#090004
Dist #1 & #4

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

_____ Resolution or Ordinance (Blue) _____ *Waiver of First Requested*
X Recommendations of Boards, Commissions & Committees (Green)
_____ Other Business (Pink)

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: David A. Hulseberg, Village Manager dah

DATE: February 11, 2009 (BOT) Date: February 19, 2009

TITLE: Union Pacific West Line Upgrade project – Environmental Assessment

SUBMITTED BY: Transportation & Safety Committee and
Department of Community Development WJH

BACKGROUND/POLICY IMPLICATIONS:
The Transportation and Safety Committee together with the Department of Community Development submit for your consideration a request directing staff to transmit the comments within the staff and Committee's joint memorandum into a formal response to Metra. (DISTRICT #1)

The Transportation & Safety Committee at their February 2, 2009 meeting concurred with the comments noted within the attached staff memorandum and added additional comments to be included in the Village's formal response back to Metra.

The Transportation & Safety Committee as well as the Department of Community Development recommend approval of this request.

Please place this item on the February 19, 2009 Board of Trustees agenda.

Fiscal Impact/Funding Source:

Review (as necessary):

Village Attorney X _____ Date _____
Finance Director X _____ Date _____
Village Manager X David A. Hulseberg Date 2/11/09

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.

MEMORANDUM

TO: David A. Hulseberg, Village Manager

FROM: William J. Heniff, AICP, Director of Community Development

DATE: February 19, 2009

SUBJECT: **Union Pacific West Line Upgrade Project – Environmental Assessment**

Staff has received a copy of an environmental assessment report for improvements to the Union Pacific West Line from URS, Metra's project consultant. The report also identifies additional parking options within the downtown Lombard area. At the December 4, 2008 Village Board meeting, the Board sent the report to the Transportation & Safety Committee for a review and a recommendation.

At the February 2, 2009 Transportation & Safety Committee meeting, the members concurred with the comments noted within the attached staff memorandum and added additional comments to be included in the Village's formal response back to Metra.

ACTION REQUESTED

Please place this item on the February 19, 2009 Board agenda. The Transportation and Safety Committee recommends that the Village Board direct staff to transmit the comments within the staff and the Committee's joint memorandum relative to the Union Pacific West Line Upgrade Project.

URS METRA – UNION PACIFIC WEST LINE
ENVIRONMENTAL ASSESSMENT REVIEW

SERVICE IMPROVEMENTS

The Union Pacific West (UP-W) Line Upgrade Project involves transit improvements along the Metra line between Ogilvie Transportation Center and Elburn that will result in additional passenger capacity and reduced travel times. Through Lombard, these improvements include upgraded signal systems, additional crossovers, and expanded commuter parking. The track improvements include additional crossovers to facilitate passing train movements and suburb-to-suburb service and upgraded signals which will allow trains to operate at higher speeds and with closer headways. These improvements would allow for 14 additional daily commuter trains that are intended to meet the needs of the UP-W line through 2030. Some of these 14 trains, including six additional AM peak trains, may be express trains that may or may not stop in Lombard. In Lombard, there are two types of actions proposed: track improvements and parking expansion.

The report states that the improvements are not anticipated to have a noise impact in Lombard, but a total of 25 homes will experience a "moderate" vibration impact from the proposed changes (eight homes on the north side of the tracks between Grace Street and Edgewood Avenue, and 17 homes on the south side of the tracks between Martha Street and Grace Street). A detailed vibration analysis will be performed in the later stages of the project.

STAFF COMMENTS

Staff offers the following concerns that should be addressed in the analysis:

- The report does not offer any indication to the level of service increase for Lombard commuters that can be expected as part of the track improvements.

- The proposed track improvements allowing more trains, closer headways, and shorter travel times will also benefit freight trains along the Union Pacific tracks. The study does not specify what increase in freight traffic could be anticipated as a result of Metra's improvements and what the impacts of the additional freight traffic, if any, will be.

- The study does not sufficiently address how the increased train traffic will affect the Grace/St. Charles Road intersection or the Elizabeth Street crossings.

- Further identification of the projected "moderate" vibration impact to single-family homes is needed and specifically what this will mean for the residents.

- Separate from this report, staff has been made aware that the Union Pacific plans to raise the railroad track height by nine inches near the Grace Street crossing. This information is not identified in the report.

- Past staff reviews have found that a significant number of Glen Ellyn residents have utilized Lombard parking spaces in the past. The study does not address the demand impacts of the additional trains on this situation. Staff suggests that the report review Lombard's unique location at the end of a current fare zone range and determine how the service increases impact spill-over parking from other communities.

PARKING IMPROVEMENTS

The report identifies seven areas for additional/modified commuter parking facilities, two of which were previously considered by the Village as part of the 2007 Commuter Parking Study and the Downtown Lombard Community Vision. These seven areas would need to be acquired by the Village or by Metra, but the plan does not address who would pay for the acquisition and construction of the parking lots. The study does state that Metra is seeking federal funding, but it does not specify what that funding would cover and if there would be an expected local match. Although the study assumes that the proposed commuter parking spaces would be constructed and in use by 2011, staff confirmed with Metra that there is no timeline established for land acquisition or construction.

The expanded parking is based on ridership forecasts. Lombard was grouped in with all stations between Lombard and Maywood, and it was determined that this zone will need a total of 405 additional parking spaces.

The plan identifies a total of five potential property acquisitions. According to the study, the expanded parking would require variations for parking space dimensions (seven areas), conditional uses for commuter parking (five areas), and one zoning change.

Up to 353 of these spaces could be established, as detailed in the following table and on the attached map:

Parking Area (by priority)	Description	Ownership	Lot Size (acres)	Action Type	# of new spaces
1	11-37 E. St. Charles Rd	Village	0.8	New	70
2	7 E. St. Charles Rd	Bartel	0.3	New	24
3	Parkside-West lot	Village, Metra	0.7	Restripe from 9' wide to 8.5' wide	5
4	Fifth Third Bank	Fifth Third Bank, Village	0.3	New	23
5	Maple Street lot	Village	0.5	New	38
6	24-28 W. Ash St	First Church of Lombard, DuBrovin, St. John's	1.2	New	92
7	324-330 S. Main St; 12-22 W. Willow St	Pontikes, Kovar, Burdeaux, Geroulis	1.4	New	101
Total	-		**5.3***	-	**354***

* Metra's totals of 5.3 acres and 354 spaces are slightly higher than the 5.2 acres and 353 spaces detailed in Parking Areas 1-7.

The proposed 354 parking spaces would add 907 new trips to Main Street and St. Charles Road. This would mean an increase in average daily traffic of 5% to Main Street (south) and St. Charles

Road and an increase of 8% to Main Street (north) for the 2011 design year. The study states that in 2011, all roads will be at acceptable service levels (LOS D or higher).

PROPOSED PARKING AREA COMMENTS

The environmental assessment is intended to identify those properties that could be acquired and utilized for commuter parking purposes. Therefore, the Board should review each of the properties and determine whether each should or should not be included as part of this analysis. Staff offers the following comments regarding each parking option:

Parking Areas 1 & 2

The study states that Parking Areas 1 and 2 are Metra's highest priorities. In 2007, the Village applied for a Congestion, Mitigation, and Air Quality Program (CMAQ) grant for Parking Areas 1 and 2, which estimated 92 spaces at a cost of $1.6 million. Although the original Hammerschmidt lot was built using FY2004 CMAQ funds, the lot expansion was deemed by the CMAQ Project Selection Committee to not have a sufficient cost-benefit ratio. In October, 2008, the Village re-acquired Parking Area 1. However, discussions by the Village Board suggest that the Board may not wish to see the property developed as a surface parking lot. If this is the case, there may be a potential conflict between the report and the Board's desire.

Parking Area 3

The proposed restriping of the Parkside-West lot (Parking Area 3) would be consistent with the Zoning Ordinance, which allows publicly-owned commuter parking spaces to be no less than 8.25 feet wide. Although there is a minimal benefit to be obtained (five additional parking spaces), this is a nearly zero-cost option that could be implemented immediately.

Parking Area 4

This site consists of a small portion of Michael McGuire Drive and the landscaped area separating McGuire Drive from the Fifth Third Bank and Sprinkler Park properties to the north. A buffer should be maintained between the Sprinkler Park and any commuter parking lot.

Parking Area 5

It is unclear why Parking Area 5 is included in this study, as it already owned by the Village and operated as a Lombard resident-only commuter parking lot with ancillary parking for the Historical Museum. Additional capacity could be created through restriping and the use of the drive aisle on the adjacent Calvary Episcopal Church property (as detailed in the Downtown Lombard Community Vision and 2007 Commuter Parking Study). However, Calvary has not been receptive to this concept in the past.

Parking Areas 6 & 7

As both of these areas involve numerous private property owners and existing structures and are furthest from the station itself, these are the most challenging of the proposed options.

Parking Areas 6 and 7 abut residential properties, so special concern is warranted with regard to parking lot design, landscaping, and lighting and impacts on adjacent uses. Area 7 is adjacent to Main Street and the Illinois Prairie Path.

Area 6 is currently improved with a single-family residence and portions of both First Church of Lombard and St. John's Lutheran Church, each separate planned developments. Staff raises concerns about the impacts of additional commuter parking on the daily operations of each of these institutions, which was not identified in the report. Parking Area 6, along with Area 5, has also been envisioned as a potential location for off-site library parking in the event that the Helen Plum Library expands at its current location. Given these issues, staff recommends that the report state that while an opportunity may present itself for additional commuter parking in Area 6, no acquisition efforts should be undertaken without additional dialogue with the Village regarding our long range intent for the area.

Additional Parking Option
Another parking area could be considered in the Parkside Avenue right-of-way to the east of the existing Parkside-East commuter lot. In the 2007 Commuter Parking Study, staff estimated that an additional 63 spaces could be created at a minimal cost since no land acquisition would be necessary.

OTHER ITEMS FOR CORRECTION/CLARIFICATION
The information in the study about Lombard's zoning designations and regulations are not entirely accurate. No variation would be needed for publicly-owned commuter spaces to be 8.5 feet wide, but variations would likely be requested for parking lot and transitional landscaping and open space. Also, Parking Area 6 stated that the property is zoned B5 (it is actually B5A), and Parking Area 7 does not mention the R5-zoned property that is included on the map.

As a last item for concern, the report identifies Metra's land acquisition and displacement authority procedures. While the report states their authority to acquire property, it also notes their statutory authority to condemn property if deemed necessary. Staff raised its concern that the report's identification of the properties, while denoting their condemnation authority, does not send a favorable message. The report should denote that it is the intent of Metra to work collaboratively with the Village to select appropriate locations for commuter parking and that acquisition efforts must also be consistent with local plans.

TRANSPORTATION & SAFETY COMMITTEE COMMENTS
The Village of Lombard Transportation and Safety Committee, a standing Committee of the Lombard Village Board, discussed the report and concurred with the comments noted within above. Additionally, the Committee offered their additional comments and recommendations regarding the review.

- Additional discussion regarding the prevailing operating speeds for both commuter trains and any additional freight traffic should be explored in the analysis.

- While express commuter train services is noted in the report, the Village would also like to know the criteria that will be used by Metra to determine which stations will be offered (or bypassed) by such service.

- The report should recognize the Village of Lombard Circulator bus. This program which is slated to commence operating in late 2009, will provide additional public bus transportation services to the downtown Lombard train station and will be linked to other population and employment centers. This project has received an ICE grant by the RTA and local funding through the Village and DuPage County has been secured.

- Before Metra considers acquiring additional properties, particularly as noted in Areas 6 and 7, Metra should review the costs of providing additional decking of existing facilities.

- In additional to the parking demand issues, the report should also fully examine the commuter pedestrian circulation issues to and around the existing train station and offer recommendations accordingly.

- The Village would also like to keep abreast of future actions on this review. Should future activities warrant consideration, additional review may require a larger inter-jurisdictional review of the report.

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Legistar: 090004

To: Chairperson and Transportation and Safety Committee

From: Frank Kalisik, Civil Engineer

Through: Carl S. Goldsmith, Director of Public Works

Date: January 28, 2009

Subject: Metra – Union Pacific – West Line Draft Environmental Assessment

Metra anticipates an increase in ridership for the 2011-2030 planning period and has recently completed a draft Environmental Assessment on anticipated infrastructure upgrades to The Union Pacific-West Commuter Line, which serves the Village of Lombard. The report outlines an investigation of preliminary and primary issues Metra will need to consider in their analysis of infrastructure upgrades necessary to meet the expected level of service. Of particular concern, Metra has identified the requirement for an additional 354 parking spaces to service the Lombard Station by 2030 and has suggested seven (7) areas that look feasible for such use, totaling 5.3 acres.

The acquisition of these properties would cause the displacement of one (1) residential property and one (1) commercial property. Table 1-3 on page 1-17 provides an overview of the zoning actions, which would be required for Metra to use the suggested sites for commuter parking.

This Assessment was presented to the Village Board at the December 4, 2008 Village Board Meeting, and was remanded to the Transportation and Safety Committee for review. Comments are expected in March.

Metra
Union Pacific - West Line

DRAFT

Environmental Assessment

Prepared for:

Metra®

The way to really fly.

Prepared by:
URS Corporation
100 South Wacker Drive
Suite 500
Chicago, IL 60606-4014

November 2008

Revision 2.1 *(Partial Document)*

Legistar: 090004

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This Assessment was presented to the Village Board at the December 4, 2008 Village Board Meeting, and was remanded to the Transportation and Safety Committee for review. Comments are expected in March.

GENERAL STATEMENT OF PURPOSE AND DESCRIPTION OF PROPOSED ACTION

The purpose of this project is to identify, evaluate, and select potential transit improvements along the Union Pacific West Line (UP-W Line) of Chicago's Metra. The existing transportation system (roadways and public transit) is becoming increasingly burdened with the expanding travel demands and changing travel patterns of the ever-growing Chicago metropolitan region. Metra has identified this project as a key element in fulfilling its mission "to continually improve our product and services to meet our current and future customer needs." In striving to provide a high quality commuter rail service, Metra recognizes the need to enhance the existing system to provide a safe and efficient mode of transportation for the region.

By allowing more commuters to change from road to rail use, the proposed project (henceforth termed the "UP-W Line Upgrade Project") would eliminate almost 943,000 annual car miles from the transportation system by 2030, accounting for approximately two percent of the system-wide total car miles. This would reduce roadway congestion and improve mobility and service levels within the region. The reduced auto trips would also improve regional air quality, helping the region comply with the Clean Air Act.

The UP-W Line Upgrade Project includes the following proposed improvements along the corridor: signal upgrades, new crossovers, relocation of A-2 interlocking (the busiest crossing in the Metra system), additional parking, additional train runs, additional rolling stock, expanded express service, expanded reverse-commute service, new third mainline track, platform extensions, and a modified yard. More specifically, the project includes the following actions associated with these improvements:

- Add a third mainline track between the Elmhurst and River Forest stations to allow zoned express service through this area.
- Add crossovers between the Elmhurst and West Chicago stations to facilitate passing train movements.
- Upgrade signal systems from two-aspect to four-aspect between Ogilvie Transportation Center (OTC) and Geneva Station, allowing trains to operate on closer headways.
- Relocate the A-2 interlocking (intersection of four of Metra's rail lines) to a new location about one mile east to improve the capacity and operating speeds of the rail lines. This will also involve reconstruction of the A-3 interlocking adjacent to the existing A-2.
- Increase station parking capacity and feeder bus service to stations to meet forecast passenger demand.
- Adjust service along the UP-W Line to make use of the new capacity provided by the track and signal upgrades.
- Increase the rail rolling stock fleet to support increased service.
- Extend platforms to accommodate longer trains
- Improve yard at Elburn through additional service platforms and access

BACKGROUND AND INTRODUCTION

Metra runs an extensive commuter rail transit system throughout the city of Chicago and into the suburbs of northeastern Illinois. The 495-mile Metra system serves 230 stations in the counties of Cook, DuPage, Lake, Will, McHenry and Kane. The UP-W Line extends nearly 44 miles west from Chicago to the Village of Elburn and includes 19 existing stations that serve 62 communities in parts of Kane, DuPage, and Cook counties. UP-W Line passengers make approximately 29,000 trips per weekday on 59 commuter trains.

Since its inception in 1984, Metra improved the performance of the existing UP-W Line without major infrastructure changes to the central part of the corridor. In 2006, Metra completed an eight-mile extension of the UP-W Line to open two new stations at La Fox and Elburn. As demand for Metra services has grown, the demands on the facilities of the UP-W Line and the Burlington Northern Santa Fe Line (BNSF Line, a radial route three-to-eight miles south of UP-W Line) are exceeding what can be handled by the existing systems. To address the constraints of the existing commuter rail lines, new investments in transit improvements are needed.

Metra initiated a study of the UP-W Line Upgrade Project in 2005 to identify, evaluate, and select potential transit improvements along the entire UP-W Line. This proposed system of improvements would address increased demand by substantially increasing capacity for both peak-direction passengers and reverse-commute riders. The proposed system would also improve travel times for many existing commuter rail passengers as well as future riders.

To determine what specific actions/improvements should be included in the UP-W Line Upgrade Project, an Alternatives Analysis was conducted beginning in March 2005 and concluding in August 2007. A more complete description of this analysis is found in Chapter 1, Section 3. The final alternative chosen includes a comprehensive set of actions/improvements along the UP-W Line.

This EA report describes the environmental impacts that could result from the actions proposed by the UP-W Line Upgrade Project. The report is divided into four main chapters that cover the proposed improvement actions:

- Chapter 1 — System-wide Assessment—describes the need for the project, the alternatives analysis, and the environmental impacts associated with system-wide improvements.
- Chapter 2 — Site Assessments—describes each station along the UP-W Line, its specific actions/improvements, and the associated environmental impacts.
- Chapter 3 — Third Mainline Addition—describes the action of adding a third mainline track to a section of the UP-W Line and the associated environmental impacts.
- Chapter 4 — A-2 Interlocking—describes the action of relocating and improving the A-2 interlocking in downtown Chicago and the associated environmental impacts.

Finally, Chapter 5 will address Agency and Community Coordination throughout the process.

CHAPTER 1. SYSTEM WIDE ASSESSMENT

1.1 STUDY AREA

The study area of the UP-W Line Upgrade Project is defined as a roughly ¼ -mile wide corridor along the UP-W Line and ½-mile wide zone around the stations (Figure 1-1). The study area covers about 27 square miles, and includes portions of the following:

- The Central Business District (CBD) of Chicago;
- Cook, DuPage, and Kane counties; and
- Batavia Township, Geneva Township, St. Charles Township, Blackberry Township, and Campton Township in Kane County.

1.2 PURPOSE OF AND NEED FOR PROPOSED ACTION

Overall, transit improvements are needed in the study area to respond to growth in the region and corridor activity centers and the associated increase in travel demand. Due to various constraints, the existing network of roadway and transit services is unable to effectively handle these increases in demand. As the central city continues to grow and the region expands westward, the limitations imposed by these constraints are becoming more pronounced. The proposed upgrades to the UP-W Line will improve the transportation options for people living, working and traveling in the corridor. This section discusses the multiple needs to improve passenger rail service in the study area.

