Central Corridor
Light Rail Transit

Environmental Assessment

Three Infill Stations

Western, Victoria, and Hamline

Metropolitan Council

January 2010

CENTRAL CORRIDOR LIGHT RAIL TRANSIT PROJECT

ENVIRONMENTAL ASSESSMENT
THREE INFILL STATIONS

Prepared by:

Metropolitan Council

On behalf of

United State Department of Transportation (US DOT)
Federal Transit Administration (FTA)

Pursuant to:

National Environmental Policy At of 1969, Section 102(2)(c), 42.U.S.C. 4332 (2)(c);
National Historic Preservation Act of 1966, Section 106, 16 U.S.C. 470f, et seq.;
Federal Transit Act, 53 U.S.C. Section 5323(b), Section 5309(e)(2) – (7), 5301(e), and 5324(b)(1) – (3);
Title 49 U.S.C. Section 303, formerly Department of Transportation Act of 1966, Section 4(f);
Executive Order 11990 (Protection of Wetlands);
Executive Order 12898 (Environmental Justice);
Executive Order 13045 (Protection of Children from Environmental Health and Safety Risks);
Executive Order 13166 (Improving Access to Services for Persons with Limited English Proficiency).

1-8-2010
Date of Approval

Marisol Simon, Region 5
Regional Administrator
Federal Transit Administration

1.8.2010
Date of Approval

Mark Fuhrmann
Project Director
Metropolitan Council

ABSTRACT

The Metropolitan Council on behalf of the Federal Transit Administration (FTA), the lead federal agency, has prepared this Infill Stations Environmental Assessment (EA) for the Central Corridor Light Rail Transit Project (the Project) pursuant to 23 CFR 771.130(c). The Project is 10.9 miles long (9.7 miles of new alignment, 1.2 miles on shared alignment) and consists of 20 Central Corridor Light Rail Transit (LRT) stations – 15 new stations and five shared with the Hiawatha LRT. A total of three potential infill stations have been identified in the City of St. Paul within the Midway East Project segment between Snelling Avenue and Rice Street. Potential infill station locations are at Hamline Avenue, Victoria Street, and Western Avenue. This Infill Stations EA analyzes the social, economic, and environmental impacts associated with the construction of above-grade elements of these three stations.

The June 2009 Final Environmental Impact Statement (FEIS) for the Central Corridor LRT Project analyzed the social, economic, and environmental impacts of the Project, including the construction of below-grade infrastructure for the three potential infill stations.. Recently, the project sponsors obtained a commitment for local funding to build one above-grade infill station at Hamline Avenue, Victoria Street, or Western Avenue. Consequently, an evaluation of the social, economic, and environmental impacts for the construction of an above-grade station is is required in accordance with the National Environmental Policy Act (NEPA). The above-grade construction of all three infill stations is included in this Infill Stations EA.

A public comment period has been established for this document. Comments may be submitted in writing or in person at two public hearings scheduled for January 27, 2010 at the Hallie Q. Brown Community Center at 270 N. Kent Street in St. Paul. Two hearings will be held that day, one starting at 11:00 a.m. and one starting at 6:00 p.m.

Written comments should be submitted directly to Ms. Kathryn L. O'Brien by February 10, 2010.

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Table of Contents

List of Tables

List of Figures

Appendices

ES 1.0 EXECUTIVE SUMMARY

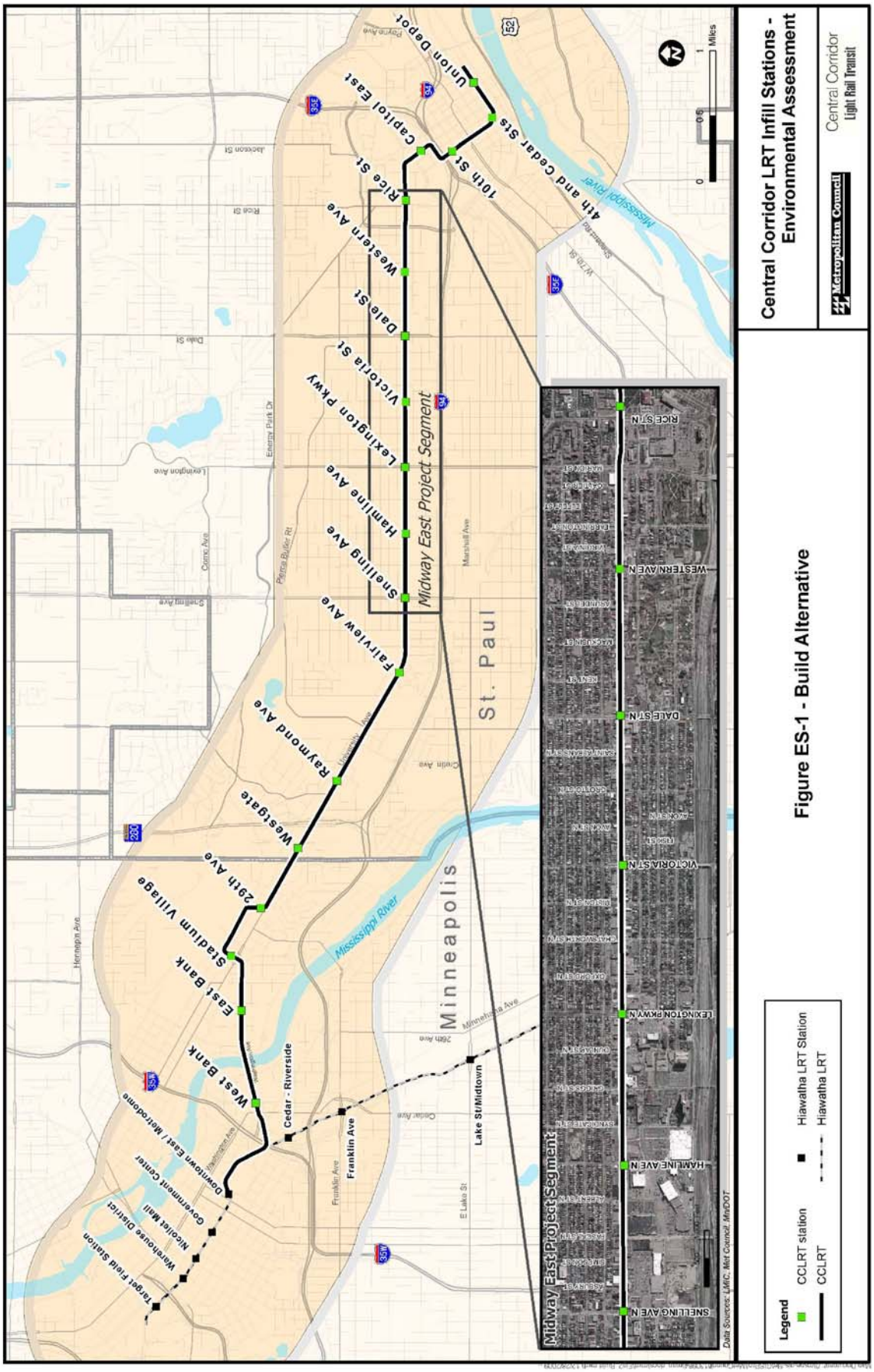
The Metropolitan Council on behalf of the Federal Transit Administration (FTA), the lead federal agency, has prepared this Infill Stations Environmental Assessment (EA) for the Central Corridor Light Rail Transit Project (Project) pursuant to 23 CFR 771.130(c). The Project is 10.9 miles long (9.7 miles of new alignment, 1.2 miles on shared alignment) and consists of 20 Central Corridor LRT stations – 15 new stations and five shared with the Hiawatha LRT. A total of three potential infill stations have been identified in the City of St. Paul between Snelling Avenue and Rice Street, also known as the Midway East segment. The potential infill stations locations are at Hamline Avenue, Victoria Street, and Western Avenue. This Infill Stations EA analyzes the social, economic, and environmental impacts of construction of above-grade elements of these stations. (See Figures ES 1 and ES 2.)

The June 2009 Final Environmental Impact Statement (FEIS) for the Project analyzed its social, economic, and environmental impacts, including the construction of below-grade infrastructure for three potential infill stations . The above-grade construction of these stations was not included in the FEIS because of concerns by the project sponsors regarding the impact of inclusion of the stations on the Project's Cost Effectiveness Index (CEI), which is used to determine if a project qualifies for federal funding. Recently, the project sponsors obtained a commitment for local funding to build one above-grade infill station in the Midway East segment, and seek to include that station in the final project scope for the Project. Consequently, an evaluation of the social, economic, and environmental impacts for the construction of an above-grade station is required in accordance with the National Environmental Policy Act (NEPA).

The three potential Midway East infill stations will be similar in size and design. Because the project sponsors have not determined which one of the three stations will be included in the final Project scope, the above-grade construction of all three infill stations is included in this Infill Stations EA. The project sponsors may select any of these locations in consultation with local elected officials and other stakeholders. By analyzing the social, economic, and environmental impacts of construction of above-grade elements for all three potential stations, project sponsors will have the ability to select any of the three infill stations for above-grade construction using locally committed funds.

ES 1.1 Basis for the EA

A Central Corridor Alternatives Analysis and Draft Environmental Impact Statement (AA/DEIS) was completed for the corridor in April 2006, and a Supplemental Draft Environmental Impact Statement (SDEIS) was completed in August 2008. In February 2008 the addition of potential infill stations at Hamline Avenue, Victoria Street, and Western Avenue was identified and was analyzed as part of the Central Corridor LRT SDEIS. A Final Environmental Impact Statement (FEIS) was completed in June 2009, and a Record of Decision (ROD) was issued by FTA in August 2009. At the state level, the Metropolitan Council issued an Adequacy Determination on the FEIS in August 2009. These documents are incorporated by reference and considered to be a part of this Infill Stations EA.


