington Heights and Roseland, the new rail station could increase property values in relation to their proximity to the stations. Also, the new station would increase the potential to attract new residential and/or commercial development, especially after construction of the Roseland Plaza development adjacent to the station. The overall impact would be considered beneficial for local economic development.

5.4.1.2 Segment UB

5.4.1.2.1 Land Use

As described in Section 5.3.1.2.1, the UPRR East Option impacts would be similar to those described for the UPRR ROW Option for the Riverdale neighborhood. There would be a slight difference in impacts within West Pullman, as noted below.

West Pullman

Between the 117th Street and the CN/Metra tracks, the UPRR East Option alignment would displace a limited number of single-family residential uses, a public use, an industrial use, and vacant land. With just compensation and relocation assistance per the Uniform Act, the impact on existing land uses would be not substantially adverse. The impacts from implementation of the UPRR East Option on adjacent land uses would be comparable to impacts from the UPRR (noise, vibration, and visual), so the impacts would be considered not substantially adverse.

5.4.1.2.2 Economic Development

As described in Section 5.3.1.2.2, the UPRR East Option impacts would be similar to the UPRR ROW Option impacts within the Riverdale neighborhood. There would be a slight difference in impacts within West Pullman, as noted below.

West Pullman

As described in Section 5.4.1.2.1 above, there would be a limited number of displacements in this segment; therefore, the economic development benefits from the UPRR East Option would be similar to those from the UPRR ROW Option described in Section 5.3.1.2.2.

5.4.2 Construction Impacts and Mitigations - Union Pacific Railroad Rail Alternative - East Option

Construction of the proposed UPRR East Option, including construction staging activities, would occur on land acquired for the project's permanent ROW. As such, there would be no acquisition or displacement impacts from construction.

5.4.2.1 Segment UA

5.4.2.1.1 Land Use

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.2.1.1. The overall land use impacts from construction would be not substantially adverse within Washington Heights, Roseland, and West Pullman.

5.4.2.1.2 Economic Development

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.2.1.2. Based on the mitigations and the beneficial impacts of the project, the overall economic development impact from construction would be considered beneficial to the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods.

5.4.2.2 Segment UB

5.4.2.2.1 Land Use

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.2.2.1. The overall land use impacts from construction would not be adverse within West Pullman and Riverdale.

5.4.2.2.2 Economic Development

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.2.2.2. The overall economic development impacts from construction would be beneficial due to short-term job creation.

5.4.3 Cumulative Impacts and Mitigations - Union Pacific Railroad Rail Alternative - East Option

5.4.3.1 Segment UA

5.4.3.1.1 Land Use

Conditions under the UPRR East Option would have a cumulative beneficial impact on those neighborhoods in the project area that are focused on improving employment accessibility to the Chicago region, attracting development adjacent to RLE stations, and improving the overall livability of neighborhoods through local and regional planning. These neighborhoods include Washington Heights, Roseland, and West Pullman.

5.4.3.1.2 Economic Development

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.3.1.2. The cumulative economic development impacts would be beneficial for the Washington Heights, Roseland, and West Pullman neighborhoods.

5.4.3.2 Segment UB

5.4.3.2.1 Land Use

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.3.2.1. The cumulative land use impacts would be beneficial for the West Pullman and Riverdale neighborhoods.

5.4.3.2.2 Economic Development

The UPRR East Option impacts would be similar to the UPRR ROW Option impacts described in Section 5.3.3.2.2. The cumulative economic development impacts would be beneficial for the West Pullman and Riverdale neighborhoods.

5.4.4 120th Street Yard and Shop

A new yard and shop for 270 train cars would be constructed as part of the RLE Project. The new maintenance yard and shop would be built on a combination of industrial and vacant land east of the CN/Metra tracks and west of the IHB/NICTD tracks at approximately 120th Street and Cottage

Grove Avenue. Impacts and mitigations for this option would be the same as for the ROW Option, described in Section 5.3.4.

5.5 Union Pacific Railroad Rail Alternative - West Option

The Union Pacific Railroad Rail Alternative West Option (UPRR West Option) would be a rail extension from the CTA's 95th Street Terminal, along elevated structure within I-94 and 1-57 medians, and on elevated structure south and southeast along the western perimeter of the UPRR. East of Prairie Avenue, the alignment would cross over CN/Metra tracks and then transition to at-grade alignment until its terminus near 130th Street. Rail stations would be at 103rd Street, 111th Street, Michigan Avenue, and 130th Street (West Station Option and South Station Option). The UPRR West Option would directly affect the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods. Table 5-8 highlights the overall impacts after mitigation and the following subsections describe the specific impacts for the directly affected neighborhoods in Segment UA (95th Street to 117th Street) and Segment UB (117th Street to 130th Street). If the alternative would not pass through a neighborhood, the impact category assigned to that neighborhood is "Not Applicable," which is represented by dash marks.

Table 5-8: Summary of Union Pacific Railroad Rail Alternative West Option Impacts after Mitigation*

Phase	Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park
Permanent	Land Use	Beneficial	Not Substantially Adverse	---	Not Substantially Adverse	Beneficial	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse	Not Substantially Adverse	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---
Cumulative	Land Use	Beneficial	Beneficial	---	Beneficial	Beneficial	---
	Economic Development	Beneficial	Beneficial	---	Beneficial	Beneficial	---

* Impact Categories: Not Applicable (---), Beneficial, No Impact, Not Adverse, Not Substantially Adverse, Adverse

5.5.1 Permanent Impacts and Mitigations - Union Pacific Railroad Rail Alternative - West Option

The UPRR West Option would be consistent with local and regional land use and economic development plans, as described in Section 4, that support the RLE Project along the UPRR corridor to 130th Street. This option would offer beneficial impacts, as described for the ROW Option in Section 5.3.1. The following subsections focus on more localized beneficial and adverse impacts on existing land use and economic development conditions in the project area neighborhoods.

5.5.1.1 Segment UA

5.5.1.1.1 Land Use

Washington Heights

The alignment would be within the I-94 and I-57 medians until it transitions to the western perimeter of the UPRR ROW, which would affect a small portion of Wendell Smith Park. Between 99th Street and 103rd Street, the UPRR West Option alignment would cross and directly affect a linear open space called Fernwood Parkway. This open space was utilized for active uses in the early 20th century, but currently exists as a passive green space. The mitigation for the direct impact would include a replacement of open space elsewhere in the neighborhood or project area. Due to the potential mitigation, the overall impact on the existing land use would be considered not substantially adverse (see *Parklands and Community Facilities Technical Memorandum*).

Across the street from Fernwood Parkway, there are approximately 35 single-family homes that front onto Eggleston Avenue and face Fernwood Parkway. This open space essentially serves as a linear buffer for the UPRR. Due to the proposed alignment, the UPRR West Option would affect the adjacent land uses because it is incompatible with single-family residential land uses. Mitigation would include additional street trees along the west side of Eggleston Avenue and an evergreen tree buffer along the east side of Eggleston Avenue. Due to potential mitigation, the overall impact on land uses would be considered not substantially adverse.

A new CTA rail station would be at 103rd Street, which would provide improved access to residences and businesses within the ½-mile station area. The northwest quadrant of this station area is within Washington Heights, which would benefit from improved access in the local area and region. The northern half of the station and primary access would be within Fernwood Parkway, which would be incorporated into the station design as a gateway park space or plaza to the station. Due to the lack of any residential or business displacements, the overall impact on Washington Heights' existing land uses would be considered beneficial due to improved land use access, new multi-modal access, and reuse of a passive open space.

Roseland

The 103rd Street station would provide improved access to existing land uses within the ½-mile station area. The southwest quadrant and eastern half of the station area would be within Roseland, which would benefit from improved access in the local area and region. The southern half of the station and auxiliary access, as well as a park & ride lot, would be on vacant land and a vacant building. With just compensation per the Uniform Act, the displacement impacts would be considered not substantially adverse because the land is vacant and underutilized. The park & ride lot would, however, be inconsistent with adjacent land uses and zoning designations for the adjacent single-family neighborhood. Mitigation for the park & ride lots would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses. Overall, the impacts from the 103rd Street station would be considered beneficial due to improved land use access, new multi-modal access, and reuse of vacant properties.

A new substation would be located on vacant land along the east side of the UPRR ROW at 105th Street. The substation would be inconsistent with the adjacent single-family residential uses. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent land uses would be not substantially adverse.

Between the 103rd and the 111th Streets, the UPRR West Option alignment would directly affect a limited number of commercial and industrial uses and a substantial amount of vacant land. In particular, the vacant land is overgrown and sometimes used for illegal dumping. This linear strip of industrial and vacant land is located behind the single-family residences along Eggleston Avenue and is detrimental to the overall quality of this residential neighborhood. With just compensation per the Uniform Act and relocation assistance, the displacement impacts would be considered not substantially adverse, because there is available commercial and industrial land elsewhere in the project area.

The 111th Street station would provide improved access to existing land uses within the ½-mile station area. The station and park & ride lot are proposed for vacant land between 110th Street and 111th Street, a local arterial with commercial and residential uses. The park & ride lot would be inconsistent with adjacent land uses and zoning designations for the adjacent single-family neighborhood. Mitigation for the park & ride lot would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses. Overall, the impacts from the 111th Street station would be beneficial due to improved land use access, new multi-modal access, and reuse of vacant land.

Between 111th and 115th Streets, the UPRR West Option alignment would directly affect a limited number of single-family residences and businesses, a church property, vacant land, and unused properties of the UPRR (outside the linear railroad ROW). Mitigation for this affected area would be just compensation and relocation assistance. The UPRR West Option also would introduce an elevated rail line adjacent to single-family residential land uses. The impacts from implementation of the UPRR West Option on these land uses would be comparable to impacts from the UPRR (noise and vibration), so the impacts would be considered not substantially adverse.

A CTA rail station would be at Michigan Avenue, which would provide improved access to existing land uses within the ½-mile station area. Roseland's southernmost border is 115th Street, and the land uses north of 115th Street would benefit from improved access. This area includes the mixed-use business district along Michigan Avenue between 113th and 115th Streets, as well as a substantial amount of multi-family residential uses. All of these land uses would receive beneficial impacts from improved access to the Michigan Avenue station and the CTA rail network.

West Pullman

Between 115th and 116th Streets, the UPRR West Option impacts would be similar to those described for the UPRR ROW Option under Section 5.3.1.1.1 with a few exceptions, noted below.

An additional park & ride lot would not be included, as it would be under the UPRR ROW Option and the UPRR East Option. Instead, a five-story parking garage with ground-floor retail and community facilities would be located on the western side of the corridor and bordered by Michigan Avenue, 116th Street, and State Street. The UPRR West Option alignment and northern portion of the Michigan Avenue station would be also located within this affected area. Approximately 19 residences would be displaced by these facilities. With just compensation per the Uniform Act and relocation assistance, these impacts would be considered not substantially adverse due to the availability of residential real estate in the same neighborhood and considering the overall land use benefits to the neighborhood.

Across the street from the garage, single-family residential uses along State Street and 116th Street would be adversely affected by changes to the existing land use character. Although there would be no direct impacts, the mixed-use parking garage would be inconsistent with the single-family residential uses on State Street and 116th Street. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing such as a "step-back" in the facade to help minimize the height of the garage. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

Between 115th and 116th Streets, the UPRR West Option alignment and southern portion of the Michigan Avenue station would displace one residential property and vacant land. The impacts from implementation of the UPRR West Option on adjacent land uses would be comparable to impacts from the UPRR (noise, vibration, and visual), so the impacts would be considered not substantially adverse.

5.5.1.1.2 Economic Development

The UPRR West Option would provide beneficial travel time savings and new opportunities for business or residential development within the ½-mile station areas, as described for the UPRR ROW Option in Section 5.3.1.1.2. The following subsections highlight the economic development impacts within the project area neighborhoods that would directly benefit from a new station.