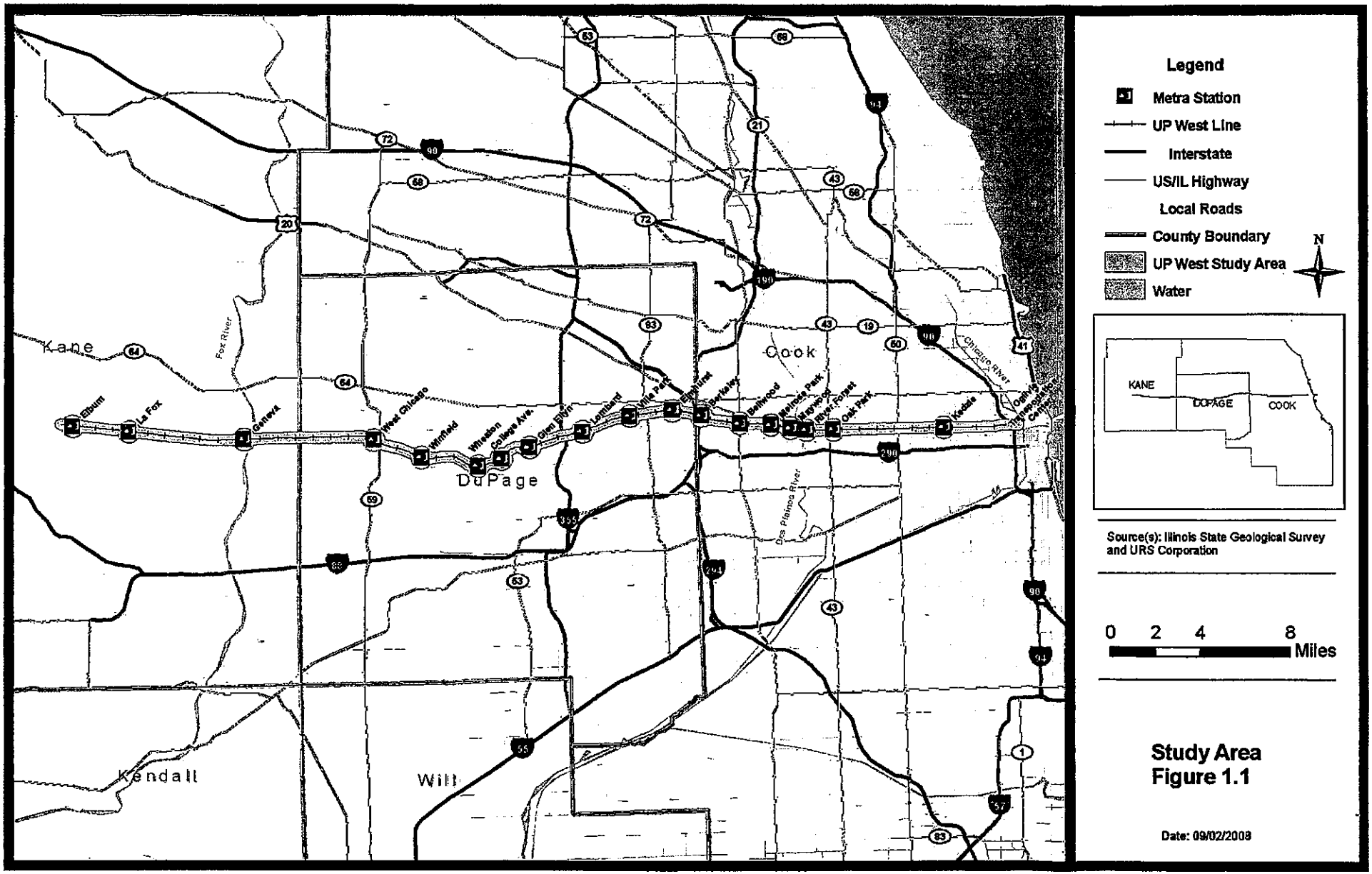
The purpose of the UP-W Line Upgrade Project is to provide passenger rail service improvements that help to:

- Relieve congestion and improve mobility on the existing transportation network
- Meet the mobility needs of the growing activity centers in the study area
- Meet the needs of growing non-traditional travel market needs (e.g. reverse-commute and suburb-to-suburb trips)
- Maintain the competitive advantage of the study area as an economic engine and international freight and passenger transportation hub

In fulfilling these objectives, the study seeks to address the following needs:

- Relieve pressures put on the existing transportation network by the growth of activity centers
- Encourage transit-supportive patterns of development that are more easily sustained
- Respond to the growth in the demand for midday, intermediate, and reverse-commute trips
- Improve regional transportation capacity without adversely impacting the natural and built environment
- Ensure Chicago retains its role as an international freight and passenger transportation hub
- Help the region meet the National Ambient Air Quality Standards (NAAQS)

Based on these needs, it will be necessary to develop transportation solutions that leverage the investments already made in the existing infrastructure. This is a result of two limiting factors: (1) limited opportunities for adding roadway capacity, and (2) constraints on the railroads in the study area. Specific roadway and railroad constraints are summarized below.


Legend
Metra Station
UP West Line
Interstate
US/IL Highway
Local Roads
County Boundary
UP West Study Area
Water
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KANE
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Source(s): Illinois State Geological Survey and URS Corporation
0 2 4 8
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Study Area
Figure 1.1
Date: 09/02/2008
Kane
DuPage
Cook
Will
Kendall
Fox River
Des Plaines River
Elburn
La Fox
Geneva
West Chicago
Winfield
Wheaton
College Ave.
Glen Ellyn
Lombard
Villa Park
Elmhurst
Berkeley
Bellwood
Melrose Park
Maywood
River Forest
Oak Park
Kedzie
Ogilvie Transportation Center

- Large sections of the east-west highway network in the study area are currently operating beyond capacity for significant portions of the day.
- According to the MPO Policy Committee for Northeastern Illinois, Fiscal Year (FY) 2007-2012, roadway capacity expansions in the study area are limited.
- Further expansion of east-west roadways will be difficult to accommodate without major disruptions or impacts to communities within the study area.
- Metra's existing infrastructure in the study area has reached its operating capacity; service increase would therefore require major infrastructure changes.
- Commuter rail services in the study area are further constrained by the need to operate along active freight railroads.

The following sections further describe the need for this project and constraints on the existing transportation system.

1.2.1 Growth and Increasing Travel Demand

Chicago is the third largest metropolitan area in the United States. The Northeastern Illinois Planning Commission (NIPC) forecasts that jurisdictions along the UP-W Line are expected to attract nearly 250,000 new residents between 2000 and 2030, growing from 1.7 million persons to 1.9 million (a 15 percent increase). Employment during this period is expected to grow from nearly 1.5 million jobs to 1.8 million (a 22 percent increase). Much of this growth is expected to occur in the Chicago central business district and Cook County.

Outside of Chicago, the greatest growth along the UP-W Line is expected to occur in the areas west of Elmhurst. The Village of Elburn is projected to grow by more than 650 percent between 2000 and 2030, and the Winfield/West Chicago area is expected to grow by more than 150 percent in that same period. Employment in this western segment (Winfield-Elburn) is anticipated to increase more than 100 percent.

A positive aspect of anticipated growth in the study area is that it is largely expected to occur in transit-supportive densities and patterns. Many local plans call for transit-oriented development, which will focus the projected growth and make it easier to serve the growth with transit. These plans include the *Kane County 2030 Transportation Plan* and station area plans developed by local communities in cooperation with Metra.

Trends in population and employment growth can be expected to increase the mobility needs of the residents, visitors, and employees within the study area. According to the *Cook-DuPage Corridor Travel Market Analysis Study* (2005), home-work trip origins are expected to increase by 33% between 2000 and 2030 in the six-county region of the corridor. A 30% increase in non-work trips is expected for the same study area and time period.

The magnitude and distribution of growth in the study area will have three main impacts on its transportation needs:

- As Chicago will remain the largest population and employment center in the region, there will be continued demand and growing need for transportation services to the central city.

- As population and employment continue to move westward, there will be a need to enhance or expand existing transportation infrastructure to address this growth and its mobility needs.

- Areas of moderate-to-high density development are growing throughout the corridor. As much of this development is coordinated under transit-oriented land use plans, new transit services and facilities will be appropriate to address the area's transportation needs.

1.2.2 Increasing Demand for Non-Traditional Travel

According to the *Cook-Dupage Corridor Travel Market Analysis* (2005) there is a growing market for non-traditional (reverse-commute and suburb-suburb) trips along the UP-W Line corridor. Between 1985 and 2002, there was a 154 percent increase in the number of reverse commutes. Also, increased demand for suburb-to-suburb trips is anticipated as activity centers outside the central city grow. Significant opportunities exist for employment to develop near existing commuter rail stations, and in concentrations that could make transit service or employee shuttles feasible from the existing stations. One of the main recommendations of the *Cook-Dupage Corridor Travel Market Analysis* (2005) was to increase transit access to major employment centers outside the central city. Transit improvements that support midday, intermediate, and reverse commute trips would help to address this increasing demand for non-traditional travel.

1.2.3 Limitations of Existing System

As demonstrated in the previous sections, the study area is already served by an extensive, mature transportation network. However, as the system ages and the region continues to grow, it will be critical to develop new ways of adding transportation capacity that leverage the existing investment in the system.

This section explains some of the key constraints in the existing system that must be rectified or remedied to provide the study area with transportation infrastructure capable of serving current demand and demand that will result from projected growth.

Roadways

Existing population and employment levels have led to heavy demand on regional roadways, both for work and non-work travel.

The *Cook-DuPage Corridor Travel Market Analysis* (2005) found that performance of the highway network has been adversely impacted by shifts in corridor commuting patterns over time. Persistent congestion on I-290 in both directions impedes pass-through traffic in a number of corridor travel markets. Congestion on I-290 further degrades vehicle travel including bus transit on arterials that are used as an alternative to I-290 during peak periods. Also, closely spaced traffic signals and stop signs on key arterials prevail in the denser Chicago and central Cook County sections of the corridor. This intensely urban landscape which includes on-street parking, congested cross-streets and numerous curb-cuts combine to cause high travel times for bus, automobile and commercial traffic during peak travel periods. Similarly, at-grade rail/highway crossings and conflicting signal timings contribute to poor traffic flow on arterials in the Cook County portions of the corridor. Travel in the DuPage County sections of the corridor is restricted by high traffic volumes and discontinuous north-south arterials.

Additional roadway capacity could improve travel conditions in the study area; however, there are a limited number of major improvements scheduled. The *2030 Regional Transportation Plan* (RTP) discusses widening projects (additional two lanes) for I-88 and I-90 that are currently underway and funded. These will provide additional vehicle capacity; however, further expansion of these and other east-west roadways will be difficult to accommodate without major disruptions to the communities along the study area.

Expansion of the roadway network is further complicated by the issue of maintenance. As noted in the Fiscal Year 2007-2012 Proposed Highway Improvement Program, the Illinois Department of Transportation (IDOT) has made a strategic shift from expanding roadway facilities to maintaining them. This decision reflects the extent and age of the highway system: so much is already in place that the majority of IDOT's resources must be focused on system preservation. In FY2007-2012, only 11 percent of IDOT's funding will be dedicated to roadway expansion; in contrast, 66 percent will go towards bridge and roadway maintenance.

With limited opportunities to add lanes and new highways, there is a growing need for transportation solutions that can add capacity within the existing roadway network.

Commuter Rail System

Recent growth in the region has led to high levels of demand on the rail system, both for passenger services and freight operations. Metra facilities, including the UP-W Line, accommodate both heavy volumes of freight traffic as well as a large number of commuter trains.

The ability of the rail lines to accommodate these volumes is dependent largely on three factors:

- Track configuration. The number of sidings, mainline tracks, and crossovers on a railroad determines how much flexibility it has to manage through traffic as well as movements between rail facilities (maintenance yards, intermodal centers, etc.)

- Signalization. Generally speaking, more advanced signalization allows for the more effective management and operation of higher volumes of train traffic.

- Interfaces with other railroads. Interlockings add a level of complexity to railroad operations by making it necessary to coordinate the schedules of multiple railroad services (both freight and passenger.) The size, geometry, and capacity of an interlocking play a major role in determining the capacity of a railroad to handle existing and future levels of demand.

Existing constraints along the UP-W Line are many. While largely a three-track system, there are parts along the UP-W Line that remain double-track, impeding express service in these areas. The line also has a multiple-aspect signal system, but provides only two cab signal aspects, requiring trains to slow greatly and maintain greater spacing between trains. The line uses a major interlocking (A-2) through which trains are required to operate at significantly reduced speeds. The absence of crossovers constrains the operation of express passenger service. As rail traffic increases, the negative effects of these constraints on on-time performance increase.

Commuter rail services are further constrained by the need to operate along active freight railroads. While freight traffic is limited during peak hours, it is permitted to operate occasionally during this time. In 2004, commuter service delays resulting from freight traffic, as a percentage of all Metra train delays, ranged from 13 percent along the BNSF rail line to 39 percent on the UP-W Line. The lower amount of delay on the BNSF reflects the superior operating efficiency of its track and signal system compared to that of the UP-W Line.

The roadway congestion and railroad constraints in the eastern portion of the study area will impact the ability of new services to adequately link the growing western suburbs to Chicago. It will be necessary to develop new strategies to mitigate the effects of these constraints on transit travel times and reliability. To meet existing ridership demands, attract a new generation of

riders to the system, and take automobiles off the study area's overcrowded highways, substantial investments to expand transit capacity are needed.

Support Region's Role as an International Transportation Hub

Chicago's central location in the United States has helped it evolve into one of the predominant transportation hubs in the country. The development of transcontinental railroads transformed Chicago into the metropolis it is today. Over one-third of all rail traffic in the United States passes through Chicago. The Chicago area also serves as one of the major crossroads in the National Highway System, connecting I-55, I-57, I-80, I-88, I-90, and I-94. Additionally, the city is home to two major airports. O'Hare International Airport is the busiest airport in the world, handling 75.5 million passengers and 1.7 million tons of cargo in 2004; in the same year Midway Airport served 19.7 million passengers. The intermodal opportunities available in Chicago make it a critical nexus in the global economy.

In the study area, the ability to accommodate and maintain a high level of freight traffic on corridor railroads will be critical in ensuring Chicago maintains its status as an international transportation hub. Projected increases in freight traffic may impact Metra's ability to efficiently operate its existing passenger services, let alone expand them to accommodate new riders. Premium transit service improvements will be necessary to allow the corridor to handle both increasing freight demands and future transit demand.

Support for Regional Air Quality Goals

In 2004 the Chicago-Gary-Lake County area (in which the study area resides) was classified by the U.S. Environmental Protection Agency (EPA) as being a moderate nonattainment area for 8-hour ozone requirements and a nonattainment area for particulate matter less than 2.5 micrometers in diameter (PM2.5). This means the area is not meeting the National Ambient Air Quality Standards (NAAQS) established by the EPA. Improvements in premium transit service can help the region meet NAAQS by providing area residents and visitors with a convenient, low-emission alternative to automobile travel.

1.3 ALTERNATIVES ANALYSIS

Metra conducted an Alternatives Analysis (AA) between 2005 and 2007 to evaluate the set of all reasonable alternatives to achieve the purposes of the UP-W Line Upgrade Project and meet its needs. The purpose of the AA is to recommend, based on a set of criteria, one alternative for further environmental documentation and engineering analyses. This recommended alternative is commonly referred to as the Locally Preferred Alternative (LPA).

The AA evaluated and screened alternatives in three stages, culminating with the selection of the LPA. A summary of the AA is provided in this section. Full documentation can be found in the *Metra UP-W Line Alternatives Analysis Study* (2005-2007).

1.3.1 INITIAL ALTERNATIVES

The initial alternatives examined a number of transportation modes and technologies. The following were considered:

- Commuter rail
- Intercity rail
- High speed rail
- Heavy rail rapid transit
- Light rail transit

- Streetcar
- Local bus
- Express bus
- Bus rapid transit, low end;
- Bus rapid transit, high end
- Magnetic levitation railway
- Automated guideway transit
- Personal rapid transit
- Highway capacity improvements

These alternatives were considered with respect to the following criteria:

- Mode compatibility with study area
- Order-of-magnitude cost
- Order-of-magnitude travel time

Of these 14 initial alternatives, six were eliminated due to study area incompatibility issues, and five more were eliminated due to relatively high costs without commensurate travel time savings when compared to commuter rail. Three remained which were considered to have potential to address transportation needs in the corridor.

- Commuter Rail—offers the lowest travel time and can be implemented within the local financial capacity.
- Express Bus—has the potential to cost less than Commuter Rail although travel times in peak hours will be greater than Commuter Rail.
- Bus Rapid Transit—has the potential for comparable travel times to Commuter Rail, but may have additional capital costs.

The Commuter Rail and Bus Rapid Transit options were used to develop the "Build Alternatives". The Express Bus option was used to represent the Transportation System Management (TSM) alternative discussed below. The TSM and "No-Build" alternatives provide a basis for comparison. The build alternatives considered were as follows:

- Alternative 0 – No-Build. The No-Build Alternative represented the existing and committed transportation infrastructure of the study area. It was used as a base of comparison for all other alternatives.

- Alternative 1 – TSM/Baseline (Express Bus). The TSM Alternative represented a collection of lower-cost, shorter-term investments aimed at addressing the proposed needs in the corridor. The Express Bus option carried forward from the Part I Screening was developed as the TSM Alternative.

- Alternative 2 – Commuter Rail Improvements to the UP-W Line. This alternative included a range of investment options for the UP-W Line. Potential improvements include changes in the track configuration, signal system upgrades, increases in parking capacity and feeder bus service, and service adjustments.

- Alternative 3 – Commuter Rail Improvements to the BNSF Line. This alternative consisted of improvements to the BNSF commuter rail line. Improvements included increases in storage capacity, track configuration enhancements, changes in train lengths, and signal system upgrades.

- Alternative 4 – Bus Rapid Transit. This alternative consisted of BRT service aimed at providing a time-competitive transit alternative to commuter rail. Under this alternative, BRT service would be provided between Elburn and downtown Chicago, primarily using new high-occupancy vehicle lanes along I-290 and I-88. The alternative would use a dedicated fleet of vehicles, rail-like stations, and off-board fare collection.

Five screening criteria were used to evaluate the above build alternatives:

- Capacity— Assesses degree to which each alternative provides an increase in capacity.
- Travel Time— Assesses degree to which each alternative decreases travel time.
- Operating Cost— Assesses degree to which each alternative minimizes operating costs.
- Capital Cost— Assesses degree to which each alternative minimizes capital costs.
- Environmental Impacts—Assesses degree to which each alternative minimizes negative environmental impacts.

Using these criteria, Alternatives 1, 3 and 4 were eliminated from further consideration.

Alternative 1 was initially retained for further study; however, upon further discussion with FTA and some additional assessments of its likely performance, it was determined that the TSM alternative would be unlikely to perform significantly better than the No-Build alternative; furthermore, it appeared unlikely that a bus-based TSM alternative would be able to offer travel times comparable to the existing commuter rail service in the corridor.

Alternative 3 was not recommended for further study because the proposed improvements could not be accommodated within the existing right-of-way, and would impose major impacts on the environmental resources and adjoining land uses along the BNSF. The proposed improvements would also be very costly, but would only result in incremental travel time and capacity enhancements.

Alternative 4 was not recommended for further study because the travel time and capacity benefits of the alternative are dependent upon the ability to provide dedicated travel lanes for the BRT vehicles along the full length of the corridor. These lanes would be costly and their implementation could conflict with other planned improvements along I-88 and I-290.

1.3.2 Selection of the Locally Preferred Alternative

As mentioned, the LPA is the final alternative that is recommended for further environmental documentation and engineering analyses. To select the LPA, three variations of build Alternative 2 (Commuter Rail Improvements to the UP-W Line) were considered:

- No-Build – This alternative does not meeting the purpose of and need for the project identified in Section 1.2 of this EA. However, this alternative remains an alternative for consideration throughout the final decision making preprocess.

- Alternative 2A — most comprehensive of the three, reflecting moderate-to-high level of investment. A range of potential upgrade elements included: signal upgrades, new crossovers, adding new triple track to eliminate a two-track bottleneck, a major relocated and rebuilt crossing (A-2 interlocking), additional parking, modified stations and platforms, and additional rolling stock. These improvements will support additional train runs, expanded express service and expanded reverse-commute service.

- Alternative 2B — included all of the potential upgrade elements of Alternative 2A except for relocation of the A-2 interlocking. Lower cost than 2A.
- Alternative 2C — included relocation and reconstruction of A-2 interlocking as well as accompanying schedule adjustments to UP-W and other lines that operate through A-2. Did not include any of the elements of 2B. Lower cost than 2A and 2B.
- Alternative 2D — included operating additional service without infrastructure improvements. This was deemed infeasible and eliminated under the second round of screening, and was not carried forward into the third screening.

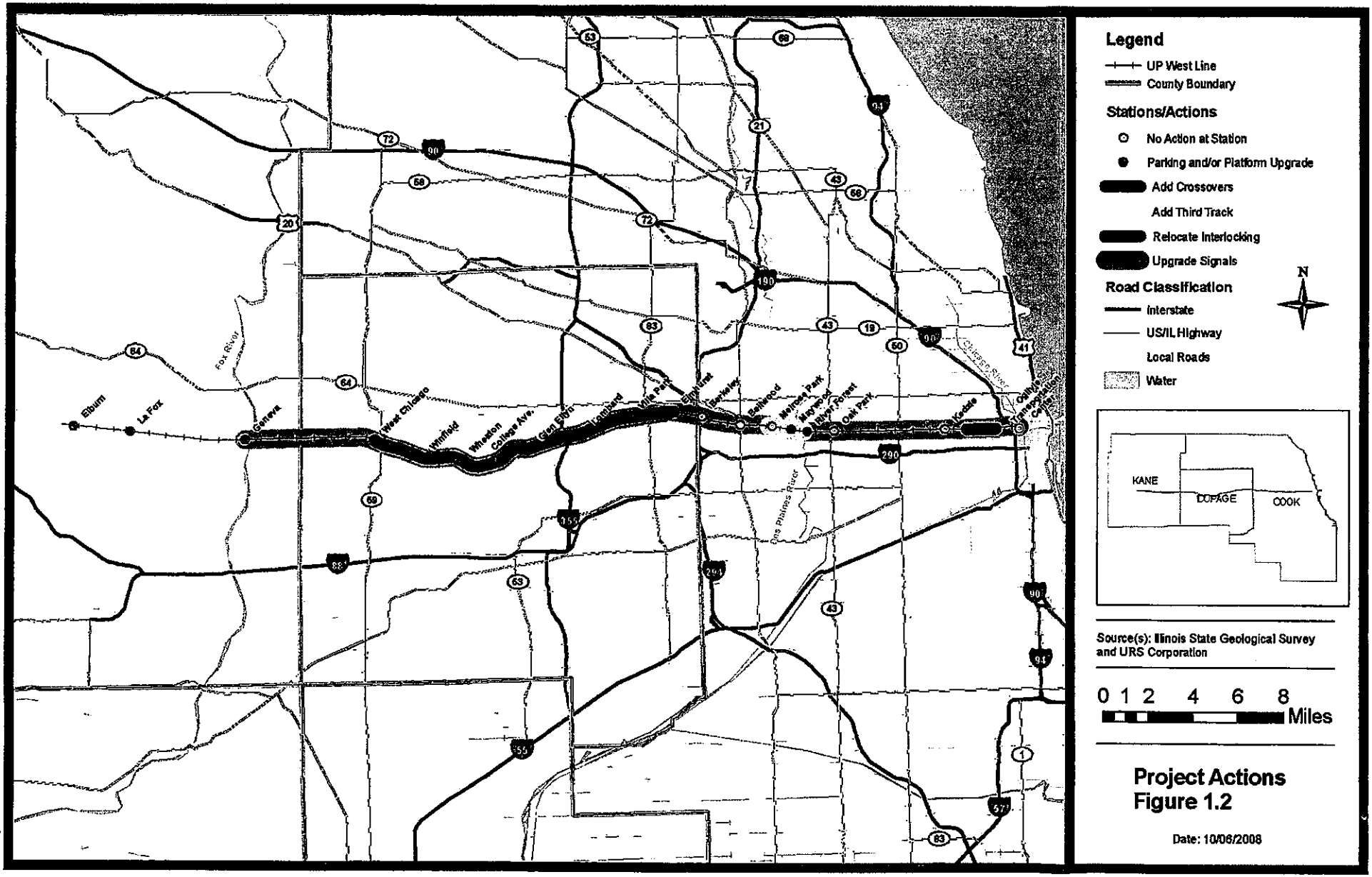
Because the three remaining Commuter Rail alternatives would be built primarily within existing railroad rights-of-way and within an urbanized area, adverse effects to the natural, social, and physical environments were anticipated to be negligible. All of the alternatives were found to be supportive of economic development and transit-oriented development and responsive to demands of new travel markets.

