Documented Categorical Exclusion
Union Pacific West Third Mainline Project
Eastern Section

Vale to 25th Avenue (MP 9.73 to MP 11.70)
Metra Project Number: HG-4846

November 2016

Metra

DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

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List of Acronyms

ACHP	Advisory Council on Historic Preservation
ADA	American with Disabilities Act
APE	Area of Potential Effects
ASTM	American Society for Testing and Materials
BMP	Best Management Practices
CCDD	Clean Construction Demolition Debris
CFR	Code of Federal Regulations
CMAP	Chicago Metropolitan Agency for Planning
CO	Carbon monoxide
CREATE	Chicago Regional Environmental and Transportation Efficiency program
CWA	Clean Water Act
EcoCAT	Ecological Compliance Assessment Tool
EJ	Environmental Justice
ESA	Environmental Site Assessment
IDNR	Illinois Department of Natural Resources
IEPA	Illinois Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FOIA	Freedom of Information Act
FHWA	U.S. Department of Transportation, Federal Highway Administration
FRA	U.S. Department of Transportation, Federal Railroad Administration
FTA	U.S. Department of Transportation, Federal Transit Administration
HHS	Department of Health and Human Services
HUC	Hydrologic Unit Code
LPA	Locally Preferred Alternative
MP	Mile Post
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration standards
OWR	Office of Water Resources
PM	Particulate matter
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SWPPP	Storm Water Pollution Prevention Plan
TIP	Transportation Improvement Program
UP	Union Pacific
UP-W	Union Pacific – West
USACE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WOUS	Waters of the U.S.
WQC	Water Quality Concurrence

A. Detailed Project Description

General Project Overview

The Union Pacific – West (UP-W) Line extends approximately 44 miles west from the Ogilvie Transportation Center in Chicago, Illinois, to Elburn, Illinois. The UP-W Line carries a mix of passenger and freight train traffic, including an average of 60 Metra passenger trains and 60 Union Pacific (UP) freight trains per day. Over 28,000 Metra riders use the UP-W Line each weekday. See Figure 1 – Regional Context for the location of the Project in the western Chicagoland region.

The UP-W Third Mainline - Eastern Section Project (Project) consists of constructing a third mainline track from the UP's Vale Interlocking in River Forest, IL to 25th Avenue in Melrose Park, IL (MP 9.73 to MP 11.70). See Figure 2 – Project Location.

The third mainline track would be added primarily on the north side of the existing tracks with the exception of an approximately 2,300-foot section from near the Melrose Park Station west to 25th Avenue, which would be located along the south side of the existing tracks (MP 11.26 to MP 11.70). Improvements would be required for the at-grade street/rail crossings, Des Plaines River Bridge, and stations to accommodate the addition of the third mainline track. Intersection improvements include ornamental fence, driveway access, sidewalk, gates, and landscaping. The existing Des Plaines River Bridge improvements are limited to repair and rehabilitation of the existing structure. The stations include new warming shelters and improvements to accessibility. No permanent right-of-way would be required for these improvements; however, temporary construction easements would be required for grading purposes. The third mainline track addition would occur within the UP's existing right-of-way along the entire length of the Project.

The Project has received a preliminary determination that it is categorically excluded from further National Environmental Policy Act (NEPA) review under 23 CFR 771.118 (c) (9): Assembly or construction of facilities. Final classification and category will be determined, pending Metra and the Federal Transit Administration (FTA) reviews.

Project Background/Previous Studies

In 2007, Metra completed an Alternatives Analysis Study for the UP-W Line to select a Locally Preferred Alternative (LPA) for this corridor. The study identified and evaluated a range of transit improvement alternatives for the corridor. The final report recommendation identified the addition of a third track along the UP-W Line from Elmhurst to River Forest as the LPA.

Figure 1 - Regional Context

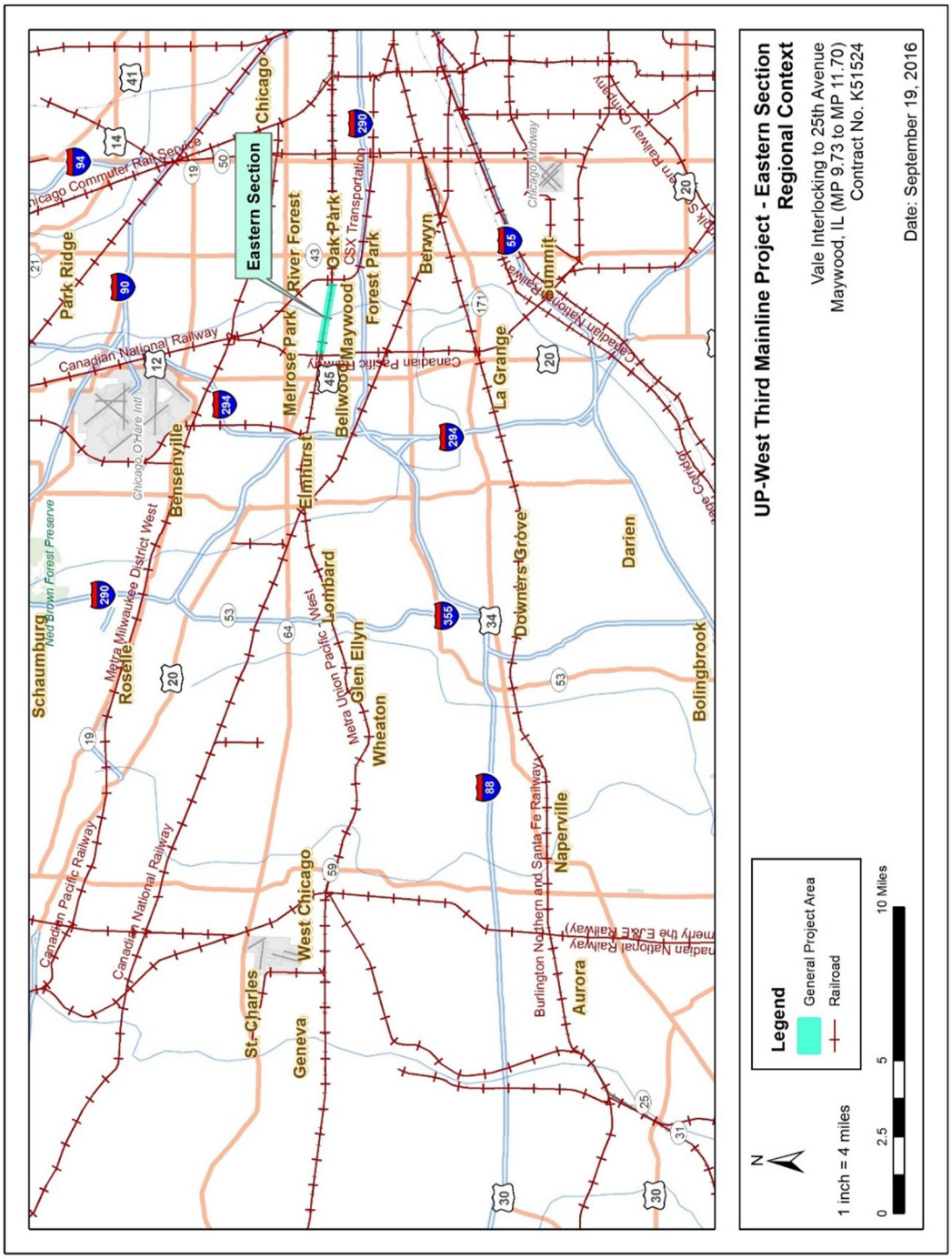
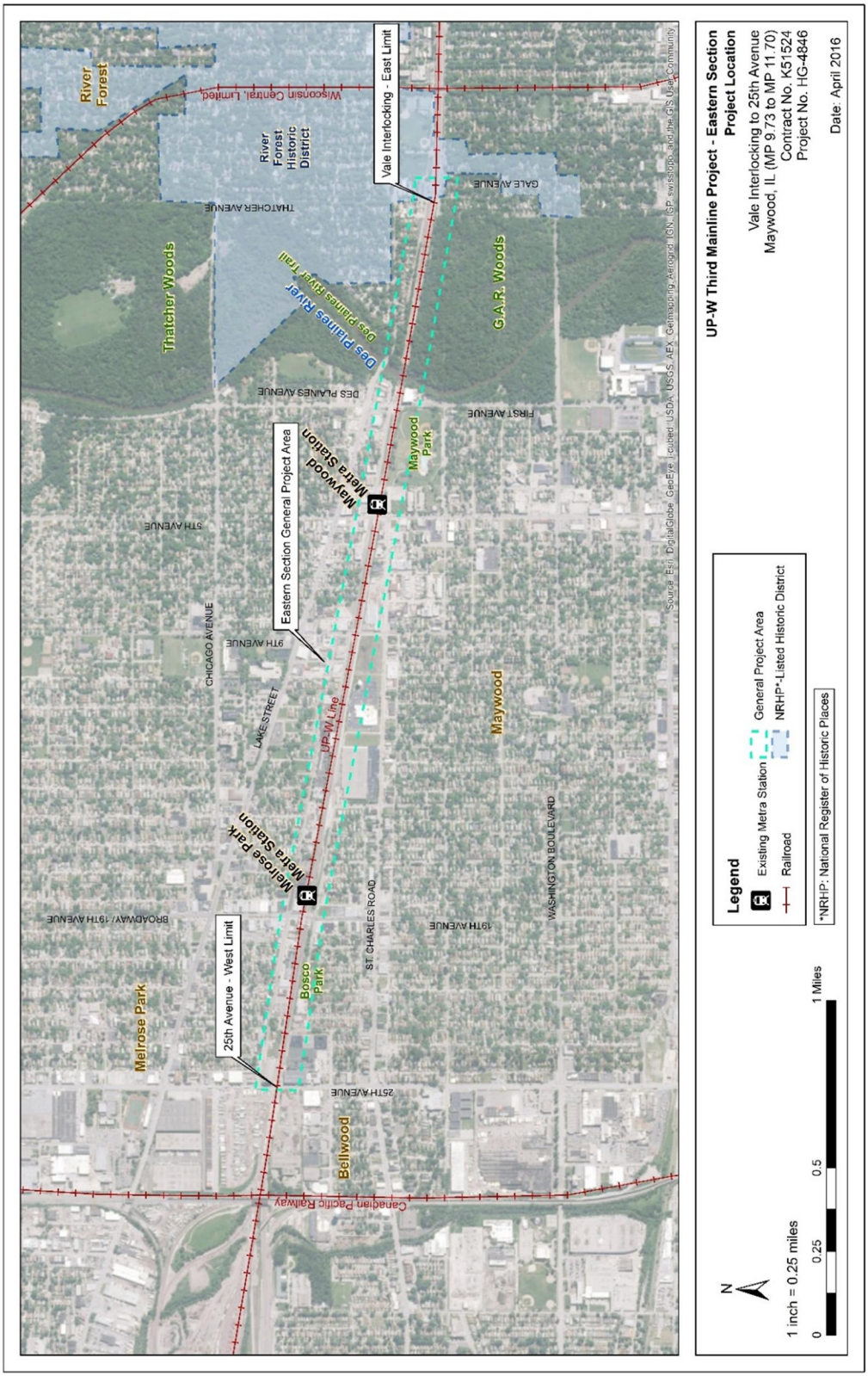


Figure 2 - Project Location



Since approval of the LPA in 2007, both the UP and Metra have been making improvements throughout the corridor. These incremental improvements have been divided into four phases of projects. The first three phases of projects, which are now complete, included various safety, signal, station, and switching upgrades. The fourth project, the UP-W Third Mainline Project, would add a third mainline track to this existing double-track section. This is one of the final improvement projects identified by the UP and Metra to improve safety and efficiency along this corridor.