Central Corridor LRT Infill Stations - Environmental Assessment
Metropolitan Council
Central Corridor Light Rail Transit
Figure ES-1 - Build Alternative
Legend
CCLRT station
CCLRT
Hiawatha LRT Station
Hiawatha LRT
Union Depot
Capitol East
10th St
4th and Cedar Sts
Rice St
Western Ave
Dale St
Victoria St
Lexington Pkwy
Hamline Ave
Snelling Ave
Fairview Ave
Raymond Ave
Westgate
29th Ave
Stadium Village
East Bank
West Bank
Cedar - Riverside
Franklin Ave
Lake St/Midtown
Midway East Project Segment
St. Paul
Minneapolis
Mississippi River
RICE ST N
WESTERN AVE N
DALE ST N
VICTORIA ST N
LEXINGTON PKWY N
HAMLINE AVE N
SNELLING AVE N
Data Sources: LMIC, Met Council, MnDOT

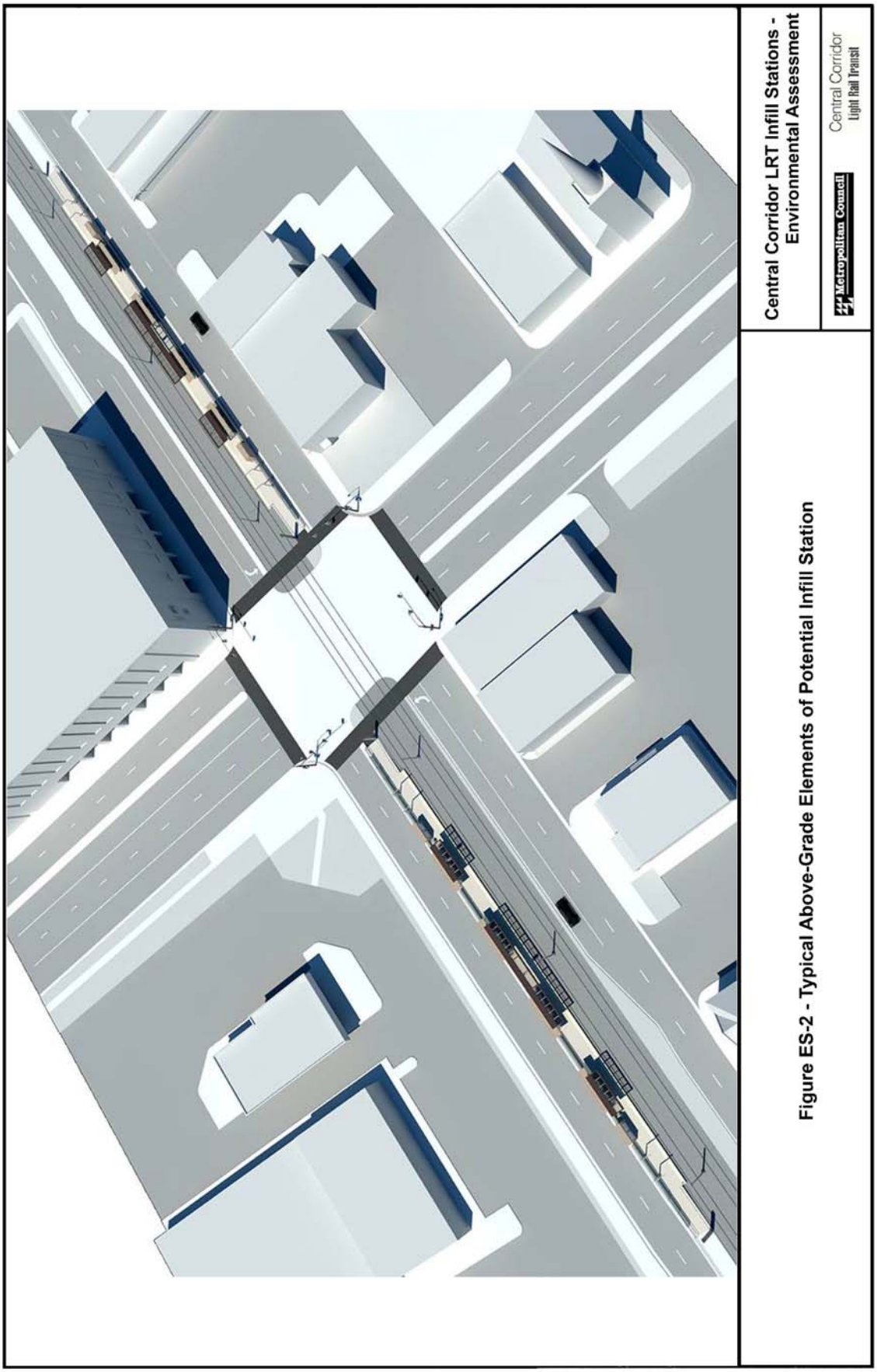


Figure ES-2 - Typical Above-Grade Elements of Potential Infill Station

The construction of infill stations was first disclosed to the public and resource agencies with publication of the Central Corridor LRT SDEIS. However, at the time of publication of the Project's FEIS and the issuance of the ROD, only the installation of below-grade infrastructure to facilitate later station construction was committed as part of the proposed Project.

Since publication of the Central Corridor LRT FEIS and issuance of the ROD by FTA, the City of St. Paul has committed funding for above-grade construction of one infill station in the Midway East segment as part of initial Project construction. With the City of St. Paul's funding commitment, the project sponsors intend to include one above-grade infill station in the final project scope for the Project. Recognizing the concerns that the Project must adequately meet the needs of the transit-dependent populations living in proximity to the infill stations as expressed by members of the public, non-profit organizations, local elected officials, local jurisdictions, and agencies during the AA/DEIS, SDEIS, and FEIS comment periods, the FTA and the Metropolitan Council are publishing this Infill Stations EA to complete the required NEPA review for above-grade Central Corridor LRT infill station construction at Western Avenue, Victoria Street, Hamline Avenue.

This Infill Stations EA identifies and discloses the results of previous technical analyses for environmental impact areas as completed during the Project's preliminary engineering phase, and summarizes and documents those results fully. This Infill Stations EA focuses on issues where impacts would differ with full construction of the infill stations, as opposed to installation only of below-grade infrastructure. In the event there is no difference in impact, this Infill Stations EA will refer to the appropriate section of the FEIS where impacts were discussed. If the impacts of full construction are different from installation of only below-grade station infrastructure, this Infill Stations EA will fully describe these impacts, present the results of technical analyses completed, and discuss required mitigation measures, if any.

ES 1.2 Purpose and Need

The purpose of this Infill Stations EA is to comply with NEPA requirements for environmental review of the above-grade construction of up to three potential infill stations at Western Avenue, Victoria Street, and Hamline Avenue. All evaluations of impacts completed for this Infill Stations EA assume construction of all three stations. However, at the time of publication of this Infill Stations EA, funding for above-grade construction of one infill station has been committed and project sponsors intend to include above-grade construction of one infill station in the final Project scope.

The potential infill stations are located in the City of St. Paul between Snelling Avenue and Rice Street. This area is referred to as the Midway East Project planning segment throughout this Infill Stations EA and was similarly identified in prior environmental review documents, including the Project's SDEIS and FEIS. A mix of land uses is found in Midway East. Although University Avenue is predominantly a commercial corridor, including small businesses, large regional shopping centers, small and large office and medical buildings, commercial warehouses, and automobile sales and service businesses, residential uses also exist on the Avenue, including some single-family homes. As discussed in the Project's FEIS, although minority populations are distributed throughout the Project Study Area, the highest concentrations are in the Midway East segment. This area also has some of the highest rates of households and persons living in poverty in the Central Corridor LRT Project area.

The need for the infill stations arises from community concerns expressed during the course of Project development, including comments received on the AA/DEIS, SDEIS and FEIS, for additional stations in the Midway East segment.

ES 1.3 Summary of Affected Resource Areas

All resource areas covered in the FEIS were reviewed for this Infill Stations EA. Changes to anticipated impacts that would result from full construction of the three potential infill stations are described and the results of analysis presented in the EA along with required mitigation measures, if any.

The following resource areas (with Chapter or Section of this EA referenced) will experience impacts from the above-grade construction and operation of the potential infill stations. Overall, however, the potential infill stations will not significantly impact or adversely affect the surrounding community and no additional mitigation will be required beyond the project sponsors' standing commitment to analyze and evaluate mitigation issues consistently for all Midway East stations. The impacts are summarized briefly as follows:

Social Effects (Chapter 3)

- Land Use and Socioeconomics (Section 3.1.1) - Additional development would likely be focused at each infill station; this incremental impact will not be significant. No adverse effects are anticipated and no additional mitigation is required.
- Neighborhoods, Community Services, and Community Cohesion (Section 3.1.2) - Improved transit service and increased access may act as a catalyst to new investment; stations would be considered amenities to the adjacent neighborhoods and serve as activity focal points; pedestrian concentrations at stations would create new opportunities for businesses. These incremental impacts will not be significant or adverse.

  Possible short-term construction impacts include inconvenience to business patrons, community facilities clients, medical clinic and hospital patients, and those attending schools and places of worship. Existing plans for the Central Corridor LRT Project already include full below-grade infrastructure construction for the potential infill stations. If the above-grade elements are constructed concurrent with the below-grade infrastructure, the construction time is estimated to be six months. However, if the above-grade elements are constructed after the LRT line is in revenue service, the construction time will increase to nine months. No additional mitigation of effects is required. All mitigation actions committed to in the FEIS will be implemented.
- Cultural Resources (Section 3.1.3) - Visual impacts on cultural resources could occur near the Victoria Street and Western Avenue potential infill stations. No additional visual impacts are anticipated from the Hamline Avenue potential infill station because there are no historic resources in proximity to the Hamline Avenue location. The Victoria Street Station platform could have visual impacts on the Brioschi-Minuti and Raths-Mills-Bell Films Buildings, depending on platform design and placement. The Western Avenue Station platform could have visual impacts on the Minnesota Milk Building, depending on platform design and placement. These concerns will be addressed through consultation with the Minnesota State Historic Preservation Office and other parties, as specified in the Central Corridor LRT Project Programmatic Agreement. This incremental impact will not be significant. No additional mitigation of effects is required.

- Visual Quality and Aesthetics (Section 3.1.4) - Project-related visual elements would be added to the streetscape. Specifically, construction of the above-grade stations would add platform elements, including ticket vending machines, windscreens, canopies, and lights on both sides of major intersections. Station canopies would be raised, and have the greatest potential for visual and aesthetic impact by blocking the view across the roadway, including views of storefronts and business signs. The overall impact on the visual environment along University Avenue would be low, except for moderate impact at the infill station locations. This incremental impact will not be significant. No additional mitigation of effects is required.
- Environmental Justice (Section 3.1.5) - The three potential infill stations within the Project area were analyzed for environmental justice impacts in the FEIS, therefore the long-term and short-term adverse impacts disproportionately borne by minority and low-income populations would be the same as those identified in the FEIS. An incremental benefit to constructing the infill stations in their entirety during initial Project construction would be minimized construction impacts to businesses, residents, non-profits, and community centers. Construction of the above-grade elements for one or more of the potential infill stations will likely increase access to transit service for Midway East residents and businesses. A full analysis of these effects will be conducted as part of completing the targeted transit service plan required as mitigation for environmental justice impacts identified in the FEIS. The targeted transit service plan will be completed six months before initiation of the Central Corridor LRT revenue service.

  Possible short-term construction impacts include inconvenience to business patrons, community facilities clients, medical clinic and hospital patients, and those attending schools and places of worship. Existing plans for the Project already include full below-grade infrastructure construction for the potential infill stations.

  All mitigation committed to in the FEIS will be implemented. Construction of one or more of the infill stations will be factored into consideration when the Metropolitan Council completes its targeted transit service plan, as committed to for mitigation of adverse environmental justice impacts noted in the FEIS. No additional mitigation of effects is required.