Based on a detailed analysis of these criteria, Alternative 2A was selected as the LPA. The effects of the new third mainline track, the signal improvements, and the improvements at the A-2 interlocking are additive, each contributing improvements to the travel times and frequency of service. Of the three commuter rail alternatives, Alternative 2A would result in the best overall mobility improvements, reliability of service, passenger capacity, service frequency, and transit ridership. These improvements justify the higher cost of this alternative.

1.3.3 Description of the Locally Preferred Alternative

As described above, Metra chose alternative 2A as the LPA to meet the need for increasing demand for passenger and freight services. This alternative proposes premium transit improvements to the existing UP-W Line commuter rail system, including relocation of the A-2 interlocking, addition of a third mainline track; addition of crossovers, modifications to stations to facilitate the third mainline track, and additional parking at some stations.

Elements of the LPA are shown in Figure 1-2 and discussed in further detail in this section. Improvement actions specific to individual stations are presented in Table 1-1.


Legend
UP West Line
County Boundary
Stations/Actions
No Action at Station
Parking and/or Platform Upgrade
Add Crossovers
Add Third Track
Relocate Interlocking
Upgrade Signals
Road Classification
Interstate
US/IL Highway
Local Roads
Water
N
Elburn
La Fox
Geneva
West Chicago
Winfield
Wheaton
College Ave.
Glen Ellyn
Lombard
Villa Park
Elmhurst
Berkeley
Bellwood
Melrose Park
Maywood
River Forest
Oak Park
Kedzie
Fox River
Des Plaines River
KANE
DUPAGE
COOK
Source(s): Illinois State Geological Survey and URS Corporation
0 1 2 4 6 8
Miles
Project Actions
Figure 1.2
Date: 10/06/2008

1.3.3.1 Operating Plan

Number of trains - The proposed operating plan calls for a 74-train weekday schedule for the UP-W Line, requiring a total of 17 train sets. In the morning peak, this would represent six additional eastbound trains, providing both traditional suburb to Central Business District (CBD) service as well as intermediate trips for suburban commuters reaching work destinations in DuPage and Cook Counties. In addition, service on an existing westbound AM peak train would be extended, providing reverse-commute service between Ogilvie Transportation Center (OTC) and West Chicago.

Average headway - Compared to the current service, reverse-commute trips between Villa Park and West Chicago would see headways decrease from 60 minutes to 40 minutes, while intermediate trips between Geneva and Maywood would see headways decrease by as much as 80 minutes.

Travel times - The proposed infrastructure changes would improve travel times for UP-W Line trains. These result from the improved signal system, the relocation of A-2, the additional third track, and new universal crossovers.

Operating hours - Hours of operation for the UP-W Line would remain as they are at present. The current time restrictions for freight operations would remain in place.

Table 1-1: Proposed Actions by Station

	Platform/ Access Improvements	Parking Expansion	Yard Improvements	No Action at Station
Elburn	X	X	X	
LaFox	X	X		
Geneva		X		
West Chicago		X		
Winfield		X		
Wheaton		X		
College Ave		X		
Glen Ellyn		X		
Lombard		X		
Villa Park		X		
Elmhurst		X		
Berkeley				X
Bellwood				X
Melrose Park	X			
Maywood	X	X		
River Forest	X			
Oak Park				X
Kedzie				X
Chicago (OTC)				X

1.3.3.2 Infrastructure Changes Required to Support Operating Plan

Relocate A-2 Interlocking - The A-2 interlocking is a strategic facility in the Metra system affecting approximately 60 percent of Metra's ridership. The current configuration of A-2 requires trains to slow to 30 mph or slower and results in an estimated 353 minutes of train delay per day. The existing interlocking would be relocated one mile east to a new location, A-1. As part of this action the A-3 interlocking (tied to the current A-2) on the Milwaukee District Line will need to be rebuilt. The new A-2 configuration would permit an increase in the maximum operating speeds along the UP-W Line, would reduce conflicts between train movements through the interlocking, and would improve reliability.

The proposed relocation of the A-2 interlocking is further discussed in Chapter 4.

Add a third mainline track between the River Forest and Elmhurst stations – A third mainline track would be added to the existing two mainline tracks in a five-mile segment between River Forest and Elmhurst, closing the only gap in the triple track from downtown Chicago to West Chicago, a distance of 33 miles. However, the UP-W Line Upgrade Project covers only a portion of this third track addition, namely, the easternmost 1.5 miles. The westernmost 3.5 miles are covered by another study (CREATE B-2), discussed below.

> CREATE B-2 Project and Categorical Exclusion – A segment of the proposed third track section from 19th Avenue in Melrose Park to Geneva Avenue in Elmhurst was studied by the Illinois Department of Transportation (IDOT) in a separate document titled *Environmental Class of Action Determination, Beltway CREATE B-2 Project, Union Pacific 3rd Mainline, Geneva Subdivision, Metra UP West Line* (September, 2007). The proposed action in the CREATE B-2 document involves construction of a third mainline track, including an additional railroad bridge over Addison Creek. The action also includes the construction of a flyover from the Indiana Belt Railway Company (IHB) line to the westbound UP track. The flyover crosses over the UP mainline tracks and connects with the proposed third mainline track and with the Proviso Yard. The project is approximately 3.5 miles in length. Platform changes at Bellwood and Berkeley Stations to accommodate the third track are covered by this project. Based on the analysis presented in the CREATE B-2 Environmental Class of Action Determination, IDOT determined that the project met the Categorical Exclusion definition contained in 23 CFR 771.117. The Categorical Exclusion was signed on September 6, 2007.

The UP-W Line Upgrade Project includes the easternmost 1.5-mile section of proposed third mainline track that connects directly to the westernmost 3.5 miles covered by the CREATE B-2 project discussed above. This section of third track extends from the area just west of River Forest Station to 19th Avenue. It includes Maywood and Melrose Stations.

The section of proposed third mainline track included in this project is further discussed in Chapter 3.

Add crossovers between Elmhurst and West Chicago – While there is an existing third mainline track between Elmhurst and West Chicago, the absence of crossovers along this length limits flexibility and prohibits the development of new zoned express services along this section of the line. By introducing new high-speed crossovers, it would be possible to develop new service patterns and respond to changing demand for suburb-to-suburb service along the UP-W Line. Two sets of universal crossovers are proposed: one between Winfield and Glen Ellyn and another set between Glen Ellyn and Elmhurst.

Upgrade existing signal system between OTC and Elburn – The UP-W Line has a multiple-aspect wayside signal system, but provides only two cab signal aspects: Clear and Restricting (reduce speed to below 18 mph). One or more intermediate cab signal aspects would be added to locomotive and cab car equipment, permitting an intermediate speed reduction to 40 mph rather than 18 mph. The track circuit would be coded to give this indication approximately midway between the existing block signals. Trains following other trains would be able to operate closer together and incur fewer, less restrictive reductions in speed. This would increase average speeds and overall capacity for Metra operations. The signal upgrade would be designed and implemented to avoid negative impacts to UP freight operations. The work limits for buried cables or cable-boxes on railroad property are from the north end of the downtown Chicago station (Lake Street) to Elburn at Milepost 44.4.

New rolling stock – Six additional locomotives, six cab cars, and 18 coach cars would be acquired to accommodate the planned 74-train weekday schedule. This represents a 15-train increase from the existing 59-train weekday schedule.

Yard improvement at Elburn – Additional maintenance demands placed on the Metra system by the operating plan and fleet increase would be accommodated by adjusting current practices to allow midday maintenance activities at the existing yard at Elburn. Proposed actions include construction of a service platform and access road, as well as completion of water service and added lighting.

No terminal changes – The proposed operating plan can be accommodated with the existing facilities at OTC; therefore, no improvements or modifications to this facility are proposed.

Add parking at twelve stations – Because many of the existing parking lots along the UP-W Line are already at or near capacity, additional parking would be required to accommodate the anticipated growth in ridership. Construction of additional parking capacity is proposed at twelve stations. In some cases, Metra owns the required property. In others, property acquisition would be required. Alternatively, property may be leased from local municipalities or private owners.

Extend platforms and improve access. Platform extension would be necessary to accommodate the new rolling stock and operate more 9-car trains. Access improvements would improve the flow of passengers at the station, which would be particularly important given the anticipated increased ridership.

Pedestrian and bicycle station area infrastructure – As the majority of the station areas along the UP-W Line developed in traditional, pedestrian-friendly forms, existing pedestrian and bicycle connections to the stations are adequate, and would not be improved as part of this upgrade effort.

1.3.3.3 Fare Policy

Current fare policies in place for Metra, Pace, and CTA would not be changed by this project.

1.3.3.4 Connecting Services

Maintain bus/train connections at stations – Pace currently provides or plans to provide bus service between UP-W Line stations and the majority of activity centers near the line. Metra will continue to coordinate with Pace to ensure proper bus connections to UP-W stations. It is likely that the growing population and employment centers surrounding Elburn and La Fox will eventually need new connecting services. These will be evaluated in coordination with Pace as the area develops.

1.4 ENVIRONMENTAL IMPACTS

In accordance with FTA guidelines, the proposed upgrade to the commuter rail service is considered a Class 3 action, requiring an Environmental Assessment (EA). Twenty impact categories taken from the FTA guidelines, as well as hazardous materials and environmental justice, were reviewed in relation to all proposed actions associated with the project. The following evaluation is performed for the entire rail corridor and includes the system-wide actions of adding crossovers, upgrading the signal system, and adding rolling stock. More detailed environmental assessments were conducted for improvements at each station area, for the third mainline addition, and for the A-2 interlocking relocation. These are presented in Chapters 2, 3 and 4, respectively.

Because the No Build Alternative does not propose substantial changes in the existing condition of the project area, it is not anticipated to have adverse environmental impacts. However, the No Build alternative would not provide any of the benefits, such as increased Metra service or reduction of vehicle miles of travel, proposed by the project.

1.4.1 LAND ACQUISITION AND DISPLACEMENTS

The existing track is owned and operated by the Union Pacific Railroad (UPRR). Metra has secured a long-term Purchase of Service Agreement for the UPRR to operate service on this line for Metra. This agreement includes provisions for siting the station platforms on UPRR property.

The Regional Transportation Authority Act provides the Commuter Rail Division of the Regional Transportation Authority (Metra) with all powers necessary to carry out its purpose of providing public transportation facilities and commuter rail services, including the powers (a) to hold, sell, transfer or dispose of such real or personal property, (b) to provide for the use of such property by any transportation agency (e.g. private railroads).

The system-wide actions (crossovers, signal upgrades, and additional rolling stock) and the third mainline addition would occur entirely on UPRR, Metra, and/or municipal property currently dedicated to commuter rail facilities, so land acquisition and displacements would not occur for these system upgrades. The A-2 interlocking relocation would occur mostly on UPRR and Metra-owned land, but would require acquisition of a strip of land currently used as railroad right-of-way by another railroad. This acquisition would not cause residential or business displacements as it is currently vacant and serves as railroad right-of-way.

For individual stations, parking expansion and station access facilities would mostly utilize vacant railroad, street rights-of-way and municipality-owned property. In some places, however, acquisition of property would be required by either Metra or the municipality (Table 1-2). It should be noted that most acquisitions represent longer-term options for parking, and the displacements noted in Table 1-2 may or may not be relevant at that time (i.e., the owner/leaser may vacate or sell the land).

Table 1-2: Summary of Land Acquisition and Displacement Impacts

Station	Potential Property Acquisitions	Displacements
Elburn	None	None
LaFox	None	None
Geneva	2 properties (0.5 acres)	1 residence
West Chicago	None	None
Winfield	5 properties (5.0 acres)	4 residences 2 businesses
Wheaton	3 properties (5.6 acres)	None
College Ave	None	None
Glen Ellyn	2 properties (1.5 acres)	Possible 1 business
Lombard	5 properties (4.0 acres)	1 residence 1 business
Villa Park	3 properties (2.6 acres)	Possible 2 residences
Elmhurst	None	None
Melrose	None	None
Maywood	None	None
River Forest	None	None
Third Mainline Track Addition	None	None
A-2 Interlocking Relocation	One railroad right-of-way property (12.5 acres)	None
Totals	**21 properties (31.7 acres)**	**8 residences, 4 business**

Land acquisition and displacement impacts for each action are further described in Chapter 2 (Sections 2.N.3.1), Chapter 3 (Section 3.3.1) and Chapter 4 (Section 4.3.1). Where land acquisition and displacements are required, the land is described as to size, ownership, use, and status as occupied or vacant.

Metra's legal procedures governing land acquisitions and displacements are summarized below.

The property to be acquired would be acquired and administered in accordance with all applicable provisions of federal, state and local laws, rules, regulations and provisions, including, without limitation, the Illinois Eminent Domain Act, 735 ICLS 30/1-1-1,et seq., and the applicable provisions of any funding agreement signed between any of the Parties and a state or federal funding agency for the funding of the project and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 USC 4601, et seq. ("Uniform Act").

Following the appraisal and appraisal review process, a recommendation would be prepared by Metra's Property Acquisition and Development staff and submitted to Metra's Executive Director for final approval. The amount shall not be less than the approved appraisal of the market value of the property. If the offer of just compensation based on the appraisal exceeds the current FTA threshold of $250,000, FTA approval would be sought prior to presenting the offer to the property owner.

Metra would contract with a relocation specialist as a consultant to carry out any and all relocation services required in accordance with Metra's Relocation Assistance and Payments Program Policies and Procedures Plan, prepared in compliance with Federal

Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended.

Metra would, if necessary, seek condemnation of the property by working cooperatively with local municipalities utilizing the express powers provided those municipalities under the Illinois Eminent Domain Act. The Regional Transportation Authority ("RTA") also has the power to condemn by virtue of the Regional Transportation Authority Act, 70 ILCS 3615/2.13 and the Eminent Domain Act, 735 ICLS 30/1-1-1,et seq. In the event Metra is unable to acquire property in cooperation with the municipalities having jurisdiction over the property, Metra would, if necessary, work cooperatively with the RTA for an acquisition necessitating condemnation.

These procedures are provided in more detail in the Real Estate Acquisition and Management Plan (RAMP) created for this project.[2]

1.4.2 LAND USE AND ZONING

Corridor Land Use

The study corridor represents a wide spectrum of housing characteristics and land uses. Near the OTC in Downtown Chicago, the land use is urban high-rise office buildings and condominiums. Toward the western terminus of the UP-W Line there is considerable agricultural land and many new subdivisions with lower-density housing. Throughout the UP-W Line corridor, however, high density development is clustered around the existing commuter rail stations. Most of the stations are located in older village or city downtowns that developed around the UP-W Line. As a result, the station areas are typically built in a pedestrian-friendly manner, on a grid street pattern with multi-story buildings and a mix of uses oriented to the street.

Many of the station areas feature mixed-use buildings with office or residential uses above retail. The residential areas surrounding the stations generally include a mix of single-family detached, single-family attached and multi-family dwellings. Many of these station areas contain some presence of industrial land uses. Some auto-oriented developments such as strip malls and stand-alone office buildings have encroached. But for the most part, the towns and villages along the UP-W Line corridor have retained much of their pedestrian village character. As a result, the UP-W Line station areas represent some of the most transit-supportive areas in the region.

The UP-W Line Upgrade Project would support these existing and planned land uses. Improved transit service in Cook, DuPage, and Kane Counties would encourage compact land development in these areas. Also, several communities along the corridor are pursuing infill development that would complement the improved service.

Prime Farmland

The new projects proposed for the UP-W Line will have limited impacts on farmland. With the exception of La Fox, the expansion of station platforms and parking areas will occur on urban land, previously disturbed by community or Metra development. At La Fox, the northern proposed parking area and stormwater detention pond is a parcel that was cropped in corn during the 2008 growing season. This parking area will be serviced by an extension of Bunker Road from the south. The land is already owned by Kane County and dedicated to future commuter parking use. The additional farmland lost to the project to develop the parking area, detention pond and Bunker Road access on the north side of the ROW will be approximately

11.5 acres. Both the road and the north parking area are sited on land that is considered prime farmland.

Zoning

Existing land use for the rail corridor presently supports railroad activities and is appropriately zoned for railroad use. Proposed project actions would maintain, replace in-kind, or expand (parking only) existing facilities, with minimal expected changes to land use or to zoning. Reconfigured stations, parking and access facility changes were reviewed with local officials to ensure they comply with zoning and land use requirements, and are compatible with surrounding land uses. Zoning impacts are summarized in Table 1-4.

Table 1-3: Summary of Zoning Impacts

Station	Zoning Change Required for Parking Addition
Elburn	Variance for parking space dimension for 1 areas
LaFox	None
Geneva	Variance for parking space dimension for 7 areas, zone change or ordinance text amendment for 4 areas
West Chicago	None
Winfield	Zoning change or variance for 3 area
Wheaton	None
College Ave	None
Glen Ellyn	Administrative grant or variance for parking space dimension for 8 areas, special use permit for 3 areas
Lombard	Variance for parking space dimension for 7 areas, conditional use permit for 5 areas, zone change for 1 area
Villa Park	Variance for parking space dimension for 6 areas, special use permit for 5 areas
Elmhurst	None
Melrose	None
Maywood	Zone change for 2 areas
River Forest	None
Third Mainline Track Addition	None
A-2 Interlocking Relocation	None
Total	**Variance for parking space dimension for 30 areas, zone change or special use for 22 areas**

Station-specific land use impacts, including station area maps, are described in Chapter 2. Land use impacts for the third mainline track and A-2 interlocking projects are described in Chapters 3 and 4, respectively. Table 1-2 in Section 1.4.2 above summarizes zoning impacts by station.

1.4.3 AIR QUALITY

Studies by Metra's Office of Planning and Analysis indicate implementation of this project would provide air quality benefits at the regional level. The anticipated increase in ridership of Metra commuter trains due to the project would represent a decrease in automobile miles traveled on congested roadways in the region. Additionally, air quality benefit may be experienced at the local level on streets and arterials, as local commuters are also diverted to Metra service as an alternate to driving a car.

Air quality impacts would relate to the project in three ways: 1) anticipated conversion of automobile travel to increased commuter rail ridership; 2) expanded parking facilities that may result in marginally higher local automobile emissions in the vicinity of stations and; 3) changes in Metra train emissions because of adjustments to commuter train traffic.

Expected air emissions, when considered together with existing air quality in the geographical area of the project, do not indicate a substantial increase in air quality impacts resulting from construction associated with this project. The project is included in the Chicago region's 2030 Regional Transportation Plan (RTP). The RTP is prepared by the Chicago Metropolitan Agency for Planning (CMAP) and endorsed by the MPO Policy Committee for Northeastern Illinois, the Metropolitan Planning Organization responsible for air conformity analysis for the Chicago region. Federal regulations require the RTP to be consistent with the state's air quality goals of meeting National Ambient Air Quality Standards (NAAQS). Therefore, through inclusion in the RTP, this project is consistent with the state's air quality goals. The UP-W Line Upgrade Project is also included in the region's FY 2007-2012 Transportation Improvement Program (TIP), which was accepted by the U.S. Department of Transportation (USDOT). It is included in the State Implementation Plan (SIP), also accepted by the USDOT. Both the TIP and SIP have air quality requirements.

Overall, the increase in number of passengers served due the UP-W Line Upgrade Project represents a substantial number of commuters who would be attracted away from congested roadways, reducing vehicle emissions and contributing to air quality improvement.

1.4.4 NOISE

The proposed upgrades to the UP-W Line could cause some noise sensitive land uses to be susceptible to increased noise exposure. A general transit noise impact analysis was conducted on a system-wide basis to determine where noise impacts could occur.

The FTA Transit Noise and Vibration Impact Assessment methodology was used to evaluate the potential noise impacts of the proposed project. Where noise increases and absolute noise levels were computed to exceed FTA criteria, mitigation measures will be considered.

1.4.4.1 Noise Methodology

The following is a brief summary of the methodology used to assess the potential noise impacts associated with the proposed project. It is in accordance with the methodology set forth by the FTA Transit Noise and Vibration Impact Assessment, released May of 2006 (hereafter referred to as the FTA manual). Further details of the assessment can be found in the Technical Memorandum prepared in support of this Environmental Assessment.