Project Purpose and Need

The purpose of this Project was previously considered in the *Alternatives Analysis: Document 2 – Purpose and Need* (Parsons, 2006). It was determined that there is a need for improved transportation facilities and services to sustain the existing activity centers along the UP-W Line and to help the western suburbs grow in sustainable, transit-oriented patterns of development. In light of (a) the limited opportunities for adding roadway capacity, and (b) the physical constraints of railroad expansion, it is necessary to advance transportation solutions to leverage the present investment in existing infrastructure.

The Project area is one of only two remaining double track sections along the UP-W Line between the Ogilvie Transportation Center in downtown Chicago and Elburn. This section often becomes a bottleneck for both commuter and freight trains due the high volume of commuter and freight train traffic and the constraint of only having two tracks. This creates a bottleneck for train movements as both types of train movements compete for limited track space. The purpose of the Project is to address this bottleneck and the following key needs:

- Decrease commuter and freight train congestion;
- Decrease commuter delays affecting Metra performance times and schedules;
- Reduce motorist wait times at grade crossings;
- Preserve Metra performance times;
- Eliminate commuter curfews for freight trains; and
- Decrease the number of idling freight and passenger trains.

The Project also includes a third track at the bridge crossing of the Des Plaines River. The existing structure at the crossing was constructed with two tracks, but designed to eventually accommodate a third mainline track.

While there are no current plans to increase Metra service on the UP-W Line, the addition of a third track would allow Metra to have operational flexibility to better serve commuters.

Project Improvements

In addition to adding a third mainline track, the Project also includes improvements to the Des Plaines River Bridge structure, intersections (or grade crossings) along the corridor, and the Maywood and Melrose Park Metra Stations. These improvements are described below and are shown in Appendix A-4 of this document.

Des Plaines River Bridge Improvements

New bridge spans would be constructed to carry the third mainline track over the Des Plaines River. Portions of the existing substructure under the proposed third mainline need repair. The existing abutments and piers have deteriorated concrete and the steel spans are experiencing corrosion. The existing piers under the proposed third mainline track would be rehabilitated by removing approximately one foot of concrete from the top and sides of the piers. This area would then be rebuilt to the original dimensions with reinforced concrete. The top of the existing piers would be extended under the proposed third mainline track to accommodate the new bridge structure. See Figure 3 for a photograph of the existing structure crossing the Des Plaines River. No additional right-of-way is needed to construct the third mainline track.

Figure 3 – Des Plaines River Bridge

Source: Huff & Huff, 2015

Intersection Improvements

The Project would include improvements to at-grade street/rail crossings to accommodate the addition of the third mainline track at 1st, 5th, 9th, and 19th Avenues. No permanent right-of-way would be required for these improvements; however, temporary construction easements would be required for grading purposes. The reconstruction of 1st, 5th, and 9th Avenues would occur on the north side of the tracks to accommodate the third mainline. The reconstruction of 19th Avenue would occur on the south side of the tracks and would include minor improvements to West Railroad Avenue in order to tie-in to the 19th Avenue improvements. The reconstruction at

each of these locations would also result in minor improvements to Main Street as a consequence of the associated improvements made at each respective crossing. Improvements at the intersections involve pavement improvements for the third track, wrought iron ornamental fence, in-kind driveway access (concrete or brick), sidewalk, and landscaping. The signal bungalow will be relocated at 1st Avenue. Adjustments are required at 5th Avenue to the catch basin lids, a fire hydrant, and a mailbox. Improvements at 9th, 5th, and 1st Avenues include new gates north of the railroad and 19th Avenue includes new gates south of the railroad. The reconstruction of these at-grade street crossings would require temporary road closures and detours that are described in more detail in Section V – Impacts Caused by Construction.

A separate project under the Chicago Region Environmental and Transportation Efficiency program (CREATE) will address the 25th Avenue grade crossing. This CREATE project will eliminate the at-grade crossing at 25th Avenue by the UP-W Line, constructing an overpass for vehicles using 25th Avenue. The overpass will provide two thru-lanes of traffic in each direction over the UP-W Line railroad tracks and is designed to accommodate a third mainline track. This project is currently under construction and is scheduled for completion in early 2017, prior to the start of construction for the UP-W Third Mainline Project.

Station Improvements

The existing Maywood and Melrose Park stations would remain in their current locations. However, some station improvements would be necessary in order to accommodate the addition of a third track. No additional right-of-way would be acquired for these improvements.

At the Maywood Station, the existing platform on the north side of the tracks would be rebuilt and relocated to the north to accommodate the third mainline track. A new warming shelter would be constructed on the north platform in the area that is currently parking. Replacement parking would be constructed along the south side of Main Street, extending east from the station. There are currently 34 parking spaces, including four (4) Americans with Disabilities Act (ADA) accessible spaces. There would be no overall reduction in parking spaces. A new stairwell, retaining wall, and sidewalk would be added on the east end of the north platform, which would provide additional station access and access to the new parking area that would extend east from the station. Access from 5th Avenue would not be altered to the north and south platforms.

At the Melrose Park Station, the existing platforms on both the north and south sides of the tracks would be rebuilt to accommodate the new track alignment and new third mainline track. Sidewalks to the platforms from 19th Avenue would be reconstructed to ADA design standards. The Project would also repair deteriorating elements of the station building, including new ADA-compliant hand rails, masonry repairs, foundation repairs, and the replacement of wood panels and window/door frames. The existing access on the south side of the station building, adjacent to the Police Station, would be removed. The existing shelter on the south platform would be removed and replaced with a new shelter that includes ADA-compliant benches.

B. Location

The Project extends from the UP's Vale Interlocking in River Forest, IL, which is approximately 2,000 feet east of the Des Plaines River Bridge, to 25th Avenue in Melrose Park, IL (MP 9.73 to MP 11.70), a total distance of approximately 2.0 miles (see Figure 2). The Project study area encompasses the communities of River Forest, Maywood, Melrose Park, and Bellwood in Cook County, IL. For the purposes of this document, the Project area is generally defined by the Project's limits (Vale Interlocking to 25th Avenue) and the area within 250 feet of either side of the existing railroad alignment. There are currently two existing mainline tracks located in this section. The existing UP right-of-way for this section ranges from approximately 100 to 125 feet wide.

Two Metra commuter stations are located in this section: the Maywood Station (between 4th and 5th Avenues) and the Melrose Park Station (between Broadway/19th Avenue and 18th Avenue). See Figures 4 and 5 for photographs of the existing stations.

Figure 4 - Maywood Station

Source: Metro Strategies, 2015

Figure 5 - Melrose Park Station

Source: Google Maps, 2016

C. Metropolitan Planning and Air Quality Conformity

The Chicago region, including Cook County, is currently in non-attainment for lead, sulfur dioxide, and 8-hour ozone. However, lead is only attributed to Chicago, IL and sulfur dioxide is only attributed to Lemont, IL. Therefore, only the 8-hour ozone non-attainment applies to this Project.

The Chicago Metropolitan Agency for Planning (CMAP) reviewed the Project for air quality impact conformity. CMAP provided their response on January 12, 2016 (see Appendix B-1). CMAP determined that the Project is consistent with the information in the Transportation Improvement Program (TIP) conformity analysis. The Project is identified in the FY 2014-2019 TIP as a “major capital project” and is endorsed by CMAP, the regional Metropolitan Planning Organization. The TIP ID is 18-07-0669. The Project conforms to the State Implementation Plan (SIP) and the transportation related requirements of the 1990 Clean Air Act Amendments.

The Project is not expected to result in increased rail traffic or service. It is expected to reduce train congestion and idling commuter and freight trains, thus providing air quality benefits.

D. Land Use and Zoning

The Project is located in a predominantly suburban area of medium density. Past projects implemented by federal, state, and local governments, along with private developers, have all contributed to suburban development in this area. According to local comprehensive plans, the construction of the Eisenhower Expressway (I-290) in the 1950's and 1960’s improved access from downtown Chicago to the western suburbs, which led to rapid residential and commercial development and growth in the Project area.

The existing land use in the Project area consists of a mix of medium density residential and commercial uses. The eastern limits in River Forest, IL consist of park/open space and residential uses. The western limits of the project area consist of some light industrial uses. Existing zoning conditions are shown in Figure 6 – Existing Zoning. General land uses and community features are included in Figure 7 – Environmental Resources.

The following local plans were reviewed: River Forest Comprehensive Plan (2003), Village of Maywood Comprehensive Plan (2014), the Village of Bellwood Comprehensive Plan (2013), the Melrose Park Lake Street Corridor Plan (2007) and the Melrose Park Broadway Avenue Corridor Plan (2015). The Village of Melrose Park does not have a Comprehensive Plan or Long Range Plan. In general, these plans reference the importance of Metra serving their communities and recommend the continued improvement of Metra service and stations within their communities. Although many of these communities are built-out, there are properties that are undeveloped or ready for redevelopment. The communities in the project area have future land use plans that identify potential development sites within the general project area:

- River Forest identifies the importance of maintaining existing single-family neighborhoods while strengthening commercial and mixed-use corridors including Lake Street, Madison Street, and North Avenue.

- Maywood identifies 1st and 9th Avenues as areas for future redevelopment.
- Bellwood identifies target areas for redevelopment and transportation-oriented-development (TOD) along the UP-W Line and I-290 corridor.
- Melrose Park has corridor plans for Lake Street and Broadway Avenue (19th Avenue) in the downtown area that address economic development and development of vacant parcels.

Land use changes would depend on each community's efforts to implement improvements to commercial areas, employment centers, and housing as a way to attract new residents and businesses. It is expected that development and growth would continue to occur regardless of the addition of a third mainline track along the UP-W Line.

This Project is consistent with local plans and the addition of a third mainline track would not alter the existing land use or zoning.

E. Traffic Impacts

In order to accommodate the addition of a third mainline track, improvements to at-grade street/rail crossings at 1st, 5th, 9th, and 19th Avenues would be necessary. No permanent right-of-way would be needed for these improvements.

The third mainline track would be added on the north side of the existing tracks at 1st, 5th, and 9th Avenues and those existing crossings would require minor improvements on the north side of the tracks. This work would require temporary street closures and construction easements. A minor temporary construction easement would also be needed for grading a private driveway near 1st Avenue and Main Street. The third mainline track would be added on the south side of the existing tracks near 19th Avenue and the existing crossing on the south side of the tracks would require minor improvements. Approximately 150 square feet of temporary construction easement would be needed in the southeast corner of 19th Avenue and Railroad Avenue for grading. Preliminary detour routes have been identified and are described in Section V – Impacts Caused by Construction.

At the Maywood Station, the existing parking area would be removed and replaced with a new warming shelter. Replacement parking would be shifted further east and constructed along the south side of Main Street. There are currently 34 parking spaces, including four (4) ADA accessible spaces that would all be replaced. There would be no reduction in parking spaces. Accessible parking would be relocated to the existing commuter parking lot at the northeast corner of Main Street and 5th Avenue. A new stairwell, retaining wall, and sidewalk would be added on the far-east end of the north platform, which would provide access to the new parking area. There would be no change in parking location or availability at the Melrose Park Station.

The Project does not include major changes to the existing roadway, parking access, or parking availability within the vicinity of the existing stations. Based on the built condition of the area surrounding the stations, there is no additional development anticipated as a part of this Project, and therefore no additional traffic would result from this Project. Due to these findings, there are no foreseeable traffic impacts to the surrounding roadway network as a result of this Project.