Environmental Effects (Chapter 4)

- Air Quality (Section 4.1.1) - Modeling of high-traffic volume intersections with previously planned stations yielded air quality results that did not exceed NAAQS. No receptor sites are anticipated to experience CO concentrations in excess of current NAAQS. No additional impacts are anticipated. No additional mitigation of effects is required.
- Noise (Section 4.1.2) - Noise modeling results and noise contours presented in the FEIS included noise associated with LRT operations at the three potential infill stations. No additional impacts would result. All mitigation committed to in the FEIS will be implemented. No additional mitigation of effects is required.
- Vibration (Section 4.1.3) - Vibration generated by light rail vehicle operations during revenue service is not changed. No additional construction-related activities and no additional short-term vibration effects are anticipated. All mitigation committed to in the FEIS will be implemented. No additional mitigation of effects is required.

Economic Effects (Chapter 5)

- Station Area Development (Section 5.1.1) - The areas in a one-half mile radius around the Midway East stations at Rice Street, Dale Street, Lexington Parkway, and Snelling Avenue accounted for much of the area surrounding the infill stations of Western Avenue, Victoria Street, and Hamline Avenue. The City of St. Paul station area planning process will result in plans, recommendations, and proposed ordinances comparable to those for the other Central Corridor LRT stations. Specific policies and regulations implemented will depend on the desires of the residents and other stakeholders around the stations, and on the transit oriented development (TOD) potential at each station. New infill development is more likely to occur around stations with policies and development regulation changes that encourage it. Stability and enhancement of existing land use patterns and densities is more likely to occur around stations with development policies and regulations which encourage it. Additional development would likely be focused at each infill station; this incremental impact will not be significant. No adverse effects are anticipated and no additional mitigation is required.

Transportation Effects (Chapter 6)

- Transit Effects (Section 6.1.1) - Ridership forecasts resulted in LRT boarding volumes for the infill stations as shown in the following table. Transit service frequency would remain unchanged from that reported in the FEIS. All mitigation committed to in the FEIS will be implemented. No additional mitigation of adverse transit effects is required.

Table ES 1: 2030 Central Corridor LRT Infill Station Daily Volumes by Station

Weekday Boardings			
Station	**Peak Period**	**Off Peak Period**	**Total Daily**
Western Avenue Station	170	100	270
Victoria Street Station	190	210	400
Hamline Avenue Station	310	290	600

Source: AECOM (December 2009)

- Other Transportation Impacts (Section 6.3) - The Project will construct the below-grade station infrastructure and all other University Avenue street improvements required for LRT and vehicular operations, therefore no additional parking losses are anticipated with full construction of the infill stations. All required pedestrian accommodations, including signals, accommodations for walkways and other modifications will be included as part of reserving the station "footprint," therefore no changes or additional adverse impacts to pedestrian or bicycle facilities are anticipated with infill station construction. Construction of the infill stations will add bicycle parking capacity to the overall system with provision of bicycle racks. All mitigation committed to in the FEIS will be implemented. No additional mitigation is required.

Indirect and Cumulative Impacts (Chapter 8)

The primary sources of potential indirect and cumulative effects would be the increased development and redevelopment surrounding the infill station areas. There would not be any additional indirect or cumulative impacts not previously disclosed in the FEIS.

The City of St. Paul is preparing station area plans for the three potential infill stations. Each station area plan identifies areas of change and stability around the station. These plans will reflect the community's desire for the level of change or stability as determined through a collaborative process. Station area plans for the three potential infill stations are expected to be adopted by the City of St. Paul's City Council in late 2010. All mitigation actions committed to in the FEIS will be implemented. No additional mitigation of indirect or cumulative impacts is required.

ES 1.4 Summary of Unaffected Resource Areas

The following resource areas (with Chapter or Section of this EA referenced) have no changes to impacts that would result from full construction of the three potential infill stations. These issues are discussed in a summary-level fashion in the chapters and sections of the EA that follow.

Social Effects (Chapter 3)

- Acquisitions and Displacements/Relocations (Section 3.2.1)
- Parklands and Recreation Areas (Section 3.2.2)
- Safety and Security (Section 3.2.3)

Environmental Effects (Chapter 4)

- Groundwater and Soil Resources (Section 4.2.1)
- Water Resources (Section 4.2.2)
- Biota and Habitat (Section 4.2.3)
- Threatened and Endangered Species (Section 4.2.4)

Economic Effects (Chapter 5)

- Output, Earnings, and Employment Effects from Capital Expenditures (Section 5.2.1)
- Output, Earnings, and Employment Effects from Operations and Maintenance Expenditures (Section 5.2.2)
- Tax Revenue Effects (Section 5.2.3)

Transportation Effects (Chapter 6)

- Effects on Roadways (Section 6.2.1)

Section 4(F) Evaluation (Chapter 7)

ES 1.5 Conclusion

The construction of one or more of the three Central Corridor LRT infill stations would have incremental changes to resource area impacts as summarized above. The incremental changes are minor and the impacts are not significant. No additional mitigation, beyond mitigation committed to in the Project's FEIS and ROD, is required as part of construction of one or more of the three potential infill stations.

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The Metropolitan Council on behalf of the Federal Transit Administration (FTA), the lead federal agency, has prepared this Infill Stations Environmental Assessment (EA) for the Central Corridor Light Rail Transit Project (Project) pursuant to 23 CFR 771.130(c). The Project is 10.9 miles long (9.7 miles of new alignment, 1.2 miles on shared alignment) and consists of 20 Central Corridor Light Rail Transit (CCLRT) stations – 15 new stations and five shared with the Hiawatha LRT. A total of three potential infill stations have been identified in the City of St. Paul between Snelling Avenue and Rice Street, also known as the Midway East segment. The potential infill stations locations are at Hamline Avenue, Victoria Street, and Western Avenue.

The June 2009 Final Environmental Impact Statement (FEIS) for the Project analyzed its social, economic, and environmental impacts, including the construction of below-grade infrastructure for three potential infill stations. The above-grade construction of these stations was not included in the FEIS because of concerns by the project sponsors regarding the impact of inclusion of the stations on the Project's Cost Effectiveness Index (CEI), which is used to determine if a project qualifies for federal funding. Recently, the project sponsors obtained a commitment for local funding to build one above-grade infill station in the Midway East segment, and seek to include that station in the final project scope for the Project. Consequently, an evaluation of the social, economic, and environmental impacts for the construction of an above-grade station is required in accordance with the National Environmental Policy Act (NEPA).

The three potential infill stations at Western Avenue, Victoria Street, and Hamline Avenue will be similar in size and design. Because the project sponsors have not determined which one of the three stations will be included in the final Project scope the above-grade construction of all three infill stations is included in this Infill Stations EA. The project sponsors may select any of these locations in consultation with local elected officials and other stakeholders. By analyzing the social, economic, and environmental impacts of construction of above-grade elements for all three potential stations, project sponsors will have the ability to select any of the three infill stations for above-grade construction using locally committed funds.

A Central Corridor Alternatives Analysis and Draft Environmental Impact Statement (AA/DEIS) was completed for the corridor in April 2006, and a Supplemental Draft Environmental Impact Statement (SDEIS) was completed in August 2008. A Final Environmental Impact Statement (FEIS) was completed in June 2009, and a Record of Decision (ROD) was issued by FTA in August 2009. At the state level, the Metropolitan Council issued an Adequacy Determination on the FEIS in August 2009. These documents are incorporated by reference and considered to be a part of this Infill Stations EA. This chapter summarizes the Project's history and context. It also summarizes the proposed action's purpose and need.

Section 1.1 presents an overview of the history of the Project.

Section 1.2 discusses the basis of this Infill Stations EA in supporting the overall Project decision-making process.

Section 1.3 briefly describes the proposed action, its purpose, and why it is needed.

Section 1.4 presents a summary of affected resource areas.

Section 1.5 presents a summary of non-affected resource areas.

1.1 Project History and Timeline

1.1.1 Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS), 2006

The Central Corridor AA/DEIS was begun in 2002 and was released for public and agency comment on April 3, 2006. Public hearings were held at four locations in May, and the comment period closed on June 5, 2006. On June 28, 2006, the Metropolitan Council adopted a Locally Preferred Alternative (LPA) for the Central Corridor, namely LRT operating on Washington and University avenues (Metropolitan Council Resolution No. 2006-15). The AA/DEIS LPA was 11 miles long (9.8 miles of new alignment and 1.2 miles sharing the existing Hiawatha LRT alignment in downtown Minneapolis). At the time of publication of the AA/DEIS and selection of the AA/DEIS LPA, the Project did not propose any station area infrastructure at the infill station locations of Western Avenue, Victoria Street, and Hamline Avenue.

A total of 916 people, agencies, and organizations offered comments on the AA/DEIS during the comment period. Approximately 77 comments were received regarding the need for additional stations in the City of St. Paul.

1.1.2 Supplemental Draft Environmental Impact Statement (SDEIS), 2008

Subsequent to the completion of the AA/DEIS, several unresolved policy questions and design options surfaced which required additional study. Key among these considerations was the need to identify locations for potential additional stations in the City of St. Paul, in response to the numerous comments received during the AA/DEIS comment period.

To document and disclose the potential impacts of changes to the AA/DEIS LPA, a Supplemental Draft Environmental Impact Statement (SDEIS) was completed by the Metropolitan Council and the FTA. The purpose of the SDEIS process was to explore in a public setting potentially significant effects of implementing proposed changes to the AA/DEIS LPA on the physical, human, and natural environment.

A Notice of Intent (NOI) to prepare an additional assessment was published in February 2008, and the comment period for the SDEIS was from July 11 to August 25, 2008. In response to public comments and concerns regarding potential additional stations, the SDEIS evaluated three potential infill stations on University Avenue at Western Avenue, Victoria Street, and Hamline Avenue. A Preferred Alternative (Metropolitan Council Resolution No. 2008-26) was adopted by the Metropolitan Council on September 3, 2008, subsequent to three SDEIS public hearings and the closure of the SDEIS public comment period on August 25. The Preferred Alternative was 10.9 miles long (9.7 miles of new alignment, 1.2 miles on shared alignment), and had 15 new stations and five stations shared with the Hiawatha LRT for a total of 20 stations.

The Preferred Alternative only included below-grade infrastructure for the infill stations. The added cost and increased travel time of including the above-grade elements of the three potential infill stations would have increased the cost-effectiveness Index (CEI) for the Project causing the FTA CEI rating to fall below a “Medium” rating, jeopardizing availability of federal funding for the Project.

1.1.3 Final Environmental Impact Statement (FEIS), Record of Decision (ROD), and Adequacy Determination, 2009

The Project's FEIS was published in June 2009, beginning a required minimum 30-day review period. The FEIS was developed to comply with applicable federal regulations and acts as the public document that discloses the environmental effects of the Preferred Alternative with possible reasonable and feasible mitigation measures. This document also reflects the comments received during the circulation of the AA/DEIS.