The first step is to establish a screening distance at which noise sensitive land uses may potentially be impacted by project noise and identify any noise sensitive land uses within that screening distance. The FTA has established project-specific screening distances that are typical for heavy-use rail corridor projects, making it unlikely that a noise impact would occur outside that distance. The screening value for trains on mainline tracks is 375 feet for areas with intervening buildings and 750 feet for open areas without intervening buildings.

A general assessment is performed where noise sensitive land uses are identified within the screening distances. Existing and proposed project noise levels are determined at receptor locations chosen as representative of clusters or groups of similar characteristics. The existing noise can be measured or taken from a typical values table provided in the FTA manual. In the typical values table, existing noise exposure is determined by distance of the receptor from

sources such as a nearby interstate, local road, or railroad line, or by population density. The proposed project noise is modeled based on functional relationships between noise and factors such as speed, number of locomotives and railcars per train, and number of trains per hour. The logarithmic sum of the existing and proposed project noise is the cumulative noise. An impact exists when either the project noise or cumulative noise exceed FTA established criteria.

Noise impacts are defined in terms of both absolute and relative criteria. The noise impact criteria are based on the comparison of the existing outdoor noise levels and the future outdoor noise levels from the proposed project. The absolute criteria accounts for the noise from the proposed project alone; the relative criteria accounts for the annoyance due to the change in noise levels caused by the proposed project. The impact criteria are also dependent upon the land use category of the receptor; typically, impact thresholds for Category 1 and 2 land uses are 5 dBA lower than for Category 3 land uses (see Table 1-4 for definitions of land use categories).

Table 1-4: 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 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.

Source: Harris Miller Miller & Hanson, Inc. "Transit Noise and Vibration Impact Analysis", May 2006.

*L_{eq} for the noisiest hour of transit-related activity during hours of noise sensitivity.

Two curves define noise levels that are characterized as no impact, moderate impact, and severe impact. The level of noise from the proposed project that will cause a moderate or severe impact will depend on the existing noise. As the existing noise level increases, the proposed project noise level that will not cause an impact also increases; however, the permissible incremental change in cumulative noise level decreases.

Noise exposure from train horns at grade crossings were also considered at the seven grade crossings with proposed modification. The FRA Grade Crossing Horn Model was used to predict the noise impact contour distances and the Transit Noise Impact Assessment spreadsheet was used to calculate absolute noise levels. Assuming an existing noise of 60 dBA and a horn Lmax of 104 dBA at 100 feet, a moderate impact was determined to be up to 327 feet from the center of the grade crossing and up to 244 feet from the centerline of the track extending ¼ mile from the crossing in both directions; a severe impact was determined to be up to 107 feet from the center of the crossing and up to 74 feet from the center of the tracks extending ¼ mile from the crossing in both directions.

1.4.4.2 Noise Results

Thirty-six representative receptors were identified along the UP-W Line from Chicago to Elburn. The receptor locations were chosen as representative of worst case conditions in each

community along the corridor. Details of the assumptions and results of the noise analysis can be found in the Technical Memorandum.

The FTA Transit Noise Impact Assessment worksheet was used to predict noise levels from the proposed project. The noise levels were predicted for the 36 receptors locations along the mainline tracks as well as locations adjacent to the proposed crossovers, parking facilities and access roads at stations, and grade crossings. Existing noise exposure was determined using the FTA typical values table described above as noise measurements were not available during this stage of the project. The results of the general assessment at the 36 receptor locations are summarized in Table 1-5, and shown in Figure 1-3. The noise metrics and land use categories used for the analysis are defined in Table 1-4 above.

As seen in Table 1-5, noise impacts are anticipated to be associated with the addition of the third mainline track and the use of train horns at the grade crossings with proposed modifications. Based on the results of the general assessment, the project noise will exceed the allowable project noise at three receptor locations adjacent to the proposed construction of the third track: R10, R14 and R16. However, it is important to note that two of these moderately impacted receptors (R14 and R16) are located within the area covered by the CREATE B-2 project's categorical exclusion discussed in Section 1.3.3.2. Discussion of these impacts is therefore not included in this EA, but can be found in the Technical Memorandum. Four receptors (R10- previously mentioned, R11, R12, R13) were assessed a moderate impact due to the use of train horns at grade crossings with proposed modifications to accommodate the third track. Locations of receptors are shown in Figure 1-3.

Table 1-5: System-wide Assessment of Transit Noise Impact

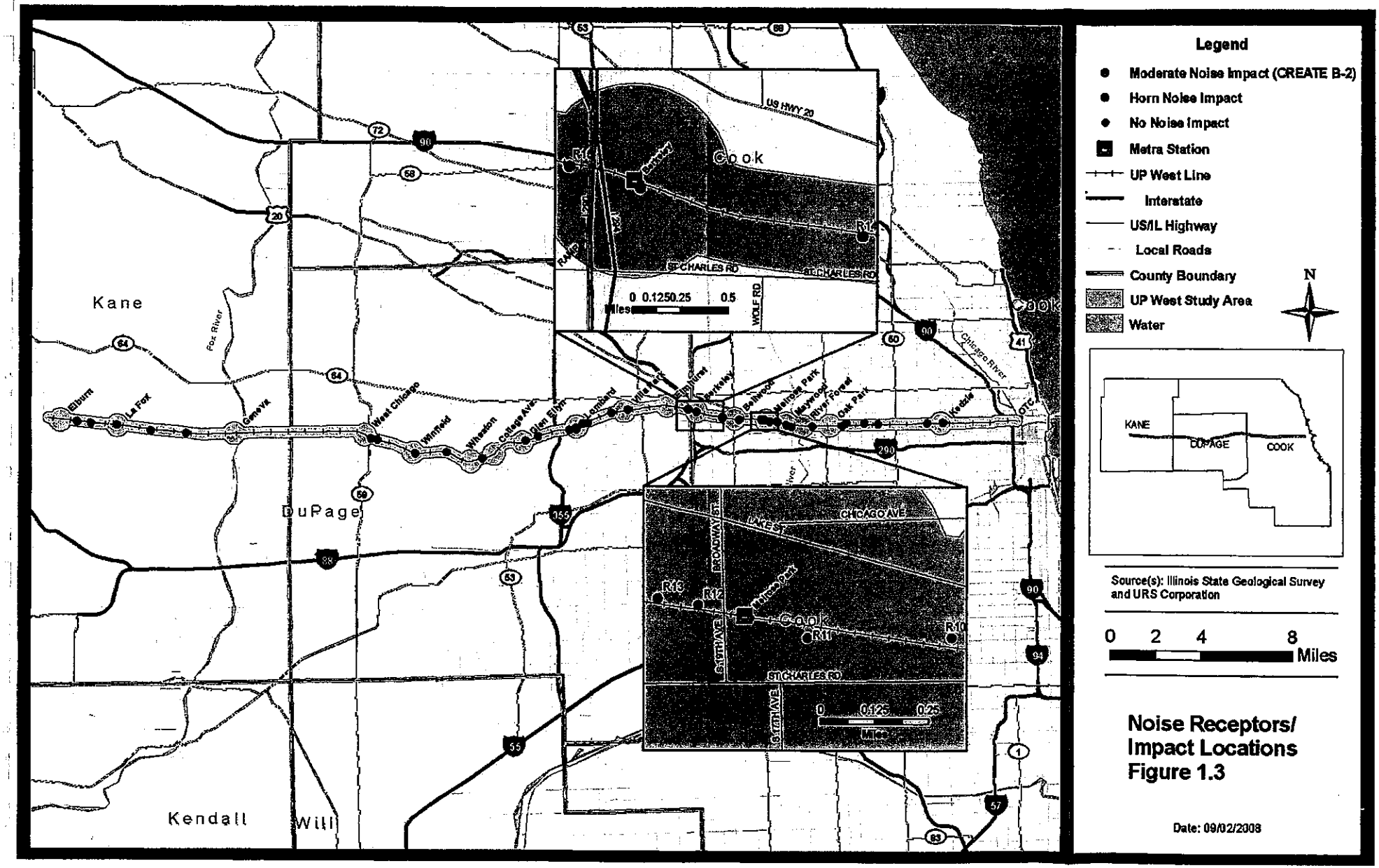
Receptor No. (Type)[a]	Community	Noise Metric	Existing Noise, dBA	Predicted Proposed Project Noise Level, dBA[b]	Allowable Project Noise Level, dBA[3]	Noise Impact
R1 (S)	Chicago	L_{eq}	60	48	62	No
R2 (S)	Chicago	L_{eq}	60	53	62	No
R3 (MF)	Chicago	L_{dn}	65	59	60	No
R4 (C)	Chicago	L_{eq}	60	44	62	No
R5 (C)	Oak Park	L_{eq}	65	41	65	No
R6 (MF)	Oak Park	L_{dn}	65	58	60	No
R7 (SF)	River Forest	L_{dn}	65	58	60	No
R8 (SF)	Maywood	L_{dn}	50	49	53	No
R9 (S)	Maywood	L_{eq}	65	49	65	No
R10 (MF)	**Melrose Park**	**L_{dn}**	**65**	**61 (70)**	**60**	**Horn**
R11 (MF)	**Maywood**	**L_{dn}**	**65**	**59 (70)**	**60**	**Horn**
R12 (S)	**Melrose Park**	**L_{eq}**	**60**	**60 (72)**	**62**	**Horn**
R13 (C)	**Melrose Park**	**L_{eq}**	**60**	**58 (70)**	**62**	**Horn**
R14 (SF)	**Bellwood**	**L_{dn}**	**65**	**61**	**60**	**Moderate***
R14A (SF)	Bellwood	L_{dn}	65	63	66	No[c]
R15 (SF)	Berkeley	L_{dn}	65	60	60	No
R16 (SF)	**Elmhurst**	**L_{dn}**	**65**	**61**	**60**	**Moderate***
R17 (SF)	Villa Park	L_{dn}	60	56	57	No
R18 (SF)	Villa Park	L_{dn}	65	58	60	No
R19 (SF)	Lombard	L_{dn}	65	57	60	No
R20 (H)	Lombard	L_{eq}	65	48	65	No
R21 (H)	Lombard	Outside noise screening distance of 375 feet				
R22 (C)	Lombard	L_{eq}	60	50	62	No
R23 (S)	Lombard	L_{eq}	60	48	62	No
R24 (SF)	Glen Ellyn	L_{dn}	65	59	60	No
R25 (S)	Glen Ellyn	L_{eq}	60	48	62	No
R26 (S)	Wheaton	L_{eq}	60	51	62	No
R27 (SF)	Wheaton	L_{dn}	65	58	60	No
R28 (SF)	Winfield	L_{dn}	65	59	60	No
R29 (SF)	DuPage Co.	L_{dn}	65	59	60	No
R30 (SF)	West Chicago	L_{dn}	65	59	60	No
R31 (SF)	Geneva	L_{dn}	65	57	57	No
R32 (SF)	Kane Co.	L_{dn}	55	49	55	No
R33 (SF)	Kane Co.	L_{dn}	65	58	60	No
R34 (SF)	Kane Co.	L_{dn}	60	53	57	No
R35 (SF)	Kane Co.	L_{dn}	60	56	57	No

[a] Receptor types: SF=single family, MF=multiple family, S=school, C=church, H=hospital

[b] Noise from train horns at grade crossings with proposed modifications given in parentheses ( )

[c] Project noise is cumulative and allowable project noise determined from existing noise of 65 dBA and allowable increase of 1 dBA

* These receptors are located in sections that are categorically excluded by the CREATE B-2 Environmental Class of Action Determination. Noise impacts associated with these receptors are therefore not discussed in this EA.


Legend
Moderate Noise Impact (CREATE B-2)
Horn Noise Impact
No Noise Impact
Metra Station
UP West Line
Interstate
US/IL Highway
Local Roads
County Boundary
UP West Study Area
Water
N
KANE
DUPAGE
COOK
Source(s): Illinois State Geological Survey and URS Corporation
0 2 4 8
Miles
Noise Receptors/ Impact Locations Figure 1.3
Date: 09/02/2008
Kane
DuPage
Kendall
Will
Cook
US HWY 20
ST CHARLES RD
WOLF RD
CHICAGO AVE
LAKE ST
BROADWAY ST
5TH AVE
Elburn
La Fox
Geneva
West Chicago
Winfield
Wheaton
College Ave
Glen Ellyn
Lombard
Villa Park
Elmhurst
Berkeley
Bellwood
Melrose Park
Maywood
River Forest
Oak Park
Kedzie
OTC
Chicago River
R10
R11
R12
R13
R14

Noise exposure from train horns at grade crossings is summarized in Table 1-6. These grade crossings are located along the proposed third mainline track, and at several locations the noise contours from the train horns overlap the noise contours from the proposed third main track. Generally, project noise from train horns will be 10-15 dBA higher than from the proposed third main track, meaning that the combined noise from the train horns and proposed third main track will be dominated by the train horns.

Table 1-6 summarizes the number and severity of impact to receivers within the impact contours.

Table 1-6: Inventory of Impacted Noise-Sensitive Receivers Associated with Addition of Third Main Track and use of Train Horns at Grade Crossings

Segment of Track	Side of Tracks	Estimated Number of Impacted Receivers				Severity of Impact
		Third Track	Train Horns	Overlap	Third Track minus Overlap	
Keystone Avenue - Des Plaines River Bridge	North	18	11	11	7	Moderate
6th Avenue – 11th Avenue	North	3	12	3	0	Moderate
15th Avenue – 21st Avenue	South	0	29	0	0	Moderate*
Eastern Avenue – Davis Drive	South	20	0	0	20	Moderate*
I-290 – N. Geneva Avenue	South	14	0	0	14	Moderate*
Total		55	52	14	41	Moderate

Source: URS Corporation, September 2008

* These receptors are located in sections that are categorically excluded by the CREATE B-2 Environmental Class of Action Determination. Noise impacts associated with these receptors are therefore not discussed in this EA.

In summary, noise impacts are not anticipated to be associated with the A-2 interlocking, additional crossovers, parking facilities or access roads at stations, or grade crossing signals. The A-2 interlocking did not have noise-sensitive receivers within the screening distance of 375 feet from the centerline of the tracks. The crossovers had a predicted project noise of 37 dBA at the nearest noise sensitive receiver, which was negligible compared to the project noise of 57 dBA from the mainline tracks. The additional parking facilities at Maywood, Elmhurst, Winfield, Wheaton, West Chicago, Geneva, La Fox, and Elburn stations did not have noise-sensitive receivers within the screening distance of 125 feet from the edge of the proposed parking facilities. The parking facilities at the Villa Park, Lombard, Glen Ellyn, and College Avenue stations had noise sensitive receivers within the screening distance but the noise generated by these facilities was no higher than 31 dBA, much lower than the allowable project noise of 57 dBA. The proposed access roads at La Fox and Elburn stations did not have noise sensitive receivers within the 100 foot screening distance of the edge of the roadway. The crossing signals at the grade crossings with proposed modifications had a project noise of 41 dBA, which was below the allowable project noise of 57 dBA.

From the general assessment, a total of 93 noise-sensitive receptors are anticipated to be assessed a moderate impact as a result of the proposed improvements of this project. Of those, seven are due to the addition of the third main track, 23 are due to the use of train horns at grade crossings to accommodate the third main track, and 63 are located in sections that were categorically excluded by the CREATE B-2 Environmental Class of Action Determination (September 2007).

1.4.4.3 Noise Mitigation

It is Metra policy to consider mitigation where impact is identified (Noise and Vibration Mitigation Policy, August 5, 2002). Severe impacts require a detailed analysis to determine mitigation options, while moderate impacts require consideration and adoption of mitigation measures when reasonable. These measures include, but are not limited to: wayside sound barriers and berms, residential sound insulation, noise buffer zones, and noise easements.

Three of the most feasible mitigation measures employed by Metra include rail maintenance, sound barriers, and noise buffers:

- Rail Maintenance: Maintaining the profile of the rail, ensuring joints are tight (in the case of jointed rail), and welding the rail can help reduce noise associated with the wheel/rail interface. In addition, wheel/rail squeal can be reduced by the installation of rail lubricators (though these are typically only located in areas with sharp curves or steep grades).

- Sound Barriers: Sound barriers are effective in mitigating noise when they break the line of sight between the source and the receiver. For further sound reduction, sound-absorbing material can be applied to the inner surface of the barrier.

- Noise Buffers: Acquisition of land or purchasing easements for noise buffer zones is an option that may be considered if impacts due to the project are severe enough. Based on evaluation of estimated costs and the reasonableness and feasibility of installing sound barriers, it may be, from a financial position, more advantageous to acquire those sensitive receptors located within the noise impact distance. Similarly, owners of residences within the noise impact distance may be willing to sell a noise easement (in essence, being compensated for the impacts due to the train noise).

Metra is committed to implementing one or more of these, or similar, mitigation measures for the seven moderately impacted receptors along the proposed third mainline track. However, until more detailed engineering is completed, a cost analysis between mitigation measures performed, and evaluation of the reasonableness and feasibility of these mitigation measures studies, the exact measure(s) to be implemented cannot be decided at this time.

Twenty-three receptors are within the moderate impact zone from the use of train horns at grade crossings with modifications to accommodate the third main track. It is Metra policy to consider mitigation when horn blowing from the introduction of new Metra services causes a severe impact. Typically, it is neither physically feasible nor economically reasonable to mitigate noise impact for receptors within the moderate impact zone of train horns.

1.4.5 VIBRATION

Ground-borne vibration can be a serious concern for residences in close proximity to a transit system or maintenance facility. The vibration of the transit structure, such as the tracks, creates vibration waves that propagate through soil and rock layers to nearby buildings. The amount of energy transmitted by the transit structure depends on the smoothness of the wheels, the resonance frequencies of the vehicle suspension system, and the track support system. Potential UP-W Line Upgrade Project actions that could cause a vibration impact include increased number and possibly speed of daily trains, addition and relocation of rail lines, addition of crossovers, and traffic arriving to and departing from the stations. An analysis was done according to FTA guidelines to assess these potential vibration impacts.

1.4.5.1 Vibration Methodology

The vibration impact assessment was conducted in accordance with the methodology set forth in the FTA Transit Noise and Vibration Impact Assessment (May 2006). The methodology includes three stages of assessment: screening, general assessment, and detailed analysis. If impacts are determined to exist during the screening and general assessment stage, a detailed analysis will be performed during the final engineering and design stage of the project to determine whether impacts exist and any mitigation measures that may be taken.

Based the FTA Transit Noise and Vibration Impact Assessment table Screening Distances for Vibration Assessment, the screening distances for a commuter rail project for Category 1 land uses is 600 feet, the screening distance for Category 2 land uses is 200 feet, and the screening distance for Category 3 land uses is 120 feet. The respective land uses are described in Table 1-7.

The general assessment uses generalized data to develop a curve of vibration level as a function of distance from the track. The vibration levels at specific buildings are estimated by reading values from the curve and applying adjustments to account for factors that affect the source (speed, suspension and track), the vibration path (geology and coupling to foundation), and the receiver (floors above grade). The adjustments made to the vibration values obtained from the curve are summarized below:

Speed:	60 mph (+1.6 VdB) 40 mph (-1.9 VdB)
Special Trackwork:	Crossovers (+10 VdB)
Vibration Receptors:	Wood Frame (-5 VdB) 1-2 Story Masonry (-7 VdB) Basement to Floor Attenuation (-2 VdB) Floor/Wall/Ceiling Amplification (+6 VdB)

Depending on the combination of factors, the range of possible adjustments is -1 VdB for a 1-2 Story Masonry building to +11 VdB for a wood frame building with special trackwork. Other assumptions included continuously welded track and no worn wheels or corrugated track.

The criteria for environmental impact for ground-borne vibration and noise are based on the maximum levels for a single event (FTA, 2006). The criteria are primarily based on experience with passenger train operations with only limited experience from freight train operations. The difference between the two is the duration of a single event. The criteria are present in Table 1-7.

Table 1-7: Ground-borne Vibration and Noise Impact Criteria

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/second)			Ground-Borne Noise Impact Levels (dBA re 20 micro Pascals)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[5]	N/A[5]	N/A[5]
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime uses	75 VdB	78 VdB	83 VdB	40 dBA	43 VdB	48 dBA

Source: Harris Miller Miller & Hanson, Inc. "Transit Noise and Vibration Impact Analysis", May 2006.

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.

2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.

3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

5. Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

One factor not incorporated in the criteria is existing vibration. For most cases, there are not a significant number of existing vibration events. The most common scenario where existing vibration should be incorporated is when the project will be adjacent to an existing rail corridor. Generally, when the project vibration is 5 VdB or greater than the existing source, the existing source can be ignored and the standard vibration criteria applied to the project. Following are methods of handling representative scenarios (FTA, 2006):

- Infrequently-used rail corridor (fewer than 5 trains per day): Use the general vibration criteria.

- Moderately-used rail corridor (5 to 12 trains per day): If the existing train vibration exceeds the impact criteria given in Table 1-6, there will be no impact from the project vibration if the levels estimated using the procedures for general assessment or detailed analysis are at least 5 VdB less than the existing train vibration. Otherwise, use general vibration criteria. The existing train vibration can be either measured or estimated using the General Assessment procedures. It is usually preferable to measure vibration from existing train traffic.