Figure 6 - Existing Zoning

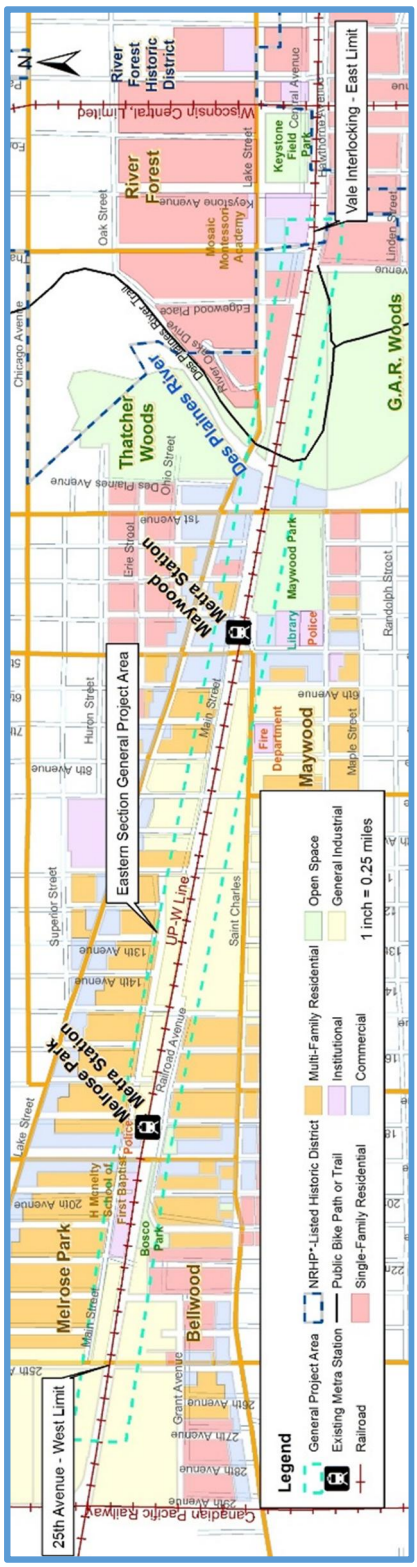
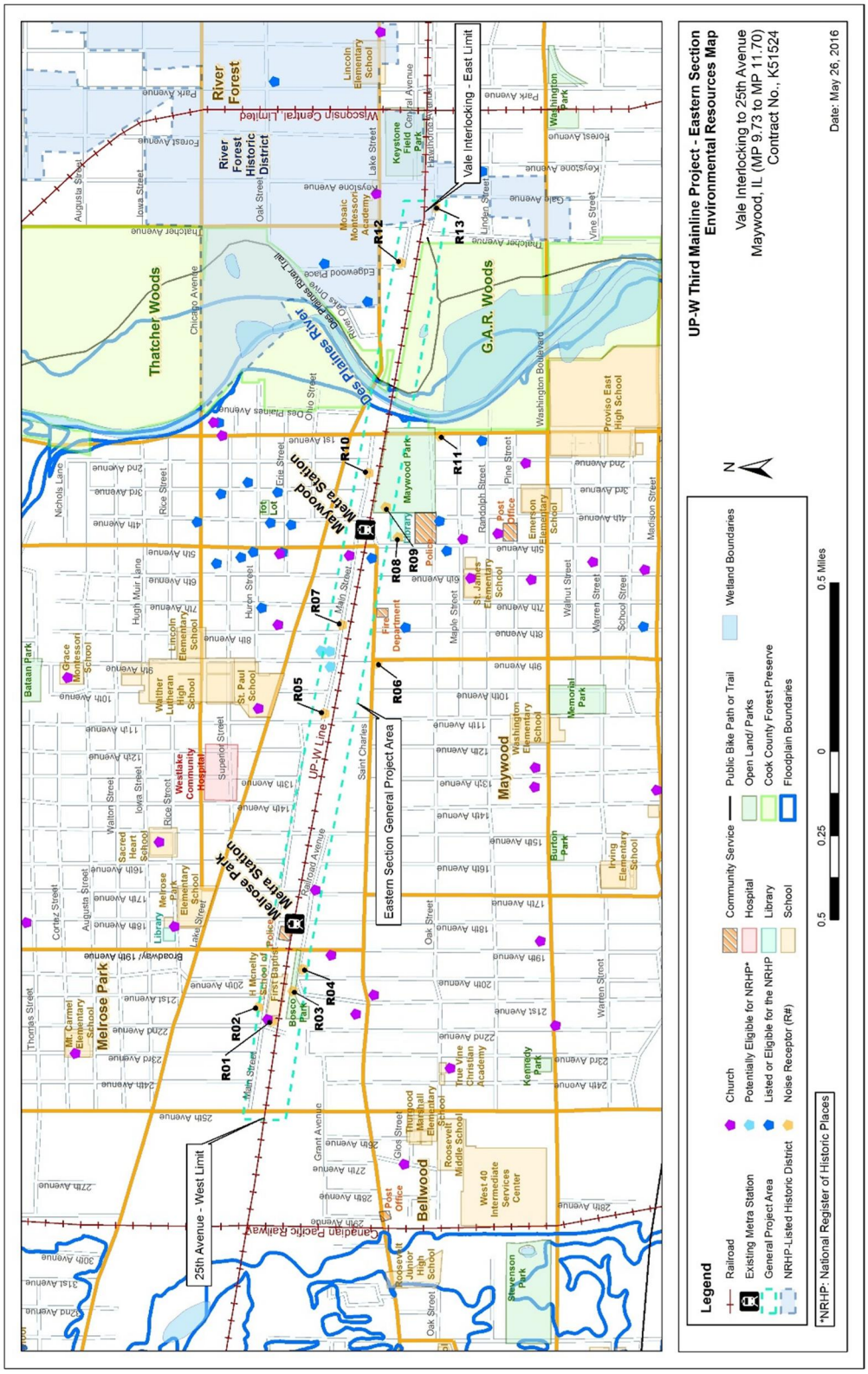


Figure 7: Environmental Resources



F. Carbon Monoxide (CO) Hot Spots

No portion of the Project is within a designated non-attainment area for carbon monoxide (CO). Since the Project is in an attainment area for CO, a hot spot analysis is not anticipated. The addition of a third mainline track would allow for improved train flow and reduce vehicle delay at the four at-grade street crossings. See also Section C – Metropolitan Planning and Air Quality Conformity.

G. PM2.5 and PM10 Hot Spots

No portion of this Project is within a designated non-attainment area for particulate matter (PM) smaller than 2.5 microns (PM2.5) and smaller than ten microns (PM10). Since the Project is not located in a non-attainment area for PM2.5 and PM10, an analysis is not anticipated. The addition of the third mainline track would allow for improved train flow and reduce vehicle delay at the four at-grade street crossings, thus reducing idling of vehicles and trains. See also Section C – Metropolitan Planning and Air Quality Conformity.

H. Historic Resources

This Project is a federal undertaking because the FTA may provide funding, and therefore, is subject to compliance with the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470 et seq.) and its enabling legislation (36 CFR 800). Section 106 of the NHPA requires the FTA to take into account the effects of its undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) and consulting parties a reasonable opportunity to comment on the undertaking. Section 106 analysis examines an Area of Potential Effects (APE), which is defined as the geographic area within which a project may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist.

The APE for the Project includes the railroad right-of-way and select cross streets with planned improvements, and extends at least one tax parcel adjacent to the railroad and cross streets' right-of-way. The APE boundary is irregularly shaped because it follows the tax parcel boundaries provided by Cook County. An APE map set showing the APE boundary, the planned improvements, and known historic properties within the project area was prepared for submittal to the State Historic Preservation Officer (SHPO) for their review and comment.

The APE was reviewed for historic properties listed or eligible for listing in the National Register of Historic Places (NRHP) through an existing database search, background research, and a field survey. A historic architectural survey identified 64 historic-age resources along the railroad corridor within the APE. Of these, the Maywood Fire Department Building is the only NRHP-listed property. The remaining 63 resources meet the 50 year age criteria and were further evaluated to determine their NRHP eligibility. Additional research and application of the NRHP criteria was undertaken for these resources to fulfill the requirements of Section 106. One historic property in the APE, the Maywood Water Works Complex, is recommended eligible for listing in the NRHP for historic and architectural significance under Criteria A and C. The remaining 62 resources are not recommended eligible for listing in the NRHP due to a lack of

architectural or historical distinction, and in some cases, significant alterations resulting in a lack of integrity. The NRHP-listed River Forest Historic District was identified in an earlier existing database search, but its district boundaries are located outside of the APE. The July 2016 *Section 106 Technical Report - Union Pacific West Third Mainline Project, Eastern Section* prepared for Metra describes these findings.

No historic properties will be altered or directly affected by this Project and no adverse visual effects will occur to historic properties. As a result, the FTA has determined the Project will result in "no adverse effect" and the SHPO concurred with this determination on August 30, 2016. The report findings were also provided to the Section 106 consulting parties for review and no comments were received. See Appendix B-2 for the SHPO consultation and report findings.

I. Visual Quality

The Project involves adding a third mainline track adjacent to two existing tracks within the existing railroad right-of-way and would not result in substantive changes to the landscape or view shed proximate to the right-of-way. The Project area generally consists of a mix of commercial, industrial, and residential land uses, a local roadway network, and rail network. Views to and from the project corridor are not anticipated to change as a result of the proposed Project. Improvements to the Maywood and Melrose Park stations include safety and comfort improvements for Metra customers, and would be visually consistent within the context of the existing stations.

J. Noise

The analysis of noise impacts is based on the noise associated with the new track alignment as there are no proposed changes to existing commuter traffic resulting from this improvement. Freight traffic is anticipated to increase 1.5 percent regardless of this improvement. The noise generated by this Project would be the result of realigning track in relation to noise sensitive receptor locations. Freight and commuter rail services already exist along these tracks. Therefore, the primary focus of the noise analysis is on the alignment modification.

A receptor is typically representative of an area, group, or cluster of noise sensitive areas, such as residences, schools, or parks. Thirteen (13) receptor locations were identified for this Project. These receptor locations include single-family residences, multi-family residences, two (2) parks, a library, and a church. Receptor locations are shown in Figure 7 - Environmental Resources.

Residential receptors are characterized as a Land Use Category 2, and thus an L_{dn} noise metric describes noise impacts associated with those residences. The L_{dn} is an equivalent sound level representing a 24-hour period that accounts for an increased sensitivity to noise during the nighttime hours (10PM to 7AM). The L_{dn} incorporates a "penalty" for noise occurring between these hours. All other receptors are Land Use Category 3, and use an hourly L_{eq} at the peak hour to determine noise impacts. This is an equivalent sound level representing the peak traffic hour. Table 1 summarizes the FTA's land use categories.

Existing overall noise levels and overall build noise levels were predicted using the FTA *Transit Noise and Vibration Impact Assessment* methodology (May 2006). The predicted build and no-build noise levels were then compared to the FTA's noise impact criteria. Noise impacts are identified by comparing the predicted proposed Project noise level and the allowable Project noise level.

Table 1 - Land Use Categories and Metrics for Transit Noise Impact Criteria

Land Use Category	Noise Metric (dBA)	Description
1	Outdoor $L_{eq}(h)$*	Tracts of land where quiet is essential in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.
2	Outdoor L_{dn}	Residences and buildings where people normally sleep. This category includes homes, hospitals and hotels where a nighttime sensitivity to noise is assumed to be of the utmost importance.
3	Outdoor $L_{eq}(h)$*	Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech, meditation and concentration on reading material.
* L_{eq} for the noisiest hour of transit-related activity during hours of noise sensitivity. Source: *Transit Noise and Vibration Impact Assessment*, FTA, May 2006.		

Table 2 summarizes the findings of the general noise assessment completed for the Project. The build condition noise impacts were evaluated for the representative receptor locations. The background noise level is based on representative monitoring for each location. The overall build noise level includes the background noise, freight train noise, and passenger train noise. The Project level noise used for this analysis takes into account the change in noise due to the additional track. The additional mainline track would shift some commuter and freight traffic closer to receptors, but would not result in an increase in commuter or freight train traffic.