Washington Heights

As described in Section 5.5.1.1.1, there would be no acquisitions or displacements associated with the UPRR West Option within Washington Heights. Hence, the UPRR West Option economic development impacts would be beneficial and similar to those described for the UPRR ROW Option in Section 5.3.1.1.2 and for the UPRR East Option in Section 5.4.1.1.2.

Roseland

As described in Section 5.5.1.1.1, there would be numerous property displacements related to the UPRR West Option alignment, stations, and park & ride lots at the 103rd and 111th Streets, as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced single-family homes and businesses; however, the affected residents and businesses would be offered relocation assistance within Roseland. These property acquisitions would not adversely affect the local real estate market due to the availability of comparable real estate within this neighborhood. As it would be in Washington Heights, the

new rail stations could increase property values in relation to their proximity to the stations. Also, the new stations would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on Roseland would be considered beneficial for local economic development.

West Pullman

As described in Section 5.5.1.1.1, there would be numerous property acquisitions and displacements related to the UPRR West Option alignment, Michigan Avenue station, and five-story mixed-use parking garage, as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced single-family homes and businesses; however, the affected residents and businesses would be offered relocation assistance within West Pullman and the new businesses on the ground floor of the mixed-use parking garage would generate retail tax revenue. These property acquisitions would not adversely affect the local real estate market due to the availability of comparable real estate within this neighborhood. As it would be in Washington Heights and Roseland, the new rail station could increase property values in relation to their proximity to the stations. Also, the new station would increase the potential to attract new residential and/or commercial development, especially after construction of the Roseland Plaza development near the station. The overall impact would be considered beneficial for local economic development in West Pullman.

5.5.1.2 Segment UB

5.5.1.2.1 Land Use

The UPRR West Option land use impacts within the Riverdale neighborhood would be similar to those described for the UPRR ROW Option (Section 5.3.1.2.1) and for the UPRR East Option (5.4.1.2.1). There would be a slight difference in impacts within West Pullman, as noted below.

West Pullman

Between the 117th Street and the CN/Metra tracks, the UPRR West Option alignment would displace a limited number of single-family residential uses, an industrial use, and vacant land. With just compensation and relocation assistance per the Uniform Act, the impact on existing land uses would be not substantially adverse. The impacts from implementation of the UPRR West Option on adjacent land uses would be comparable to those of the UPRR (noise, vibration, and visual), so the impacts would be considered not substantially adverse.

5.5.1.2.2 Economic Development

The UPRR West Option economic development impacts within the Riverdale neighborhood would be similar to those described for the UPRR ROW Option (Section 5.3.1.2.2) and for the UPRR East Option (5.4.1.2.2). There would be a slight difference in impacts within West Pullman, as noted below.

West Pullman

There would be a limited number of displacements in this segment as described in Section 5.5.1.2.1 above; therefore, the economic development benefits from the UPRR West Option would be similar to those described in Section 5.5.1.1.2 for West Pullman.

5.5.2 Construction Impacts and Mitigations - Union Pacific Railroad Rail Alternative - West Option

Construction of the proposed UPRR West Option, including construction staging activities, would occur on land acquired for the project's permanent ROW. As such, there would be no acquisition or displacement impacts from construction.

5.5.2.1 Segment UA

5.5.2.1.1 Land Use

The UPRR West Option impacts would be similar to those described for the UPRR ROW Option (Section 5.3.2.1.1) and for the UPRR East Option (Section 5.4.2.1.1). The overall land use impacts from construction would be considered not substantially adverse within Washington Heights, Roseland, and West Pullman.

5.5.2.1.2 Economic Development

The UPRR West Option impacts would be similar to those described for the UPRR ROW Option (Section 5.3.2.1.2) and for the UPRR East Option (Section 5.4.2.1.2). Based on the mitigations and the beneficial impacts of the project, the overall economic development impact from construction would be considered beneficial to the Washington Heights, Roseland, West Pullman, and Riverdale neighborhoods.

5.5.2.2 Segment UB

5.5.2.2.1 Land Use

The UPRR West Option land use impacts would be similar to those described for the UPRR ROW Option (Section 5.3.2.2.1) and for the UPRR East Option (Section 5.4.2.2.1). The overall land use impacts from construction would be considered not adverse within West Pullman and Riverdale.

5.5.2.2.2 Economic Development

The UPRR West Option economic development impacts would be similar to those described for the UPRR ROW Option (Section 5.3.2.2.2) and for the UPRR East Option (Section 5.4.2.2.2). The overall economic development impacts from construction would be considered not adverse within West Pullman and Riverdale.

5.5.3 Cumulative Impacts and Mitigations - Union Pacific Railroad Rail Alternative - West Option

5.5.3.1 Segment UA

5.5.3.1.1 Land Use

The UPRR West Option cumulative land use impacts would be similar to those described for the UPRR ROW Option (Section 5.3.3.1.1) and for the UPRR East Option (Section 5.4.3.1.1). The cumulative land use impacts would be beneficial for Washington Heights, Roseland, and West Pullman.

5.5.3.1.2 Economic Development

The UPRR West Option cumulative economic development impacts would be similar to those described for the UPRR ROW Option (Section 5.3.3.1.2) and for the UPRR East Option (Section 5.4.3.1.2). The cumulative economic development impacts would be beneficial for Washington Heights, Roseland, and West Pullman.

5.5.3.2 Segment UB

5.5.3.2.1 Land Use

The UPRR West Option cumulative land use impacts would be similar to those described for the UPRR ROW Option (Section 5.3.3.2.1) and for the UPRR East Option (Section 5.4.3.2.1). The cumulative land use impacts would be beneficial for West Pullman and Riverdale.

5.5.3.2.2 Economic Development

The UPRR West Option cumulative economic development impacts would be similar to those described for the UPRR ROW Option (Section 5.3.3.2.2) and for the UPRR East Option (Section 5.4.3.2.2). The cumulative economic development impacts would be beneficial for West Pullman and Riverdale.

5.5.4 120th Street Yard and Shop

A new yard and shop for 270 train cars would be constructed as part of the RLE Project. The new maintenance yard and shop would be built on a combination of industrial and vacant land east of the CN/Metra tracks and west of the IHB/NICTD tracks at approximately 120th Street and Cottage Grove Avenue. Impacts and mitigations for this option would be the same as for the ROW Option, described in Section 5.3.4.

5.6 Halsted Rail Alternative

The Halsted Rail Alternative is a proposed rail extension from the CTA's 95th Street Terminal, along elevated structure within I-94 and I-57 medians, and then within the median of Halsted Street from 99th Street to 129th Street. New rail stations would be at 103rd Street, 111th Street, 119th Street, and Vermont Avenue. The Halsted Rail Alternative would directly affect the Washington Heights, Roseland, Morgan Park, and West Pullman neighborhoods. Table 5-9 highlights the overall impacts after mitigation and the following subsections describe the specific impacts for the directly affected neighborhoods in Segment HA (95th Street to 120th Street) and

Segment HB (120th Street to 129th Street). If the alternative would not pass through a neighborhood, the impact category assigned to that neighborhood is "Not Applicable," which is represented by dash marks.

Table 5-9: Summary of Halsted Rail Alternative Impacts after Mitigation*

Phase	Impacts	Washington Heights	Roseland	Morgan Park	West Pullman	Riverdale	Calumet Park
Permanent	Land Use	Beneficial	Beneficial	Beneficial	Adverse	---	Beneficial
	Economic Development	Beneficial	Beneficial	Beneficial	Beneficial	---	Beneficial
Construction	Land Use	Not Substantially Adverse	Not Substantially Adverse	Not Substantially Adverse	Not Substantially Adverse	---	Not Substantially Adverse
	Economic Development	Beneficial	Beneficial	Beneficial	Beneficial	---	No Impact
Cumulative	Land Use	Beneficial	Beneficial	Beneficial	Beneficial	---	No Impact
	Economic Development	Beneficial	Beneficial	Beneficial	Beneficial	---	No Impact

* Impact Categories: Not Applicable (---), Beneficial, No Impact, Not Adverse, Not Substantially Adverse, Adverse

5.6.1 Permanent Impacts and Mitigations - Halsted Rail Alternative

The Halsted Street corridor would have slow growth in population and substantial employment growth between the 2010 base year and 2030 with the Halsted Rail Alternative, according to CMAP forecasts. With the Halsted Rail Alternative, population growth within the corridor, at 10 percent, would be below the average population growth within the metropolitan area, at 15 percent. Employment growth within the corridor, at 56 percent, would be well above the metropolitan average at 16 percent. The most substantial growth in employment would be at the 119th Street and Vermont Avenue station areas, with growth rates of 184 percent and 169 percent, respectively. The highest concentration of jobs within the corridor would shift geographically between 2010 and 2030, from 111th Street station to 119th Street station. Table 5-10 contains the quantitative land use and economic development data for the Halsted Street corridor, for the 2010 base year and 2030 with the Halsted Rail Alternative.

Table 5-10: Quantitative Land Use and Economic Development Data for Halsted Rail Alternative Alignment*

Data	2010 Base Year	2030 with Halsted Rail Alternative	Growth
Metropolitan Area			
Total Population	2,653,719	3,056,567	15%
Total Employment	1,241,492	1,439,154	16%
Central Business District			
Total Employment	537,369	629,690	17%

Data	2010 Base Year	2030 with Halsted Rail Alternative	Growth
Employment - Portion of Metropolitan Area	43%	44%	---
Central Business District Land Area (square mile)	3.65	3.65	---
Employment Density (jobs per square mile)	147,189	172,476	---
Corridor			
Total Population	46,556	51,142	10%
Total Employment	2,930	4,571	56%
Population - Portion of Metropolitan Area	1.75%	1.67%	---
Employment - Portion of Metropolitan Area	0.24%	0.32%	---
Corridor Land Area (square mile)	5.74	5.74	---
Population Density (persons per square mile)	8,108	8,906	---
Employment Density (jobs per square mile)	510	796	---
All Station Areas			
Housing Units	8,314	8,840	6%
Population	25,044	27,558	10%
Employment	1,748	3,064	75%
Land Area (square mile)	3.14	3.14	---
Housing Unit Density (units per square mile)	2,647	2,814	---
Population Density (persons per square mile)	7,973	8,773	---
Employment Density (persons per square mile)	556	975	---
103rd Street Station Area			
Housing Units	2,502	2,524	1%
Population	7,377	7,715	5%
Employment	351	434	24%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,186	3,214	---
Population Density (persons per square mile)	9,394	9,825	---
Employment Density (persons per square mile)	447	552	---
111th Street Station Area			
Housing Units	2,384	2,615	10%
Population	6,999	7,812	12%
Employment	774	867	12%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	3,036	3,330	---
Population Density (persons per square mile)	8,913	9,948	---

Data	2010 Base Year	2030 with Halsted Rail Alternative	Growth
Employment Density (persons per square mile)	985	1,104	---
119th Street Station Area			
Housing Units	1,797	2,013	12%
Population	5,919	6,789	15%
Employment	562	1,598	184%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,289	2,563	---
Population Density (persons per square mile)	7,537	8,646	---
Employment Density (persons per square mile)	716	2,035	---
Vermont Avenue Station Area			
Housing Units	1,631	1,688	4%
Population	4,749	5,241	10%
Employment	62	166	169%
Land Area (square mile)	0.79	0.79	---
Housing Unit Density (units per square mile)	2,076	2,150	---
Population Density (persons per square mile)	6,048	6,674	---
Employment Density (persons per square mile)	78	211	---

Source: Chicago Metropolitan Agency for Planning 2030 Forecast by Subzone, March 22, 2012
Note: * Quantitative data for the corridor and for each station area is measured for the area within ½ mile of the alignment.