The final Preferred Alternative as it was presented in the FEIS is shown in Figure 1-1. As depicted (and as disclosed in the FEIS) the Preferred Alternative highlights the locations for infill stations at Western Avenue, Victoria Street, and Hamline Avenue; however, only the below-grade infrastructure required to facilitate future station construction is included as part of the Preferred Alternative.

In August 2009, FTA issued a Record of Decision (ROD), which concluded the formal federal environmental review process. In addition, the Metropolitan Council issued an Adequacy Determination under the requirements of Minnesota Environmental Policy Act (MEPA), which concluded the state environmental review process. The ROD is the federal action which determines that the requirements of NEPA have been satisfied, and formally commits the Metropolitan Council to the mitigation measures required for the impacts identified in the FEIS. The mitigation measures are also conditions for receiving federal funding for the Project.

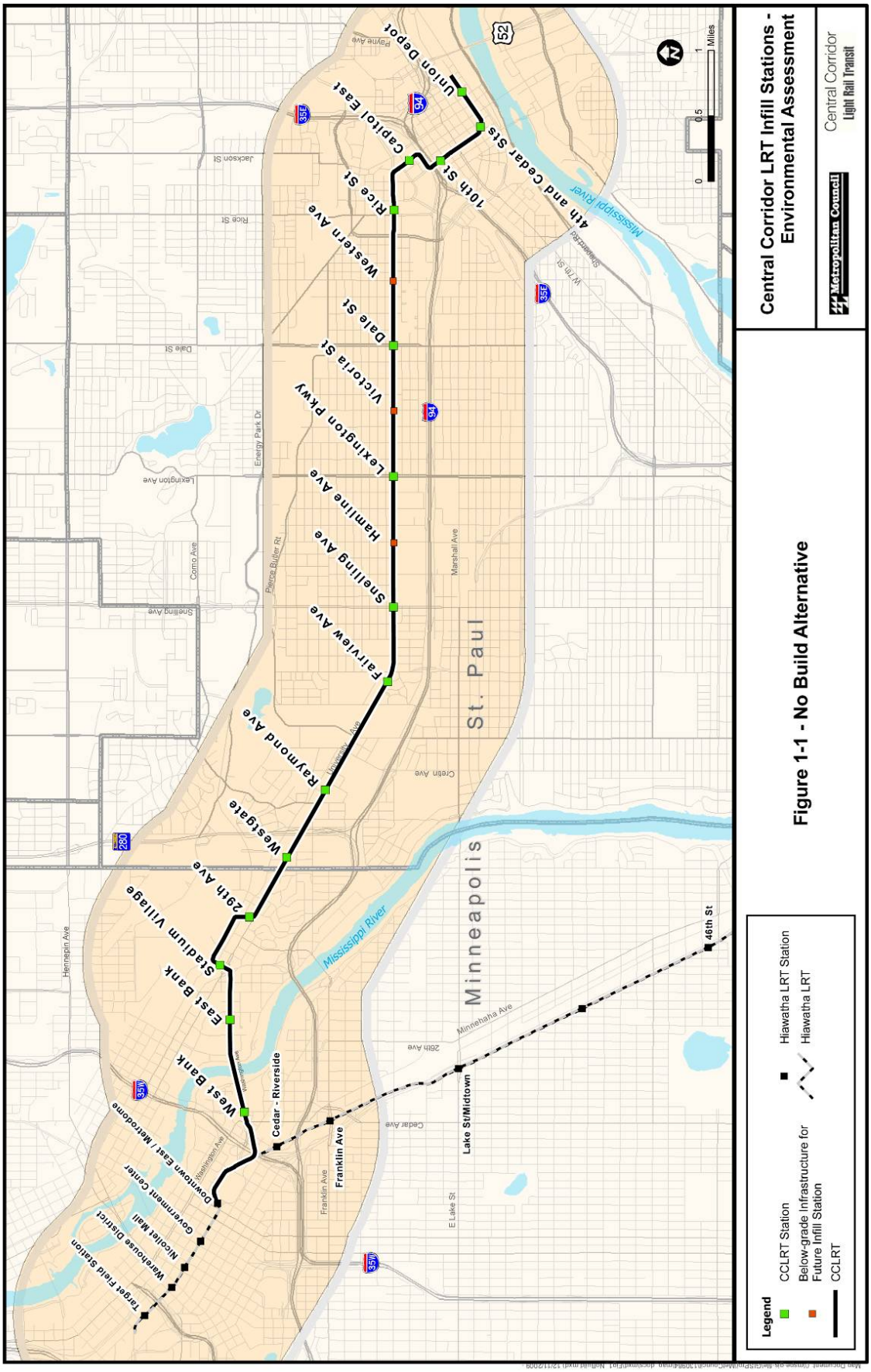

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Figure 1-1 - No Build Alternative
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Below-grade Infrastructure for Future Infill Station
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4th and Cedar Sts
Rice St
Western Ave
Dale St
Victoria St
Lexington Pkwy
Hamline Ave
Snelling Ave
Fairview Ave
Raymond Ave
Westgate
29th Ave
Stadium Village
East Bank
West Bank
Cedar - Riverside
Franklin Ave
Lake St/Midtown
46th St
Downtown East / Metrodome
Government Center
Nicollet Mall
Warehouse District
Target Field Station
St. Paul
Minneapolis
Mississippi River
Miles

A summary of Project milestones for the Project is shown in Table 1-1.

Table 1-1: Project Milestones

Activity	Date	Status of Infill Stations Development
Notice of Intent (NOI) to Prepare EIS	June 5, 2001	NA
Notice of Availability (NOA) of Scoping Booklet and Scoping Meetings in EQB Monitor	June 11, 2001	
Interagency Scoping Meeting	June 26, 2001	Ten comments received regarding station locations evenly divided between desiring closer station spacing to more conveniently serve riders and desiring more distant station spacing to increase travel time savings (SOURCE: Central Corridor LRT Scoping Summary Report, Dec. 2001.)
Public Scoping Meetings (3)	June 26, 2001 8:00 AM	
	June 26, 2001 5:00 PM	
	June 27, 2001 5:00 PM	
Close of Scoping Comment Period	July 20,2001	NA
Scoping Decision	October 11, 2001	No infill stations identified
AA/DEIS NOA	April 21, 2006	NA
Public Hearings on AA/DEIS	May 22, 2006	Approximately 77 comments received regarding station spacing / need for additional stations.
	May 24, 2006 8:00 AM	
	May 24, 2006 6:30 AM	
AA/DEIS Comment Period Ends	June 5, 2006	NA
Adoption of AA/DEIS LPA	June 28, 2006	No infill stations included in AA/DEIS LPA
NOI to Prepare SDEIS	Federal Register Vol. 73, No. 37, publication date February 25, 2008, and Minnesota EQB. Vol. 32, No. 4 Publication Date: February 25, 2008	Potential Additional Stations at Hamline Avenue, Victoria Street, and Western Avenue is identified as one of nine key issues analyzed as part of the Central Corridor LRT SDEIS.
SDEIS NOA	July 11, 2008	NA
Public hearings	August 4, 2008 12:00 PM	Approximately 15 comments received regarding the need to build additional stations in the City of St. Paul.
	August 7, 2008 6:00 PM	
	August 9, 2008 2:00 PM	
SDEIS Comment Period Ends	August 25, 2008	NA
Adoption of Preferred Alternative	September 3, 2008	Below-grade infrastructure facilitating future construction of infill stations at Hamline Avenue, Victoria Street, and Western Avenue is included as part of Preferred Alternative.

Activity	Date	Status of Infill Stations Development
FEIS NOA published in the Federal Register	June 26, 2009	NA
FTA Record of Decision (ROD)	August 18, 2009	Below-grade infrastructure facilitating future construction of infill stations is part of proposed action covered by the ROD.
Minnesota Adequacy Determination	August 26, 2009	Below-grade infrastructure facilitating future construction of infill stations is part of proposed action covered by the Adequacy Determination.

Source: Central Corridor LRT FEIS, June, 2009

1.2 Basis for this Infill Stations Environmental Assessment (EA)

The construction of potential infill stations was first disclosed to the public and resource agencies with publication of the Central Corridor LRT SDEIS in June 2008. However, at the time of publication of the Project's FEIS in June 2009, only the installation of below-grade infrastructure to facilitate later station construction was committed as part of the proposed Project. In addition, the Record of Decision issued by FTA for the Project (and included as Appendix A) re-stated the FEIS Project definition relative to infill station construction, specifically, that only below-grade infrastructure would be included as part of the proposed Project. The above-grade construction of these stations was not included in the FEIS because of concerns by the project sponsors regarding the impact of inclusion of the stations on the Project's Cost Effectiveness Index (CEI), which is used to determine if a project qualifies for federal funding. Since publication of the Project's FEIS and issuance of the ROD by FTA, the City of St. Paul has committed funding for above-grade construction of one infill station in the Midway East segment as part of initial Project construction. With the City of St. Paul's funding commitment, the project sponsors intend to include one above-grade infill station in the final project scope for the Project. Recognizing the concerns that the Project must adequately meet the needs of the transit-dependent populations living in proximity to the infill stations as expressed by members of the public, non-profit organizations, local elected officials, local jurisdictions, and agencies during the AA/DEIS, SDEIS, and FEIS comment periods, the FTA and the Metropolitan Council are publishing this Infill Stations EA to complete the required NEPA review for above-grade Central Corridor LRT infill station construction at Western Avenue, Victoria Street, Hamline Avenue.

This Infill Stations EA identifies and discloses the results of previous technical analyses for environmental impact areas as completed during the Project's preliminary engineering phase, and summarizes and documents those results fully. This Infill Stations EA focuses on issues where impacts would differ with full construction of the infill stations, as opposed to installation only of below-grade infrastructure. In the event there is no difference in impact, this Infill Stations EA will refer to the appropriate section of the FEIS where impacts were discussed. If the impacts of full construction are different from installation of only below-grade station infrastructure, this Infill Stations EA will fully describe these impacts, present the results of technical analyses completed, and discuss required mitigation measures, if any.

1.3 Purpose and Need

The purpose of this Infill Stations EA is to comply with NEPA requirements for environmental review so that one of the infill stations as identified in the FEIS (i.e., Western Avenue, Victoria Street, and Hamline Avenue) may be built as a part of the Project. The project sponsors may select any of these locations in consultation with local elected officials and other stakeholders. All evaluations of impacts completed for this Infill Stations EA assume construction of the above-grade elements for all three stations. However, the final scope of the Project will include the below-grade construction for all three potential infill stations and the above-grade construction for only one infill station.

Midway East, where the potential infill stations are located, has a mix of land uses. Although University Avenue is predominantly a commercial corridor, including small businesses, large regional shopping centers, small and large office and medical buildings, commercial warehouses, and automobile sales and service businesses, residential uses also exist on the Avenue, including some single-family homes. As discussed in the Project's FEIS, although minority populations are distributed throughout the Project Study Area, the highest concentrations are in the Midway East segment. This area also has some of the highest rates of households and persons living in poverty in the Central Corridor LRT Project area.