The projected overall build noise levels do not change from the existing overall noise levels at any of the receptor locations, with the exception of the church at receptor location R1, which experiences a 1 dB(A) decrease when going from the existing to the build condition. Consequently, there are no noise impacts associated with the proposed improvement.

Table 2 - Noise Analysis Results

Receptor Location	Receptor Type	Noise Metric	Adjusted Background Noise, dB(A)	Overall Existing Noise Level,[(1)] dB(A)	Overall Build Noise Level,[(1)] dB(A)	Overall Build Noise Increase over Existing Noise Level,[(1)] dB(A)	Allowable Noise Level Increase (Mod./Sev.)	Impact Assessed
R1	Church	Leq	57	83	82	-1	1/1	No Impact
R2	Multi-Family Residence	Ldn	55	85	85	0	1/1	No Impact
R03	Park	Leq	57	84	84	0	1/1	No Impact
R04	Multi-Family Residence	Ldn	55	88	88	0	1/1	No Impact
R05	Single-Family Residence	Ldn	52	79	79	0	1/1	No Impact
R06	Multi-Family Residence	Ldn	52	82	82	0	1/1	No Impact
R07	Single-Family Residence	Ldn	52	89	89	0	1/1	No Impact
R08	Library	Leq	54	77	77	0	½	No Impact
R09	Park	Leq	54	81	81	0	1/1	No Impact
R10	Single-Family Residence	Ldn	52	89	89	0	1/1	No Impact
R11	Single-Family Residence	Ldn	52	80	80	0	1/1	No Impact
R12	Multi-Family Residence	Ldn	52	78	78	0	½	No Impact
R13	Single-Family Residence	Ldn	52	77	77	0	½	No Impact

[(1)] Includes background noise, freight train noise, and passenger train noise.

K. Vibration

Existing vibration levels and build vibration levels were predicted using the FTA's *Transit Noise and Vibration Impact Assessment* methodology (May 2006). Six vibration sensitive receptors (R1, R4, R5, R7, R10, and R12) were identified and analyzed for vibration along the Project route within the FTA's vibration screening distance (200 feet). Results from the vibration analysis are presented below in Tables 3 and 4.

The Project shifts some existing traffic closer to certain receptors, resulting in an increase in ground-borne vibration and noise at these locations. The FTA methodology allows the vibration exposure to increase up to 3 dB for this type of project. Receptor 7 was assessed more closely because of the receptor's proximity to the railroad tracks; however, the shift of existing traffic will not increase vibration levels by more than 3 dB at Receptor 7. The Project does not result in an increase in rail traffic or an increase of more than 3 dB at any receptor location; therefore, there are no impacts for either ground-borne vibration or ground-borne noise associated with this Project.

Table 3 - Ground-Borne Vibration Analysis

Receptor (Land Use Category)	Source	Existing GBV (VdB)	Build GBV (VdB)	Impact Assessed
R1 (3)	Locomotive	94	94	No
R1 (3)	Rail Car	83	83	No
R4 (2)	Locomotive	88	89	No
R4 (2)	Rail Car	77	78	No
R5 (2)	Locomotive	89	91	No
R5 (2)	Rail Car	78	80	No
R7 (2)	Locomotive	89	92	No
R7 (2)	Rail Car	78	81	No
R10 (2)	Locomotive	89	91	No
R10 (2)	Rail Car	78	80	No
R12 (2)	Locomotive	90	90	No
R12 (2)	Rail Car	79	79	No

Table 4 - Ground-Borne Noise Analysis

Receptor (Land Use Category)	Source	Existing GBN (dBA)	Build GBN (dBA)	Impact Assessed
R1 (3)	Locomotive	44	44	No
R1 (3)	Rail Car	33	33	No
R4 (2)	Locomotive	38	39	No
R4 (2)	Rail Car	27	28	No
R5 (2)	Locomotive	39	41	No
R5 (2)	Rail Car	28	30	No
R7 (2)	Locomotive	39	41	No
R7 (2)	Rail Car	28	31	No
R10 (2)	Locomotive	39	41	No
R10 (2)	Rail Car	28	30	No
R12 (2)	Locomotive	40	40	No
R12 (2)	Rail Car	29	29	No

L. Acquisitions and Relocations Required

The addition of a third mainline track would be entirely within existing UP right-of-way; no permanent right-of-way would be acquired for this Project. Improvements at road crossings to accommodate the third mainline track would occur within the existing road right-of-way. There would be minor construction-related easements for two intersection crossings. A minor temporary construction easement would be needed for grading purposes to commercial driveways and parking lots near 1st Avenue and Main Street that are anticipated to be less than 0.10 acres. Additionally, a minor temporary construction easement of less than 0.01 acres would also be needed in the southeast corner of 19th Avenue and Railroad Avenue for grading adjacent to a sidewalk.

M. Hazardous Materials

A survey for the *Phase I Environmental Site Assessment (ESA) Report Union Pacific West Third Mainline, Eastern Section* was performed in accordance with ASTM Standard 1527-13 in January 2016 (March 2016). The purpose of the Phase I ESA was to identify, to the extent feasible pursuant to ASTM E1527-13, Recognized Environmental Conditions (RECs) in connection with the Project. ASTM defines a REC as:

> *"The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to a release to the environment; (2) under conditions that are indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."*

The Phase I ESA investigation included reviewing readily available site-historic information, regulatory environmental databases, and Freedom of Information Act (FOIA) responses from local, state, and federal government agencies, performing a site and vicinity reconnaissance, and preparing a report summarizing the findings and conclusions of the assessment. Based on the findings of the Phase I ESA, there are three (3) RECs identified within the right-of-way:

- The current and historic property use as a railroad, including the use of chemicals associated with normal railroad maintenance and operations;
- The historic storage of coal in a shed north of the tracks between 5th Avenue and 4th Avenue since at least 1930 until at least 1975; and
- The unknown nature of the fill material in the embankment from approximately Auvergne Place to the eastern boundary of the Project.

Additionally, 38 REC properties adjacent to the corridor were identified based on current use, historic property use, and/or regulatory status including, but not limited to, historic foundries and factories, auto repair shops, electrical substations, underground storage tanks, leaking underground storage tanks, Illinois Environmental Protection Agency (IEPA) voluntary site remediation program properties, and Resource Conservation and Recovery Act (RCRA) waste generators.

The Phase I ESA was shared with Metra and the design team. It is recommended that the identified RECs be included in the plan documents and that the General Contractor identify, manage, and dispose of any contaminated soil or groundwater encountered during construction in accordance with applicable federal and state laws.

In summary, there are 3 RECs identified within the right-of-way and an additional 38 RECs adjacent to the corridor. Prior to commencing any excavation, the Contractor must submit proposed areas of excavation for approval. Written authorization or a permit from the disposal site is required prior to removing any material from the site. If the disposal site is on private property, Metra shall be given a copy of written permission from the property owner allowing the disposal.

N. Social Impacts and Community Disruption

The Project encompasses the communities of Bellwood, Maywood, Melrose Park, and River Forest. Based on 2013 American Community Survey estimates, Melrose Park has a total population of 25,293, followed by Maywood (24,143), Bellwood (19,110) and River Forest (11,183).

Two Metra commuter stations are located in the project area: the Maywood Station, located between 4th and 5th Avenues and the Melrose Park Station, located between Broadway Avenue/19th Avenue and 18th Avenue. In 2014, the Maywood Station averaged 81 boardings and 82 alightings per day and the Melrose Park Station averaged 103 boardings and 121 alightings per day.

This Project includes improvements to these existing stations as previously described in Section A – Detailed Project Description. There will be no loss of parking for passengers or nearby businesses. The stations will remain open during construction. Potential boarding/alighting location shifts or disruptions due to station platform improvements may also occur as a result of construction and are described further in Section V – Impacts Caused by Construction.

Temporary road closures and detours at 1st, 5th, 9th, and 19th Avenues will be necessary to complete the track work at these crossings, causing disruptions in traffic and commuting patterns. The duration of the detours is generally expected to be four to ten weeks at each crossing, and the closures would be staggered. These disruptions are described further in Section V – Impacts Caused by Construction. Road closures and detours are expected to add an estimated three to five minutes to emergency response times. See Figure 7 Environmental Resources for a map of showing the Westlake Community Hospital on Lake Street between 9th and 19th Avenues. No two consecutive crossings will be closed at the same time. Emergency responders will be notified in advance regarding the timing of closures and detours.

There are three bus routes administered by Pace Suburban Bus (Pace) that are located in the Project area. Pace routes 303 and 313 cross the UP-W Line at 19th Avenue. Pace route 331 crosses the UP-W Line at 5th Avenue. Detours will be coordinated with Pace prior to construction and the public will be notified prior to construction.

In summary, this Project involves temporary road closures and detours at four at-grade street/rail crossings that impact pedestrians, bicycles, vehicles, and three PACE bus routes. No two consecutive crossings will be closed at a time. Appropriate signage and detour routes for road closures and station-related improvements would be posted and distributed as needed via Metra's website, email blasts, press releases, and printed materials.

O. Environmental Justice

Executive Order 12898 (Feb. 11, 1994), Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations, is intended to ensure that Federal departments and agencies identify and address the disproportionately high and adverse human health or environmental effects of their policies, programs, and activities on minority populations and low-income populations. According to FTA Circular 4703.1 "Environmental Justice Policy Guidance for FTA Recipients," minority populations include persons who are American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian and other Pacific Islanders. Low-income persons include any person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.

An EJ evaluation was conducted pursuant to FTA Circular 4703.1 to identify minority or low-income populations residing in the affected communities in the Project area. The EJ analysis includes a comparison of municipal and county data to determine whether municipalities in the Project area have minority or low income populations that either exceed 50 percent, or are at least 10 percent higher than the percentages of minority and low income populations in Cook County. The following demographic groups were analyzed: race and ethnicity, the percentage of individuals below the poverty level, median household income, and per capita income. Tables 5 and 6 provide a summary of these demographic groups for the four municipalities in the project area: Bellwood, Maywood, Melrose Park, and River Forest.

Table 5 - Race and Ethnicity

Race/ Ethnicity	Bellwood		Maywood		Melrose Park		River Forest		Cook County	
	Count	%	Count	%	Count	%	Count	%	Count	%
White	1,083	5.7	1,231	5.1	5,200	20.5	9,139	81.7	2,275,759	43.7
Hispanic or Latino*	3,194	16.7	4,615	19.1	18,411	72.5	487	4.4	1,262,156	24.2
Black/ African American	14,291	74.8	18,091	74.9	1,278	5	664	5.9	1,256,346	24.1
Asian	118	0.6	53	0.2	338	1.3	618	5.5	333,415	6.4
Other	424	2.2	153	0.6	166	0.7	275	2.5	84,696	1.6
Source: 2009-2013 American Community Survey, 5-year estimates *Includes Hispanic or Latino residents of any race										

Table 6 - Income and Poverty Level

Community	Individuals Below Poverty Level	Median Household Income	Per Capita Income
Bellwood	14.2%	50,039	19,922
Maywood	20.6%	42,354	19,415
Melrose Park	17.6%	45,323	17,197
River Forest	6.1%	113,317	62,034
Cook County	16.9%	54,548	30,183
Source: 2009-2013 American Community Survey 5-year estimates			

The above data identified three communities for consideration of EJ issues. The African American populations of both Bellwood (74.8 percent) and Maywood (74.9 percent) comprise more than 50 percent of the total population of each respective community and are more than

10 percent higher than Cook County (24.1 percent). Additionally, the Hispanic/Latino population (of any race) of Melrose Park (72.5 percent) comprises more than 50 percent of the village's total population and is more than 10 percent higher than that of Cook County (24.2 percent).