5.6.1.1 Segment HA

5.6.1.1.1 Land Use

Like the No Build Alternative (Section 5.1.1.1) and the BRT Alternative (Section 5.2.1.1), the Halsted Rail Alternative would be inconsistent with the region's comprehensive plan, which supports the RLE Project along the UPRR corridor; however, the Halsted Rail Alternative would not create any new inconsistencies beyond those that already exist, and would not create an adverse impact on land uses. The Halsted Rail Alternative would provide similar land use benefits as the UPRR Rail Alternative options: to connect residents to regional jobs, shopping, and destinations; to provide a direct connection between affordable housing and regional jobs; to encourage new development and redevelopment near stations, and to improve overall livability. One of the primary factors for beneficial impacts relates to the alternative's travel time savings, which would contribute to beneficial land use and economic development impacts. The travel time savings between 95th and 129th Streets would be approximately 17.5 minutes when compared to the No Build Alternative (see Table 5-4). This travel time savings would be slightly greater than with the UPRR Rail Alternative options; however, the Halsted Rail Alternative would not have the added benefit of serving the Riverdale neighborhood, including the Altgeld Gardens public housing site. The following subsections focus on more localized beneficial and adverse impacts on existing land use and economic development conditions in the project area neighborhoods.

Washington Heights

From the existing 95th Street Terminal, the Halsted Street Alternative alignment would be in the I-94 and I-57 medians until Halsted Street. At transition from I-57 to Halsted Street, the alignment would directly affect one single-family residence and several mixed-use properties. With just compensation and relocation assistance per the Uniform Act, the impact would be not substantially adverse.

A new substation would be at 101st Street on vacant properties along Halsted Street, adjacent to a church parking lot and single-family residences. Although there would be no direct impacts, the substation would be inconsistent with the adjacent single-family residential uses on Emerald Avenue. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

A CTA rail station would be at 103rd Street, which would provide improved access to residences and businesses within the ½-mile station area. The western half and the northeast quadrant of this station area would be within Washington Heights, which would benefit from improved access in the local area and region. A park & ride lot would be located on the northwest corner of Halsted and 103rd Streets, which would directly affect several mixed-use properties. With just compensation and relocation assistance per the Uniform Act, the impact would be not substantially adverse. The park & ride lot would, however, be inconsistent with adjacent single-family residential uses and existing zoning on Green Street. Mitigation for the park & ride lot would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses. Overall, the impacts from the 103rd Street station would be beneficial due to improved land use access and new multi-modal access.

Roseland

As described above, the 103rd Street station would provide improved access to residences and businesses within the ½-mile station area. The southeast quadrant of this station area would be within Roseland, which would benefit from improved access in the local area and region. Because there would be no residential or business displacements, the overall impact on Roseland's existing land uses would be considered beneficial from improved land use access and new multi-modal access.

A substation would be at 110th Street on vacant properties along Halsted Street, adjacent to commercial uses and single-family residences. Although there would be no direct impacts, the substation would be inconsistent with the adjacent single-family residential uses on Emerald Avenue. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

A CTA rail station would be at 111th Street, which would provide improved access to residences and businesses within the ½-mile station area. The eastern half of this station area would be within Roseland, which would benefit from improved access in the local area and region. Because

there would be no residential or business displacements, the overall impact on Roseland's existing land uses would be considered beneficial from improved land use access and new multi-modal access.

Morgan Park

As described above, the 111th Street station would provide improved access to residences and businesses within the ½-mile station area. The western half of this station area would be within Morgan Park, which would benefit from improved access in the local area and region. A park & ride lot would be located on the northwest corner of Halsted and 111th Streets, which would directly affect two mixed-use properties. With just compensation and relocation assistance per the Uniform Act, the impact would be not substantially adverse. The park & ride lot would, however, be inconsistent with adjacent single-family residential uses and zoning on Green Street. Mitigation for the park & ride lot would include a rezoning and screening, landscaping, and lighting appropriate for adjacent residential land uses. Overall, the impacts from the 111th Street station would be beneficial due to improved land use access and new multi-modal access.

West Pullman

A new CTA rail station would be at 119th Street, which would provide improved access to residences and businesses within the ½-mile station area. A regional park & ride lot would be located on the southwest corner of Halsted and 119th Streets, which would directly affect numerous mixed-use properties, an industrial property, and vacant land. Because the park & ride lot would be within the West Pullman Industrial Corridor, the park & ride lot would be consistent with adjacent land uses along 119th and 120th Streets. Due to the size of the park & ride lot, there would be an impact on the neighborhood's beautification efforts for the Industrial Corridor. Mitigation for the park & ride lot would include screening, landscaping, and lighting used elsewhere within the Industrial Corridor. Overall, the impacts from the 119th Street station would be beneficial due to improved land use access and new multi-modal access.

A new substation would be located nearby on vacant properties along Halsted Street at 118th Place, adjacent to single-family residences. Although there would be no direct impacts, the substation would be inconsistent with the adjacent single-family residential uses on 118th Place. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

5.6.1.1.2 Economic Development

The Halsted Rail Alternative would provide beneficial travel time savings and new opportunities for business or residential development within the ½-mile station areas, as described above for the UPRR Rail Alternative. The following subsections highlight the economic development impacts within the project area neighborhoods that would directly benefit from a new station due to new accessibility for residents and increased foot traffic for businesses.

Washington Heights

As described in Section 5.6.1.1.1, there would be several property displacements related to the Halsted Rail Alternative alignment and park & ride lot at the 103rd Street, as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced mixed-use (retail/apartments) and commercial businesses; however, the affected rental tenants and businesses would be offered relocation assistance within Washington Heights. These property acquisitions would not adversely affect the local commercial real estate market due to the availability of comparable real estate within this neighborhood. Similar to the UPRR Rail Alternative, the Halsted Rail Alternative could increase property values in relation to their proximity to the 103rd Street station. Also, the new station would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on Washington Heights would be considered beneficial for local economic development.

Roseland

As described in Section 5.6.1.1.1, there would be several property displacements related to the proposed substation at 110th Street. The conversion of these properties to public use would not affect property tax revenues because the properties are currently vacant. Similar to the UPRR Rail Alternative, the Halsted Rail Alternative could increase property values in relation to their proximity to the 103rd Street and the 111th Street stations. Also, the new stations would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on Washington Heights would be considered beneficial for local economic development.

Morgan Park

As described in Section 5.6.1.1.1, there would be two property displacements related to the park & ride lot at the 111th Street station. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced businesses; however, the affected businesses would be offered relocation assistance within Morgan Park. These property acquisitions would not adversely affect the local commercial real estate market due to the availability of comparable real estate within this neighborhood. Similar to the UPRR Rail Alternative, the Halsted Rail Alternative could increase property values in relation to their proximity to the 111th Street station. Also, the new station would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on Morgan Park would be considered beneficial for local economic development.

West Pullman

As described in Section 5.6.1.1.1, there would be numerous property displacements related to the park & ride lot at the 119th Street station as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced businesses; however, the affected businesses would be offered relocation assistance within West Pullman. These property acquisitions would not adversely affect the local commercial real estate market due to the availability of comparable real estate within this neighborhood. Similar to the UPRR Rail Alternative, the Halsted Rail Alternative could increase property values in relation to their proximity to the 119th Street station. Also, the new station would increase the potential to

attract new residential and/or commercial development. Therefore, the overall impact on West Pullman would be considered beneficial for local economic development.

5.6.1.2 Segment HB

5.6.1.2.1 Land Use

West Pullman

As stated in Section 5.6.1.1, the 119th Street station would provide improved access to residences and businesses within the ½-mile station area. Because there would be no residential or business displacements, the overall impact on West Pullman's existing land uses would be considered beneficial from improved land use access and new multi-modal access.

A new substation would be located nearby on a commercial parking lot along Halsted Street at 126th Street, adjacent to single-family residences. With just compensation per the Uniform Act, the direct impact on the commercial property would be not substantially adverse. The substation would, however, be inconsistent with the adjacent single-family residential uses on Emerald Avenue. Mitigation would include a rezoning and screening, landscaping, and appropriate architectural design and massing. Based on the mitigation, the impact on adjacent residential land uses would be not substantially adverse.

A new CTA rail station would be at Vermont Avenue and Halsted Street, which would provide improved access to residences and businesses within the ½-mile station area. A seven-story mixed-use parking garage with ground-floor retail and community facilities would be located along Vermont Avenue and Halsted, Green, and 128th Streets, which would displace a mixed-use commercial building with several businesses and 11 single-family residences. With just compensation and relocation assistance per the Uniform Act, these impacts would be considered not substantially adverse due to the availability of commercial and residential real estate in the same neighborhood.

Across the street from the garage, single-family residential uses along Vermont Avenue and Green Street would be adversely affected by changes to the existing land use character. Due to the seven-story height of the garage, and because the adjacent single-family residential homes are one-story structures, the impact on existing land use character would be considered adverse.

Village of Calumet Park

As described above, the Vermont Avenue station would provide improved access to residences and businesses within the ½-mile station area. West of Carpenter Street, a small portion of the Village of Calumet Park would receive beneficial access impacts for primarily single-family residential uses. West of Halsted Street and north of 127th Street, the majority of land uses within the Village relate to the Cedar Park Cemetery. Because there would be no residential or business displacements, the overall impact on the Village of Calumet Park's existing land uses would be considered beneficial from improved land use access and new multi-modal access.

5.6.1.2.2 Economic Development

West Pullman

As described in Section 5.6.1.2.1, there would be numerous property displacements related to the mixed-use parking garage at the Vermont Avenue station as well as a nearby substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced single-family homes and businesses; however, the affected families and businesses would be offered relocation assistance within West Pullman. These property acquisitions would not adversely affect the local residential and commercial real estate market due to the availability of comparable real estate within this neighborhood. Similar to the UPRR Rail Alternative, the Halsted Rail Alternative could increase property values in relation to their proximity to the 119th Street station and the Vermont Avenue station. Also, the new stations would increase the potential to attract new residential and/or commercial development. Therefore, the overall impact on West Pullman would be considered beneficial for local economic development.

Village of Calumet Park

As described in Section 5.6.1.2.1, there would be no displacements within the Village of Calumet Park. Therefore, the Halsted Rail Alternative could increase property values in relation to their proximity to the Vermont Avenue station. Also, the new station would increase the potential to attract new residential and/or commercial development on vacant land adjacent to the Little Calumet River. Therefore, the overall impact on the Village of Calumet Park would be considered beneficial for local economic development.

5.6.2 Construction Impacts and Mitigations - Halsted Rail Alternative

Construction of the proposed Halsted Rail Alternative, including construction staging activities, would occur on land acquired for the project's permanent ROW. As such, there would be no acquisition or displacement impacts from construction.

5.6.2.1 Segment HA

5.6.2.1.1 Land Use

Construction would take up to 5 years and would cause temporary adverse impacts on commercial properties along Halsted Street and adjacent residential neighborhoods due to noise, vibration, fugitive dust, truck traffic, and roadway detours. Mitigation methods would include daytime construction activities and other best management practices (see *Construction Impacts Technical Memorandum* for more details). Based on these mitigations and the beneficial impacts of the project, the land use impacts from construction would be considered not substantially adverse in the affected neighborhoods: Washington Heights, Roseland, Morgan Park, and West Pullman.

5.6.2.1.2 Economic Development

Similar to the UPRR Rail Alternative, the Halsted Street Alternative would not substantially influence regional construction costs due to the large size of Chicago's construction industry. Construction would take up to 5 years and would cause temporary adverse impacts on adjacent commercial uses on Halsted Street due to noise, vibration, fugitive dust, truck traffic, and

roadway detours. Construction activities would occur throughout the Halsted Street corridor within the median and adjacent travel lane, which would affect travel lane patterns and on-street parking. Mitigation methods would include daytime construction activities, commercial signage during detours, and special advertising for businesses within the ½-mile API (see *Construction Impacts Technical Memorandum* for more details). Due to the nature and size of the small businesses along Halsted Street, some businesses might not be able to maintain their customer base and could potentially lose business from construction-related disruptions. Due to the short-term nature of construction activities, these impacts would be considered not substantially adverse.

There would be short-term economic beneficial impacts from construction jobs. The total estimated YOE (2026) capital cost of the Halsted Alternative is approximately $2.4 billion. Similar to the construction job estimate described for the UPRR Rail Alternative in Section 5.3.2.1.2, the Halsted Rail Alternative would create approximately 5,350 total jobs during the year with peak mobilization and construction.