The following goals and objectives were developed to serve as the framework for decision making on the entirety of the Project, and also govern the proposed action evaluated in this Infill Stations EA. The full text of the Project goals and objectives is provided in the AA/DEIS, and a summary is provided below.

Goal 1: Economic Opportunity and Investment

Objectives:

- Support investments in infrastructure, business, and community that sustain the heart of the region.
- Promote a reliable transit system that allows an efficient, effective land use development pattern in major activity centers that minimizes parking demand, facilitates the highest and best use of adjacent properties, and gives employers confidence that employees can travel to/from work.

Goal 2: Communities and Environment

Objectives:

- Facilitate the preservation and enhancement of neighborhoods in the Project's Study Area.
- Acknowledge the individual character and aspirations of each place served, and of the region as a whole.
- Support regional goals for cleaner air and water, more efficient energy use, and a safer and healthier environment.

Goal 3: Transportation and Mobility

Objectives:

- Create transportation improvements that add people-carrying capacity, minimize operating costs, improve operating efficiency, provide high-quality modal alternatives, and reinforce the region's transportation system.

- Expand opportunities for all users to move freely to, through, and within the Project's Study Area.
- Enhance the existing transportation infrastructure to serve the high number of transit dependent persons in the Project's Study Area.

1.4 Summary of Affected Resource Areas

All resource areas covered in the FEIS were reviewed for this Infill Stations EA. The following resource areas have incremental changes to impacts which would result from full construction of the three potential infill stations. Changes that would result from full construction of the three potential infill stations are described and the results of analysis are presented, along with required mitigation measures, if any, in the following chapters and sections of this Infill Stations EA.

Social Effects (discussed in Chapter 3)

- Land Use and Socioeconomics
- Neighborhoods, Community Services, and Community Cohesion
- Cultural Resources
- Visual Quality and Aesthetics
- Environmental Justice

Environmental Effects (discussed in Chapter 4)

- Air Quality
- Noise
- Vibration

Economic Effects (discussed in Chapter 5)

- Station Area Development

Transportation Effects (discussed in Chapter 6)

- Transit Effects
- Other Transportation Impacts

Indirect and Cumulative Impacts (discussed in Chapter 8)

1.5 Summary of Non-affected Resource Areas

All other resource areas are anticipated to experience no change in impacts identified in the FEIS resulting from full construction of the three potential infill stations. The issues that follow are dealt with in summary fashion in the EA.

Social Effects

- Acquisitions and Displacements/Relocations
- Parklands and Recreation Areas
- Safety and Security

Environmental Effects

- Groundwater and Soil Resources
- Water Resources
- Biota and Habitat
- Threatened and Endangered Species

- Hazardous/Regulated Materials
- Electromagnetic Fields and Utilities
- Energy

Economic Effects

- Capital Expenditures
- Operations and Maintenance Expenditures
- Tax Revenue Effects

Transportation Effects

- Effects on Roadways

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2.0 ALTERNATIVES CONSIDERED

This chapter describes the alternatives considered for this Infill Stations EA. Specifically, the alternatives being considered consist of a No Build Alternative, defined as construction of the Project as defined in the Final Environmental Impact Statement (which includes construction of below-grade infrastructure for three potential infill stations in the Midway East segment), and a Build Alternative, defined as construction of above-grade stations at one or more of the three potential infill stations in the Midway East segment at Western Avenue, Victoria Street, and Hamline Avenue.

2.1 No Build Alternative

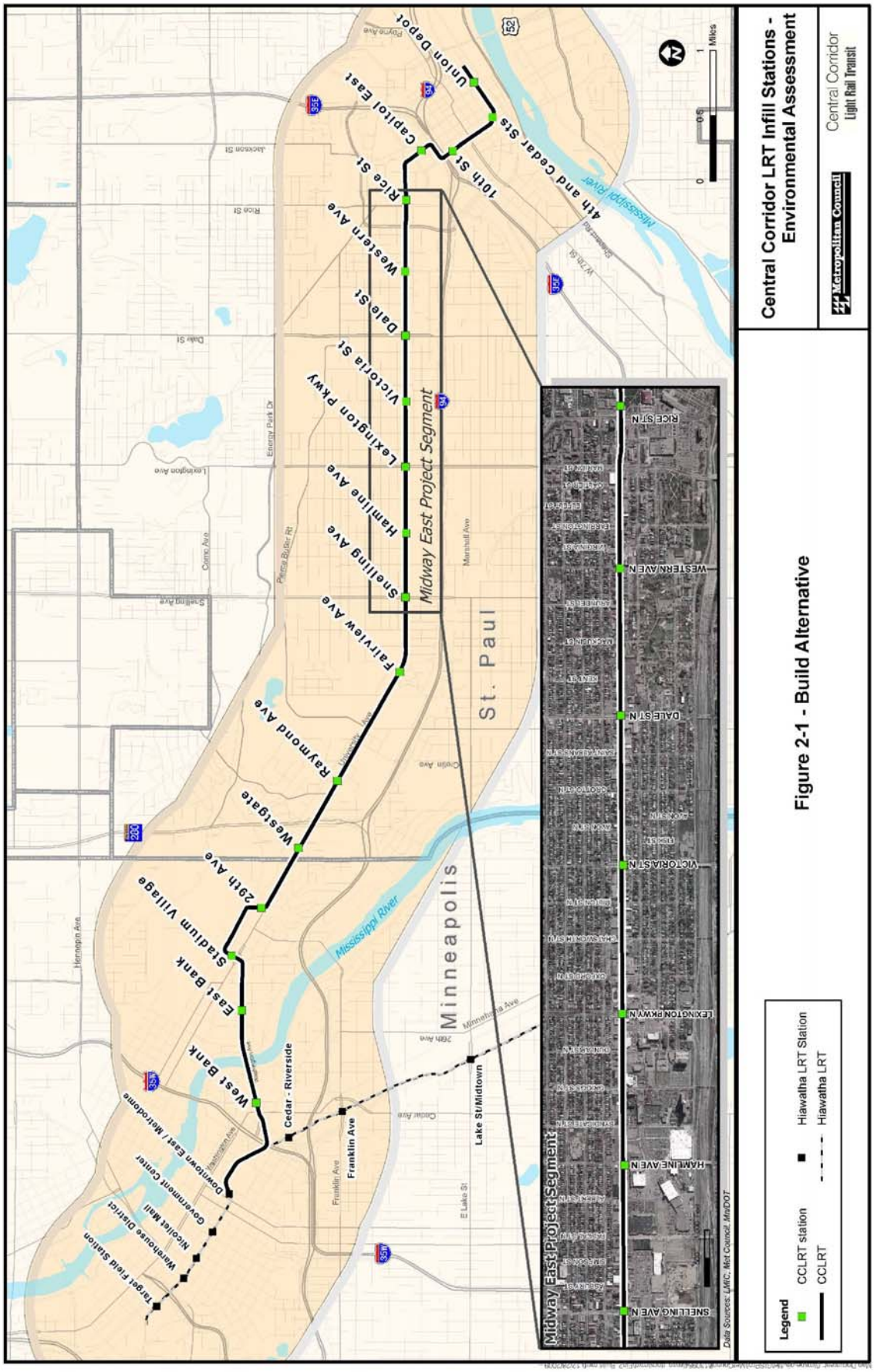
For the purposes of this Infill Stations EA the No Build Alternative is defined as the Central Corridor Preferred Alternative as shown in Figure 1-1 and documented in Section 2.2 in the Final Environmental Impact Statement (FEIS) published in June 2009.

The Central Corridor Preferred Alternative is proposed to be a 10.9-mile LRT system between St. Paul and Minneapolis, Minnesota (9.7 miles for the Project and 1.2 miles shared with the Hiawatha LRT) with a total of 15 new stations and five shared with the Hiawatha LRT line. Below-grade infrastructure to allow for later construction of three future infill stations will be provided at Western Avenue, Victoria Street, and Hamline Avenue. These three stations were identified as potential infill stations because the added costs of including the above-grade elements of the three potential infill stations would have increased the cost-effectiveness Index (CEI) for the Project beyond a “Medium” rating by FTA, jeopardizing availability of federal funding for the Project.

2.2 Build Alternative

The Build Alternative is the construction, including all below-grade and above-grade infrastructure, of three potential infill stations at Western Avenue, Victoria Street, and Hamline Avenue. Figures 2-1 and 2-2 show the Build Alternative in the context of the overall Project. This alternative includes the construction of split-side platform LRT stations at Western Avenue, Victoria Street, and Hamline Avenue. The work includes all above-ground station features including: concrete platforms; overhead canopies and windscreens; communications conduit, wiring, and devices; electrical conduit, wire, and fixtures; railings; benches, leaning bars and trash receptacles; signage and ticket vending machines. The stations will also be tied into the system-wide communications and signals duct bank.

Under the Build Alternative, at least one potential infill station will be constructed during initial Project construction. The total duration for construction at the station location areas would be approximately six months. The addition of above-grade elements for the infill station is not anticipated to add to the total construction duration of the Project.


Central Corridor LRT Infill Stations - Environmental Assessment
Metropolitan Council
Central Corridor Light Rail Transit
Figure 2-1 - Build Alternative
Legend
CCLRT station
CCLRT
Hiawatha LRT Station
Hiawatha LRT
Union Depot
4th and Cedar Sts
10th St
Capitol East
Rice St
Western Ave
Dale St
Victoria St
Lexington Pkwy
Hamline Ave
Snelling Ave
Fairview Ave
Raymond Ave
Westgate
29th Ave
Stadium Village
East Bank
West Bank
Cedar - Riverside
Franklin Ave
Lake St/Midtown
Downtown East / Metrodome
Government Center
Nicollet Mall
Warehouse District
Target Field Station
Midway East Project Segment
St. Paul
Minneapolis
Mississippi River
RICE ST N
WESTERN AVE N
DALE ST N
VICTORIA ST N
LEXINGTON PKWY N
HAMLINE AVE N
SNELLING AVE N
Data Sources: LMIC, Met Council, MnDOT