- Heavily-used trail corridor (more than 12 trains per day): If the existing train vibration exceeds the impact criteria given in Table 1-6, the project will cause additional impact if the project significantly increases the number of vibration events. Approximately doubling the

number of events is required for a significant increase. If there is not a significant increase in vibration events, there will be additional impact only if the project vibration, estimated using the procedures of the general assessment or detailed analysis, will be 3 VdB or more higher than the existing vibration.

- Moving existing tracks: Another scenario where existing vibration can be significant is when a new transit project will use an existing railroad right-of-way and result in shift the location of existing railroad tracks. The track relocation and reconstruction can result in lower vibration levels, in which case this aspect of the project represents a benefit, not an adverse impact. If the track relocation will cause higher vibration levels at sensitive receptors, then the projected vibration levels must be compared to the appropriate impact criterion to determine if there will be new impacts. If impact is judged to have existed prior to moving the tracks, new impact will be assessed only if the relocation results in more than a 3 VdB increase in vibration level.

1.4.5.2 Vibration Results

Thirty six receptor locations were identified along the UPW line from Chicago to Elburn. These 36 receptor locations were selected as representative of worst case scenarios for each community along the corridor. Details of the assumptions and results of the vibration analysis can be found in the Technical Memorandum.

Eleven of the original 36 receptors used for the noise assessment were outside the vibration screening distances. Of the remaining 25 receptors, 15 were immediately determined to have no impact based on the existing vibration conditions. At these 15 receptor locations, the train schedule is proposed to increase from 60 revenue and non trains daily to 74 trains daily, an addition of 14 trains daily. The pre-existing schedule of 60 trains daily qualify the project area as a heavily-used corridor (greater than 12 trains per day). According to the FTA Transit Noise and Vibration Impact Assessment methodology, the project will cause additional impact if the project significantly increases the number of vibration events. Approximately doubling the number of events is required for a significant increase. If there is not a significant increase in vibration events, there will be additional impact only if the project vibration, estimated using the procedures of the general assessment or detailed analysis, will be 3 VdB or more higher than the existing vibration. Because the number of trains has not doubled and the additional trains will use the existing tracks with no further improvements (such as crossovers), a vibration impact is not anticipated at these 15 receptor locations.

The project vibration levels at the remaining 10 receptor locations were predicted using a worksheet that incorporated the methodology set forth in the FTA General Vibration Assessment. The vibration levels were determined using the distance from the tracks and making adjustments to the FTA curves such as train speeds of 60 mph, building coupling characteristics, amplification due to floors, walls and ceilings, and special trackwork such as crossovers. Table 1-8 summarizes the results of the general assessment at the 36 receptor locations.

Table 1-8: Summary of System-wide Assessment for Vibration

Rec. No.	Ground-borne Vibration (VdB)				Ground-borne Noise (dBA)				Impact[a]
	Exist.	Project	Diff.	FTA Criterion[4]	Exist.	Project	Diff.	FTA Criterion[5]	
R1	Outside vibration screening distance								
R2	Increase in number of trains not significant								None
R3	Increase in number of trains not significant								None
R4	Outside vibration screening distance								
R5	Outside vibration screening distance								
R6	Increase in number of trains not significant								None
R7	Increase in number of trains not significant								None
R8	Outside vibration screening distance								
R9	Outside vibration screening distance								
R10	76	77	+1	75	26	27	+1	38	None
R11	78	78	0	75	28	28	0	38	None
R12	84	84	0	78	34	34	0	42	None
R13	81	81	0	78	31	31	0	42	None
R14	81	81	0	75	31	31	0	38	None
R14A	79	74	-5	75	29	24	-5	38	None
R15	79	79	0	75	29	29	0	38	None
R16	81	81	0	75	31	31	0	38	None
R17	Increase in number of trains not significant								None
R18	Increase in number of trains not significant								None
R19	**78**	**84**	**+6**	**75**	**28**	**34**	**+6**	**38**	**GBV**
R20	Outside vibration screening distance								
R21	Increase in number of trains not significant								None
R22	Outside vibration screening distance								
R23	Outside vibration screening distance								
R24	Increase in number of trains not significant								None
R25	Outside vibration screening distance								
R26	**73**	**79**	**+6**	**78**	**23**	**29**	**+6**	**42**	**GBV**
R27	Increase in number of trains not significant								None
R28	Increase in number of trains not significant								None
R29	Increase in number of trains not significant								None
R30	Increase in number of trains not significant								None
R31	Increase in number of trains not significant								None
R32	Outside vibration screening distance								
R33	Increase in number of trains not significant								None
R34	Outside vibration screening distance								
R35	Increase in number of trains not significant								None

Source: URS Corporation, September 2008

[a] GBV: Ground-borne vibration; GBN: Ground-borne noise

As seen in Table 1-8, vibration impacts are not anticipated to be associated with the mainline tracks; however, vibration impacts are anticipated to be associated with the proposed crossovers (R19 and R26). At the majority of receptor locations, the existing vibration conditions already exceed the FTA vibration criteria or the increase in number of trains using the tracks

was not significant compared to the existing number of trains using the tracks. According to the FTA, no vibration impact is anticipated for a heavily used rail corridor if there is not a significant increase in train traffic, project vibration levels do not exceed FTA vibration criteria, or existing vibration conditions exceed FTA vibration criteria but project vibration levels do not exceed existing vibration conditions by more than 3 VdB.

At the nearest vibration sensitive receptor adjacent to the limits of the proposed crossovers, the existing vibration was determined to be 78 VdB, which is 3 VdB above the FTA criterion of 75 VdB for a residential receptor. The project vibration was determined to exceed the existing vibration by 6 VdB, which is twice the FTA criterion of 3 VdB. FTA criteria will be exceeded up to a distance of 280 feet from the centerline of the mainline tracks, where existing vibration levels will be 69 VdB and proposed vibration levels will meet the FTA residential criterion of 75 VdB. Therefore, any residential receivers within 280 feet of the centerline of the mainline tracks will be assessed a vibration impact. The number and severity of impacted receivers is summarized in Table 1-9.

No new stations are proposed to be constructed as part of this project. However, several stations are proposed to have platform extensions and new access roads, and twelve stations are proposed to have increased parking capacity. While the parking facilities and access roads were considered for ground-borne vibration and noise impacts, it is unusual for vibration from sources such as buses and automobiles to be perceptible, even for locations close to major roads.[6] The automobiles and/or buses entering and leaving the parking facilities have suspension systems and rubber tires which act to provide vibration isolation; therefore, vibration impacts are not anticipated to be associated with the proposed station improvements. This is provided that the surface is maintained in good order and there are no irregularities, potholes, and other discontinuities.

Table 1-9: Inventory of Impacted Receivers Associated with Addition of Crossovers

Segment of Track	Side of Tracks	Estimated Number of Impacted Receivers	Vibration Type[a]
N. Edgewood Avenue – N. Grace Street	North	8 (Residential)	GBV
N. Grace Street – N Martha Street	South	17 (Residential)	GBV
N. President Street – S. Cross Street	South North	16 (Residential) 1 (College)	GBV
Total		**41 (Residential)** **1 (Non-residential)**	**GBV**

Source: URS Corporation, September 2008

[a] GBV: Ground-borne vibration; GBN: Ground-borne noise

From the general assessment, there will be a total of 41 residential and one non-residential receptors within the moderate impact zone from the proposed addition of crossovers in Lombard and Wheaton. A detailed vibration analysis will be performed in later stages of the project as the design becomes finalized to confirm impacts exists and evaluate mitigation measures.

1.4.5.3 Vibration Mitigation

It is Metra policy to consider mitigation whenever the criterion is exceeded as determined by FTA's detailed analysis. If found feasible and reasonable, mitigation measures should be installed. Significant interruption of service to install a new vibration isolation feature on existing track may not be considered feasible. Installing such a treatment on a new track, however, may

be feasible subject to economic reasonableness. (Noise and Vibration Mitigation Policy, August 5, 2002). Vibration mitigation options identified by FTA guidance include planning and design of special track work, special track support systems, or trenches:

- Planning and Design of Special Track Work: Welded rail reduces the vibration levels compared to jointed track. An effective vibration control measure is to relocate special track work to a less vibration-sensitive area. Another approach is to use special devices at turnouts and crossovers that incorporate mechanisms to close the gaps between running rails. Most sections of the existing UP lines are welded. All new proposed track will be welded sections.

- Special Track Support Systems: Floating slabs, resiliently supported ties, high resilience fasteners, and ballast mats are all effective methods to reduce the levels of vibration. These mitigation methods can reduce the vibration levels from between 5 and 15 VdB.

- Trenches: Use of trenches to control vibration is similar to controlling airborne noise with sound barriers. A trench can be effective as a vibration barrier if it is either open or solid.

Metra is committed to implementing one or more of these, or similar, mitigation measures. However, until more detailed engineering is completed, a cost analysis between mitigation measures performed, and evaluation of the reasonableness and feasibility of these mitigation measures studies, the exact measure(s) to be implemented cannot be decided at this time.

1.4.6 WATER QUALITY

This project is located within the Middle Des Plaines River and Middle Fox River watersheds, classified as very high priority for protection and/or restoration. Water bodies in the project corridor were identified and their qualities described.

The majority of the project actions utilize existing right-of-way for improving the existing rail lines. The relocation of tracks and addition of a third mainline would not increase impervious surface area. Thus, adverse impacts to water quality from the proposed system-wide improvements are unlikely.

The construction of parking facilities poses potential impacts to water quality. For these actions, water quality issues were examined with regard to stormwater runoff from construction, increases in impervious surface, and operation of facilities.

Water quality impacts associated with station improvements, the third mainline addition, and the A-2 interlocking relocation are described in Chapters 2, 3, and 4, respectively.

1.4.7 WETLANDS

The Illinois Department of Natural Resources' (IDNR) EcoCAT database was examined to determine whether wetlands identified in the National Wetlands Inventory (NWI) could be affected by the proposed project actions.

The EcoCAT database was developed to give information and natural resource consultations for the Illinois Endangered Species Protection Act, the Illinois Natural Areas Preservation Act, and the Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. A follow-up letter from IDNR gives their

determination of whether the proposed action is likely to have an adverse effect on protected natural resources.

To be comprehensive, the EcoCAT searches were conducted using corridor lengths of between 4 to 5 miles, so as to cover the entire UP-W Line. To accommodate outlying Metra parking areas, access roads and yards, the corridor widths were approximately ½ mile, although widths were wider around curves in the railroad right-of-way. Because of the corridor size, fifteen stations were identified as having NWI wetlands within 250 feet of their project location. In these instances the identified wetlands were an artifact of the search corridor size, as no NWI wetlands were found on or adjacent to the proposed project or wetlands identified were far enough away from the project site that impacts would be unlikely.

It is important to note that areas indicated as NWI mapped wetlands may or may not be wetlands. The NWI is used as a tool to identify areas that may be wetland.

In letters dated July 14 and 17, and August 25, 2008, IDNR stated they found "Adverse Effects Unlikely" to wetland resources due to construction and operation of the proposed project for these locations. Following this determination consultation under Part 1090 was terminated. The overall UP-W Line Upgrade Project is therefore unlikely to substantially impact wetland resources.

1.4.8 Floodplains

To determine floodplain and floodway impacts associated with these actions, archival records, including the Federal Emergency Management Agency's (FEMA) web-based Flood Insurance Rate Maps (FIRM) and county regulatory flood maps, were consulted. System-wide components of the project would cause little if any change to current flooding and surface drainage conditions in the corridor. The UP-W traverses the floodway and 100-year floodplain at the Des Plaines River, Addison Creek, and the Fox River. Construction of this project, however, would require little if any filling within the 100-year floodplain. This action is therefore not likely to cause a change in current flood elevations.

The flooding and hydraulic impacts associated with station area parking expansions the third mainline addition and are described in Chapters 2 and 3, respectively.

1.4.9 Navigable Waterways and Coastal Zones

None of the project actions are located within a coastal zone. The majority of project actions do not affect waterway navigation. The exception is the addition of the third mainline track, which may temporarily impact navigation along the Des Plaines River during modification of the existing bridge. These waterway navigation impacts are described in Chapter 3, Section 3.3.6.

1.4.10 Ecologically Sensitive Areas

The IDNR EcoCAT database was examined to determine whether sensitive habitats could be affected by the proposed project. In this database, "Protected Resource Sites" include Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves.

EcoCAT results show that 11 stations were determined to have protected resource sites within the vicinity of their project location. These protected resource sites are described in more detail in the "Ecologically Sensitive Areas" section of the individual site assessments of Chapters 2, 3, and 4.

In letters dated July 14 and July 17 2008, (Appendix A) IDNR stated they found "Adverse Effects Unlikely" due to construction and operation of the proposed project for all locations. Following this determination consultation under Part 1075 was terminated. The overall UP-W Line Upgrade Project is therefore unlikely to substantially impact ecologically sensitive areas.

1.4.11 ENDANGERED SPECIES

The IDNR EcoCAT database was also consulted concerning the potential for existence of protected species in the project study area and the degree of impact.

EcoCAT results show several instances of rare, threatened or endangered species in areas near the project study area. These instances, however, are either an artifact of the search corridor size used in the database search, or indicate habitat which is distant from the project site. No suitable habitat for threatened or endangered species was found within the vicinity of the project sites.

In letters dated July 14, July 17, and August 25, 2008, (Appendix A) IDNR stated they found "Adverse Effects Unlikely" to endangered species due to construction and operation of the proposed project. Following this determination consultation under Part 1075 was terminated. The overall UP-W Line Upgrade Project is therefore unlikely to substantially impact endangered species.

Coordination with US Fish and Wildlife Service (USFWS) is ongoing and their concurrence on the determination that the project is not likely to adversely affect threatened and endangered species is pending. Letters of coordination can be found in Appendix A. (Letter of concurrence from USFWS will be included in the final version of the EA document).

1.4.12 TRAFFIC AND PARKING

The configuration of parking around passenger rail line stations affects the type and level of ridership. Stations along the UP-W Line are currently served by a mix of on-street and off-street parking in scattered surface lots. For most UP-W Line stations, existing parking lots are currently at or near capacity. To meet both current and increased future demand, additional parking is proposed at twelve stations, including Elburn, La Fox, Geneva, West Chicago, Winfield, Wheaton, College Avenue, Glen Ellyn, Lombard, Villa Park, Elmhurst and Maywood. The final locations, types, and numbers of additional parking spaces were determined based on ridership forecasts. These proposed parking additions have the potential to impact local roadway patterns by increasing traffic moving to and from the station.

Two methodologies have been employed to analyze potential traffic impacts of the project. A detailed methodology was conducted for stations where parking decks are proposed and where concentrated parking of 400 spaces or more would be located. Stations with scattered parking lots and smaller amounts of parking were studied using an overview methodology, but a rigorous traffic modeling analysis was not prudent since the traffic volumes are too low to affect level of service of intersection or street segments.

Detailed Methodology

A detailed methodology was conducted for eight stations. For seven of these stations, the detailed analysis was used because the stations have parking decks or concentrated numbers of parking proposed. For the eighth station, Maywood, the detailed analysis was performed as an example to validate the use of just an overview methodology for stations with scattered lots

and relatively low numbers of spaces. The stations for which detailed analysis was conducted are:

- Elburn
- La Fox
- West Chicago
- Winfield
- Wheaton
- Glen Ellyn
- Villa Park
- Maywood

The detailed analysis included collecting existing peak hour turning movement volumes at nearby intersections, projecting the existing volumes out to the design year 2011 (No-Build scenario), and then adding additional trips generated by the proposed project (Build scenario). For the Build scenario in the design year 2011, all the added parking was assumed to be in place and 100% utilized for the traffic impact analysis. From a traffic impact standpoint, this is the worst case scenario since not all parking lots are likely to be full on opening day. Intersection improvements needed to mitigate traffic impacts from the design year Build scenario were determined.

Traffic volumes were also forecasted for the year 2030. This was considered a Build scenario, assuming that the parking additions are completed in design year 2011. The 2030 scenario is included for information only. All the increased project traffic was applied to the 2011 design year and thus all the required mitigation will be in place in that year. At some stations, however, the area-wide increase in traffic by 2030 begins to degrade the local system and access to parking by 2030. Intersection improvements that may be necessary to prevent this problem are identified, but would be the responsibility of the local transportation agency.

Methodology and assumptions for the traffic analyses are summarized as follows.

Forecasting Future Traffic Volumes – 2011 and 2030 volumes were forecasted by applying a growth factor to 2007 volumes gathered by field data collection, and from the Illinois DOT. Based on historical growth rates on various roadways around the corridor, growth rates ranging from 0.5% per year to 5.5% per year compounding growth factor was used for the four years from 2007 to 2011 and twenty-three years from 2007 to 2030. Higher growth rates were applied in developing areas, and lower growth rates were applied in developed areas.

Parking Spaces and New Traffic – Metra has identified the existing and planned parking spaces for each of the twelve stations. This information was used to calculate the increase in capacity at each station, and to forecast the expected traffic increase due to expansion (or new construction). New trip forecasts were based on several assumptions which included:

- 75% of ridership will arrive by automobile. Of those 75%, 64% will park at the station (producing two daily trips), while 11% will drop off and pick up passengers (producing four daily trips). This equates to 85% of all automobile trips parking at the station (producing two daily trips), and 15% dropping off and picking up passengers (producing four daily trips).
- 95% of the parking spaces will be occupied by one vehicle during the day.

Level of Service – To determine potential traffic impacts, the Level of Service (LOS) for the operation of each intersection was compared between the No Build and Build scenarios for the design year. The LOS for a roadway or intersection is an indicator for how well that it is performing from a traffic operation standpoint. A LOS A means traffic is moving freely, whereas LOS F means traffic has become congested to the point of little to no movement. For this analysis, a capacity threshold of LOS D/E was used as the threshold to determine impacts.

Results of the detailed analyses and a discussion of potential traffic impacts due to parking expansions are provided in the traffic sections of the above eight stations in Chapter 2. Additional information is provided in the UP-W Line Traffic Technical Report.

Overview Methodology

The overview methodology was used for the four stations not analyzed using the detailed methodology due to fewer proposed parking additions and scattered lots:

- Geneva
- College Ave.
- Lombard
- Elmhurst

For this analysis, new daily traffic was estimated based on the number of new parking spaces that will be constructed at each station. These trips were then added to 2011 and 2030 forecasted average daily traffic (ADT) volumes, and the percent of increased traffic as a result of the project was calculated. Methodology for the analysis is summarized as follows.

Build Volumes and Percent Increase – In order to create a brief, worst-case scenario analysis, the total new trips due to parking additions were applied to each roadway segment for years 2011 and 2030. These totals of the 2011 and 2030 ADTs with the new trips are the 2011 and 2030 build volumes. Also calculated was the percent increase of the ADT due to the new traffic from the parking addition.

Existing Lane Capacity / Level of Service – For each critical roadway, the number of existing lanes combined with the forecasted ADT volumes was used to predict LOS. As described above, the threshold used to determine impacts for this project is LOS D/E. The approximate roadway capacity when nearing LOS E is defined by the following levels for different types of roadways:

Roadway Type	*Approximate LOS D/E Capacity Threshold*
2-Lane Roadway:	13,500
3-Lane Roadway:	21,000
4-Lane Roadway:	27,000
5-Lane Roadway:	35,500

These thresholds are basic volume levels where a particular type of roadway would fall from LOS D to LOS E. True values for each roadway type are highly dependant on number of accesses per mile, whether turn lanes are provided and several other characteristics.

Results of the overview analysis and a discussion of potential traffic impacts due to parking expansions are provided in the traffic sections of the above five stations in Chapter 2. None of the four stations receiving the overview analysis was determined to have traffic impacts.

For this analysis, new daily traffic was estimated based on the number of new parking spaces that will be constructed at each station. These trips were then added to 2011 and 2030 forecasted average daily traffic (ADT) volumes, and the percent of increased traffic as a result of the project was calculated. Methodology for the analysis is summarized below.

Traffic Impacts

At a system-wide level, no negative impacts are expected in traffic flow. Increased commuter train traffic is not expected to affect delays at grade crossings, and expanded parking facilities will have little effect on traffic volumes in the communities. In fact, the overall vehicular traffic in the region is expected to be reduced by increased train ridership due to improved passenger rail service.

As part of the detailed analysis for the eight stations, intersection improvement needs were identified for the No-Build and Build scenarios of 2011 and Build scenario of 2030. It should be noted that, for the purposes of this EA, the project impacts that would occur in Build scenario of the design year 2011 are considered separate from deficiencies caused by background increases in traffic. However, if project mitigation measures are to be implemented, the suggested 2011 No-Build and 2030 Build improvements (due to background traffic growth) would be necessary for the project-related mitigation to function correctly. If these background traffic-related improvements are not completed, other solutions would need to be explored. Traffic mitigation plans are provided in the eight detailed analysis traffic sections of Chapter 2. More information can be found in the Traffic Technical Report.

1.4.13 Energy Requirements and Potential for Conservation

Table 1-10 summarizes an evaluation of project energy conservation opportunities. By increasing access to and service of energy-efficient passenger rail service, the proposed upgrades would help reduce overall energy use in transportation for the region. While energy would be expended to complete the project actions, the long-term energy savings by the regional reduction in Vehicle Miles Traveled (VMT) is significant compared to the short-term energy expended for the required construction improvements. Accordingly, the overall UP-W Line Upgrade Project is anticipated to have no negative impact on energy.