Based on the mitigations and the beneficial impacts of the project, the overall economic development impact from construction would be considered beneficial to the Washington Heights, Roseland, Morgan Park, and West Pullman neighborhoods.

5.6.2.2 Segment HB

5.6.2.2.1 Land Use

Similar to the impacts and mitigation described in Section 5.6.2.1.1, the land use impacts from construction would be considered not substantially adverse in West Pullman and the Village of Calumet Park.

5.6.2.2.2 Economic Development

Similar to the impacts and mitigation described in Section 5.6.2.1.2, the economic development impacts from construction would be considered adverse in West Pullman. Due to the lack of any businesses on Halsted Street within the Village of Calumet Park, there would be no impact on economic development.

5.6.3 Cumulative Impacts and Mitigations - Halsted Rail Alternative

5.6.3.1 Segment HA

5.6.3.1.1 Land Use

The cumulative land use impacts for the Halsted Rail Alternative would be similar to those described for the UPRR ROW Option (Section 5.3.3.1.1), the UPRR East Option (Section 5.4.3.1.1), and the UPRR West Option (Section 5.5.3.1.1). The cumulative land use impacts would be beneficial for Washington Heights, Roseland, and West Pullman. There would be one difference between the Halsted Rail Alternative and the UPRR Rail Alternative. Morgan Park would be unaffected by the UPRR Rail Alternative, but would receive beneficial impacts as a result of the Halsted Rail Alternative.

5.6.3.1.2 Economic Development

The cumulative economic development impacts for the Halsted Rail Alternative would be similar to those described for the UPRR ROW Option (Section 5.3.3.1.2), the UPRR East Option (Section 5.4.3.1.2), and the UPRR West Option (Section 5.5.3.1.2). The cumulative economic development impacts would be beneficial for Washington Heights, Roseland, and West Pullman. There would be one difference between the Halsted Rail Alternative and the UPRR Rail Alternative. Morgan Park would be unaffected by the UPRR Rail Alternative, but would receive beneficial impacts as a result of the Halsted Rail Alternative.

5.6.3.2 Segment HB

5.6.3.2.1 Land Use

The cumulative land use impacts for the Halsted Rail Alternative would be similar to those described for the UPRR ROW Option (Section 5.3.3.2.1), the UPRR East Option (Section 5.4.3.2.1), and the UPRR West Option (Section 5.5.3.2.1). The cumulative land use impacts would be beneficial for West Pullman. There would be two differences between the Halsted Rail Alternative and the UPRR Rail Alternative. The Village of Calumet Park has not developed a new comprehensive plan, station area plan, or relevant policies that would allow it to benefit more directly from the RLE Project, so there would be no adverse or beneficial cumulative land use impacts.

5.6.3.2.2 Economic Development

The cumulative economic development impacts for the Halsted Rail Alternative would be similar to those described for the UPRR ROW Option (Section 5.3.3.2.2), the UPRR East Option (Section 5.4.3.2.2), and the UPRR West Option (Section 5.5.3.2.2). The cumulative economic development impacts would be beneficial for West Pullman. There would be two differences between the Halsted Rail Alternative and the UPRR Rail Alternative. The Village of Calumet Park has not developed any economic development plans or policies that would allow it to benefit more directly from the RLE Project, so there would be no adverse or beneficial cumulative economic development impacts.

5.6.4 119th Street Yard and Shop

A new maintenance yard and shop for 270 train cars would be constructed as part of the RLE Project. The new maintenance yard and shop would be built on a combination of industrial and vacant land west of Halsted Street between 119th and 120th Streets in the West Pullman Industrial Corridor.

5.6.4.1 Permanent Impacts and Mitigations

5.6.4.1.1 Land Use

The yard and shop, as well as adjacent substation, would be located within an industrial area; therefore, these facilities would be consistent with existing land uses. These new facilities would require the displacement of a several industrial and commercial properties, as well as the

acquisition of vacant land. With just compensation and relocation assistance per the Uniform Act, the direct impact on existing land uses would be considered not substantially adverse.

5.6.4.1.2 Economic Development

As described in Section 5.6.4.1.1, there would be several property displacements related to the maintenance yard and shop and adjacent substation. The conversion of these properties to public use would temporarily affect property tax revenues due to the displaced businesses; however, the businesses would be offered relocation assistance within West Pullman. These property acquisitions would not adversely affect the local real estate market due to the availability of comparable real estate within this neighborhood. In addition, the City has been working to redevelop the vacant and cleared site of the former Sherman Williams factor within the West Pullman Industrial Corridor, so these new facilities would be considered beneficial to the City's economic development effort. Because compensation and relocation assistance would mitigate displacement impacts, the overall impact on West Pullman would be considered beneficial for local economic development from redevelopment of vacant land and the development of a new industrial facility that would provide new job opportunities to local residents.

5.6.4.2 Construction Impacts and Mitigations

Construction of the proposed yard and shop, including construction staging activities, would occur on land acquired for the yard's permanent ROW. As such, there would be no acquisition or displacement impacts from construction. Because the maintenance yard and shop would be located in an industrial area, the construction activities would be considered not adverse for land use or economic development.

Section 6
Impacts Remaining After Mitigation

This section describes the permanent impacts of the RLE Project remaining after mitigating for impacts as described in Section 5.

6.1 No Build Alternative

There would be no adverse impacts on land use or on economic development as a result of the No Build Alternative.

6.2 Bus Rapid Transit Alternative

There would be no adverse impacts on land use or on economic development as a result of the BRT Alternative.

6.3 Union Pacific Railroad Rail Alternative - Right-of-Way Option

6.3.1 Segment UA

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the UPRR ROW Option.

6.3.2 Segment UB

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the UPRR ROW Option.

6.3.3 120th Street Yard and Shop

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the 120th Street yard and shop.

6.4 Union Pacific Railroad Rail Alternative - East Option

6.4.1 Segment UA

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the UPRR East Option.

6.4.2 Segment UB

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the UPRR East Option.

6.4.3 120th Street Yard and Shop

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the 120th Street yard and shop.

6.5 Union Pacific Railroad Rail Alternative - West Option

6.5.1 Segment UA

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the UPRR West Option.

6.5.2 Segment UB

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the UPRR West Option.

6.5.3 120th Street Yard and Shop

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the 120th Street yard and shop.

6.6 Halsted Rail Alternative

6.6.1 Segment HA

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the Halsted Rail Alternative within this segment.

6.6.2 Segment HB

There would be adverse impacts remaining after mitigation due to the Vermont Avenue mixed-use parking garage within a single-family residential area in West Pullman.

Due to the recent and current planning efforts, as well as the overall economic decline in the project area since the 1980s, there would be adverse cumulative impacts as a result of the Halsted Rail Alternative on the Riverdale neighborhood, which would not be connected by this alternative.

6.6.3 119th Street Yard and Shop

After mitigation, there would be no remaining adverse impacts on land use or on economic development from the 119th Street yard and shop.

Section 7
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Appendix A
Detailed Maps of Current Land Uses (13 pages)

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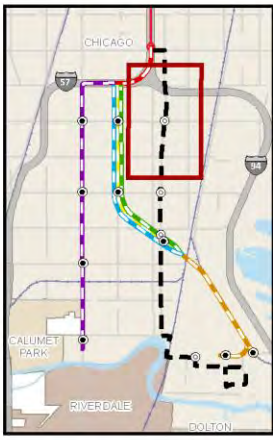

Legend

BRT Alternative
103rd Stop Area
Stop Area (1/2 mile)

Land Use Classifications
- Single-Family Residential
- Multi-Family Residential
- Retail Commercial
- Office Commercial
- Urban Mixed Use
- Entertainment & Hotel
- Institutional
- Industrial & Warehouse
- Transportation, Communications & Utilities
- Open Space
- Vacant

BRT Alternative
Proposed BRT Stop
Existing CTA Bus Stops Used by BRT Alternative
Metra Line & Stations
Freight Rail
CTA Bus
Pace Bus
Water Body

Scale

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Feet

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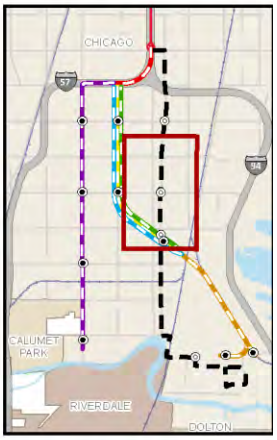


Legend

BRT Alternative
111th Stop Area

- Stop Area (1/2 mile)

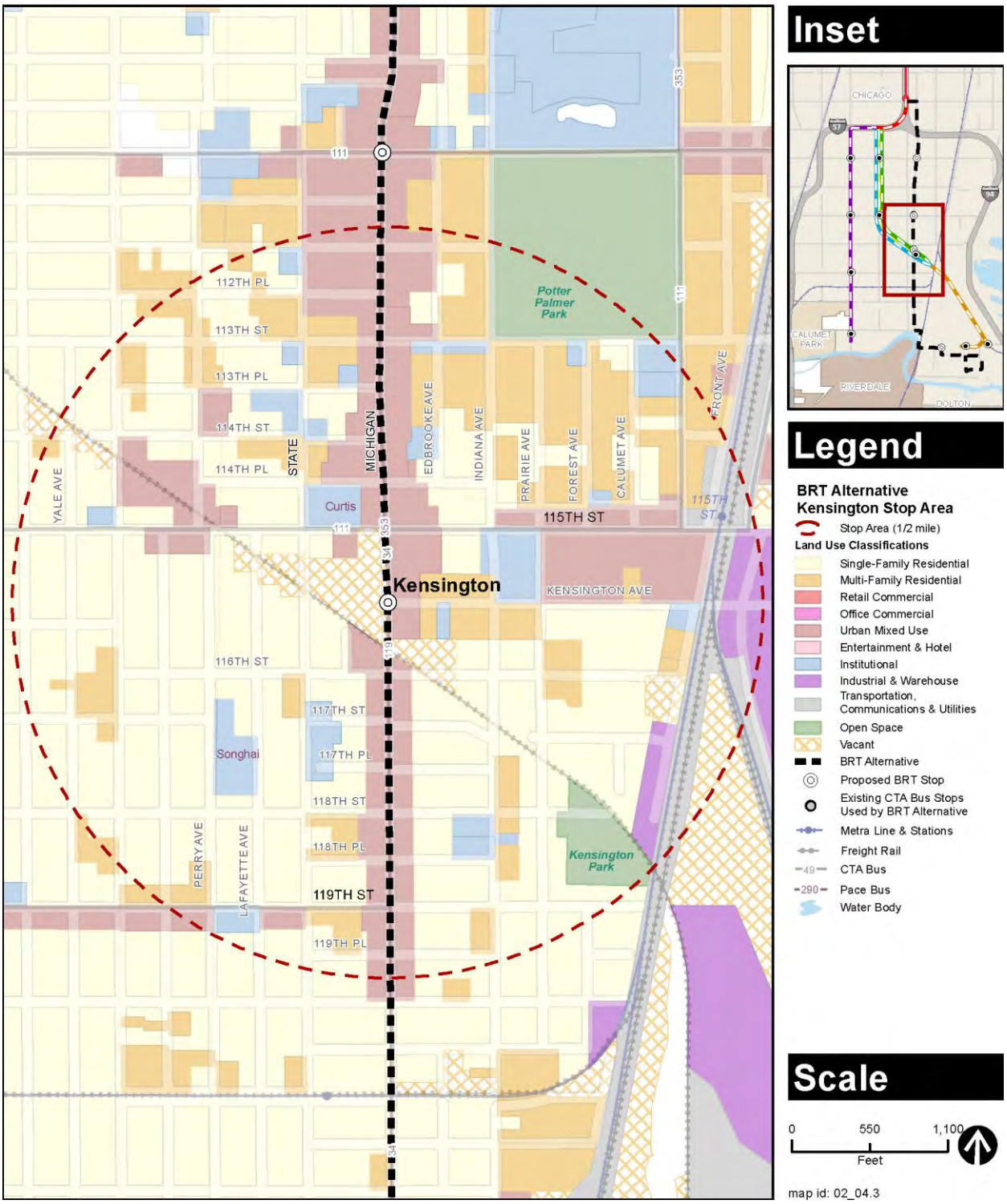
Land Use Classifications

- Single-Family Residential
- Multi-Family Residential
- Retail Commercial
- Office Commercial
- Urban Mixed Use
- Entertainment & Hotel
- Institutional
- Industrial & Warehouse
- Transportation, Communications & Utilities
- Open Space
- Vacant
- BRT Alternative
- Proposed BRT Stop
- Existing CTA Bus Stops Used by BRT Alternative
- Metra Line & Stations
- Freight Rail
- 49 CTA Bus
- 290 Pace Bus
- Water Body