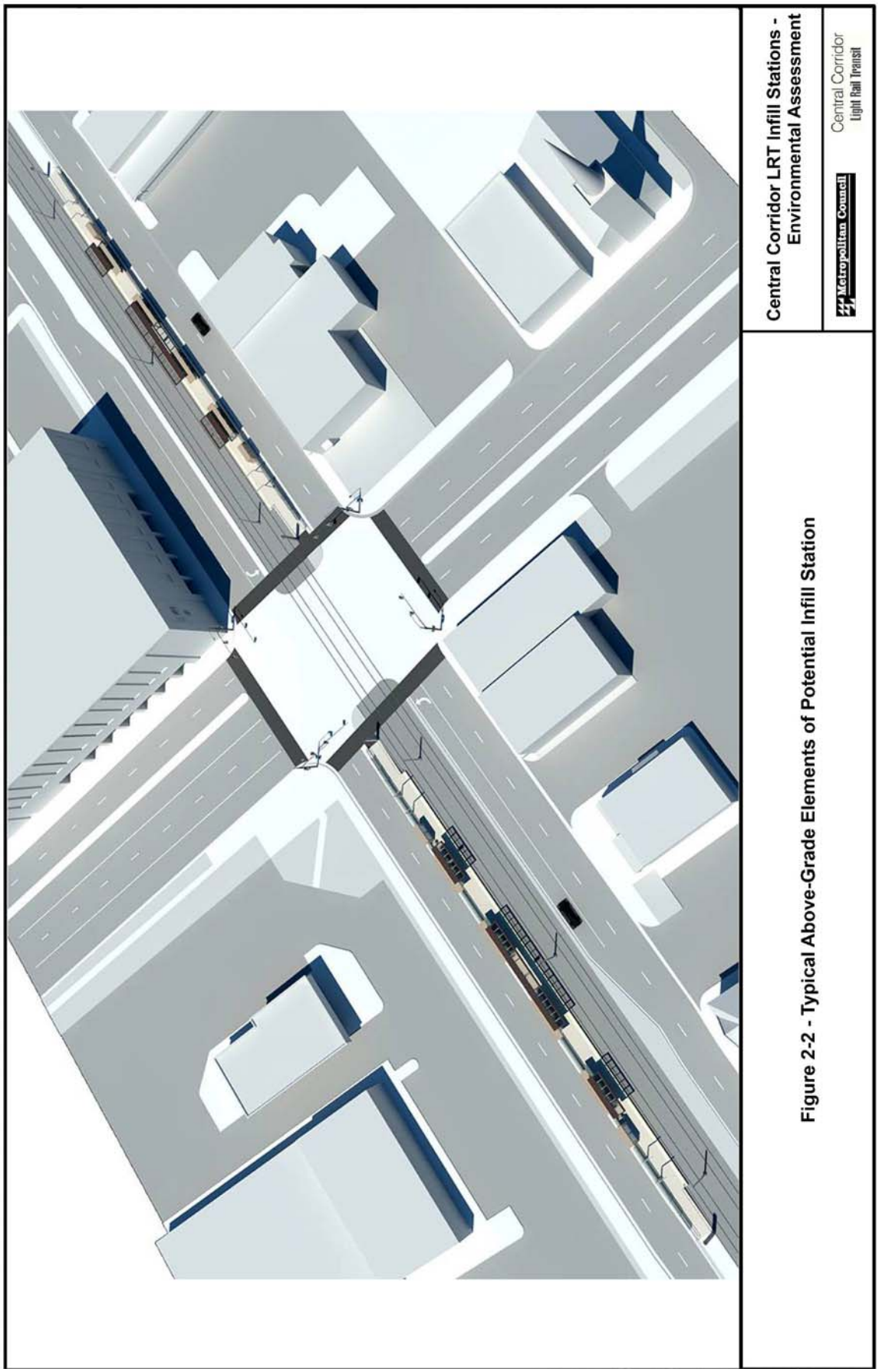


Figure 2-2 - Typical Above-Grade Elements of Potential Infill Station

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3.0 SOCIAL EFFECTS

Chapter 3 presents several topics related to the existing social conditions in the Central Corridor Light Rail Transit (LRT) (No Build Alternative) study area and potential effects from implementation of the No Build Alternative and the potential incremental effects of the Build Alternative. Specifically, a summary of No Build Alternative impacts reported in the FEIS are presented for all resource areas. This chapter also presents potential incremental impacts from the Build Alternative on land use; neighborhoods, community services, and community cohesion; cultural resources; visual quality and aesthetics; and environmental justice. No incremental impacts are anticipated from the Build Alternative on acquisitions and displacements/relocations; parklands and recreation areas; and safety and security, and these subjects are addressed at the end of this chapter.

3.1 Resource Areas Incrementally Affected

3.1.1 Land Use and Socioeconomics

This section discusses the existing conditions and potential impacts on land use, zoning, and socioeconomics of the No Build and Build Alternatives.

No Build Alternative:

Section 3.1 of the FEIS contains a complete discussion of land use and socioeconomics in the Midway East segment. Table 3.1-1 in the FEIS provides a summary of the land use impacts and reports no adverse impacts are expected to occur associated with station locations in the Midway East segment. Figure 3.1-4 in the FEIS presents the existing land use for the Midway East segment (see Appendix B in this document). As shown in Table 3.1-5 of the FEIS (shown below), nearly half of the Midway East segment is devoted to single-family dwellings - the major land use category in this segment. This segment accounts for more than a quarter of total corridor acreage, and land devoted to single-family homes in this segment accounts for over 11 percent of the total corridor acreage, which is more than any other land use in a single segment. Other significant land use categories for Midway East include commercial and retail (14 percent of the segment) and public and institutional (11.2 percent of the segment).

FEIS Table 3.1-5: Existing Land Use for Midway East

Land Use Category[a]	Acreage	Percentage of Segment Total	Percentage of Corridor Total
Single-Family Residential	826	41.6	11.4
Multi-Family Residential	331	16.7	4.6
Commercial/Retail	278	14.0	3.8
Office	33	1.7	0.5
Mixed Use	16	0.8	0.2
Industrial	25	1.3	0.3
Public/Institutional	223	11.2	3.1
Parks/Open Space	59	3.0	0.8
Transportation	143	7.2	2.0
Unused	49	2.5	0.7
Total	1984	100.0	27.3

Source: Metropolitan Council, MetroGIS Datafinder, Generalized Land Use, 2005

** All land use acreages and percentages shown are based on 2005 Metropolitan Council land use at a distance of one-half mile from the Preferred Alternative alignment.*

Section 3.1.6 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative*:*

- **Additional Impacts Not Previously Disclosed**: Construction of the above-grade elements of the Western Avenue, Victoria Street, and Hamline Avenue stations would have incremental impacts on Midway East land use and socioeconomics not previously disclosed in the No Build Alternative FEIS. Specifically, additional development would likely be focused at each infill station, because the increase in activity and desire for transit-supportive, mixed-use developments will be best suited for areas within one-quarter mile of each station. This incremental impact will not be significant.
- **Other Issues Noted**: The City of St. Paul completed their *Central Corridor Development Strategy* (CCDS),which "establishes a vision and set of strategies for how the Central Corridor should grow and change over the next 25-30 years in response to the LRT investment" (City of St. Paul, 2007). Consistent with the CCDS and the other Central Corridor stations, the City of St. Paul has been developing station area land use plans for the three potential infill stations at Western Avenue, Victoria Street, and Hamline Avenue since fall 2009.

  A Steering Committee representing interested groups and stakeholders has been appointed by and is responsible to the City Planning Commission. The Steering Committee met December 16, 2009, and regular meetings are scheduled throughout the process. The city held a two-day series of community roundtable sessions in November 2009, and day-long planning workshops will be held in late spring 2010. The station area planning process will result in plans, recommendations, and proposed ordinances to the same level of detail as have been developed for the other Central Corridor stations. The final station area plans for the three potential

infill stations are expected to be adopted by the City of St. Paul's City Council in late 2010.

- **Effects Noted:** No adverse effects to Midway East land use and socioeconomics resulting from implementation of the Build Alternative, namely the above-grade elements of LRT stations at Western Avenue, Victoria Street, and Hamline Avenue, are anticipated.
- **Required Mitigation**: No additional mitigation of effects to land use and socioeconomics is required as part of implementing the Build Alternative. All mitigation actions committed to in the FEIS will be implemented.

3.1.2 Neighborhoods, Community Services, and Community Cohesion

This section describes the evaluation of the potential effect of the No Build and Build Alternatives on the quality and cohesion of the neighborhoods adjacent to the Project's alignment and their community services.

No Build Alternative:

Section 3.2 of the FEIS describes the 12 districts or neighborhoods adjacent to the proposed Project's alignment and evaluates the effect on the quality and cohesion of these neighborhoods and their community services. Table 3.2-1 in the FEIS provides a summary of the impacts to neighborhoods, community services, and community cohesion, and reports no adverse impacts are expected to occur within the Midway East Project segment. Figures 3.2-4 and 3.2-5 in the FEIS presents the existing landmarks and community facilities for the Midway East segment (see Appendix B in this document). Table 3.2-3 of the FEIS lists the facilities located within one-quarter mile of the alignment and an excerpt from Table 3.2-3 for the Midway East segment is shown below. Section 3.2.5 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Excerpt from FEIS Table 3.2-3: Community Facilities in the Central Corridor

Midway East	
Central Corridor Resource Center	1080 University Avenue W
Central Village Park	457 Central Avenue. W
National Head Start Association	450 Syndicate Street N
National Head Start Association	586 Fuller Avenue
Rondo Library	461 Dale Street N
Ryan Park	618 Avon Street N
St. Paul Fire Department	681 University Avenue W
U.S. Post Office	1430 Concordia Avenue

Build Alternative:

- **Additional Impacts Not Previously Disclosed**: Construction of the above-grade elements of the Western Avenue, Victoria Street, and Hamline Avenue stations would have incremental impacts on neighborhoods, community services, and community cohesion not previously disclosed in the Project's FEIS. Specifically, the construction of the above-grade elements of the potential infill stations would improve transit service to adjacent neighborhoods. The increased access brought by transit improvements and the siting of potential infill stations may act as a catalyst to

new investment in the University Avenue corridor. The potential infill stations would be considered community amenities that would add to the stature of the adjacent neighborhoods and serve as focal points of daily activity. Concentrations of pedestrians at stations would also create new opportunities for pedestrian-friendly businesses. This incremental impact will not be significant nor will it be adverse.

- **Other Issues Noted**: In the Midway East segment, locations for all required traction power substations (TPSS) to serve the potential infill stations were determined in the No Build Alternative. Therefore, no additional impacts associated with TPSSs are anticipated.
- **Effects Noted**: Possible short-term construction impacts include inconvenience to patrons of businesses, clients of community facilities, patients of medical clinics and hospitals, and those attending schools and places of worship in the Midway East segment. However, these short-term construction impacts should be minimized during construction of the infill stations because the below-grade infrastructure to allow for later construction of three future infill stations will be constructed when the No Build Alternative is constructed. In addition, construction of above-grade elements of one or more potential infill stations during initial construction means fewer future impacts from additional construction activity during the system's operation.
- **Additional Required Mitigation**: No additional mitigation of effects to neighborhoods, community services, and community cohesion is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

3.1.3 Cultural Resources

This section evaluates the potential direct and indirect impacts to cultural resources. Section 3.4 of the FEIS discusses the existing cultural resources that are located in the Midway East portion of the Project corridor. In the vicinity of the three potential infill stations, the cultural resources include historic buildings that are individually eligible for inclusion on the National Register of Historic Places. No historic districts are present in the vicinity of the three potential infill stations.