Maywood and Melrose Park have also been identified for consideration of EJ issues with respect to income and poverty level. The data indicates that the percentage of individuals below the poverty level in both Maywood (20.6 percent) and Melrose Park (17.6 percent) is higher than that of Cook County (16.9 percent). Also, the median household income and per capita income in Bellwood, Maywood, and Melrose Park are all lower than that of Cook County.

Metra and the UP provided a Project overview and status update at the Village of Maywood's monthly Legal, License and Ordinance Committee on February 10, 2016, as well as at the Village of Melrose Park's monthly Board Meeting on February 22, 2016. Both meetings were open to the general public and meeting flyers, in both English and Spanish, were distributed to each community and posted online. The project fact sheet distributed at the meeting was also available in both English and Spanish.

Although there are no disproportionately high or adverse impacts affecting the identified EJ populations due to the nature of the planned improvements, Metra and the UP have conducted outreach to key stakeholders in the affected communities in order to share information and obtain feedback.

This Project is expected to benefit the affected EJ communities who rely on public transit. Specific benefits for residents of Bellwood, Maywood, and Melrose Park include reduced wait times at each grade crossing and reduced delays for Metra commuters. Improvements at the Maywood Station would help enhance overall station comfort and aesthetics. Improvements at the Melrose Park Station would include repairs of deteriorating station elements and the platform.

This Project would not have disproportionately high and adverse impacts on minority or low-income populations, and potential temporary impacts associated with station improvement construction activities would be mitigated as described in Section V – Impacts Caused by Construction. Since there are no adverse impacts to EJ populations, issues associated with compliance with the FTA's Circular 4703.1 are not anticipated.

P. Use of Public Parkland and Recreation Areas

The following parks and recreation areas are located in the Project area: Bosco Park and Maywood Park (Maywood Park District) and G.A.R./Thatcher Woods (Forest Preserve District of Cook County). See Figure 7 – Environmental Resources for a map of these areas. This Project would add a third mainline track entirely within existing railroad right-of-way and would not include any use of parklands or recreation areas.

Q. Impacts on Wetlands

A Wetland and "Waters of the U.S." (WOUS) delineation was conducted based on *the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* (USACE, 1987) and the *Regional Supplement to the USACE Wetland Delineation Manual; Midwest Region* (Version 2.0) (USACE, 2010). The delineation is reported in the *Wetlands and Waters of the U.S. Investigation Report of the Metra Union Pacific West Line 3rd Main Line (25th Avenue to Vale Interlocking, M.P. 11.46 to M.P. 9.75)* prepared for Metra (November 2015). Each potential wetland area was evaluated for the presence of wetland indicators comprised of hydrophytic vegetation, hydric soils, and wetland hydrology. A field review was conducted on August 21, 2015 and no wetlands were identified within the project area.

One WOUS, the Des Plaines River, was identified in the project area. WOUS are generally open water areas such as rivers and lakes including wetlands, which are connected to navigable waterways and their tributaries. The Des Plaines River crosses the UP-W Line east of 1st Avenue, approximately 210 feet south of Lake Street (see Figure 7 – Environmental Resources). A total of 1.06 acres of WOUS is located within the project area.

Section 10 of the Rivers and Harbors Act of 1899 (Title 33 USC Section 403) and Section 404 of the Clean Water Act (CWA) (Title 33 USC Section 1344) authorize permits for the placement of structures, dredged, or fill material into the WOUS. All public and private projects must obtain permits from USACE to mitigate any project impacts to wetlands and/or WOUS. This Project would require Section 404 of the CWA permit for impacts to WOUS. See Figure 3 for a photograph of the Des Plaines River Bridge.

An initial coordination meeting with the USACE occurred on December 9, 2015 (see Appendix B-3). A Section 404 Permit application was submitted to the USACE on March 30, 2016, for a temporary impact less than 0.25 acres to the Des Plaines River. The temporary impact is for the construction of a causeway and cofferdam in order to rehabilitate the existing piers in the Des Plaines River. On October 16, 2016, the USACE issued a letter requesting additional information and approvals (i.e. Soil erosion control, state threatened and endangered species consultation termination) needed to issue the Section 404 permit for the project. The USACE will have 60 days from receipt of the information and approvals requested to issue the Section 404 permit or request additional information.

This Project will require less than 0.25 acres of temporary impact to the Des Plaines River, a WOUS. No mitigation will be required as the impacts are temporary. A Section 404 Permit will be obtained from the USACE for the temporary impact.

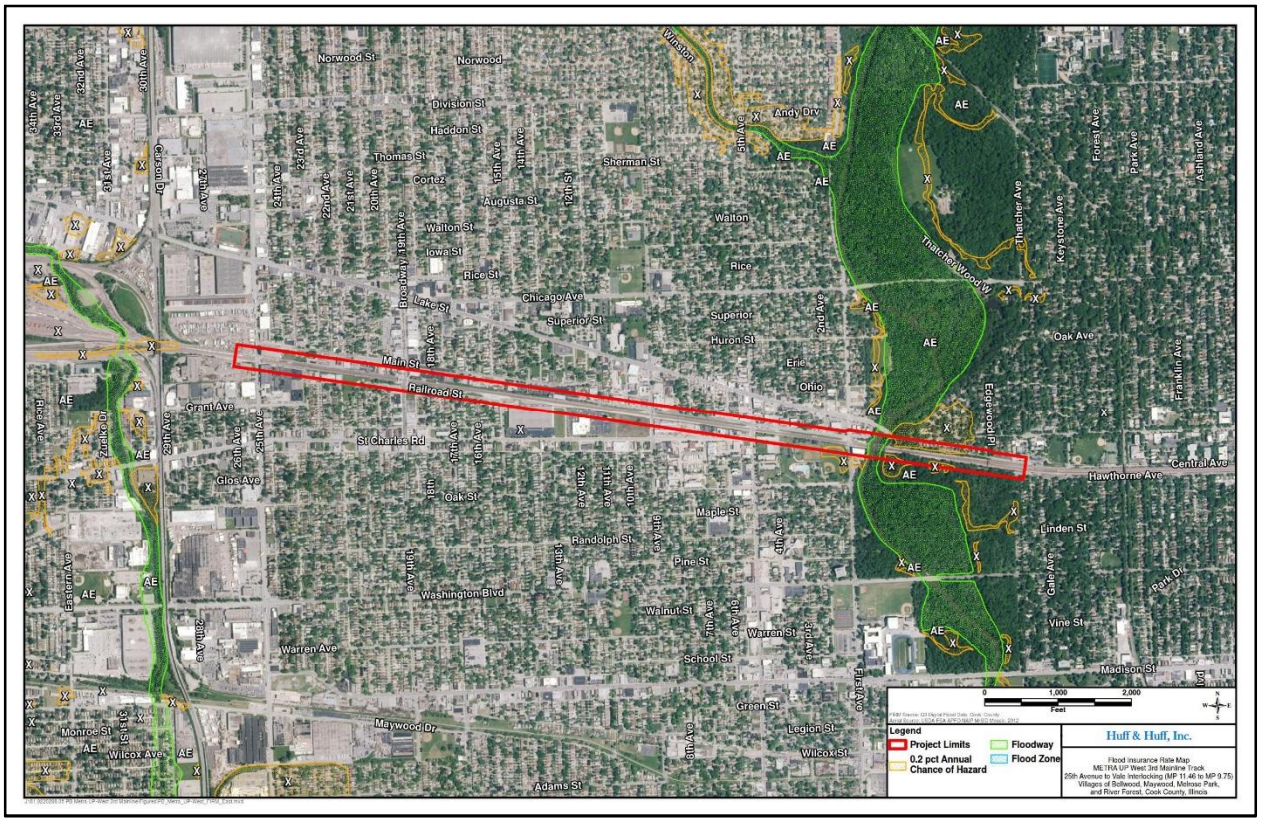
R. Floodplain Impacts

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), revised in 2008, depicts Zone X (Other Flood Areas), Zone X (Other Areas), and Zone AE (Floodway & Floodplain) within the Project area. Zone X (Other Flood Areas) is defined as "areas of 0.2 percent annual chance flood". Zone X (Other Areas) is defined as "areas determined to be outside the 0.2 percent annual chance floodplain." Zone AE (Floodway) is

defined as the “channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1 percent annual chance flood can be carried without substantial increases in flood height.” Zone AE (Floodplain) is defined as “special flood hazard areas subject to inundation by the 1 percent annual chance flood, base flood elevations determined.”

A portion of the Project is located within a mapped Zone AE (Floodway) and Zone AE (Floodplain) associated with the Des Plaines River (see Figure 8 - FIRM Map; Reference: Flood Insurance Rate Map, Cook County, Illinois. Map Panel Number 17031C0388J, revised August 19, 2008 and Map Panel Number 17031C0389J, revised August 19, 2008). No permanent fill within the floodway or floodplain is proposed, and therefore there will be no permanent impacts to the floodplain or floodway.

Figure 8 – FIRM Map



Source: Huff & Huff Wetlands and Waters of the U.S. Report, 2015

S. Impacts on Water Quality, Navigable Waters and Coastal Zones

The Project lies within the Des Plaines River Watershed (Hydrologic Unit Code, HUC #07120004). The only water body located in the Project area is the Des Plaines River. The portion of the Des Plaines River within the Project area is not listed as a navigable waterway regulated under Section 10 of the Rivers and Harbors Act of 1899 by the Chicago District USACE, nor is it located within an Illinois Coastal Zone as identified by the Illinois Department of Natural Resources (IDNR). However, the Project is only expected to impact this water body during construction and therefore permits will be required to complete the Project. During

construction a temporary cofferdam will be required for the rehabilitation of the bridge piers. Soil erosion and sediment control measures as well as following the USACE's Requirements for In-stream Construction Activities will limit the effect of construction of the Project. No impacts to this water body are expected after construction.

In order to accommodate the third mainline track, new bridge spans would be constructed over the Des Plaines River. Portions of the existing piers under the proposed third mainline track would be rehabilitated by removing approximately one foot of concrete from the top and sides of the piers. This area would then be rebuilt to its original dimensions with reinforced concrete. In addition, the tops of the existing piers would be extended to the north under the proposed third mainline track, in order to accommodate the new bridge structure. The extent of work that would be performed within the waterway would consist of the installation of temporary cofferdams around three of the piers and the construction of a temporary causeway to gain access to (and potentially around) the piers. The cofferdams would be used to provide a dry work environment around the piers in the water.

According to the IEPA *2014 Illinois Integrated Water Quality Report and Section 303(d) List*, the Des Plaines River (IL_G-32) is impaired for aquatic life, fish consumption, and primary contact recreation. The causes of impairment include chloride, phosphorus (total), mercury, PCBs, and fecal coliform. The portion of the Des Plaines River in the project area has not been characterized as part of the Biological Stream Characterization (IDNR, 2008). The portion of the Des Plaines River in the project area is not a navigable waterway. The Des Plaines River is not a National Wild and Scenic River nor is it under study to be added to the list of National Wild and Scenic Rivers. It is, however, listed on the National Rivers Inventory due to its outstandingly remarkable values of scenery and recreation.

The Project would not increase the amount of stormwater runoff entering the Des Plaines River. The quality of the stormwater runoff would be typical of that from railways in urban areas and would not impact the water quality of the Des Plaines River.

The Project would not create any new potential routes for groundwater pollution or any new potential sources of groundwater pollution, as defined in the Illinois Environmental Protection Act, 415 ILCS 5/3, and et seq. Accordingly, the Project would not be subject to compliance with the minimum setback requirements for community water supply wells or other potable water supply wells, as set forth in 415 ILCS 5/14, et seq.