Scale

0 550 1,100
Feet

map id: 02_04.2


Inset
CHICAGO
CALUMET PARK
RIVERDALE
DOLTON
Legend
BRT Alternative
Kensington Stop Area
Stop Area (1/2 mile)
Land Use Classifications
Single-Family Residential
Multi-Family Residential
Retail Commercial
Office Commercial
Urban Mixed Use
Entertainment & Hotel
Institutional
Industrial & Warehouse
Transportation, Communications & Utilities
Open Space
Vacant
BRT Alternative
Proposed BRT Stop
Existing CTA Bus Stops Used by BRT Alternative
Metra Line & Stations
Freight Rail
CTA Bus
Pace Bus
Water Body
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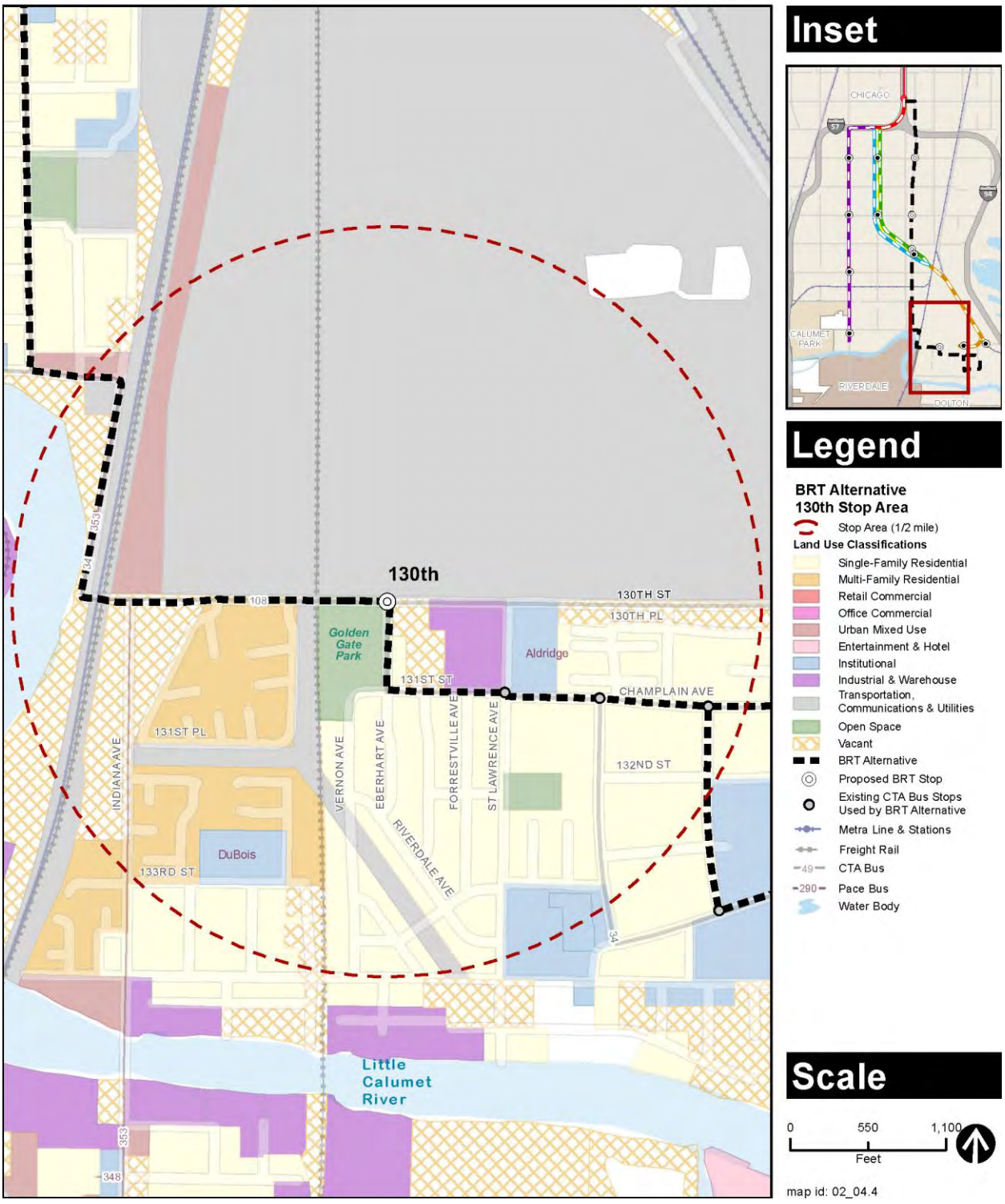
Potter Palmer Park
Kensington
Kensington Park
Curtis
Songhai
112TH PL
113TH ST
113TH PL
114TH ST
114TH PL
115TH ST
116TH ST
117TH ST
117TH PL
118TH ST
118TH PL
119TH ST
119TH PL
MICHIGAN
STATE
EDBROOKE AVE
INDIANA AVE
PRAIRIE AVE
FOREST AVE
CALUMET AVE
FRONT AVE
YALE AVE
PERRY AVE
LAFAYETTE AVE
KENSINGTON AVE



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BRT Alternative
130th Stop Area
Stop Area (1/2 mile)

Land Use Classifications
- Single-Family Residential
- Multi-Family Residential
- Retail Commercial
- Office Commercial
- Urban Mixed Use
- Entertainment & Hotel
- Institutional
- Industrial & Warehouse
- Transportation, Communications & Utilities
- Open Space
- Vacant

BRT Alternative
Proposed BRT Stop
Existing CTA Bus Stops Used by BRT Alternative
Metra Line & Stations
Freight Rail
49 CTA Bus
290 Pace Bus
Water Body