No Build Alternative:

The design and placement of poles and catenary will affect all properties in the Midway East portion of the Project area. Temporary vibration, noise, traffic, and visual impacts will also affect all properties. A TPSS will be located in the general vicinity of the Brioschi-Minuti Company Building. Future land use changes around the planned and future station sites have the potential to affect cultural resources. Between the stations, any redevelopment would most likely occur on properties immediately facing the alignment. The Programmatic Agreement executed for the No Build Alternative, and included as Attachment B to the ROD (see Appendix A in this document) has specified several measures to promote rehabilitation of cultural resources and compatible redevelopment. Table 3.4-1 in the FEIS provides a summary of the potential effects to cultural resources for the Project corridor. No adverse effects to cultural resources within the Midway East segment were noted in the FEIS. Section 3.4.6 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative*:*

- **Additional Impacts Not Previously Disclosed**: No additional right-of-way (ROW) is anticipated for the construction of above-grade elements of the potential infill stations because the No Build Alternative includes the below-grade infrastructure and construction of street improvements to accommodate the three potential infill stations. Depending on the location and design, visual impacts on cultural resources could occur in the vicinity of the potential infill stations at Victoria Street and Western Avenue. The Victoria Street Station platform could have visual impacts on the nearby Brioschi-Minuti Building and the nearby Raths-Mills-Bell Films Building, depending on how the platform is designed and placed. The Western Avenue Station platform could have visual impacts on the nearby Minnesota Milk Building, depending on how the platform is designed and placed. These concerns will be addressed through consultation with the Minnesota State Historic Preservation Office and other parties, as specified in the No Build Alternative Programmatic Agreement. This incremental impact will not be significant.
- **Effects Noted:** No additional adverse effects to cultural resources are anticipated from the construction of above-grade elements of the potential infill stations due to the implementation of the consultation and mitigation measures that are specified in the existing, signed Programmatic Agreement (see Appendix A in this document).
- **Additional Required Mitigation**: No additional mitigation of adverse effects to cultural resources is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

3.1.4 Visual Quality and Aesthetics

This section describes the visual characteristics and aesthetic resources of the No Build Alternative study area and potential effects from implementation of the No Build Alternative and the potential incremental effects of the Build Alternative.

No Build Alternative:

Section 3.6 of the FEIS describes the visual characteristics and aesthetic resources of the No Build Alternative, the potential for impacts at various locations along the proposed alignment, and proposed mitigation of potential impacts. Table 3.6-1 of the FEIS summarizes the potential visual and aesthetic impacts of the Project and reports minimal visual and aesthetic impacts to the Midway East segment of the Project. Short term construction effects are described in Section 3.6.5 of the FEIS. Long-term visual effects of the Project are described in Section 3.6.4 of the FEIS, which notes that in the Midway East segment the addition of tracks, overhead catenary poles, and wires within the University Avenue right-of-way would have a minimal long-term effect and would include improvements, such as the rebuilding of University Avenue roadway, curbs and sidewalks that could result in an improved visual environment. Section 3.6.6 Mitigation of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative*:*

- **Additional Impacts Not Previously Disclosed**: Construction of above-grade elements of the Western Avenue, Victoria Street, and Hamline Avenue stations would add other project-related visual elements to the Midway East segment streetscape. Specifically, construction of above-grade elements of the stations would add platforms on both sides of major intersections. Elements on the platforms would

include ticket vending machines, windscreens, canopies, and lights. Because the station canopies would be raised, they have the greatest potential for visual and aesthetic impact. Stations and canopies may block the view across the roadway, including views of storefronts and business signs. This incremental impact will not be significant.

- **Effects Noted**: The overall impact on the visual environment along University Avenue would be low, except at the potential infill station locations where the impact would be moderate. Stations are likely to create the most prominent visual effect along University Avenue. Short-term construction effects would be the same as those described in Section 3.6.5 of the FEIS.
- **Additional Required Mitigation**: No additional mitigation of effects to visual quality and aesthetics is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

3.1.5 Environmental Justice

This section contains a description of the methods used to identify minority and low-income populations and evaluate potential environmental justice issues. The discussion includes long-term implications for environmental justice communities related to development of the No Build and Build Alternatives, along with short-term construction impacts and potential mitigation measures.

No Build Alternative:

Section 3.8 of the FEIS contains a description of the methods used to identify minority and low-income populations and evaluate potential environmental justice issues (see Appendix C). The discussion includes long-term implications for environmental justice communities related to development of the No Build Alternative, along with short-term construction impacts and potential mitigation measures. Table 3.8-6 in the FEIS provides a comparison of impacts relative to their location within the corridor and their potential impact to environmental justice communities. As noted in Section 3.8.6.1 of the FEIS, the No Build Alternative would result in one impact for which the benefits of the project would not offset the impacts. Analysis determined that three Census blocks would experience a decrease in transit service levels as a result of operation of the No Build Alternative, particularly near Western Avenue in St. Paul. Section 3.8.10 of the FEIS reports that the required elements for determining environmental justice impacts as specified within the FTA Title VI Circular have been addressed. Section 3.8.9 of the FEIS details mitigation commitments required for construction of the No Build Alternative. Specifically, mitigation of adverse effects related to decreases in access to transit service will be accomplished through the following action:

As part of the Project, the Metropolitan Council will commit to preparing a targeted transit service plan for the environmental justice community identified in this analysis. This service plan will be based on regional transit service standards and accepted quantitative methods typically used by Metro Transit but will also provide for community input into the process and measures of need as expressed by and as tailored for this transit-dependent community. This plan will be completed at least six months prior to the Project beginning revenue service operations and will be implemented concurrent with the start of LRT service.

Build Alternative:

- **Additional Impacts Not Previously Disclosed**: The locations of the three potential infill stations are within the No Build Alternative area defined for analysis of

environmental justice impacts in the FEIS. Because no significant incremental impacts will result from the construction of above-grade elements of the potential infill stations, the long-term and short-term adverse impacts disproportionately borne by minority and low-income populations would be the same as those identified in the FEIS. An incremental benefit to constructing the potential infill stations in their entirety during initial project construction would be minimized construction impacts to businesses, residents, non-profits, and community centers.

- **Other Issues Noted:** Construction of above-grade elements of one or more of the potential infill stations will likely increase access to transit service for Midway East residents and businesses. A full analysis of these effects will be conducted as part of the targeted transit service plan required as mitigation for environmental justice impacts identified in the FEIS.
- **Effects Noted**: Possible short-term construction impacts include inconvenience to businesses, residents, non-profits, and community centers. However, these short-term construction impacts should be minimized during construction of the potential infill stations because the below-grade infrastructure to allow for later construction of three potential infill stations will be constructed when the No Build Alternative is constructed. In addition, construction of above-grade elements of one or more potential infill stations during initial construction means fewer future impacts from additional construction activity during the system's operation.
- **Additional Required Mitigation**: No additional mitigation of environmental justice impacts is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented. Construction of one or more of the infill stations will be factored into consideration when the Metropolitan Council completes its targeted transit service plan, as committed to for mitigation of adverse environmental justice impacts noted in the FEIS.

3.2 Resource Areas not Incrementally Affected

3.2.1 Acquisitions and Displacements/Relocations

This section discusses property displacements, relocations, and acquisitions (partial or full) that might occur due to implementation of the No Build and Build Alternatives.

No Build Alternative:

Section 3.3 of the FEIS discusses property displacements, relocations, and acquisitions (partial or full) that might occur due to implementation of the No Build Alternative. Table 3.3-4 in the FEIS summarizes acquisitions and displacements due to right-of-way (ROW) requirements for the Midway East segment. Table 3.3-4 in the FEIS reports information on the total number of properties and parcels affected by the No Build Alternative, the type of impact, and the amount of property so affected. Section 3.3.6 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative:

Because the No Build Alternative includes the below-grade infrastructure and construction of street improvements to accommodate the three potential infill stations, no additional ROW is anticipated for the construction of above-grade elements of the infill stations. No incremental impact is anticipated and no additional mitigation of effects related to acquisition and displacement is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

3.2.2 Parklands and Recreation Areas

This section evaluates the potential direct and indirect impacts to public properties that are generally used as parks, open areas, and recreation areas by the public.

No Build Alternative:

Section 3.5 of the FEIS discusses the existing parklands, open space, and recreation areas that are located in proximity to the No Build Alternative. Table 3.5-1 in the FEIS provides a summary of the impacts identified for parklands, open space, and recreation areas and reports no parklands or recreation area effects are anticipated for the Midway East segment. No adverse effects to parklands or recreational areas within the Midway East segment were noted. Section 3.5.6 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative:

Because the No Build Alternative includes the below-grade infrastructure and construction of street improvements to accommodate the three potential infill stations and no additional ROW is anticipated for the construction of above-grade elements of the infill stations, no impacts to parklands or recreation areas are anticipated from the construction of above-grade elements of the infill stations. No incremental impact is anticipated and no additional mitigation of effects to parklands or recreation areas is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

3.2.3 Safety and Security

This section addresses activities that need to occur to ensure an acceptable level of system safety for the design, property and equipment acquisition, construction, installation, and testing of the No Build and Build Alternatives.

No Build Alternative:

Section 3.7 of the FEIS discusses the safety and security policies established by the Metropolitan Council for the construction and long-term operation of the No Build Alternative and assesses the potential project impacts to LRT users, area residents, rail corridor visitors, and construction workers for the No Build Alternative. System safety and security oversight for the No Build Alternative will be achieved through Metropolitan Council implementation of the Safety and Security Management Plan (Metropolitan Council, 2008). Long-term effects are described in Section 3.7.3 of the FEIS and short-term construction impacts are described in Section 3.7.4. Section 3.7.5 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative:

Construction of above-grade elements of the Western Avenue, Victoria Street, and Hamline Avenue stations would not have any additional impacts on safety and security not previously disclosed in the FEIS. No incremental impact is anticipated and no additional mitigation of effects to safety and security is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.0 ENVIRONMENTAL EFFECTS

Chapter 4 describes the existing conditions of the natural and built environments in the Project (No Build Alternative) Study Area and potential effects from implementation of the No Build and Build Alternatives on natural resources, its habitats, and effects of byproducts of the built environment, such as noise, hazardous materials, and energy consumption. Specifically, potential incremental impacts from the Build Alternative to air quality, noise, and vibration are presented. No incremental impacts are anticipated from the Build Alternative on groundwater and soil resources, water resources, biota and habitat, hazardous/regulated materials, electromagnetic fields and utilities, and energy, and are addressed at the end of this chapter. Impacts of the Build Alternative on air quality, noise, and vibration are described in greater detail as follows.

4.1 Resource Areas Incrementally Affected

4.1.1 Air Quality

This section describes the air quality impact analysis conducted for the No Build and Build Alternatives. Potential air quality impacts would occur as a result of emissions from motor vehicle traffic associated with the Project. Motor vehicle emissions vary with traffic volumes, distances traveled, travel speeds, and vehicle types.