Table 1-10: Project Energy Conservation Opportunities

	Not Applicable	Tending Toward Conservation	Increase in Overall Energy Requirements	Major Increase in Energy Consumption
Encouraging shift to a more energy-efficient mode of transportation.		X		
Accomplishing a net improvement in energy efficiency		X		
Conducive to improvements in travel patterns.		X		
Shift to a more abundant fuel source.	X			
Reducing demand for vehicular traffic.		X		

*Evaluation based on comparative energy efficiency of passenger automobiles and commuter trains, and the opportunity to promote boarding at stations.

1.4.14 PARKLANDS

Section 4(f) of the US Department of Transportation Act declares it a national policy to make a special effort to preserve the natural beauty of the country side, including public parks and recreation land, wildlife and waterfowl refuges, and historic sites. Use of these resources for project purposes is allowed only if there is no prudent and feasible alternative and the project includes all possible planning to minimize harm.

An inventory of parklands and other resources subject to the provisions of Section 4(f) was conducted using GIS data, aerial mapping and field reconnaissance. No wildlife or waterfowl refuges are present with the proximity of the project. Numerous parks and recreation facilities were identified. Historic and archaeological resources are addressed in Section 1.4.15.

At a number of locations the UP-W Line abuts or runs close to public parks and recreation areas. New or reconstructed project components within the existing right-of-way and the proposed additional train traffic would not directly or indirectly adversely affect these facilities or their use. In general, the proposed increased capacity on the UP-W Line should have an overall benefit to local parks and recreation facilities by improving transit access.

Parklands within the vicinity of each station are identified and discussed in Chapter 2, Sections 2.N.3.10, Chapter 3, Section 3.3.11, and Chapter 4, Section 4.3.11. For individual stations, proposed parking expansion and station access facilities would mostly utilize vacant railroad and street right-of-ways. In some places, however, acquisition of real estate would be required. Neither direct nor constructive use of public parks or recreational areas is anticipated from the proposed acquisitions. Specific station area parking expansions and station access are described in Chapter 2.

1.4.15 CULTURAL RESOURCES

In accordance with Section 106 of the National Historic Preservation Act and Section 4(f) of the USDOT Act, and in coordination with the Illinois Historic Preservation Agency (IHPA), potential effects to historic structures, properties, districts, and archaeological resources have been identified. The project team in consultation with IHPA identified areas of potential effect (APE) for historic resources and archaeological resources to be investigated in the vicinity of stations. Given that the improvements for the UP-W Line Upgrade Project are generally proposed within the existing railroad right-of-way the focus of the investigation of impact to cultural resources is on station areas and proposed parking improvements.

Historic Resources

Properties in the Area of Potential Effect (APE) of the UP-W Line listed or eligible for listing on the National Register of Historic Places were identified and a reconnaissance-level survey was conducted for above-ground historic resources. A preliminary determination of effect indicates that the UP-W Line Upgrade Project's proposed mainline improvements are not likely to have an adverse effect on historic resources adjacent to rail corridor.

The reconnaissance level survey identified ten historic resources near station areas that could be impacted by the project. These resources and potential project effects are addressed in Chapter 2.

Coordination with IHPA is ongoing and their concurrence on the determination that the project is not likely to adversely affect archaeological resources is pending. Letters of coordination can be

found in Appendix A. (Letter of concurrence from IHPA will be included in the final version of the EA document).

Archaeological Resources

The archaeological APE was defined as areas of ground disturbance that have not been previously disturbed. Since construction of the infrastructure improvements would be confined to previously disturbed areas within existing right-of-way and to areas previously disturbed by other uses, the only project components with potential for impacting archaeological resources are the proposed parking areas. In 2000, an archaeological reconnaissance of portions of the UP-West line from Geneva to Elburn was conducted by Midwest Archaeological Research Services and reviewed by the IHPA, who concluded that no significant archaeological resources would be affected by that project. Project components not cleared by the 2000 reconnaissance are discussed in Chapter 2.

Coordination with IHPA is ongoing and their concurrence on the determination that the project is not likely to adversely affect archaeological resources is pending. Letters of coordination can be found in Appendix A. (Letter of concurrence from IHPA will be included in the final version of the EA document).

1.4.16 CONSTRUCTION

Short term impacts on air quality and noise and vibration levels may occur during construction associated with added parking, the third mainline track addition, the relocation of A-2 interlocking, addition of crossovers and signal upgrades. However, adequate measures would be employed to minimize these impacts.

- **Noise** impacts would be minimized by limiting construction to daytime hours and the contractor would be required to adhere to local, state and federal requirements
- **Air quality** impacts include fugitive dust resulting from silt exposed to wind and vehicular traffic. Watering of the construction area would be conducted as needed to reduce fugitive dust emissions and prevent any significant impact on air quality.
- **Water quality** impacts could temporarily result from an increase in impervious surface. This would be mitigated through use of stormwater best management practices.
- **Disruption or relocation of utilities** is not expected to be necessary for any projects. Utility companies would be contacted in advance.
- **Traffic** impacts (increase in local congestion, re-routing, etc) would be minimal
- **Disposal of debris and refuge** would be in accordance with applicable local, state and federal regulations.
- **Safety** precautions will be taken by UPRR and contractors to ensure the safety of the public and personnel on the job. The construction site would be closely supervised and all laws and regulations pertaining to health, safety of construction and accident prevention would be strictly observed.
- **Hazardous materials or special waste** encountered during construction would be properly treated and disposed of, as is discussed in the Hazardous Materials sections of this EA.

The system-wide action of increased rolling stock would not involve construction impacts. Minimal temporary impacts would result from construction of crossovers between Elmhurst and West Chicago, as the project work would occur entirely within the railroad right-of-way. Signal upgrades would require installing buried cables, and thus minimal temporary construction impacts would occur.

Construction impacts associated with project actions are further discussed in Sections 2.N.3.12, Section 3.3.12 and 4.3.12. The overall UP-W Line Upgrade Project is expected to produce no long-term adverse impacts due to construction.

1.4.17 AESTHETICS

Most station areas have street trees as well as adequate lighting. Many have street furniture and other pedestrian amenities such as decorative lighting. Some towns have recently undertaken, or are in the process of undertaking, streetscape improvements.

For the UP-W Line Upgrade Project, four stations would be reconfigured with expanded platforms and access improvements and parking at twelve stations would be expanded. The appearance of these facilities together with landscape and streetscape amenities would be considered in their site designs. Landscaping would be included as part of the projects. Both Metra and the communities will be responsible for maintenance of the facilities. Also as part of the project, Metra will review and upgrade existing parking and station amenities (such as warming shelters) based upon the increase in commuters as shown in the ridership model.

1.4.18 COMMUNITY

The UP-W Line runs through several urban and suburban communities, generally at or close to the grade of its surroundings. The railroad has historically been a distinct element in the fabric of these corridor communities, leading to transit-oriented development and mixed-use, walkable neighborhoods. Through enhanced rail service, the project would facilitate these trends and would not disrupt or divide the community. Where project actions do affect community cohesion, circulation (particularly delays) and safety, emergency and other public services, the effects are described in each site assessment section.

Community officials were consulted concerning the proposed project elements, particularly with respect to reconfigured stations, the scale and location of expanded parking, altered station access ways, and adjustments to street and walkway track crossings. Their concurrence that the project would not substantially disrupt or divide the community was requested (see letters of resolution and community meeting minutes in Appendix B). Community coordination efforts are summarized in Chapter 5 of this EA.

Ability to walk and bike to and from the station is an important factor in community cohesion in these transit-oriented communities. Sidewalks as well as signalized and/or marked pedestrian crossings are present throughout nearly every station area. In the two new station areas (La Fox and Elburn), sidewalks and pedestrian crossings exist in developed areas and are planned in undeveloped areas in conjunction with future development. Extensive bike routes exist around most stations, and additions to regional routes are planned. Because existing pedestrian and bicycle connections to the stations are adequate, these will not be improved as part of the UP-W Line Upgrade Project.

1.4.19 SAFETY AND SECURITY

For each station, safety conditions of pedestrian and bicycle crossing are considered. None of the station areas has indications of unsafe conditions for pedestrians or bicyclists. Station designs would be developed to preserve these safe conditions.

Safety at at-grade street crossings would not be impacted by the increase in train traffic, as signals would be adjusted to account for this increase. Security issues related to expanded parking facilities and to potential pedestrian tunnels at the reconfigured stations are described in

each station's section where appropriate. Otherwise, security is not expected to be affected by the proposed project.

1.4.20 SECONDARY DEVELOPMENT

The existing UP-W Line has contributed to the economic viability of the existing businesses and encouraged new residential and commercial development along the corridor. The transit improvements to the UP-W Line as a part of the project will improve the connection between points of interest, businesses and residential areas along the corridor.

The existing UP-W Line has helped promote higher-density urban compact growth near the transit stops by creating an environment that is less dependent on automobiles for transportation. Denser development surrounding transit lines, known as transit oriented development, promotes an environment where people are able to access places of employment, daily services (banks, dry cleaners, groceries), and entertainment within walking distance or short trips on transit from their residences.

Overall, the UP-W Line is expected to have positive impacts on growth and development along the railway. As project actions would maintain, replace in-kind, or expand existing facilities, negative secondary and cumulative effects of the UP-W Line Project are not anticipated. Brief overviews of the potential secondary and cumulative effects of the UP-W Line Upgrade Project are described in Table 1-11. Station-specific secondary development impacts are described where applicable in Chapter 2, Section 2.N.3.2 (Land Use and Zoning).

Table 1-11: Evaluation of Secondary and Cumulative Effects

Secondary / Cumulative Effect Type	Potential Negative Effect?		Potential Manifestation(s) in Study Area
	Unlikely	Likely	
Habitat, wetlands, biotic and animal species	✓		The project is located primarily in developed areas. Where stations are still relatively undeveloped (Geneva to Elburn), actions are located in dedicated or vacant areas that would not affect natural resources. Therefore no impacts to habitat, wetlands, plants, or animal species are expected.
Water Quality	✓		The project is being constructed on existing railroad right-of-way.
Community Cohesion / Stability	✓		Riders of public transportation typically walk more and frequent local businesses more often for basic services. These activities increase the likelihood of interaction among neighbors, which in turn builds stronger community cohesion. Improving the connections between businesses, residences and recreation opportunities will also build community cohesion and stability.
Alteration of Travel Patterns	✓		Passengers choosing to ride the UP-W Line will most likely be doing so in lieu of driving a vehicle. This will reduce traffic and congestion on the roadways.
Economic/Fiscal Impacts	✓		The project is expected to encourage higher density development along the project corridor. This development typically has a greater property value, translating to greater property tax revenue for taxing bodies. Additionally, it is typically less expensive to provide governmental services to higher density development. One potential negative impact is this could force lower to moderate income residents out of neighborhoods with higher rents and property tax bills.
Hazardous Materials Risk	✓		The project is not expected to change how hazardous materials are handled or transported in the study area.
Historic/Cultural Resources	✓		Secondary and cumulative impacts to historic and cultural resources are not expected.
Noise	✓		Secondary and cumulative noise impacts are not expected. Site specific noise issues are addressed in the noise sections and technical report.
Aesthetics/Visual Effects	✓		The project is primarily located within existing railroad right-of-way. Therefore, substantial aesthetic/visual effects to the overall rail corridor are not expected.
Serves Specific Development	✓		The project is expected to enhance existing connections between destinations, such as hotels, restaurants, shopping, offices and residential communities along the UP-W Line.
Stimulates Complementary Development	✓		The project is expected to encourage transit oriented development near stations.
Influences Location Decisions	✓		Transit availability may influence location decisions of businesses and residents.
Conflict with Goals / Plans	✓		The project is consistent with goals of regional plans.

1.4.21 CONSISTENCY WITH LOCAL AND REGIONAL PLANS

The proposed UP-W Line Upgrade Project has significant support from throughout the corridor, as evidenced by letters of support and resolutions from corridor communities (support letters are listed in Table 5-3; copies of letters can found in Appendix B).

The project is consistent with both local and regional transportation and land use plans. At the regional level, the project is included in the *2030 Regional Transportation Plan for Northeastern Illinois* (2004, updated 2007), and shows a high level of land use support from the *2040 Regional Framework Plan* (2005). It is also included in the region's FY 2007-2012 Transportation Improvement Program (TIP), endorsed by the MPO Policy Committee for Northeastern Illinois (formerly CATS Policy Committee). The importance of Metra in providing transportation for work trips in northeastern Illinois is discussed in the *Illinois Transportation Plan* (2007).

The 2030 RTP and other plans relevant to the proposed project are described below.

2030 Regional Transportation Plan (2030 RTP). This is the long-range transportation plan for the region, maintained by the CMAP. The RTP provides direction and guidance for the overall development of the surface transportation system in northeastern Illinois. Federal regulations require that RTP be financially constrained and be in conformity with state air quality goals; transportation projects are not eligible for federal funding until they are adopted by the RTP.

The proposed upgrades to the UP-W Line are recommended in the 2030 RTP. The upgrades were included for their support of the RTP's three overarching goals: 1) Maintain the integrity of the existing transportation system; 2) Improve transportation system performance; 3) Employ transportation to sustain the region's vision and values.

Vision 2020 Plan. This plan represents Pace's long-range vision for improving suburban mobility through a series of new operational and facility improvements. Pace's proposed improvements are consistent with the improved high capacity transit service proposed in the UP-W project.

Cook-DuPage Corridor Study. This study by the Regional Transportation Authority established the need for additional transportation infrastructure in the study area and identified the growth in Metra's "intermediate" travel markets—one of the key reasons for studying a potential upgrade to the UP-W Line.

Central Kane Corridor Major Investment Study (MIS). This study was undertaken by Metra to evaluate the needs of the growing population and employment centers in Central Kane County (the western portion of the current study area). This study led to implementation of the extension to Elburn, which the UP-W project will leverage.

UP-W Line Extension to Elburn EA (2000). This 8-mile extension of the UP-W Line recently added new stations at Elburn and La Fox. This project was implemented through a federal Full Funding Grant Agreement. The UP-W project leverages the improvements of this study by speeding travel for riders from the recently extended service.

West Suburban Commuter Rail Feasibility Study. This study evaluated the feasibility of introducing passenger service to the Canadian National Railway (formerly Chicago Central & Pacific Railroad). This study concluded starting commuter service on this corridor (parallel to the

UP-W) would be infeasible, so adding service in the UP-W corridor will help to serve a similar market.

Implementation of the UP-W Line Upgrade Project will also help meet the needs identified in the following local plans and studies:

- Kane County 2030 Transportation Plan
- Kane County 2030 Land Resource Management Plan
- DuPage Area Transit Plan
- Metra Station Area Plans for Maywood, Oak Park, and Elmhurst
- Pending Metra Station Area Plans for Bellwood, Melrose Park, and Villa Park
- Pace/Metra Bus-to-Rail Study

As the study will have impacts on both passenger and freight movements throughout the region, it will be coordinated with two other significant rail projects:

Chicago Regional Environmental and Transportation Efficiency Project (CREATE). The purpose of the project is to coordinate the growth of the City of Chicago with the consolidation and optimization of the City's railroad infrastructure. Two of the corridors recommended for improvements cross the UP-W Line and the northern end of the Western Avenue corridor connects into the A-2 interlocking.

Suburban Transit Access Route (STAR) Line Alternatives Analysis. The STAR Line focuses upon a new north-south commuter rail service, running from Joliet to I-90, providing connections to the BNSF Line, the UP-W Line, and the MD-W Line. From I-90, the line would then run east to O'Hare International Airport. By connecting to the UP-W Line, the STAR line would provide direct service from West Chicago Metra Station to O'Hare, without requiring passengers to first head downtown and transfer to the Blue Line.

All of these studies point to the need for transportation improvements in the study area.

1.4.22 HAZARDOUS MATERIALS

The USEPA identifies railroad right-of-ways as areas at high risk for contamination by hazardous materials. Hazardous waste is defined by the USEPA as any waste material, or combination of waste materials that pose a hazard to human health, welfare, or the environment. Materials classified as hazardous can be in the form of solids, sludge, liquids, or gases, and are characterized as either, reactive, toxic, infectious, explosive, flammable, corrosive or radioactive. Examples of hazardous waste sites include landfills, dumps, pits, lagoons, salvage areas, retail operations and storage tanks.

There is the possibility of encountering hazardous materials or special waste at the proposed construction sites for the A-2 interlocking relocation, the third mainline track addition, and the parking expansion areas. To determine risks associated with hazardous materials at these sites, two types of analysis were performed.

1) For the major improvement actions, including the third mainline addition and the relocation of the A-2 interlocking, a Preliminary Environmental Site Assessment (PESA) was conducted. Although these projects would be built within elevated railroad right-of-way, hazardous material sites within close proximity to the railroad right-of-way pose potential risks associated with construction. The PESA also covered River Forest,

Maywood and Melrose Park Stations as part of the third mainline addition. The PESA included site reconnaissance, research, and environmental database review.

2) For stations where additional or expanded parking is proposed, a review of environmental databases was conducted.

Both the PESA and environmental database review were conducted in accordance with the American Society of Testing and Materials (ASTM) E 1527-00, Standard Practice for Environmental Site Assessments. Methodology is summarized as follows.

Environmental Database Review

A review of environmental databases was conducted in accordance with the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) to evaluate potential hazardous materials in the study area. This was done both as a part of the PESA, and to evaluate stations not covered by the PESA. Environmental Data Resources, Inc. (EDR) conducted this review, which included the following state and federal environmental databases:

Federal databases: National Priorities List (NPL), Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Resource Conservation and Recovery Act information System (RCRIS), Emergency Response Notification System (ERNS), Records of Decision (ROD), Hazardous Material Incident Report System (HMRIS), Toxic Chemical Release Inventory System (TRIS), and Material Licensing Tracking System (MLTS).

State databases: the State Hazardous Waste (SHW) Site Report, the Solid Waste Landfill (SWL) Facilities Report, the Leaking Underground Storage Tank (LUST) Report, the UST (Underground Storage Tank) Report, and the Site Remediation Program (SRP). In addition, the report includes the Illinois Category (CAT) List, the Coal Gas Sites List (Coal), the Brownfield Sites, the Dry Cleaner database, and the Orphan Sites list.

A summary of the EDR report for each station not covered by the PESA is presented in Chapter 2, Sections 2.N.3.17.

Site Reconnaissance

Site reconnaissance for the A-2 interlocking relocation and third mainline addition included exterior observations of the railroad right-of-way and surrounding properties. Site reconnaissance activities were limited to accessible areas only, approximately 25 feet off the centerline of the tracks. Existing and/or potential contamination sources and the general site layout were noted.

Site reconnaissance findings for the A-2 interlocking relocation and third mainline addition are summarized in Chapter 3 (Section 3.3.17) and Chapter 4 (Section 4.3.17).

Sites Posing Risk

Sites near the project areas posing hazardous material risks were identified using the above methodologies. The following scale was used to describe the risk at these identified sites:

- **No Risk Finding:** After a review of all available information, there is no indication of the presence of regulated substances or involvement with natural hazards in the project area.

- **Low Risk Finding:** Current or former land use may include a facility that treats, stores, disposes of, transports, or is otherwise involved with regulated substances.

- **Medium Risk Finding:** After a review of all available information, indications are found that identify a potential for soil or water contamination or other environmental hazard.

- **High Risk Finding:** There exists presence of potentially hazardous compounds, either as detected by local agency testing or as documented by the Illinois Environmental Protection Agency.

Potential hazardous material risk sites are summarized as follows:

A-2 Interlocking Relocation (built on railroad right-of-way)

- Nine sites (eight grouped as one) within close proximity to the railroad right-of-way have a "High" risk
- Six sites within close proximity to the railroad right-of-way have a "Moderate" risk finding
- Two sites within close proximity to the railroad right-of-way have a "Low" risk finding

Third Mainline Addition (built on railroad right-of-way)

- Five sites within close proximity to the railroad right-of-way have a "High" risk finding
- Four sites within close proximity to the railroad right-of-way have a "Moderate" risk finding
- One site within close proximity to the railroad right-of-way has a "Low" risk finding

Station Areas (parking additions built outside of railroad right-of-way)

- Glen Ellyn: One Leaking Underground Storage Tanks (LUST) site within a proposed parking area; four LUST sites adjacent to proposed parking areas.

- Lombard: One LUST site within or adjacent to proposed parking.

- Wheaton: One LUST site within a proposed parking area; two LUST sites within or adjacent to proposed parking areas.

- Others: Variable numbers of LUSTs and other hazardous material listings near proposed parking areas, but no impacts anticipated

Mitigation

A re-review of environmental databases is recommended prior to property acquisition and/or construction for all proposed actions. For "Moderate" and "High" risk sites within close proximity of the railroad right-of-way, a Phase II Environmental Site Assessment is recommended. For the station areas, a Phase I or II Environmental Site Assessment is recommended for areas with known contamination (open LUST sites).

If contaminated materials are encountered, additional investigations would be necessary to implement mitigation activities required to support construction. Results of these investigations would be used to assess the need for a more detailed contamination assessment or remedial action plan for the potential contamination sites.

All investigation/remediation activities would be conducted in accordance with the Illinois EPA's Site Remediation Program as well as USEPA guidelines. Additionally, the construction worker health and safety plans would outline procedures for safely investigating, handling, and disposing of any contaminated material encountered during construction.

Further information regarding hazardous materials risk sites is found in the Hazardous Materials sections of Chapters 2, 3 and 4 (Sections 2.N.3.17, 3.3.17 and 4.3.17, respectively).