WOUS are within the jurisdiction of the USACE under Section 404 of the CWA. Any work within a WOUS requires a permit from the USACE. A USACE permit is anticipated for this Project since temporary construction easements would be necessary for constructing the temporary cofferdam and causeway. A Section 404 Permit application was submitted to the USACE on March 30, 2016, for less than 0.25 acres of temporary impact to the Des Plaines River. The USACE permit for the Project would be contingent upon receipt of Section 401 of the CWA Water Quality Certification (WQC) from the IEPA. The IEPA has granted a Section 401 WQC for most projects that qualify for the USACE Regional Permit Program. The Project is expected to meet the requirements of the Regional Permit Program.

An initial coordination meeting with the USACE occurred on December 9, 2015. Meeting minutes are included in Appendix B-3. A Section 404 Permit was submitted to the USACE on March 30, 2016. On October 16, 2016, the USACE issued a letter requesting additional information and approvals needed to issue the Section 404 permit for the project. The USACE did not request a separate Section 401 WQC. Therefore, a separate Section 401 WQC will not be required. The USACE will have 60 days from receipt of the information and approvals requested to issue the Section 404 permit or request additional information.

A National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from construction sites would be required for the Project. NPDES coverage is required when a construction project disturbs one acre or more of total land area, or is part of a larger common plan of development that ultimately disturbs one or more acres of total land area. Permit coverage would be obtained either under an IEPA general permit for stormwater discharges from construction site activities, or under an individual NPDES permit. Permit requirements would include the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify potential sources of pollution and describe or identify practices to be used to reduce the discharge of pollutants associated with construction site activity. The permit would require the installation, maintenance, repair, and inspection of best management practices (BMPs) and reporting.

The IDNR-Office of Water Resources (OWR) issues floodway construction permits for work within regulatory floodways and for the crossing of streams that have more than 640 acres of drainage area for urban areas. This Project would require issuance of the floodway construction permit. A floodway construction permit was submitted to the IDNR-OWR on June 10, 2016 (see Appendix B-4).

In summary, the Project is only expected to impact this the Des Plaines River during construction and permits will be required. This section of the Des Plaines River (IL_G-32) is listed on the 303(d) as impaired for aquatic life, fish consumption, and primary contact recreation. The causes of impairment include chloride, phosphorus (total), mercury, PCBs, and fecal coliform. None of the causes of impaired are related to railroad activities and the Project would not increase the amount of stormwater runoff entering the Des Plaines River. A temporary cofferdam will be required for the rehabilitation of the bridge piers. Soil erosion and sediment control measures as well as following the USACE's Requirements for In-stream Construction Activities will limit the effect of construction of the Project on the Des Plaines River. No impacts to this water body are expected after construction. The Project would not create any new potential routes for groundwater pollution or any new potential sources of groundwater pollution, as defined in the Illinois Environmental Protection Act, 415 ILCS 5/3, and et seq. Permits issued through the USACE and IDNR-OWR are pending; however, no mitigation is required. A Section 401 WQC from the IEPA will not be required for the Project. An NPDES permit for stormwater discharges from construction sites will be completed by the contractor prior to the start of construction.

T. Impacts on Ecologically-Sensitive Areas and Endangered Species

Federally Listed Species

Federally listed threatened and endangered species are protected under the Endangered Species Act (16 USC 1531-1544, 1973). The Endangered Species Act provides a program for the identification and conservation of threatened and endangered plants and animals and their habitats. The Endangered Species Act requires federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS) via the Section 7 consultation process, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species (USEPA, 2014).

Section 7 consultation with the USFWS was initiated to document the absence or presence of federally listed threatened and endangered species (see Appendix B-5). Information was collected via the USFWS website on May 17, 2016, as well as through conditions observed in the field during a site visit conducted in the fall of 2015. Table 7 includes a list of federally listed species located in Cook County.

Table 7 - USFWS Federally Listed Species in Cook County

Species	**Status**	**Habitat**	**Habitat Present within Project Limits?**	**Determination**
Piping plover (*Charadrius melodus*)	Endangered	Lakeshore beaches	No	No effect
Hine's emerald dragonfly (*Somatochlora hineana*)	Endangered	Spring fed wetlands, wet meadows and marshes	No	No effect
Leafy-prairie clover (*Dalea foliosa*)	Endangered	Prairie remnants on thin soil over limestone	No	No effect
Northern long-eared bat (*Myotis septentrionalis*)	Threatened[1]	Caves, mines (hibernacula); wooded areas surrounding hibernacula; upland forests (foraging)	Yes	No effect

Species	Status	Habitat	Habitat Present within Project Limits?	Determination
Rufa red knot (*Calidris canutus rufa*)	Threatened	Only actions that occur along coastal areas or large wetland complexes during the migratory window of May 1 - September 30	No	No effect
Eastern prairie fringed orchid (*Platanthera leucophaea*)	Threatened	Moderate to high quality wetlands, sedge meadow, marsh, and mesic to wet prairie	No	No effect
Mead's milkweed (*Asclepias meadii*)	Threatened	Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil	No	No effect
Prairie bush clover (*Lespedeza leptostachya*)	Threatened	Dry to mesic prairies with gravelly soil	No	No effect
Eastern massasauga (*Sistrurus catenatus*)	Candidate	Graminoid dominated plant communities (fens, sedge meadows, peatlands, wet prairies, open woodlands, and shrublands)	Yes	No effect
Rattlesnake-master borer moth *(Papaipema eryngii)*	Candidate	Undisturbed prairie and woodland openings that contain their only food plant, rattlesnake-master (*Eryngium yuccifolium*)	No	No effect

Species	Status	Habitat	Habitat Present within Project Limits?	Determination
[1] On May 4, 2015 the USFWS issued the Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule; Final Rule (50 CFR Part 17). The rule went into effect on May 4, 2015. The final rule designates the northern long-eared bat as federally threatened and the final species-specific 4(d) rule, which goes into effect on February 16, 2016, exempts certain activities from the Endangered Species Act prohibitions.				

Northern Long-Eared Bat

Suitable habitat for the northern long-eared bat is present within the Project area. As of January 2016, the FTA is part of the informal programmatic consultation agreement between the USFWS, Federal Highway Administration (FHWA), and Federal Railroad Administration (FRA). Coordination with the USFWS occurred under the informal programmatic consultation agreement. A bridge inspection on August 21, 2015, did not indicate the presence of bats roosting under the bridge.

Direct impacts to bats are not expected because no tree clearing would occur for the Project. During early coordination for the Project it was assumed tree clearing east of the Des Plaines River would occur to access the bridge which has been coordinated with the USFWS. The Project Submittal Form, Scoping Worksheet, and the Bridge/Structure Assessment Form were submitted to the USFWS under the informal programmatic consultation agreement. As the USFWS does not respond within 30 days from submittal of the forms, Metra may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the northern long-eared bat are fulfilled through the USFWS January 5, 2016, Programmatic Biological Opinion.

There is a very slight chance that bats could be impacted by direct collisions with operational trains. However, there would be no increase in train frequency and train traffic already exists in this location. Acoustic degradation of habitat currently occurs as well. Train noise is already present in this location; therefore, the degradation has already taken place and no additional impacts to the northern long-eared bat are anticipated.

In summary, the Project will *not affect* the northern long-eared bat, eastern massasauga, piping plover, Hine's emerald dragonfly, leafy-prairie clover, rufa red knot, eastern prairie-fringed orchid, prairie bush clover, Mead's milkweed, and rattlesnake-master borer moth. The USFWS does not provide concurrence on findings of no effect, instead the USFWS will review the documentation.

During the phone conversation on July 25, 2016, between Mr. Shawn Cirton of the USFWS and Mr. Brian Stepp from Metra, Mr. Cirton indicated the information presented in the May 20, 2016 Section 7 Consultation and endangered species review is sufficient and concludes consultation

with the USFWS. As the Project will not affect federally listed species, no permits or mitigation will be required.

State Listed Species

The Illinois Endangered Species Act established the Illinois Endangered Species Protection Board to determine which plant and animal species are threatened or endangered in the state and to advise the IDNR on the means of conserving those species. Endangered and threatened species coordination is initiated through the IDNR Ecological Compliance Assessment Tool (EcoCAT).

For state listed species, coordination was initiated with the IDNR through EcoCAT on September 2, 2015 (See Appendix B-4). The EcoCAT identified one state endangered species; nodding trillium (*Trillium cernuum*). The nodding trillium was not identified during the site inspection. However, detailed surveys were not conducted. Under the Illinois Endangered Species Act (520 ILCS 10/3) the take of plant species is allowed by the landowner on which the plant resides. Therefore, surveys and permits for the take of nodding trillium will not be required. The Project team also verified with the IDNR the absence of the slippershell mussel (*Alasmidonta viridis*), a state threatened species. Based on a review of the Project the IDNR terminated consultation on June 29, 2016. No surveys or coordination for State listed species is required unless protected resources are encountered during the Project's implementation,

As part of the IDNR consultation termination letter, the IDNR requested a mussel survey to identify and relocate non-threatened and endangered native mussel species potentially impacted by the Project prior to the start of construction. A total of six survey hours were spent surveying all habitats within the Des Plaines River (approximately 50 feet upstream [north] of the bridge, underneath the bridge, and approximately 150 downstream [south] of the bridge) on September 7, 2016. Living mussels were not encountered during the survey. Twenty-two relic shells from the paper pondshell (*Utterbackia imbecillis*) were found; however, live specimens were not encountered. Additionally, the invasive Asiatic clam (*Corbicula fluminea*) and zebra mussel (*Dreissena polymorpha*) were encountered, as living and deceased specimens. Coordination with IDNR has indicated that no additional mussel surveys or relocation will be required within the Des Plaines River.

In summary, the Project will not affect any federal or state listed threatened or endangered species. No additional surveys within the Des Plaines River for mussel or fish species will be required.

U. Impacts on Safety and Security

Standard UP and Metra safety and security measures would be incorporated as a part of the Project, including fencing along the corridor. Safety and security features at the Maywood and Melrose Park stations such as well-lit platforms, emergency response equipment, modern communication systems, and improved weather protection and lighting at stations would all create a brighter and safer transit environment. With ADA-compliant upgrades, the platforms at the Maywood and Melrose Park stations would have safer access from the streets and parking lots for Metra commuters.

In summary, this Project involves safety improvements to the platforms, parking, and stations. Accessibility and security features are incorporated into the designs to enhance a brighter and safer transit environment for the community.

V. Impacts Caused By Construction

Construction is scheduled to begin in the spring of 2017 and is expected to last one to two years. Note that the final construction timing/schedule to be determined by Metra and the UP. Construction activities are expected to result in some temporary effects that would be mitigated as described in the following sub-sections.

Noise

Noise resulting from construction activities would be temporary and vary throughout the construction period. The construction specifications would address the construction noise level factors and procedures, and would conform to all federal, state, and/or local regulations, including applicable sections of the most recent Occupational Safety and Health Administration (OSHA) standards.

Disruption of Utilities

Affected utilities have been, and continue to be, informed of Project design and construction activities. Additional coordination would occur in advance of any construction.

Disposal of Debris and Spoil

As a result of site preparation activities: vegetation clearance, construction debris, and minimal removal of debris and soil near the existing Des Plaines River bridge piers is anticipated. Additionally, there may be the removal of any soil unsuitable for construction or soil volumes in excess for the new embankment construction. Responsibility for disposal will be that of the contractor, subject to all applicable regulations and requirements. Metra contractors will follow all applicable laws and regulations concerning the proper disposal of Clean Construction Demolition Debris (CCDD). As construction would occur within a regulated “Waters of the United States,” the disposal and treatment of construction materials and debris will also be regulated under Section 404 of the CWA concerning dredge or fill activities in regulated waters.

Water Quality and Runoff

Access for construction equipment to the Des Plaines River Bridge is currently limited. In order to complete the bridge improvements, temporary access to the structure for construction equipment and materials is needed. Temporary access to the bridge would occur via the west bank of the river through an existing UP access road.