Scale

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Feet

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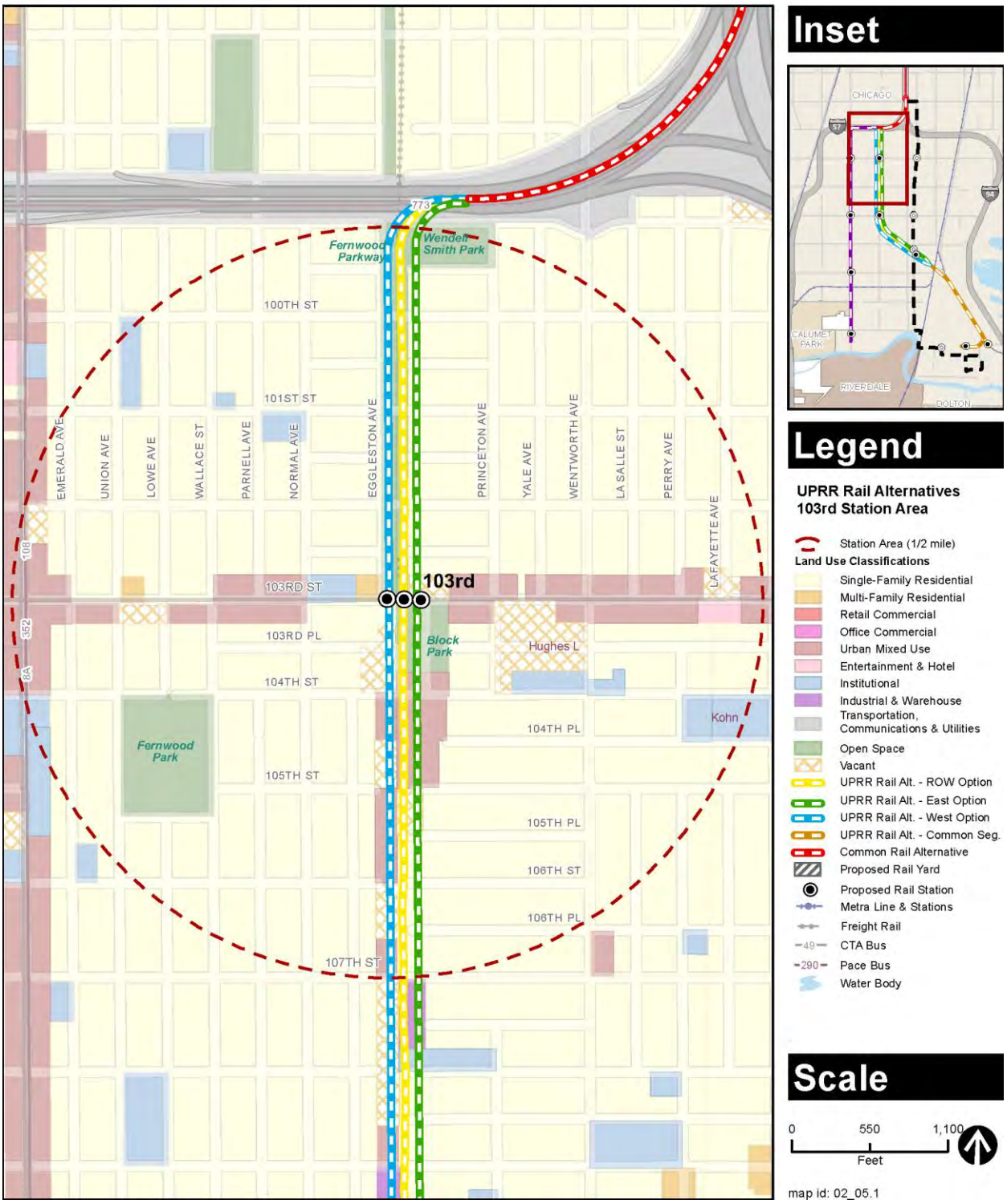
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CHICAGO
CALUMET PARK
RIVERDALE
DOLTON
Legend
UPRR Rail Alternatives
103rd Station Area
Station Area (1/2 mile)
Land Use Classifications
Single-Family Residential
Multi-Family Residential
Retail Commercial
Office Commercial
Urban Mixed Use
Entertainment & Hotel
Institutional
Industrial & Warehouse
Transportation, Communications & Utilities
Open Space
Vacant
UPRR Rail Alt. - ROW Option
UPRR Rail Alt. - East Option
UPRR Rail Alt. - West Option
UPRR Rail Alt. - Common Seg.
Common Rail Alternative
Proposed Rail Yard
Proposed Rail Station
Metra Line & Stations
Freight Rail
CTA Bus
Pace Bus
Water Body
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Fernwood Parkway
Wendell Smith Park
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EMERALD AVE
UNION AVE
LOWE AVE
WALLACE ST
PARNELL AVE
NORMAL AVE
EGGLESTON AVE
PRINCETON AVE
YALE AVE
WENTWORTH AVE
LA SALLE ST
PERRY AVE
LAFAYETTE AVE
103RD ST
103rd
103RD PL
Block Park
Hughes L
104TH ST
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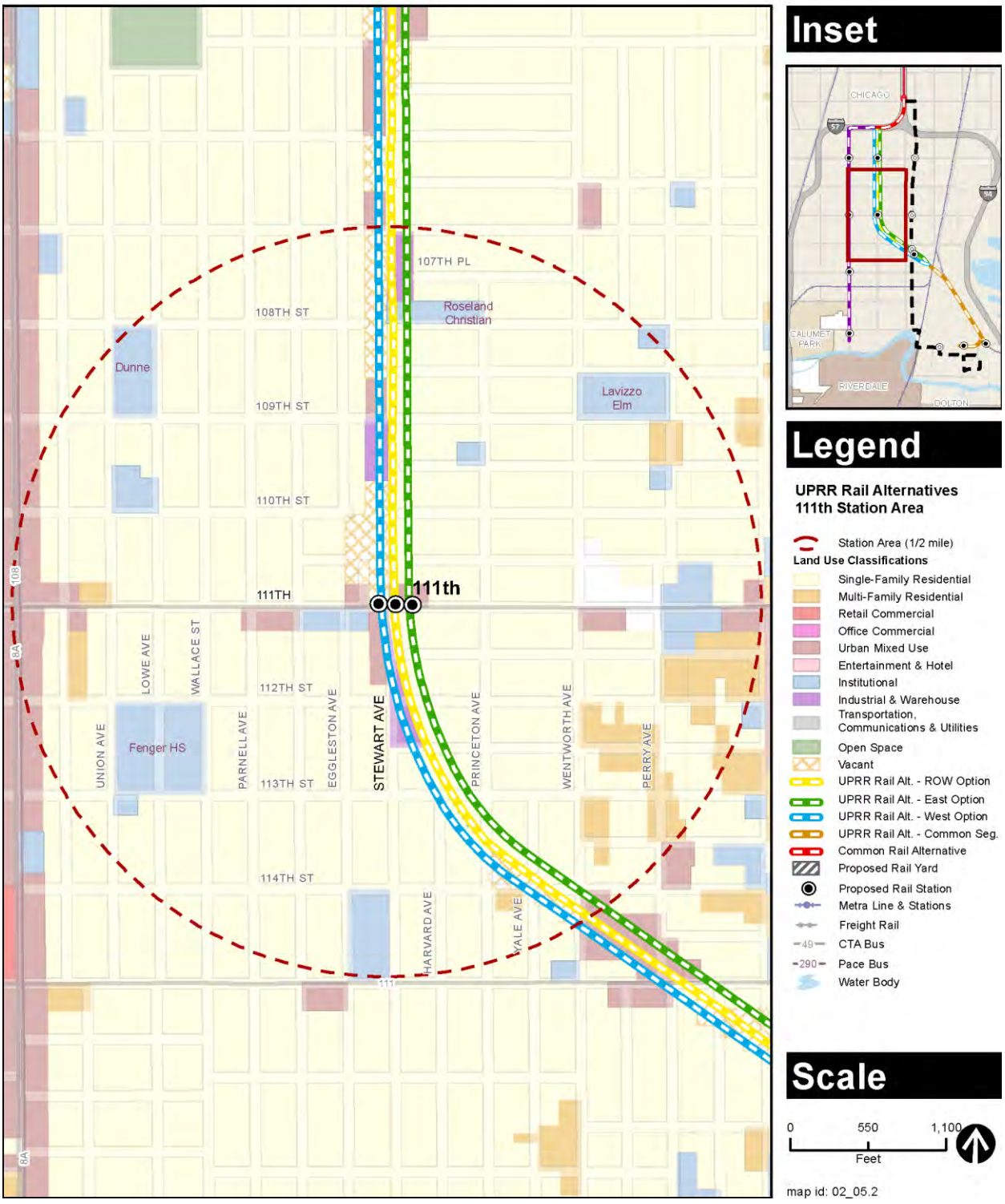
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UNION AVE
PARNELL AVE
EGGLESTON AVE
PRINCETON AVE
WENTWORTH AVE
PERRY AVE
HARVARD AVE
VALE AVE
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CHICAGO
CALUMET PARK
RIVERDALE
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UPRR Rail Alternatives
111th Station Area
Station Area (1/2 mile)
Land Use Classifications
Single-Family Residential
Multi-Family Residential
Retail Commercial
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Transportation, Communications & Utilities
Open Space
Vacant
UPRR Rail Alt. - ROW Option
UPRR Rail Alt. - East Option
UPRR Rail Alt. - West Option
UPRR Rail Alt. - Common Seg.
Common Rail Alternative
Proposed Rail Yard
Proposed Rail Station
Metra Line & Stations
Freight Rail
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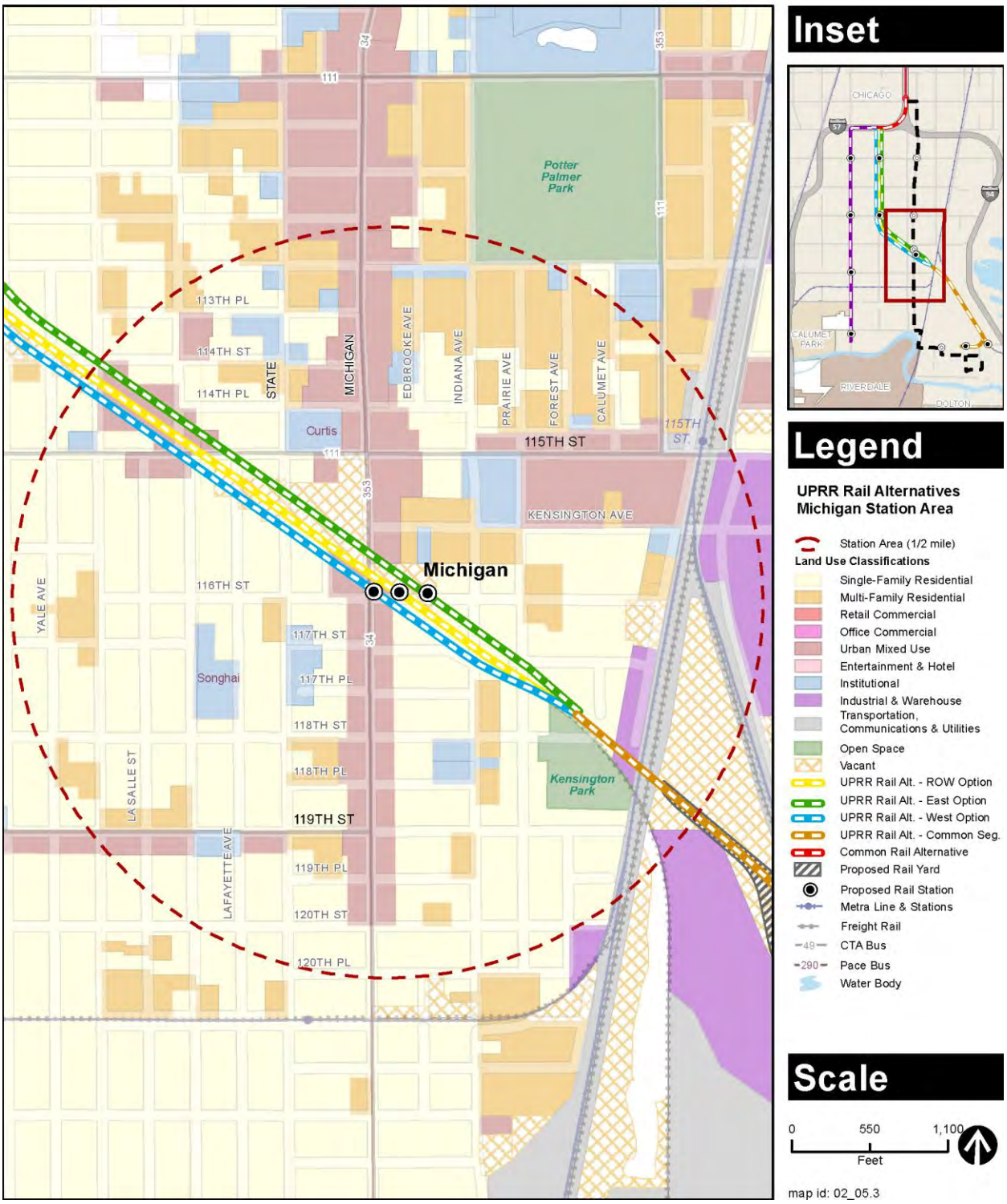
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UPRR Rail Alternatives
Michigan Station Area
Station Area (1/2 mile)
Land Use Classifications
Single-Family Residential
Multi-Family Residential
Retail Commercial
Office Commercial
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Potter Palmer Park
Kensington Park
Songhai
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Michigan
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KENSINGTON AVE
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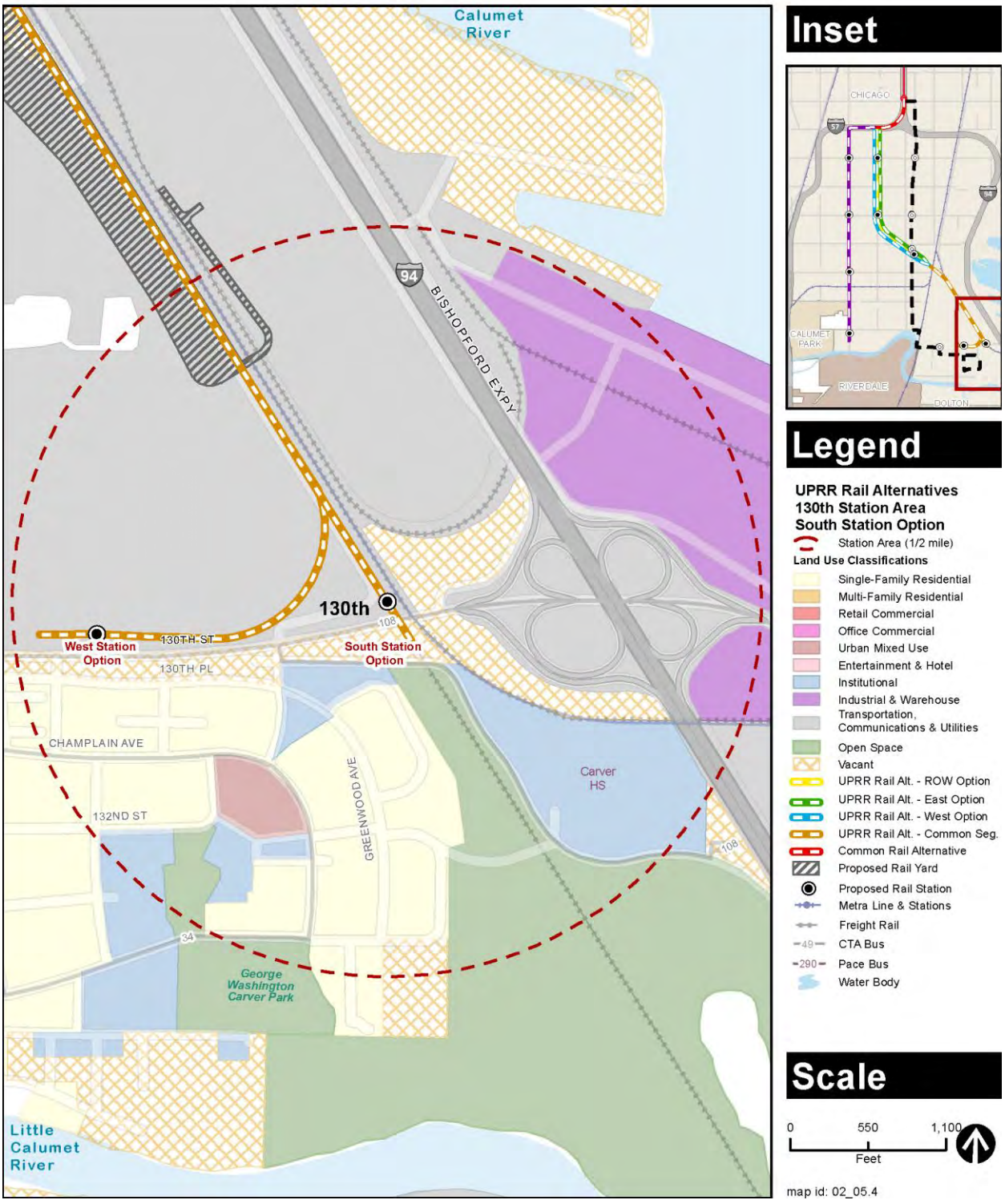
Calumet River
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BISHOPFORD EXPY
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108
West Station Option
130TH ST
130TH PL
South Station Option
CHAMPLAIN AVE
132ND ST
GREENWOOD AVE
Carver HS
34
George Washington Carver Park
Little Calumet River
Inset
CHICAGO
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CALUMET PARK
RIVERDALE
DOLTON
Legend
UPRR Rail Alternatives
130th Station Area
South Station Option
Station Area (1/2 mile)
Land Use Classifications
Single-Family Residential
Multi-Family Residential
Retail Commercial
Office Commercial
Urban Mixed Use
Entertainment & Hotel
Institutional
Industrial & Warehouse
Transportation, Communications & Utilities
Open Space
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UPRR Rail Alt. - ROW Option
UPRR Rail Alt. - East Option
UPRR Rail Alt. - West Option
UPRR Rail Alt. - Common Seg.
Common Rail Alternative
Proposed Rail Yard
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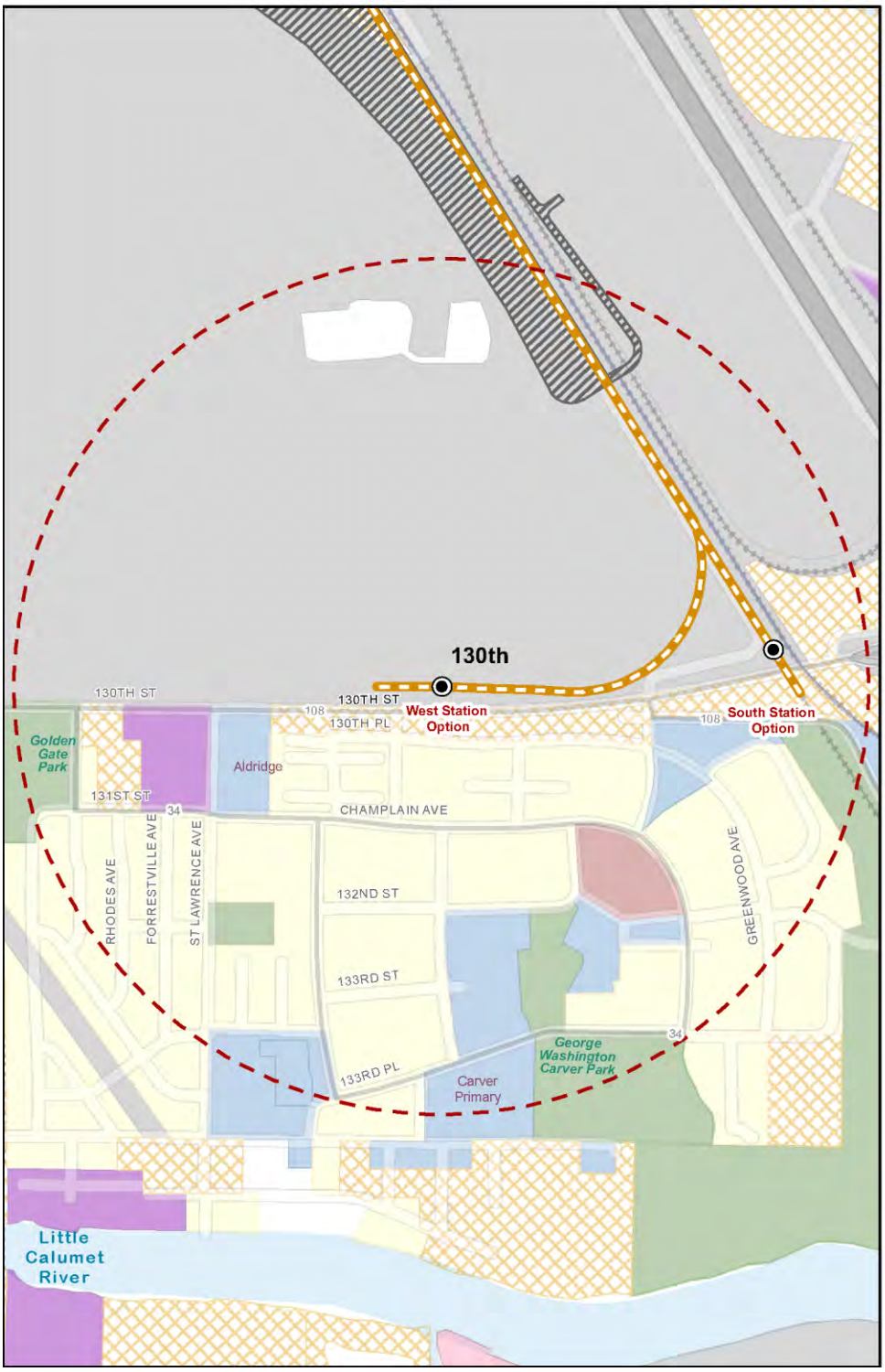