1.5 ENVIRONMENTAL JUSTICE

1.5.1 INTRODUCTION

Executive Order 12898 (Feb. 11, 1994), Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, is intended to ensure that Federal departments and agencies identify and address disproportionately high and adverse human health or environmental effects of their policies, programs, and activities on minority populations and low-income populations. Department of Transportation (DOT) Order, DOT Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 3, 1997), establishes procedures for the DOT to comply with Executive Order 12898. The analysis contained in this section is consistent with that outlined in the DOT Final Strategy and proposed Order.

The DOT order states that Environmental Justice must be a separate section in an EA or environmental impact statement. Accordingly, this section should clearly state whether there are disproportionate impacts, the extent and magnitude of those impacts, and how those impacts will be avoided or mitigated if practicable. Disproportionately high and adverse human, health, or environmental effects on minority and low-income populations are not anticipated on this project, as the UP-W Line benefits the community as a whole, not just a specific population or group of people.

1.5.2 DEFINITIONS

The DOT order defines "Low-Income" as a person whose median household income is at or below the Department of Health and Human Services guidelines. "Minority" means a person who is Black, Hispanic, Asian American, American Indian, or Alaskan Native.

Disproportionately high and adverse effect is that which is predominately borne by a minority population and/or low-income population or is appreciably more severe than effects suffered by the non-minority and/or non-low-income population. "Adverse effects" means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to:

- Bodily impairment
- Infirmity
- Illness or death
- Air, noise, and water pollution and soil contamination
- Destruction or disruption of man-made or natural resources
- Destruction or diminution of aesthetic values
- Destruction or disruption of community cohesion or a community's economic vitality
- Destruction or disruption of the availability of public and private facilities and services
- Vibration
- Adverse employment effects

- Displacement of persons, businesses, farms, or nonprofit organizations
- Increased traffic congestion
- Isolation, exclusion, or separation, of minority or low-income individuals within a given community or from the broader community
- Denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities

1.5.3 METHODOLOGY

Metra proposes premium transit improvements to the existing UP-W Line that runs approximately 44 miles from downtown Chicago west to Elburn. These premium transit improvements include the addition of crossovers, signal improvements, relocation of the A-2 interlocking, addition of a third mainline track, platform extensions to facilitate the third mainline track, and additional parking at some stations. These improvements are associated with a general need for improved transportation facilities and services to sustain the existing activity centers in the study area and to help the western suburbs grow in sustainable, transit-oriented patterns of development.

Demographic data was generated on the percent of low income households and minority persons within the project study area, which was developed based on a ½ mile buffer of each station location and a ¼ mile buffer of the entire UP-W Line. The data used in this analysis was based on the census tracts from the 2000 US Census that had a portion of their boundary within the project study area. Low income and minority populations along the UP-W Line corridor are shown in Figure 1-4. Metra's 2007 Title VI Program and Policy[7] designated the UP-W Line as non-minority and non-low-income based on comparisons to the regional thresholds.

The demographic data collected for the census tracts within the project study area was compared to threshold values for minority and low-income populations. The threshold values determined by Metra's 2007 Title VI Program and Policy report for the entire 6-county region were used. This includes Cook, DuPage, Kane, Lake, McHenry and Will Counties. Census tracts with higher percentages of low-income or minority populations compared to these threshold values were determined to have higher proportions of the protected population.

1.5.4 ANALYSIS OF LOW INCOME POPULATIONS

In order to determine where there are high concentrations of low-income populations in the study area, the data at the census tract level was compared to a larger-area geographic unit, called a threshold. The low-income threshold value for the 6-county area determined by Metra's Title VI report is 10.4%. The percentage of low-income population living in a census tract was determined and compared to the threshold value; if the percentage of low-income population was higher than the threshold value, that census tract was noted as having a substantial concentration of low-income population.

Based on the threshold of 10.4%, 31 out of 89 of the census tracts within the study area contain a substantial concentration of low-income populations compared to the six-county area (Figure 1-4). Those census tracts with the highest percentage of low-income individuals are concentrated in Chicago and Cook County.

All but one of the census tracks that had a substantial concentration of low-income populations also had a substantial concentration of minority populations.

1.5.5 Analysis of Minority Populations

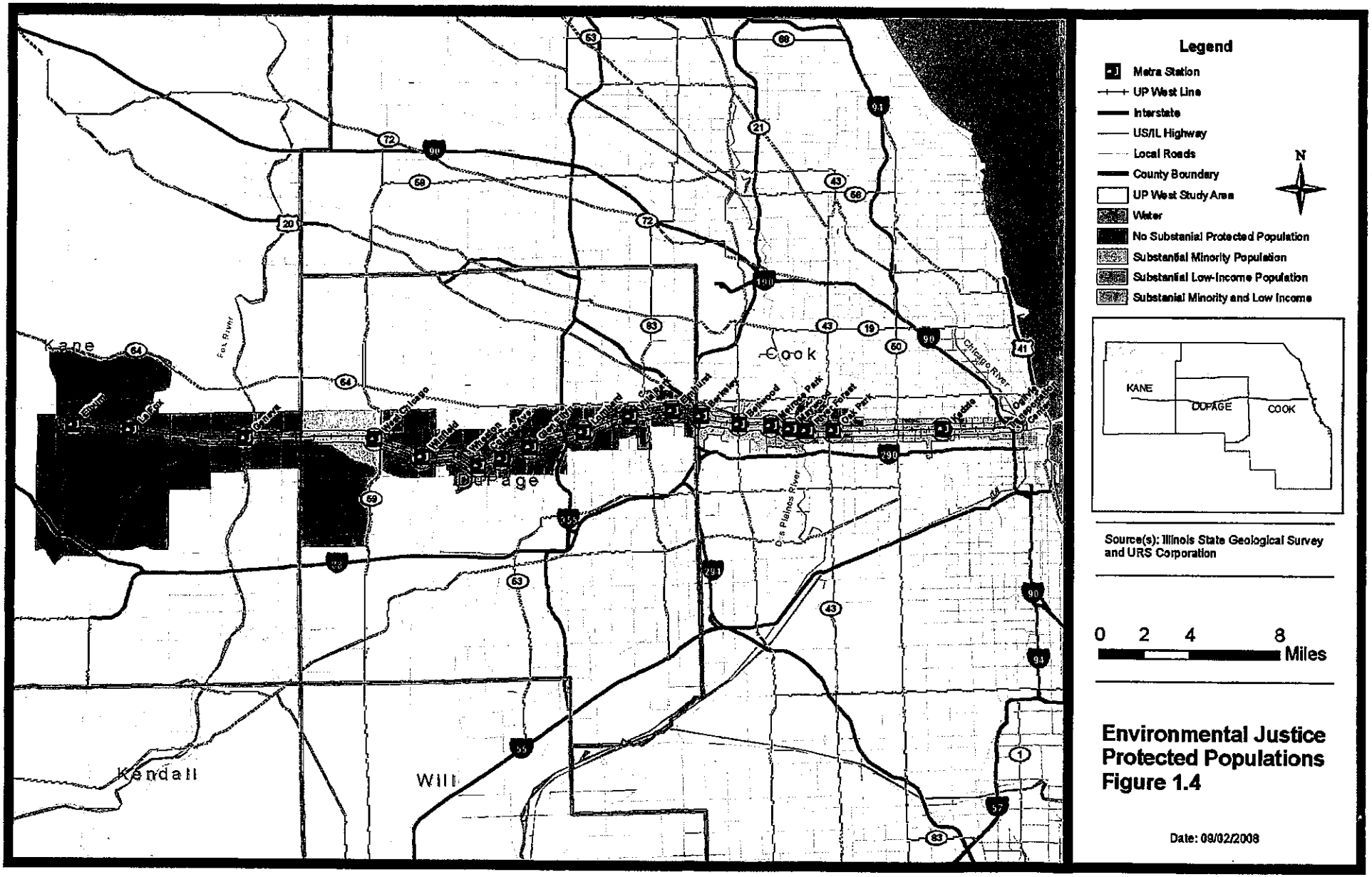
Data quantifying minority populations was collected for each census tract in the study area. In order to determine where there are high concentrations of minority populations in the study area, the data at the census tract level was compared to a larger-area geographic unit, called a threshold. The minority threshold value for the 6-county area determined by Metra's Title VI report is 42.7%. The percentage of minority populations living in a census tract was determined and then compared to the threshold value; if the percentage of minority populations was higher than the threshold value, that census tract was noted as having a substantial concentration of minority populations.

Based on the threshold of 42.7%, 46 out of 89 census tracts within the study area contain a substantial concentration of minority populations compared to the six-county area (Figure 1-4). Those census tracts with the highest percentages of minority populations are concentrated in Chicago and Cook County.

1.5.6 Impacts to Environmental Justice Target Populations

Overall, the increased capacity of the UP-W Line and improved train service connecting people with jobs, residential areas, social and recreational activities and points of interest along the corridor will positively impact the Environmental Justice populations. Proposed mitigation measures that are described in the following chapters of this EA will be applied based on standard practices as described in each section. The appropriate mitigation measures will be applied in each area without respect to minority or low-income status of the area. All areas of impact receive the same mitigations as determined by needs and standard practices related to the specific impact.

Based on the analysis of potential impacts to the Environmental Justice protected populations, the proposed project was not found to have disproportionate social or environmental impacts.


Legend
Metra Station
UP West Line
Interstate
US/IL Highway
Local Roads
County Boundary
UP West Study Area
Water
No Substantial Protected Population
Substantial Minority Population
Substantial Low-Income Population
Substantial Minority and Low Income
N
KANE
DUPAGE
COOK
Source(s): Illinois State Geological Survey and URS Corporation
0 2 4 8
Miles
Environmental Justice Protected Populations Figure 1.4
Date: 09/02/2008
Kane
DuPage
Cook
Will
Kendall
Fox River
Des Plaines River
Chicago River

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2.6 LOMBARD STATION

2.6.1 NEED FOR AND DESCRIPTION OF PROPOSED ACTION

The proposed action is parking expansion at the Lombard Station. Additional parking is required because current parking capacity is not sufficient to satisfy demand, especially considering forecasted increases in demand.

Overall, premium transit improvements are needed in the UP-W Line study area to respond to growth in the region and corridor activity centers and the associated increase in travel demand. Due to various constraints, the existing network of roadway and transit services is unable to effectively handle these increases in demand. As the central city continues to grow and the region expands westward, the limitations imposed by these constraints are becoming more pronounced. The proposed upgrades to the UP-W Line will improve the transportation options for people living, working and traveling in the corridor.

This project is in conjunction with other proposed actions of the UP-W Line Upgrade Project.

2.6.1.1 Site Location and Background

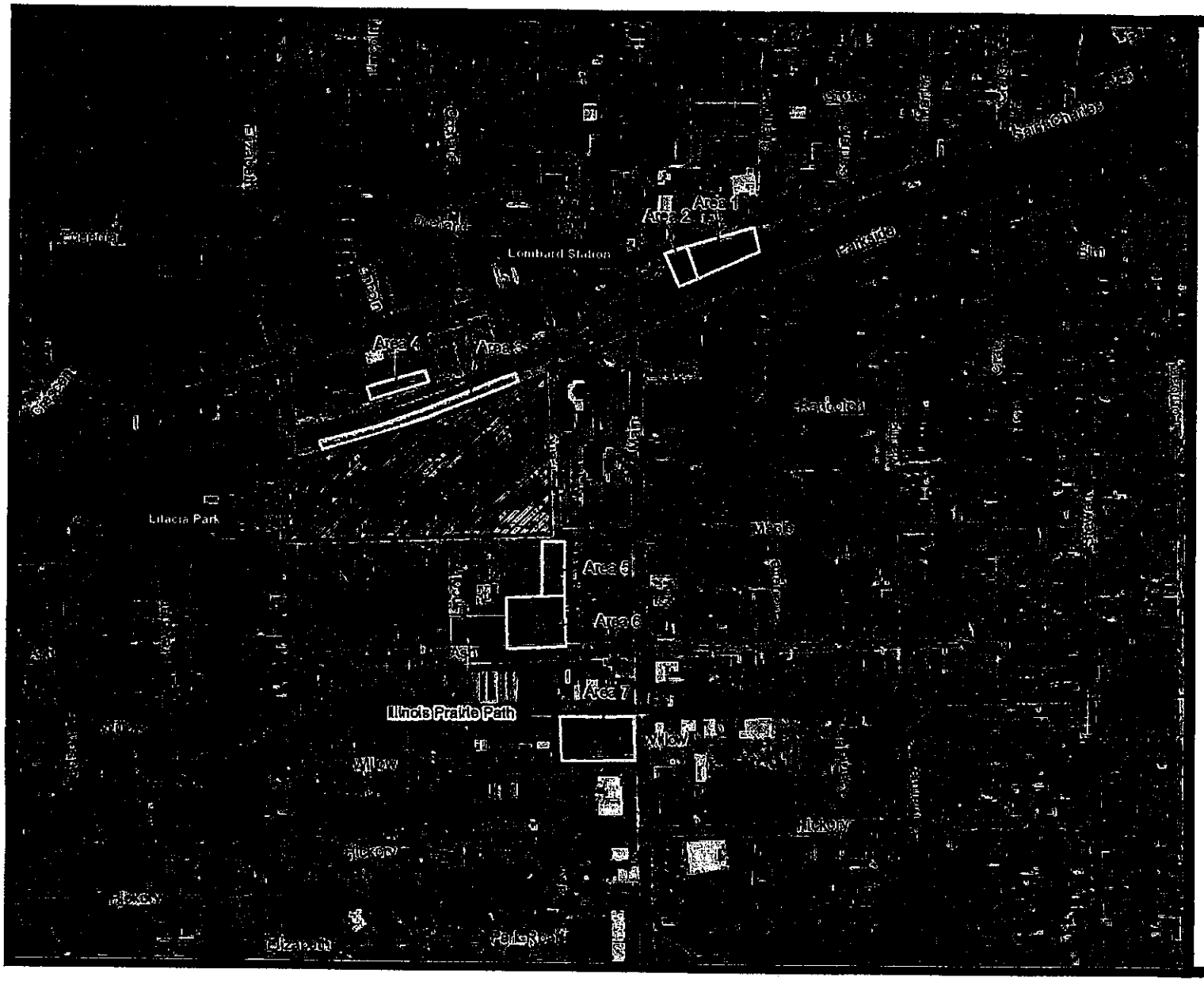
The Lombard Station is located in Downtown Lombard, within Lombard's Central Business District (CBD), between east of Glen Ellyn and west of Villa Park on Metra UP-W Line (Figure 2-6). One Pace bus route serves the station and high-density residential areas.

A local circulator bus is proposed to transport riders from Lombard Village to the station. Parking fees at the municipal commuter lots would be increased to subsidize operations. Downers Grove, Addison and Wheaton are also implementing a circulator, although each would be independently operated by each municipality; the Lombard circulator would have connections to the Addison and Downers Grove shuttles. This initiative is part of the Village's Strategic Plan.

The station is pedestrian-friendly. Sidewalks are present, with signaled and/or marked pedestrian crossings on the roads, and street trees and street furniture to improve aesthetics. The Illinois Prairie Path is ½ mile south of the station. The Village's Comprehensive Plan suggests that pedestrian have access and conveniences with an overall streetscape design and improvement standards, including walks, seating areas, signage, and traffic control.

There are roughly 782 off-street public parking spaces in the core Downtown. On-street parking is also available on some streets. There is a total of 534 commuter parking spaces at the station, which is 99% occupied. All commuter lots are resident only parking. Village code permits width of parking spaces as narrow as 8'3", although many spaces are currently as wide as 9' or 9.5'. In 2004, two lots were added for new and replacement commuter parking. As a result, about 20 new commuter spaces were added in the station area. To arrive at the Lombard Station, 23% of commuters walk or bike, 52% drive alone, 22% carpool or are dropped off, and 2% use transit.[13]

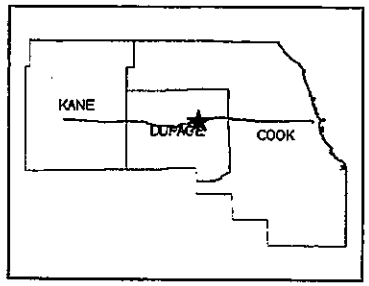
Land use around the station includes single-family detached and attached residential, multi-family residential, and commercial. The Village's 1998 Comprehensive Plan includes five residential area designations. Four of the five residential area designations exist in the station area. Eight projects covering about 150 units of residential, restaurant and redevelopment projects are planned in Downtown Lombard. The station is included in the Lombard St. Charles Road Tax Increment Financing (TIF) District I (West).



Legend

- UP West Line
- Parking Upgrades
- *1 Metra Station
- Illinois Prairie Path
- Park

N



Source(s): Illinois State Geological Survey and URS Corporation

0 200 400 Feet

Lombard Station
Figure 2.6

Date: 09/22/2008

Specific recommendations regarding land use and zoning are located in the following officially adopted documents:

The Village's *Comprehensive Plan (1998)* includes the following recommendations related to the Lombard station:

- The Central Business District is planning area located along St Charles road (between Elisabeth Street and Grace Avenue) and along Main Street (between Grove Street and Washington Boulevard.
- Identifies the area south of St. Charles and east of Charlotte Street as possible location for commuter parking.

The *Downtown Lombard Community Vision* summarizes completed and planned projects, lists future projects with priorities, identifies how the TIF funds have been spent and what they may be spent on in the future. The projects are mainly commercial, but some a attached residential and cultural.

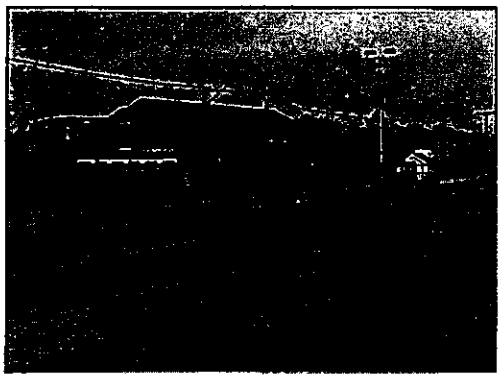
The *Village of Lombard TIF Districts Map (2004)* includes the following elements:

- Downtown TIF District – Eastern most TIF Centering on the intersection of St Charles road and Main Street. The station is in this TIF.
- TIF 2 East – Eastern most TIF, along the tracks and St Charles Road, east of their intersection.
- TIF 1 West – Central TIF, South of the Great Western Trail and north of the tracks, between Martha Street and Grace Street

The *Lombard Zoning Ordinance and Map* permits a diverse set of uses around the station:

- Central Business District – Core downtown area, centered on the intersection of St. Charles Road and Main Street. This district surrounds the station.
- Downtown Perimeter Zoning District – South of the tracks along Main Street
- General Neighborhood Shopping District– East of Downtown area along St. Charles Road.
- Conservation/Recreation District – west side of Park Avenue between Parkside Avenue and Maple Street
- Multi Family Residential – sites along the northern edge of downtown
- Single Family Residential – the surrounding area

Views of Lombard Station and Surrounding Land Uses



2.6.1.2 Site Utilization Concept

The final engineering plan for parking expansion at the Lombard Station is still being developed.

Modeling was completed to determine the extent of parking expansion needed to meet projected demand. This was accomplished by clustering stations along the UP-W Line into zones. Lombard is in the Maywood-Lombard zone, which was determined to need 405 additional parking spaces altogether. To ensure this number of parking spaces is met, 762 spaces are evaluated as potential new parking for this zone. Lombard would provide up to 354 of these spaces. Details for the additional parking are shown in Table 2-19.

Table 2-19: Parking Additions at Lombard Station

Parking Area (by priority)	Lot size (acres)	Action Type	Parking Type	Number of new parking spaces	Notes
1	0.8	New	Surface	70	
2	0.3	New	Surface	24	
3	0.7	Reconfigure	Surface	5	Restripe 9' to 8.5'
4	0.3	New	Surface	23	
5	0.5	New	Surface	38	
6	1.2	New	Surface	92	
7	1.4	New	Surface	101	
Total	**5.3**	--	--	**354**	--

These actions would utilize the existing station configuration where feasible. The location of the proposed actions is shown in Figure 2-6.

2.6.2 Alternatives to the Proposed Action

A detailed alternatives analysis was performed by Metra from 2005-2007. The parking expansions described above are an important component of the LPA chosen at the end of the analysis. No other alternatives were found to meet the needs of relieving congestion of the existing transportation network, meeting increased demand for safe and efficient passenger rail service, and improving air quality.

2.6.3 Environmental Impacts

The EA is based on field reconnaissance of the site and vicinity; review and evaluation of information on the project area and project plans compiled from local, regional, state and federal agencies; state and federal database review; site utilization concept plans; traffic evaluations; and wetland, noise, and vibration evaluations.

In accordance with FTA guidelines, the proposed station project was reviewed with respect to the twenty environmental impact categories, as well as hazardous materials and environmental justice. The analysis is summarized in Table 2-20.