Water quality will be protected by the management of soil erosion and sedimentation in accordance with applicable provisions of the IEPA standards for urban soil erosion and

sedimentation control. Reference to these provisions will be a part of the Project's contract documents.

Sediment is expected to be disturbed temporarily, during construction of the piers and abutments for the new bridge spans that will support the third mainline track. Cofferdams and causeways are proposed to minimize these impacts during construction. After all construction activities have been completed, these water quality impacts would be expected to cease.

Access and Distribution of Traffic

Temporary road closures at 1st, 5th, 9th, and 19th Avenues will be necessary to complete the track work at these crossings. Detour routes are shown in Figure 9. The duration of the detours is expected to be approximately four to ten weeks for each crossing and closures would be staggered. However, the actual dates of the temporary road closures are subject to change depending on construction schedule and coordination. Pedestrian and bicycle access north and south of the railroad tracks would be maintained during all phases of construction.

The following is a list of the planned street closures and anticipated detour times:

- 1st Avenue: May 2017 (see #2 in Figure 9)
- 5th Avenue: August 2017 (see #3 in Figure 9)
- 9th Avenue: September 2017 (see #4 in Figure 9)
- 19th Avenue: November 2017 (see #5 in Figure 9)

Improvements to the Maywood Station are anticipated to occur from May to August 2017 (see #1 in Figure 9). Commuter access to the Maywood Station would be maintained during all phases of construction, including inbound and outbound platforms. Construction of temporary platforms within the general existing platform footprint would be necessary during some stages of construction, which may result in minor shifts in boarding/alighting on the platforms.

The Maywood Station commuter parking lot at the Northeast corner of 5th Avenue and Main Street would remain open during construction. However, the four (4) existing ADA parking spaces would be temporarily relocated to the south side of Main Street due to the closure of the parking lot entrance and restriping. Temporary access from the east to the platform on the north side of the tracks would be constructed. This would include temporary stairs, a temporary ADA ramp, and temporary ADA parking spaces on the south side of Main Street at 4th Avenue.

Improvements to the Melrose Park Station are anticipated to occur between August and December 2017 (see #6 in Figure 9). Commuter access to the Melrose Park Station would be maintained during all phases of construction, including inbound and outbound platforms. The construction of temporary platforms within the general existing platform footprint would be necessary during some stages of construction, which may result in minor shifts in boarding/alighting on the platforms. The existing warming shelter would remain open at all times during construction.

Boarding/alighting location shifts and road detours will be temporary in nature and limited in duration. Appropriate wayfinding signage for station boarding/alighting shifts and road closure detour routes will be posted and coordinated with local municipalities.

Air Quality and Dust Control

Construction specifications will indicate when dust control is needed and the method of control to be used. Appropriate industry standards will be specified and used. A reference to these provisions will be a part of the Project's contract documents.

Safety and Security

For any construction at the site or other locations, site access control, site access safety, and site security will be the responsibility of the contractor.

Disruption of Businesses

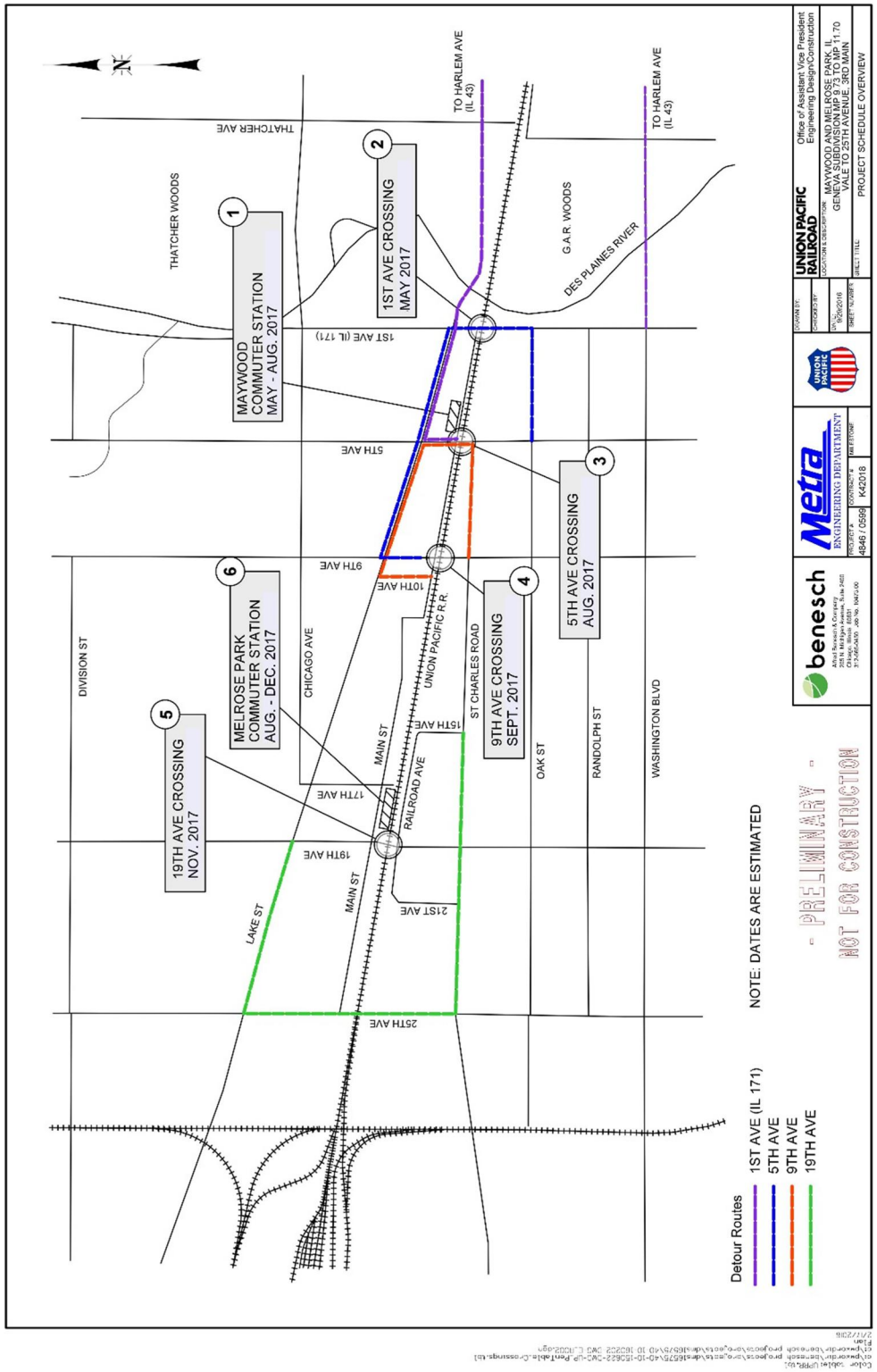
Minor disruptions to businesses can be expected as a result of the temporary closures and the detours of grade crossings at 1st, 5th, 9th, and 19th Avenues. Appropriate signage and notices will be posted prior to any closures or detours.

Construction Mitigation Measures

Appropriate and required mitigation measures, as described for each resource area above, will be included in the construction specification documents and will be the responsibility of the contractor.

Construction mitigation measures related to road closures and detours would include signage and advanced notification of the closings and detours, which would be the responsibility of the contractor. Metra, in coordination with the contractor, would coordinate signage and the advanced notification of construction activities related to the Maywood and Melrose Park stations. Metra would also coordinate notifications to customers regarding minor shifts in boarding locations due to construction activities.

Figure 9 - Detour Routes



W. Mitigation Commitments

Environmental commitments associated with Project construction are listed in Table 8.

Table 8 - Environmental Commitments/Mitigation

Environmental Factor	Commitment or Mitigation Required
Water Quality	A Section 404 Permit application was submitted to the USACE on March 30, 2016. A floodway construction permit was submitted to the IDNR-OWR on June 10, 2016. Coordination with USACE and IDNR-OWR is on-going. Commitments and/or mitigation, if needed, will be determined through the Section 404 permit and floodway construction permit process. A Section 401 permit will not be required as the IEPA has granted water quality certification for project within this segment of the Des Plaines River under the USACE Regional Permit Program, temporary construction activities. An NPDES permit for stormwater discharges from construction sites will be submitted to the IEPA by the contractor prior to the start of construction.
Flooding	Coordination with the USACE and IDNR-OWR is on-going. Commitments and/or mitigation, if needed, will be determined through the Section 404 permit and floodway construction permit process.
Navigable Waterways and Coastal Zones	Coordination with the USACE and IDNR-OWR is on-going. Commitments and/or mitigation, if needed, will be determined through the Section 404 permit and floodway construction permit process. An NPDES permit for stormwater discharges from construction sites will be submitted to the IEPA by the contractor prior to the start of construction.
Threatened and Endangered Species	Coordination with the USFWS resulted in a “no adverse effect” for all listed species. Coordination with IDNR was terminated on June 29, 2016. No additional coordination with the USFWS and IDNR is required. No tree clearing is anticipated for this project, but if tree clearing will occur, it will adhere to the tree clearing restriction dates (June through July). Coordination with IDNR required that native mussel species be relocated. No native mussel species were identified within or adjacent to the Project during the mussel relocation conducted on September 7, 2016.

	No additional mussel relocation or surveys are required.
Historic Properties	No historic properties will be altered or directly affected by this Project and no adverse visual effects will occur to historic properties. As a result, the FTA has determined the Project will result in “no adverse effect” and the SHPO concurred with this determination on August 30, 2016.
Construction	Appropriate and required mitigation measures, as described for each resource area above, will be included in the construction specification documents and will be the responsibility of the contractor.
Hazardous Materials	Results of the Phase I ESA will be incorporated into the design, as appropriate.

X. Public Outreach and Agency Coordination

Public Outreach

Metra and the UP provided a Project overview and update at the Village of Maywood’s monthly Legal, License and Ordinance Committee on February 10, 2016, and the Village of Melrose Park’s monthly Board Meeting on February 22, 2016. Both meetings were open to the general public. Meeting flyers in English and Spanish were distributed to each community for their dissemination, as well as posted at the meeting location and at their respective Metra station.

The UP and Metra provided a presentation at each of the meetings. It included a discussion of the project limits, activities, station improvements, and the anticipated timeline. A project fact sheet, in both English and Spanish, was also distributed to attendees. See Figure 11 – Project Fact Sheet.

In general, the public supported the Project and supported the benefit of decreased vehicle wait times at the street crossings due to reduced train congestion. Questions from the public generally related to the temporary street closures, detour routes, and overall schedule for the Project. Meeting minutes and materials from these meetings are included in Appendix B-6.