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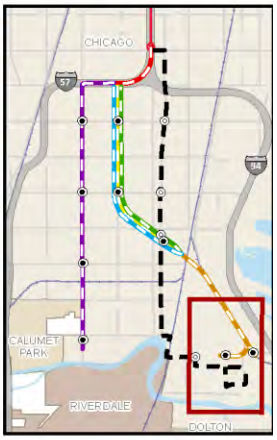

Legend

UPRR Rail Alternatives
130th Station Area
West Station Option

Station Area (1/2 mile)

Land Use Classifications

- Single-Family Residential
- Multi-Family Residential
- Retail Commercial
- Office Commercial
- Urban Mixed Use
- Entertainment & Hotel
- Institutional
- Industrial & Warehouse
- Transportation, Communications & Utilities
- Open Space
- Vacant
- UPRR Rail Alt. - ROW Option
- UPRR Rail Alt. - East Option
- UPRR Rail Alt. - West Option
- UPRR Rail Alt. - Common Seg.
- Common Rail Alternative
- Proposed Rail Yard
- Proposed Rail Station
- Metra Line & Stations
- Freight Rail
- 49 CTA Bus
- 290 Pace Bus
- Water Body

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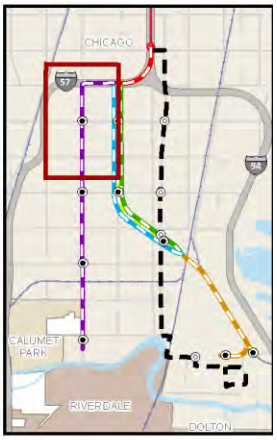

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Halsted Rail Alternative
103rd Station Area

- Station Area (1/2 mile)

Land Use Classifications

- Single-Family Residential
- Multi-Family Residential
- Retail Commercial
- Office Commercial
- Urban Mixed Use
- Entertainment & Hotel
- Institutional
- Industrial & Warehouse
- Transportation, Communications & Utilities
- Open Space
- Vacant
- Halsted Rail Alternative
- Common Rail Alternative
- Proposed Rail Yard
- Proposed Rail Station
- Metra Line & Stations
- Freight Rail
- 49 CTA Bus
- 290 Pace Bus
- Water Body