Table 2-20: Environmental Impacts at Lombard Station

Environmental Impact Category*	Impacts Not Anticipated	Impacts Anticipated	Mitigation Proposed
Land Acquisition and Displacements		X	Follow legal procedures outlined in land acquisition/displacement section.
Land Use and Zoning		X	Zoning variance, special use permit or Zoning Compliance Review as needed
Air Quality*	X*		
Noise*	X*		
Vibration*	X*		
Water Quality	X		
Wetlands	X		
Floodplains	X		
Navigable Waterways and Coastal Zones	X		
Ecologically Sensitive Areas	X		
Endangered Species	X		
Traffic and Parking	X		
Energy Requirements and Potential for Conservation*	X*		
Parklands	X		
Cultural Resources	X		
Construction		X	Early notification of utilities. Contracts to include erosion/sedimentation/dust control in accordance with "Green Book." Meet all applicable codes and regulations.
Aesthetics	X		
Community	X		
Safety and Security	X		
Secondary Development*	X*		
Consistency with Local Plans	X		
Hazardous Materials		X	
Environmental Justice*	X*		

* Categories marked with an asterisk (*) represent those that were assessed at a system-wide scale. Discussion of these can be found in the System-wide Assessment, Chapter 1 and is not repeated in this section.

An analysis of environmental impacts related to the proposed actions follows.

2.6.3.1 Land Acquisition and Displacements

Two of the areas considered for expansion of commuter parking are already owned by the Village, Metra or the UPRR: Parking Areas 1, 3 and 5. These proposed parking areas have no current occupants, so no business or resident displacements would occur.

Five of the areas considered for expansion of commuter parking would need to be acquired by the City or Metra, and are therefore considered longer-term options for expansion of commuter parking. These areas include:

- Parking Area 2 - this area is currently mostly vacant, with a small shed-like structure on it; its redevelopment as commuter parking would not displace any commercial, residential, or public uses.

- Parking Area 4 – this area is the landscape buffer portion of a property adjacent to the railroad tracks; acquisition of this frontage and conversion to commuter street parking would not displace the current commercial user of the property.

- Parking Area 6 – this area currently contains a single family home and a portion of property from the church located at the northwest corner of Main and Ash. Redevelopment of this area as commuter parking would displace one home; it is anticipated that the church would sign a long-term right of access agreement for its portion of the property, so the action would not displace it as a user of the adjacent area.

- Parking Area 7 - this area currently contains a commercial operation; redevelopment of this area as commuter parking would displace this one business.

Legal procedures for land acquisitions by Metra are summarized below.

The property to be acquired would be acquired and administered in accordance with all applicable provisions of federal, state and local laws, rules, regulations and provisions, including, without limitation, the Illinois Eminent Domain Act, 735 ICLS 30/1-1-1,et seq., and the applicable provisions of any funding agreement signed between any of the Parties and a state or federal funding agency for the funding of the project and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 USC 4601, et seq. ("Uniform Act").

Following the appraisal and appraisal review process, a recommendation would be prepared by Metra's Property Acquisition and Development staff and submitted to Metra's Executive Director for final approval. The amount shall not be less than the approved appraisal of the market value of the property. If the offer of just compensation based on the appraisal exceeds the current FTA threshold of $250,000, FTA approval would be sought prior to presenting the offer to the property owner.

Metra would contract with a relocation specialist as a consultant to carry out any and all relocation services required in accordance with Metra's Relocation Assistance and Payments Program Policies and Procedures Plan, prepared in compliance with Federal Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended.

Metra would, if necessary, seek condemnation of the property by working cooperatively with local municipalities utilizing the express powers provided those municipalities under the Illinois Eminent Domain Act. The Regional Transportation Authority ("RTA") also has the power to condemn by virtue of the Regional Transportation Authority Act, 70 ILCS 3615/2.13 and the Eminent Domain Act, 735 ICLS 30/1-1-1,et seq. In the event Metra is unable to acquire property in cooperation with the municipalities having jurisdiction over the property, Metra would, if necessary, work cooperatively with the RTA for an acquisition necessitating condemnation.

2.6.3.2 Land Use and Zoning

Several of the areas considered for expansion of commuter parking are already in use as parking or railroad right-of-way, and would be redesigned to add parking capacity. These include Parking Areas 3 and 5. Both areas area zoned B5 and variance would be required to permit reducing the width of the parking spaces to 8.5 feet.

Several of the areas considered for expansion of commuter parking are not currently used for parking or for railroad related purposes, and would represent changes in land use. These areas include:

- Parking Areas 1 and 2 – these areas are currently vacant, so redevelopment as commuter parking would represent a change in land use. These properties are currently zoned Central Business District (B5), in which parking lots or structures are permitted as a conditional use.

- Parking Area 4 – this area is currently parkway or landscape buffer on a commercial property that would be converted to on-street parking, representing a change in use for only this portion of the property. This property is currently zoned Central Business District (B5), in which parking lots or structures are permitted as a conditional use.

- Parking Area 6 – this area is currently used for commercial purposes; redevelopment as commuter parking would represent a change in land use. Two zoning designations cover this area (R2 and B5), Parking is a conditional use in the B5 district but the portion of the Parking Area in the R2 district would need to be rezoned to B5A.

- Parking Area 7– this area is currently used for commercial purposes; redevelopment as commuter parking would represent a change in land use. This property is currently zoned Downtown Perimeter (B5A), in which off-site parking lots are permitted as a conditional use.

All development in the B5 and B5A district are subject to site plan review. In all parking area a variance is required to reduce width of parking space to 8.5 feet.

2.6.3.3 Water Quality

The nearest waterbody to the station is the East Branch of the Du Page River, approximately 6,300 feet to the west of the site. Runoff from the proposed new parking lots will be treated by the use of stormwater best management practices on site. These may include bioretention cells, grassed swales, pervious pavement, stormwater wetlands, or other low impact development practices. The quality of stormwater runoff from the site will be typical of urban areas and will have limited impact on water quality. With the implementation of best management practices, the increase in impervious surface from the parking lot extension will result in minimal increase to surface runoff. Construction and post-construction site plans would comply with local stormwater ordinances and management plans. Therefore, impacts to water quality are not anticipated as a result of the proposed project.

Water quality conditions associated with the proposed project are summarized in the table below.

Table 2-21: Water Quality Conditions at Lombard Station

Condition	Condition Exists at Project Site	Condition Doesn't Exist at Project Site
Surface bodies of water are located on or adjacent to the proposed project site		X
Storm and sanitary sewers are incapable of accommodating projected runoff		X
Dewatering is required		X
The proposed project does not include provisions for containing possible pollutants.		X
The proposed project is not consistent with local and regional water quality management plans, if applicable		X
The proposed project would result in the disposal of hazardous, polluting, or toxic substances into any body of water.		X
Project will include engineered stormwater controls (BMPs) to mitigate runoff from added pavement	X	

2.6.3.4 Wetlands

As described in Section 1.4.7 (Wetlands) of the system-wide assessment, the IDNR concluded, through their EcoCAT review process, that adverse impacts to wetlands from the proposed project are unlikely. No NWI mapped wetlands are present within 250 feet of the proposed project. The land use surrounding the proposed project area is urban and includes the Metra station and associated parking lot, roads, commercial structures and residential structures; no wetlands are present adjacent to or near the proposed project. Given the IDNR conclusion and the lack of wetlands in the area, adverse impacts to wetlands from the proposed actions are not anticipated.

2.6.3.5 Floodplains

There are no 100-year floodplains on or near the proposed parking expansion site. The nearest water body, the East Branch of the Du Page River is approximately 6,300 feet west of the station. Based on the distance to the river, the project would cause little if any change to current potential flooding and surface drainage conditions in the area. Therefore it is not likely to cause a change in current flood elevations.

2.6.3.6 Navigable Waterways and Coastal Zones

No navigable waterways or coastal zones are located within the vicinity of the proposed project.

2.6.3.7 Ecologically Sensitive Areas

The IDNR EcoCAT review found Churchill Prairie Illinois Natural Area Inventory (INAI) site and Churchill Prairie Nature Preserve are approximately 0.8 miles west of the Lombard Commuter Station. This 60-acre mesic prairie is located in a sand and gravel outwash plain swale of the DuPage River Valley and is surrounded by moraine.[14] In their letter dated July 17, 2008 IDNR concluded that adverse impacts to this natural area from the proposed project are unlikely.

2.6.3.8 Endangered Species

The IDNR EcoCAT review indicated the presence of the state endangered black-crowned night heron (*Nycticorax nycticorax),* the state threatened common moorhen *(Gallinual chloropus),* the

state threatened Henslow's sparrow *(Ammodramus henslowii),* and state endangered alkali bulrush *(Bolboschoenus maritimus)* in the vicinity of the proposed project. Although a common summer resident in wetland habitats throughout Illinois in the late 1800's and early 1900's, the black-crowned night heron is now an uncommon migrant and rare summer resident. The common moorhen inhabits freshwater marshes, canals, quiet rivers, lakes and ponds with emergent vegetation, especially cattails and bulrushes. Henslow's sparrow, originally nested in prairie habitat, now requires undisturbed, tall-dense vegetation such as in large grasslands usually greater than 50 hectares in size.[15] Alkali bulrush is an obligate wetland plant in the sedge family.

These species, if present in the area, would most likely occur at the Churchill Prairie Illinois Natural Area Inventory site/Churchill Prairie Nature Preserve west of the station. The proposed Lombard action is unlikely to impact potential habitat, nesting or feeding areas of the listed species of birds or potential habitat for the alkali bulrush. Based on the surrounding land uses, which are primarily residential and commercial, suitable habitat for these animal and plant species does not exist on or adjacent to the proposed project. In their letter dated July 17, 2008 IDNR concluded that adverse impacts to endangered species from the proposed project are unlikely.

2.6.3.9 Traffic and Parking

Presently, Lombard Station's parking lots supply 534 spaces, of which 99% are occupied. Plans indicate the desire to add 354 spaces. Based on the methodology previously explained in Chapter 1 Section 1.4.12, the additional parking capacity is expected to create 907 daily trips to and from the station and parking areas.

Table 2-22 identifies the estimated 2011 and 2030 average daily traffic (ADT) volumes with and without the increase in parking. It also provides the volume percentage of ADT volume increase if all the new trips were to use that roadway. The design year for this project is 2011. All the added parking was assumed to be in place and 100% utilized for the traffic impact analysis. From a traffic impact standpoint, this is the worst case scenario since not all parking lots are likely to be full on opening day. The 2030 scenarios are included for information only, as for some stations the area-wide increase in traffic in this year begins to degrade the local system and access to parking if improvements are not made by the responsible transportation authority.

Table 2-22: Traffic Volumes at Lombard Station

Critical Road	Existing and No Build Average Daily Traffic/ Level of Service		New Spaces	New Trips	Build Average Daily Traffic/ Level of Service and % Increase due to Expansion			# Lanes
	2007	2011			2011 Build	2011 % Inc	2030	
Main St (north)	10,700/ ++	12,043/ ++	354	907	12,950/ ++	8%	22,025/ –	2
Main St (south)	17,500/ ++	19,696/ ++	354	907	20,604/ ++	5%	35,445/ ++	5
St. Charles Rd (E)	16,000/ ++	18,008/ ++	354	907	18,916/ ++	5%	32,485/ –	2/4

++ Traffic volume will not exceed the LOS D/E Threshold, and no deficiency is noted.

– Traffic volume will exceed the LOS D/E Threshold, and deficiency potential is noted.

Based on the estimated ADT volumes and the volume thresholds for a 2-lane road, Main Street north of the Station will be over capacity (above the LOS D/E threshold) by 2030 with or without the parking expansion. St. Charles Road east of the station will be over the 4-lane road threshold in 2030 with and without the increase due to parking expansion. This will require roadway improvements by a transportation agency other than Metra.

In the design year 2011 all of the roads analyzed are level of service D or above. Thus, impacts to traffic are not anticipated as a result of the parking expansion and mitigation is not required.

2.6.3.10 Parklands

Lilacia Park was identified ¼-mile southwest of the Lombard Station. Lilacia Park is part of the Lombard Park District. It is an 8.5 acre park with a horticultural park, greenhouse, picnic areas, and historic building. The project is not anticipated to affect the facilities or uses of the park.

The Illinois Prairie Path runs east-west less than ¼-mi south of Lombard Station. It runs just north of parking Area 7, as shown in Figure 2-6. The new parking proposed for this site is not anticipated to impact the Prairie Path.

2.6.3.11 Cultural Resources

The reconnaissance level survey discussed in Chapter 1, section 1.4.15, revealed 18 recorded historic structures within a quarter-mile of the Lombard station. However, given the distance to these structures, and the lack of other identified historic or archaeological resources, impacts to cultural resources are not anticipated as a result of the proposed actions. Parking Areas 1 and 2 are currently vacant land that has previously been disturbed, and their potential for containing archaeological resources is low. The preliminary finding is that proposed parking changes will not adversely affect cultural resources. Concurrence from the IHPA has been requested and is pending. Concurrence will be obtained before a Finding of No Significant Impact is issued. Records of correspondence are included in Appendix A.

2.6.3.12 Construction

The proposed action would involve construction and the related temporary impacts of such activity. Adherence to applicable regulations and procedures can mitigate anticipated effects. Given mitigation, no long-term adverse impacts are anticipated as a result of construction.

A summary of potential construction impacts and proposed mitigation measures follows.

Noise and Vibration. The construction specifications would ensure that noise levels resulting from construction and the delivery of materials do not violate federal regulations (Occupational Safety and Health Administration) and state and local regulations. However, construction can still generate community noise complaints despite the limited time construction occurs. Control of construction noise and vibration occurs in three steps:

1. Assessment and Reporting – identify the problems and inform the public
2. Construction Specifications – incorporate noise specifications on equipment
3. Compliance Verifications – Verify the specifications are being followed

Noise and vibration levels created by construction equipment will vary greatly depending on the type of equipment being used, the operation being performed and the condition of the

equipment. The following recommendations can be implemented to control construction noise and vibration:

- Site construction yard, noisy activities, and high vibration activities can be planned in areas away from residences
- Nighttime activities can be avoided
- Combine noisy activities to occur at the same time
- Combine high vibration activities to occur at the same time
- All equipment should be in good working order and have working mufflers on all engines
- Investigate alternative construction methods or equipment. Avoid vibratory rollers and packers near sensitive areas.

Disruption of Utilities. Construction of the improvements is not expected to require relocation or disruption of utilities. Utility companies would be contacted in advance to ensure adequate measures to prevent or mitigate possible disruption are taken.

Disposal of Debris and Soil. Material to be disposed of would be the result of two site preparation activities: vegetation clearance, and as part of grading and site drainage, removal of any soil unsuitable for construction or soil volumes in excess for site development requirements. Responsibility for disposal would be that of the UPRR or a contractor, subject to all applicable regulations and requirements. Disturbed soil will be repaired through landscaping as required.

Water Quality and Runoff. Water quality would be protected by management of soil erosion and sedimentation in accord with applicable provisions of the Illinois Environmental Protection Agency and the Northeastern Illinois Planning Commission standards for urban soil erosion and sedimentation control, commonly referred to as "The Yellow Book" and "The Green Book," respectively. Reference to these provisions would be part of the project's contract documents. Water quality is further discussed in Section 2.6.3.4.

Access and Distribution of Traffic. Disruption of traffic due to construction of the proposed project would be minimal. Access to adjacent land uses is not expected to be interrupted. Construction-related traffic at some time periods would include vehicles not ordinarily traveling some of the local roads, but no conflict with access would be expected. All maintenance of traffic plans would be designed to minimize disruption of traffic.

Safety and Security. Contractor to mitigate potential traffic safety concerns through implementation of proper signage and marking of temporary lane closures. They will utilize traffic controls for safe and orderly flow of traffic from the Illinois Manual on Uniform Traffic Control Devices. Non-intrusion fencing to be erected around construction sites near pedestrian areas. Safety and Security is further discussed in Section 2.6.3.15.

Disruption of Business. No businesses are expected to be adversely impacted by the proposed construction activities. Improved commuter rail service may actually improve access to businesses along the UP-W Line.

Air Quality and Dust Control. Design guidelines in "The Green Book" address dust control on the construction sites. Specifications would indicate when dust control is needed and the method of control to be used. Appropriate industry standards would be used. Vegetation and mulching specifications are provided. Reference to these provisions would be part of the project's contract documents.

2.6.3.13 Aesthetics

FTA Circular 5620.1A (draft) states, "visual impact assessment involves perception, interpretation and judgment. Interpreting the visual impact of transit projects is often based on the subjective opinions that vary according to an individual's preferences and values." Plans and designs for the parking enhancements at the Lombard station will be the responsibility of the Village of Lombard or Metra, and will be consistent with local plans and ordinances. The design of the parking facilities will be undertaken to visually enhance the appearance of the transit asset, and to minimize the aesthetic impact to surrounding properties, particularly in areas facing residential zones.

2.6.3.14 Community

The proposed improvements to the station would not displace, sever, or isolate areas of community land use or public facilities. The improvements would enhance the ability of local residents to access the rail station due to increased parking options. The project would further facilitate the trend of transit-oriented development which has become an important part of this community's character. Community meetings indicate a high level of public support for the proposed station improvements and overall UP-W Line Upgrade Project (Appendix B).

2.6.3.15 Safety and Security

No special safety or security features have been noted to be necessary during site visits and concept development. No damage to or from adjacent properties has been identified, nor has the need for security fencing been identified in connection with the proposed action. The proposed project includes adequate provision for safe and secure operations in accordance with local codes and ordinances. Metra is governed by certain standards (e.g. Federal Railroad Administration requirements) of safety and security which would be followed. Accepted safety and security measures would be implemented to reasonably protect commuters from safety and security impacts.

2.6.3.16 Consistency with Local Plans

The parking expansion and its anticipated effects on community and land use are consistent with the goals of the Lombard Village Comprehensive Plan, described in Section 2.6.1.1.

In conjunction with the parking improvement outlined in this project, the Village is pursuing a local circulator bus to transport commuters to the station. The Village is planning station improvements including: cameras, new roof, a clock tower, ADA accessible bathrooms, anti-graffiti paint, new indoor vendors and possibly platform covers.

2.6.3.17 Hazardous Materials

There is the possibility of encountering hazardous materials or special waste during construction of the proposed parking sites. A search of available environmental records was conducted in accordance with the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) to identify potential hazardous materials within ½-mile of the project site. The project site includes the Lombard Station and the proposed parking expansion areas. Results of the search were reported and mapped in the EDR Radius Map Report with Geocheck (EDR report) for Lombard Station, and are summarized in this section.

The EDR report identified six Underground Storage Tanks (USTs) at 36 and 50 East St. Charles Rd (Map ID E13/E14), owned by Lombard Fire Station/ Village of Lombard, that may be within

Parking Area 1. One of these is reported as a Leaking Underground Storage Tank (LUST), listed as Map ID E15 in the table below.

The EDR report identified the following hazardous material reports within ½-mile of the project site, again listed by database:

- 11 RCRA-SQG
- 2 RCRA-CESQG
- 4 RCRA-NonGen
- 1 ERNS
- 48 HMIRS
- 45 FINDS
- 25 LUST
- 1 LUST TRUST
- 27 UST
- 2 SPILLS
- 1 ENG CONTROLS
- 2 INST CONTROL
- 3 SRP
- 1 DRYCLEANER
- 6 AIRS

More information about these hazardous material reports and the databases in which they are listed is provided in the EDR report.

LUST sites that are upgradient of or immediately adjacent to the project site have the potential to migrate onto the project site and contaminate soil and groundwater. Those within 1/8-mile of the project site are listed in Table 2-23.

Table 2-23: LUST Sites within 1/8 Mile of Lombard Project Site

Name	Address	Map ID*	Status**
1ST Church of Lombard	220 South Main Street	A2	NFA/NFR Letter 3/7/1994
Lombard Temple Corp.	6 West Maple Street	A5	NFA/NFR Letter 3/22/2000
Main Street Car Wash	300 South Main Street	C7	NFA/NFR Letter 7/17/2006
Lombard Park District	227 West Parkside	J31	NFA/NFR Letter 12/15/1994
Franks Service Center	309 W St. Charles Rd	H41	NFA/NFR Letter 2/10/2006
Lords Auto	226 W St. Charles Rd.	N55	NFA/NFR Letter 9/17/2001
Lombard, Village of	**50 East St. Charles Rd. (within or next to Parking Area 1)**	**E15**	**Not reported**

* The site may be located by its Map ID number in the EDR report.

** NFA (no further action) or NFR (no further remediation) applies to USTs in which the owner/operator is not required by the regulating agency to take further remediation or action.

Note: Rows in bold indicate sites next to or within proposed parking areas.

The LUST site listed in bold is either within or adjacent to proposed Parking Area 1, which is proposed to have new parking. Due to the proximity of this LUST site and the fact that it is not reported to have received an NFA/NFR letter, impacts due to hazardous materials are possible at this station.

Mitigation

There is a substantial potential liability associated with acquisition of property that is contaminated. Therefore, an updated review will be conducted prior to acquisition and construction. The update will include a re-review of environmental databases to determine if any significant changes in status have occurred since preparation of the current EDR report.

For parking areas with proposed new or expanded parking, a Phase I or Phase II Environmental Site Assessment is recommended during preliminary engineering and again prior to property acquisition and construction.

If contaminated materials are encountered, additional investigations would be necessary to implement mitigation activities required to support construction. Results of these investigations would be used to assess the need for a more detailed contamination assessment or remedial action plan for the potential contamination sites. All investigation/remediation activities would be conducted in accordance with the Illinois EPA's Site Remediation Program as well as USEPA guidelines. Additionally, the construction worker health and safety plans would outline procedures for safely investigating, handling, and disposing of any contaminated material encountered during construction.