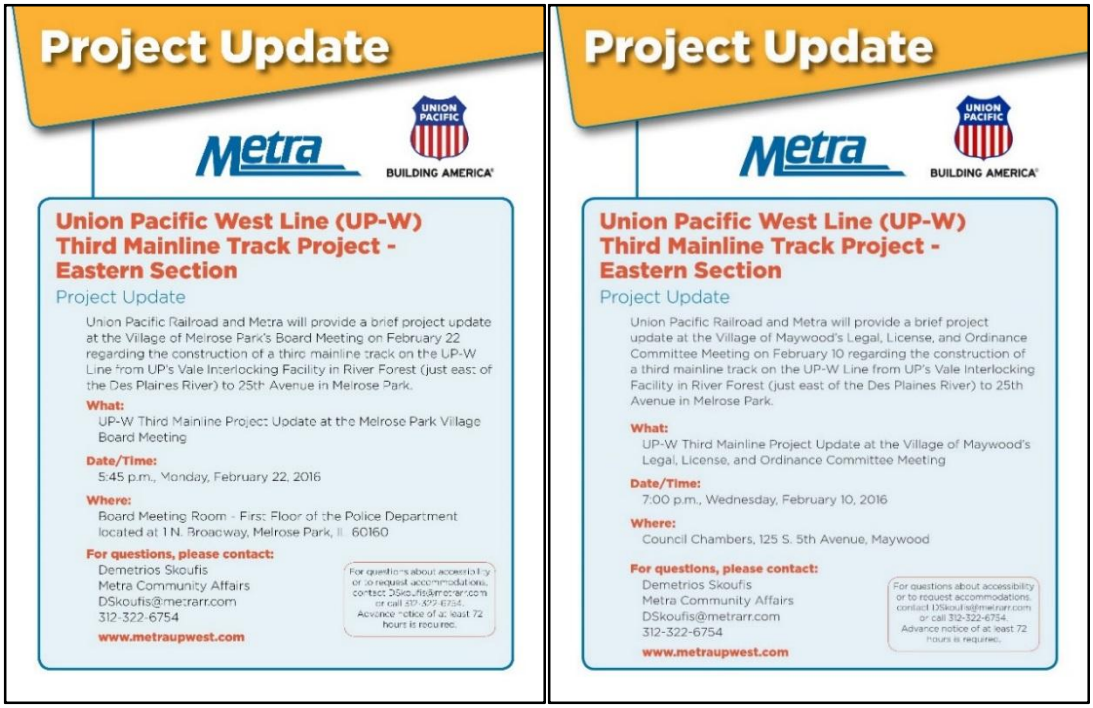
Appropriate signage and detour routes for road closures and station-related improvements would be posted and distributed as needed via Metra’s website, email blasts, press releases, and printed materials. UP and Metra will communicate and coordinate with the local municipalities regarding closures, detour routes, and construction schedules.

In addition to the meetings described above, Metra and the UP have held numerous stakeholder meetings with local officials to discuss the Project over the course of the past several years. Table 9 contains a list of these meetings:

Table 9 - Stakeholder Meetings

Date	Municipality/Agency	Representative(s)
3/7/2013	Melrose Park	Mayor Ronald Serpico
9/13/2013	Cook County	President Toni Preckwinkle
12/17/2013	Cook County	President Toni Preckwinkle
5/6/2014	Cook County	President Toni Preckwinkle
9/29/2014	Cook County Recorder of Deeds (Maywood Station)	Karen Yarbrough
3/4/2015	Melrose Park	Mayor Ronald Serpico
3/16/2015	Maywood	Assistant City Manager David Myers
4/28/2015	Cook County	President Toni Preckwinkle
6/1/2015	Maywood	Mr. David Myers; Assistant City Manager
6/10/2015	Maywood	Village Board (Project presentation)
7/29/2015	Maywood	Village Board (Project presentation)
1/29/16	River Forest	Village Staff (Project update)

Figure 10 – Meeting Announcement Flyer



Project Update

Metra

UNION PACIFIC BUILDING AMERICA

Union Pacific West Line (UP-W) Third Mainline Track Project - Eastern Section

Project Update

Union Pacific Railroad and Metra will provide a brief project update at the Village of Melrose Park's Board Meeting on February 22 regarding the construction of a third mainline track on the UP-W Line from UP's Vale Interlocking Facility in River Forest (just east of the Des Plaines River) to 25th Avenue in Melrose Park.

What:
UP-W Third Mainline Project Update at the Melrose Park Village Board Meeting

Date/Time:
5:45 p.m., Monday, February 22, 2016

Where:
Board Meeting Room - First Floor of the Police Department located at 1 N. Broadway, Melrose Park, IL 60160

For questions, please contact:
Demetrios Skoufis
Metra Community Affairs
DSkoufis@metrarr.com
312-322-6754
www.metraupwest.com

For questions about accessibility or to request accommodations, contact DSkoufis@metrarr.com or call 312-322-6754. Advance notice of at least 72 hours is required.

Project Update

Metra

UNION PACIFIC BUILDING AMERICA

Union Pacific West Line (UP-W) Third Mainline Track Project - Eastern Section

Project Update

Union Pacific Railroad and Metra will provide a brief project update at the Village of Maywood's Legal, License, and Ordinance Committee Meeting on February 10 regarding the construction of a third mainline track on the UP-W Line from UP's Vale Interlocking Facility in River Forest (just east of the Des Plaines River) to 25th Avenue in Melrose Park.

What:
UP-W Third Mainline Project Update at the Village of Maywood's Legal, License, and Ordinance Committee Meeting

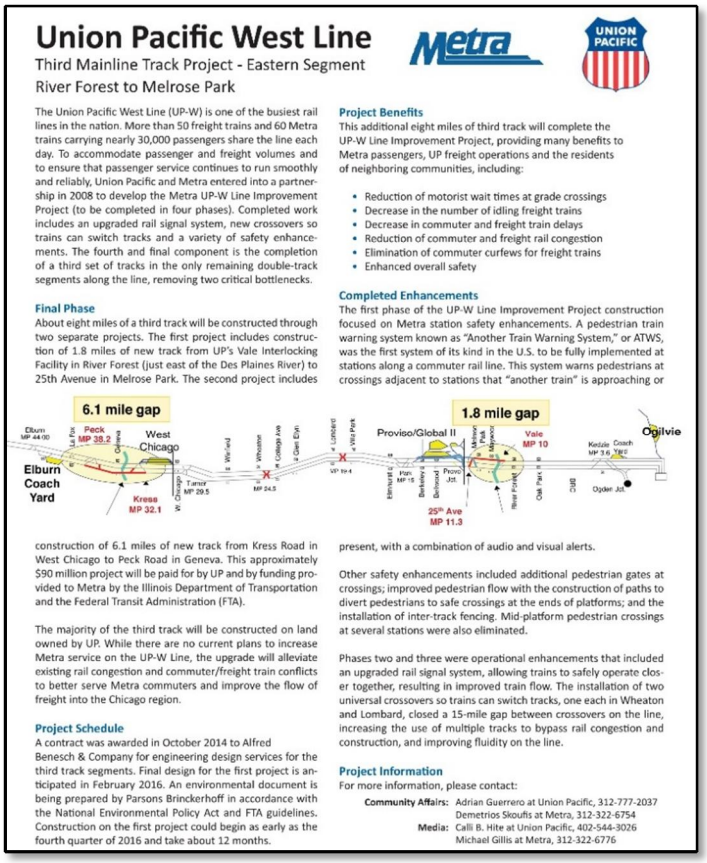
Date/Time:
7:00 p.m., Wednesday, February 10, 2016

Where:
Council Chambers, 125 S. 5th Avenue, Maywood

For questions, please contact:
Demetrios Skoufis
Metra Community Affairs
DSkoufis@metrarr.com
312-322-6754
www.metraupwest.com

For questions about accessibility or to request accommodations, contact DSkoufis@metrarr.com or call 312-322-6754. Advance notice of at least 72 hours is required.

Figure 11 – Project Fact Sheet



Union Pacific West Line

Third Mainline Track Project - Eastern Segment

River Forest to Melrose Park

Metra

UNION PACIFIC

The Union Pacific West Line (UP-W) is one of the busiest rail lines in the nation. More than 50 freight trains and 60 Metra trains carrying nearly 30,000 passengers share the line each day. To accommodate passenger and freight volumes and to ensure that passenger service continues to run smoothly and reliably, Union Pacific and Metra entered into a partnership in 2008 to develop the Metra UP-W Line Improvement Project (to be completed in four phases). Completed work includes an upgraded rail signal system, new crossovers so trains can switch tracks and a variety of safety enhancements. The fourth and final component is the completion of a third set of tracks in the only remaining double-track segments along the line, removing two critical bottlenecks.

Final Phase

About eight miles of a third track will be constructed through two separate projects. The first project includes construction of 1.8 miles of new track from UP's Vale Interlocking Facility in River Forest (just east of the Des Plaines River) to 25th Avenue in Melrose Park. The second project includes construction of 6.1 miles of new track from Kress Road in West Chicago to Peck Road in Geneva. This approximately $90 million project will be paid for by UP and by funding provided to Metra by the Illinois Department of Transportation and the Federal Transit Administration (FTA).

The majority of the third track will be constructed on land owned by UP. While there are no current plans to increase Metra service on the UP-W Line, the upgrade will alleviate existing rail congestion and commuter/freight train conflicts to better serve Metra commuters and improve the flow of freight into the Chicago region.

Project Schedule

A contract was awarded in October 2014 to Alfred Benesch & Company for engineering design services for the third track segments. Final design for the first project is anticipated in February 2016. An environmental document is being prepared by Parsons Brinckerhoff in accordance with the National Environmental Policy Act and FTA guidelines. Construction on the first project could begin as early as the fourth quarter of 2016 and take about 12 months.

Project Benefits

This additional eight miles of third track will complete the UP-W Line Improvement Project, providing many benefits to Metra passengers, UP freight operations and the residents of neighboring communities, including:

- Reduction of motorist wait times at grade crossings
- Decrease in the number of idling freight trains
- Decrease in commuter and freight train delays
- Reduction of commuter and freight rail congestion
- Elimination of commuter curfews for freight trains
- Enhanced overall safety

Completed Enhancements

The first phase of the UP-W Line Improvement Project construction focused on Metra station safety enhancements. A pedestrian train warning system known as "Another Train Warning System," or ATWS, was the first system of its kind in the U.S. to be fully implemented at stations along a commuter rail line. This system warns pedestrians at crossings adjacent to stations that "another train" is approaching or present, with a combination of audio and visual alerts.

Other safety enhancements included additional pedestrian gates at crossings; improved pedestrian flow with the construction of paths to divert pedestrians to safe crossings at the ends of platforms; and the installation of inter-track fencing. Mid-platform pedestrian crossings at several stations were also eliminated.

Phases two and three were operational enhancements that included an upgraded rail signal system, allowing trains to safely operate closer together, resulting in improved train flow. The installation of two universal crossovers so trains can switch tracks, one each in Wheaton and Lombard, closed a 15-mile gap between crossovers on the line, increasing the use of multiple tracks to bypass rail congestion and construction, and improving fluidity on the line.

Project Information

For more information, please contact:

Community Affairs: Adrian Guerrero at Union Pacific, 312-777-2037
Demetrios Skoufis at Metra, 312-322-6754

Media: Calli B. Hite at Union Pacific, 402-544-3026
Michael Gillis at Metra, 312-322-6776

Agency Coordination

Metra coordinated with federal, state, and local agencies as a part of the UP-W Third Mainline Eastern Section Project. Table 10 includes a summary of the agency coordination to date. Additional local parties and tribal nations were contacted as a part of the Section 106 process and are documented in the *Section 106 Technical Report Union Pacific West Third Mainline Project, Eastern Section (*July 2016). See Appendix B-2 for the report. Additional coordination would occur during the final design and construction phases of the Project, as needed or required, with these agencies.

Table 10 - Agency Coordination

Agency	**Correspondence Date**	**Appendix**
Ms. Claire Bozic Chicago Metropolitan Agency for Planning 233 South Wacker Drive, Suite 800 Chicago, IL 60606	1/12/16	Appendix B-1
Dr. Rachel Leibowitz Illinois Historic Preservation Agency Preservation Services Division 1 Old State Capitol Plaza Springfield, IL 62701-1507	8/30/2016	Appendix B-2
Ms. Melyssa Navis U.S. Army Corps of Engineers, Chicago District 231 South LaSalle Street, Suite 1500 Chicago, Illinois 60604	12/9/2015	Appendix B-3
Mr. Nathan Grider EcoCAT Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702	9/2/2015	Appendix B-4
Section 7 Consultation U.S. Fish and Wildlife Service 1250 South Grove Avenue, Suite 103 Barrington, IL 60010	9/2/2015	Appendix B-5