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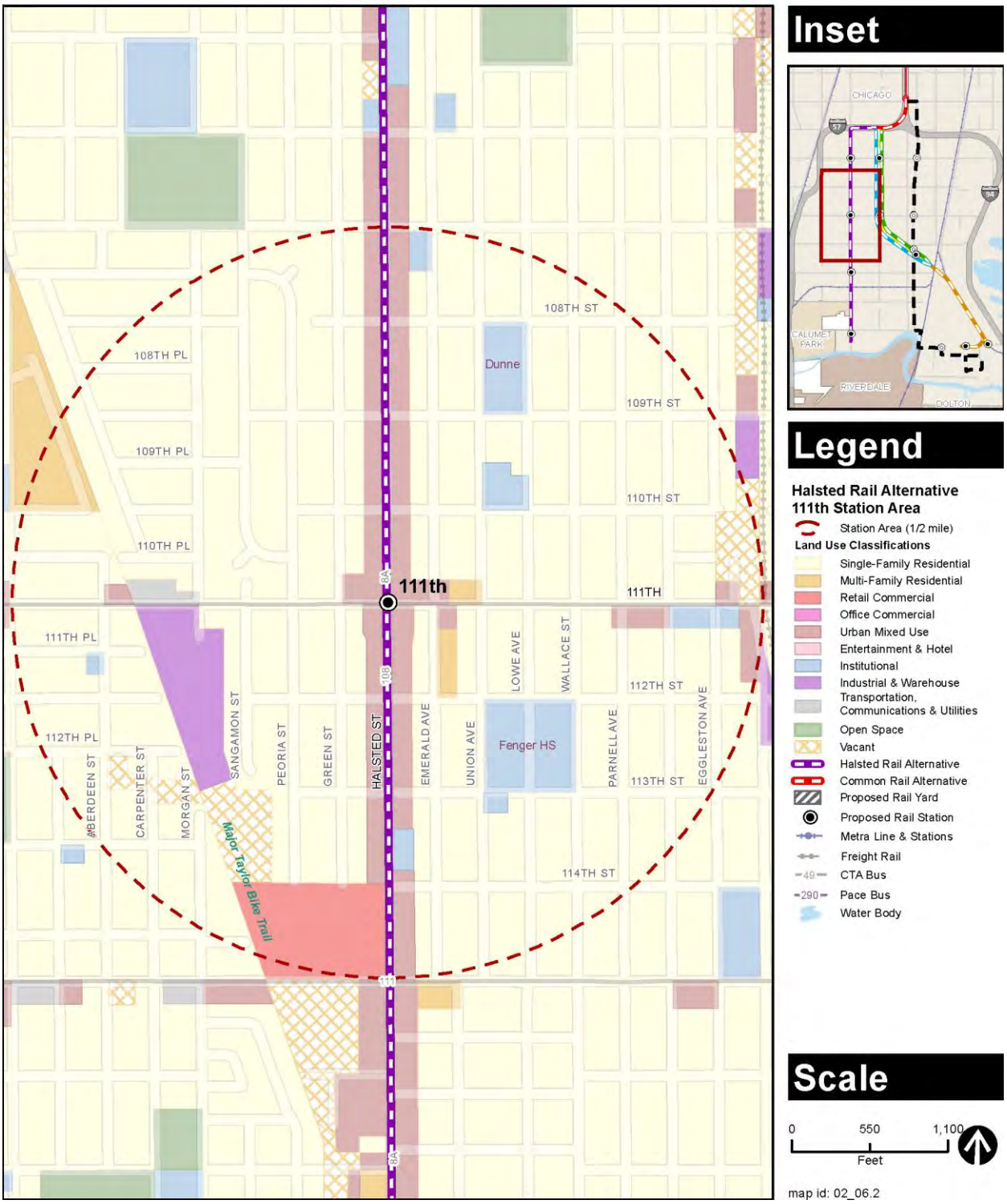
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114TH ST
SANGAMON ST
PEORIA ST
GREEN ST
HALSTED ST
EMERALD AVE
UNION AVE
LOWE AVE
WALLACE ST
PARNELL AVE
EGGLESTON AVE
ABERDEEN ST
CARPENTER ST
MORGAN ST
Fenger HS
Major Taylor Bike Trail
Inset
CHICAGO
CALUMET PARK
RIVERDALE
DOLTON
Legend
Halsted Rail Alternative
111th Station Area
Station Area (1/2 mile)
Land Use Classifications
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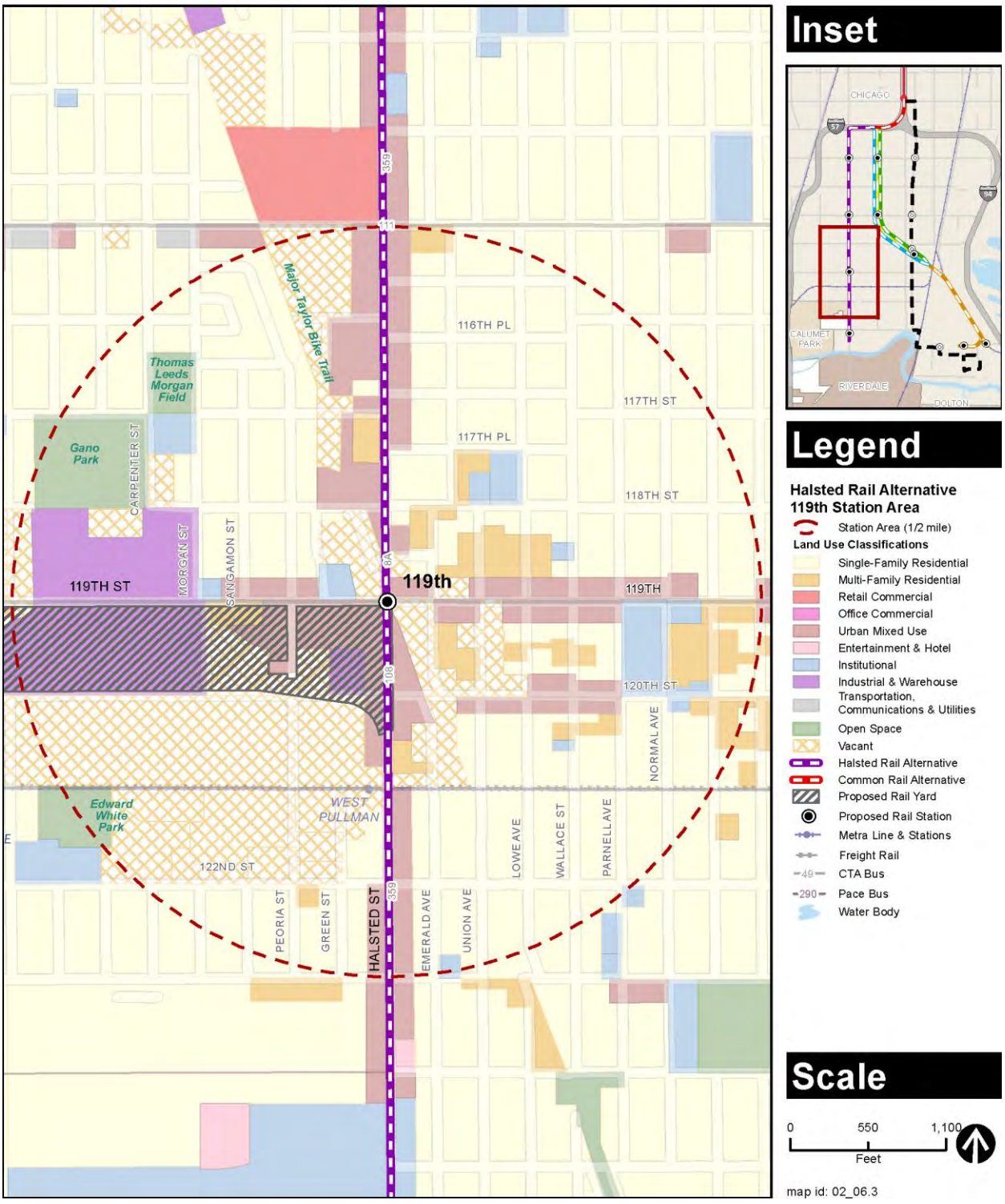
Office Commercial
Urban Mixed Use
Entertainment & Hotel
Institutional
Industrial & Warehouse
Transportation, Communications & Utilities
Open Space
Vacant
Halsted Rail Alternative
Common Rail Alternative
Proposed Rail Yard
Proposed Rail Station
Metra Line & Stations
Freight Rail
CTA Bus
Pace Bus
Water Body
Scale
0
550
1,100
Feet
map id: 02_06.2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CHICAGO
CALUMET PARK
RIVERDALE
DOLTON
Legend
Halsted Rail Alternative
119th Station Area
Station Area (1/2 mile)
Land Use Classifications
Single-Family Residential
Multi-Family Residential
Retail Commercial
Office Commercial
Urban Mixed Use
Entertainment & Hotel
Institutional
Industrial & Warehouse
Transportation, Communications & Utilities
Open Space
Vacant
Halsted Rail Alternative
Common Rail Alternative
Proposed Rail Yard
Proposed Rail Station
Metra Line & Stations
Freight Rail
CTA Bus
Pace Bus
Water Body
Major Taylor Bike Trail
Thomas Leeds Morgan Field
Gano Park
Edward White Park
WEST PULLMAN
116TH PL
117TH ST
117TH PL
118TH ST
119TH ST
119th
120TH ST
122ND ST
CARPENTIER ST
MORGAN ST
SANGAMON ST
PEORIA ST
GREEN ST
HALSTED ST
EMERALD AVE
UNION AVE
LOWE AVE
WALLACE ST
PARNELL AVE
NORMAL AVE
359
6A
106
Scale
0
550
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Feet
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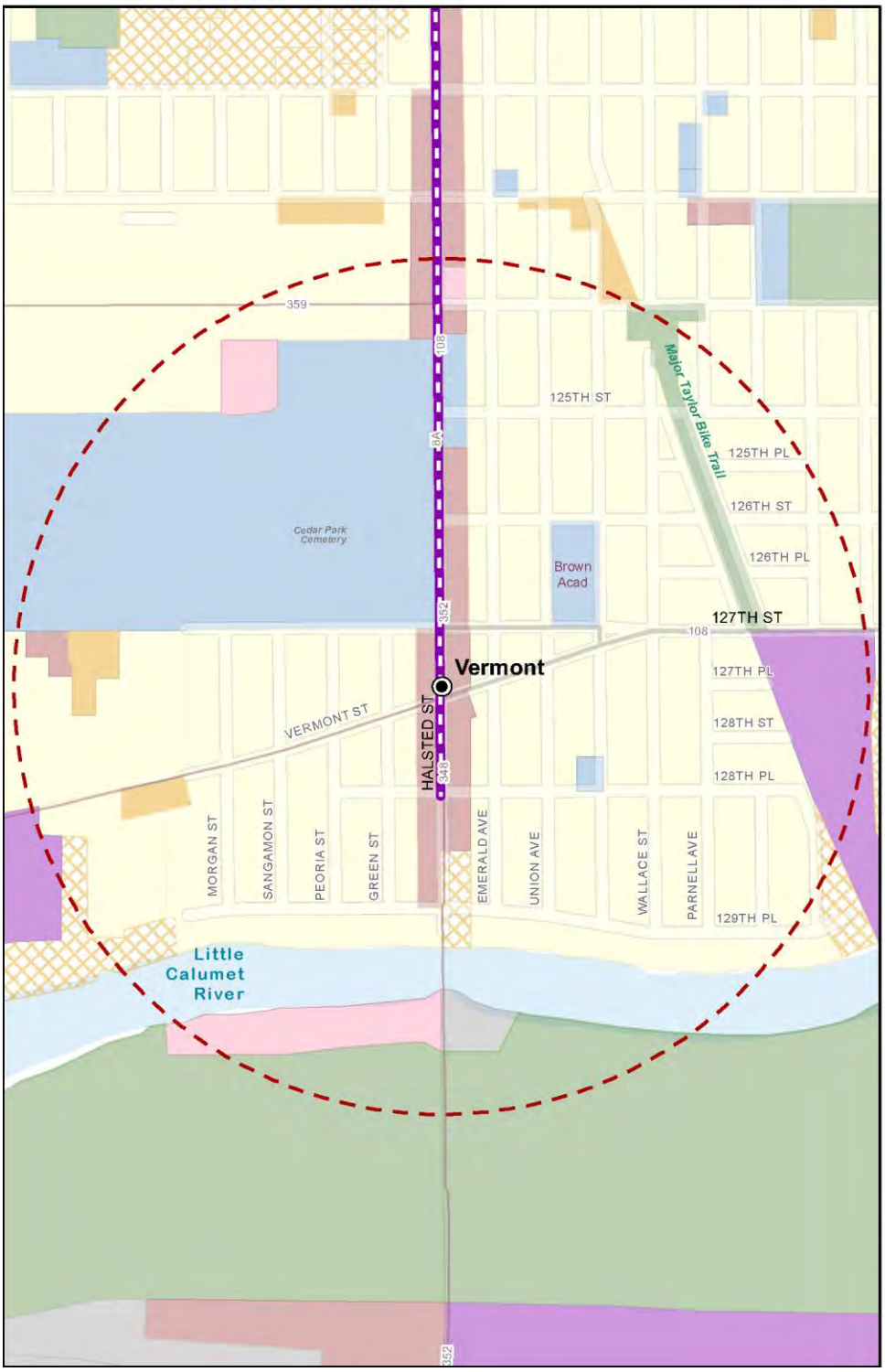

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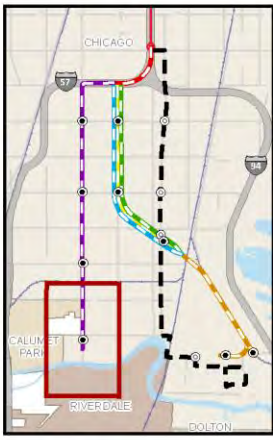

Legend

Halsted Rail Alternative
Vermont Station Area

- Station Area (1/2 mile)

Land Use Classifications

- Single-Family Residential
- Multi-Family Residential
- Retail Commercial
- Office Commercial
- Urban Mixed Use
- Entertainment & Hotel
- Institutional
- Industrial & Warehouse
- Transportation, Communications & Utilities
- Open Space
- Vacant
- Halsted Rail Alternative
- Common Rail Alternative
- Proposed Rail Yard
- Proposed Rail Station
- Metra Line & Stations
- Freight Rail
- 49 CTA Bus
- 290 Pace Bus
- Water Body

Scale

0 550 1,100
Feet

map id: 02_06.4

Appendix B
2014–2015 Red Line Extension Project Update

2014–2015 Red Line Extension Project Update

From 2012–2014, CTA evaluated benefits and impacts of four alternatives: the No Build Alternative, the Bus Rapid Transit Alternative (along Michigan Avenue), the Union Pacific Railroad (UPRR) Rail Alternative, and the Halsted Alternative. CTA evaluated three options of the UPRR Rail Alternative: Right-of-Way Option, East Option, and West Option. CTA also evaluated two options of the UPRR Rail Alternative 130th Street station: a South Station Option and a West Station Option. Based on the project description provided in Section 2 of this technical memorandum, CTA analyzed the impacts of these alternatives and station options. The benefits and impacts are included in the technical memoranda prepared in 2012–2014.

In August 2014, based on the technical analysis and public input, CTA announced the NEPA Preferred Alternative—the UPRR Rail Alternative. Additional conceptual engineering was conducted on the UPRR Rail Alternative to refine the East and West Option alignments. In addition, CTA is considering only the South Station Option of the 130th Street Station.

In late 2014 and early 2015, CTA conducted additional engineering and revised assumptions on the East and West Options to refine the alignments. The refinement of the East and West Options consisted of the following items:

- For the segment of the alignment along I-57, CTA shifted the proposed alignment from the median of I-57 to the north side of I-57 within the existing expressway right-of-way. The construction would be less complex, safer for construction workers, and have a shorter duration. The shift would also allow for fewer impacts to Wendell Smith Park for the East Option, and would allow for no permanent impacts to Wendell Smith Park for the West Option.

- CTA modified the curve speeds as the alignment heads south from I-57 along the UPRR tracks. The curve speed for both the East and West Options would be 35 mph.

- CTA shifted the East Option alignment near 103rd Street station to minimize impacts to Block Park and the Roseland Pumping Station.

- CTA modified the curves south of 103rd Street for both the East and West Options to 55 mph to maximize the train speed.

- CTA refined the layout of the 120th Street yard and shop to optimize yard operations. The refined layout of the yard would accommodate 340 train cars.

The refinement of the East and West Option alignments minimizes potential impacts to parks while providing flexibility for future design phases. The Draft Environmental Impact Statement contains the benefits and impacts of the refined East and West Option alignments and supersedes information presented in other chapters of this technical memorandum.

The refined East and West Option alignments would have no additional or different impacts from those described in the technical memoranda for the following resource areas: construction, transportation, land use and economic development, historic and cultural resources, safety and security, hazardous materials, indirect and cumulative, air quality, floodplains, vegetation and wildlife habitat, threatened and endangered species, and geology and soils.