No Build Alternative:

Section 4.5 of the FEIS describes the air quality impact analysis conducted for the No Build. The Project-level (i.e., hotspot) air quality analysis for carbon monoxide (CO) indicated that no receptor sites were forecast to experience concentrations in excess of the current 1-hour or 8-hour National Ambient Air Quality Standards (NAAQS). Short term emissions due to construction of the No Build Alternative would include emissions from vehicles due to traffic detour issues, construction vehicles, and fugitive dust within the construction site. Section 4.5.6 of the FEIS indicates that no mitigation measures were required for operation of the Project. Mitigation of short-term construction related impacts are also detailed in Section 4.5.6 of the FEIS.

Build Alternative*:*

- **Additional Impacts Not Previously Disclosed**: Air quality modeling of high-traffic volume intersections with previously planned stations in the Midway East segment (e.g. University and Snelling, and University and Lexington) under revenue service operations yielded air quality results that did not exceed NAAQS. Because the potential infill station location intersections have traffic volumes below several of the modeled intersections, and because the operational conditions (expressed as Level of Service) at the potential infill station intersections are improved compared to several of the modeled intersections (see Section 6.2 of this EA), only insignificant incremental impacts to air quality are anticipated with the construction of above-grade elements of the three potential infill stations.
- **Effects Noted**: No receptor sites are anticipated to experience CO concentrations in excess of current NAAQS. Short-term emissions are anticipated to be similar to the No Build Alternative.
- **Additional Required Mitigation**: Since no significant impacts are anticipated under the Build Alternative, no mitigation beyond that already identified in the FEIS is necessary.

4.1.2 Noise

This section discusses the potential impacts related to operational and construction-related airborne noise from the No Build and Build Alternatives. The noise analysis followed Federal Transit Administration (FTA) guidelines published in "Transit Noise and Vibration Impact Assessment" (May 2006).

No Build Alternative:

Section 4.6 of the FEIS discusses existing noise conditions and potential noise impacts associated with the No Build Alternative. A Detailed Noise Assessment was performed in accordance with FTA guidelines, to assess Project-related airborne noise. Analysis results identified a limited number of potential noise impacts. Noise from bells, crossovers, wheel squeal, and wheel-rail interaction contribute to the anticipated noise impacts. Long-term effects are documented in subsection 4.6.6 of the FEIS, and specifically for the Midway East segment in Table 4.6-10. Short-term effects are documented in Section 4.6.7 of the FEIS. Section 4.6.8 of the FEIS discusses the Metropolitan Council's commitment to a number of changes in operating policy that would result in a reduction of operational noise. Measures that apply to the three infill stations include the discontinuation of routine horn use[1] and reduction of LRT bell sound exposure level.[2] Section 4.6.9 of the FEIS and the detailed construction noise analysis memo dated November 25, 2008 in Appendix J of the FEIS describe mitigation measures which apply to the construction of the No Build Alternative and the potential infill stations.

Build Alternative:

- **Additional Impacts Not Previously Disclosed:** Noise modeling results and noise contours presented in the FEIS included noise associated with LRT operations at the potential infill station locations at Western Avenue, Victoria Street, and Hamline Avenue. Therefore no additional impacts not previously disclosed would result from implementation of the Build Alternative. Noise producing elements modeled and reported in the FEIS associated with the three potential infill stations included wayside noise and audible warning devices. These incremental impacts will not be significant.
- **Additional Required Mitigation:** No additional mitigation of noise effects is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.1.3 Vibration

This section summarizes the results of the General and Detailed Vibration Assessments prepared for the No Build and Build Alternatives prepared in accordance with FTA guidelines "Transit Noise and Vibration Impact Assessment" (May 2006).

[1] Metropolitan Council has committed to changing the operating policy for LRT horn use for the Central Corridor LRT project. LRT horns will only be used in emergency circumstances: LRT horns will not be used under routine operation and will not be used routinely when LRT trains cross streets or pedestrian cross walks.

[2] Metropolitan council has committed to an operating policy for the Central Corridor LRT that establishes a combination of LRT bell volume and ringing duration that does not exceed the 84 dBA LRT bell SEL.

No Build Alternative:

Section 4.7 of the FEIS discusses existing vibration conditions and potential vibration impacts associated with the No Build Alternative. Long-term vibration effects are documented in Section 4.7.6 and Table 4.7-4 of the FEIS. Short-term effects are documented in Section 4.7.8.3 of the FEIS. Section 4.7.5 of the FEIS describes vibration mitigation options which apply to construction of No Build Alternative stations and rail line. The complete impact assessment is included as Appendix J of the FEIS. Mitigation measures include use of resilient rail fasteners, relocating one vibration-sensitive land use, and use of floating slab technology.

Build Alternative:

- **Additional Impacts Not Previously Disclosed:** Because vibration generated by the operations of light rail vehicles during revenue service operations is not changed by the standard operating conditions at a station platform, i.e., the need to slow down and stop upon entering a station or the need to start up and accelerate upon departing a station, no additional LRT-generated vibration during revenue service operations is anticipated under the Build Alternative. The proximity to a station can be an advantage in terms of vibration because the lower speeds through the station area will result in reduced vibration levels compared to areas east and west of the station where the train will be operating at the speed limit. Because the No Build Alternative includes all below-grade station infrastructure, no additional excavation or earth-moving activities would be anticipated under a Build Alternative and no additional short-term vibration effects not previously disclosed are anticipated.
- **Effects Noted:** No additional LRT-generated vibration effects during revenue service operations or construction is anticipated under the Build Alternative.
- **Additional Required Mitigation:** No additional mitigation of vibration effects is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.2 Resource Areas not Incrementally Affected

4.2.1 Groundwater and Soil Resources

This section discusses the existing geology and potential impacts on soils and groundwater resources associated with the No Build and Build Alternatives.

No Build Alternative:

Section 4.1 of the FEIS discusses the existing geology and potential impacts on soils and groundwater resources within the No Build Alternative Study Area. Table 4.1-1 of the FEIS provides a summary of identified groundwater resource sensitivity to Project construction activities and potential for dewatering. No long term impacts to soil and groundwater resources are anticipated. Short-term impacts are primarily related to construction activities that cause soil disturbance, dewatering, or potential groundwater contamination because of accidental spills. Section 4.1.5 of the FEIS details mitigation commitments required for construction of the No Build Alternative. These commitments include the use of Best Management Practices (BMP) to minimize potential short-term impacts.

Build Alternative*:*

Because the No Build includes the below-grade infrastructure and construction of street improvements to accommodate the three potential infill stations, no additional disturbance of

soil or excavation activities are anticipated for the construction of above-grade elements of the potential infill stations. No additional impacts to groundwater and soil resources are anticipated from the construction of above-grade elements of the potential infill stations. No additional mitigation of effects to groundwater and soil resources is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.2.2 Water Resources

This section discusses the existing conditions and potential impacts of the No Build and Build Alternatives to water resources, including wetlands, rivers, and floodplains.

No Build Alternative:

Section 4.2 of the FEIS discusses the existing conditions and potential impacts to water resources, including wetlands, rivers, and floodplains. The No Build Alternative is not anticipated to have long-term impacts on the Mississippi River, surface water quality, floodplains, or wetlands. Short-term impacts related to construction activities may generate sediment laden stormwater within the construction area. BMPs will be used to minimize potential impacts. Section 4.2.6 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative*:*

Construction of above-grade elements of the Western Avenue, Victoria Street, and Hamline Avenue stations would not have any additional impacts on water resources not previously disclosed in the Project's FEIS. No long-term impacts to water resources will result from construction of the potential infill stations. Potential short-term impacts during construction will be managed by the implementation of BMPs. No additional mitigation of effects to water resources is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.2.3 Biota and Habitat

This section discusses the potential impacts of the No Build and Build Alternatives on existing biota and habitat, including vegetation, wildlife, and aquatic habitat.

No Build Alternative:

Section 4.3 of the FEIS discusses the existing biota and habitat, including vegetation, wildlife, and aquatic habitat. No long-term impacts were identified in the FEIS. Section 4.3.6 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative*:*

No additional impacts to biota and habitat are anticipated with the construction of above-grade elements of the three potential infill stations. No additional mitigation of effects to biota and habitat is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.2.4 Threatened and Endangered Species

This section discusses potential effects of the No Build and Build Alternatives to federal- and state-listed threatened and endangered species. The FEIS reports no federal-listed Threatened and Endangered (T&E) species and seven state-listed T&E species are found

with one mile of the Project alignment. These species include peregrine falcon (*Falco peregrines*), a species of fungus (*Psathyrella rhodospora*), spike mollusk (*Elliptio dilatata*), black sandshell mollusk (*Ligumia recta*), wartyback mollusk (*Quadrula nodulata*), Eastern fox snake (*Elaphe vulpine*), and a jumping spider (*Marpissa grata*).

No Build Alternative:

Consultation with the U.S. Fish and Wildlife Service (USFWS) and DNR indicates that no impacts would occur to listed species. Section 4.4 of the FEIS discusses potential effects to federal- and state-listed threatened and endangered species. Section 4.4.6 of the FEIS indicated that no mitigation measures were required for construction of the No Build Alternative.

Build Alternative*:*

Because no additional impacts to potential wildlife habitats would occur as a result of construction of above-grade elements of potential infill stations and because the Build Alternative project area is identical to that previously reviewed with the USFWS and the DNR, no additional impacts to threatened and endangered species are anticipated with the construction of above-grade elements of the three potential infill stations. Since no additional impacts are anticipated under the Build Alternative, no mitigation of effects to threatened and endangered species is required as part of implementing the Build Alternative.

4.2.5 Hazardous/Regulated Materials

The purpose of this section is to evaluate the potential to encounter hazardous and/or regulated materials when constructing the project. Specifically, this includes evaluation of potential soil and/or groundwater contamination as well as hazardous building materials present within or immediately adjacent to the No Build and Build Alternatives.

No Build Alternative

An evaluation of hazardous / regulated materials pertaining to the entire Project was included in Section 4.8 of the FEIS. A Phase I Environmental Site Assessment (ESA) dated October 2007 conducted on the No Build Alternative identified 1,070 sites that could potentially be affected. Of these sites, 27 were located near the three potential infill stations. Table 4-1, below, provides a description of each site and the potentially impacted station.

Table 4-1: List of Hazardous/Regulated Material Sites Identified Near the Three Infill Stations

Phase I ESA Site ID	Current/Former Uses	Potential Station Impacted
223	Auto sales and service with gasoline dispenser observed.	Hamline
1234	Used cars (1939)	Hamline
233	Historic filling station (1950-2004) with former LUST and Spill files.	Hamline
1233	Trucking company (1939)	Hamline
1232	Filling station (1939-1959)	Hamline
829	Filling station and auto and truck sales (1939-1991)	Hamline
1231	Used cars (1944-1991)	Hamline
1230	Used cars (1950)	Hamline
1186	Used cars and auto repair (1939-1964)	Victoria
301	U-haul center, auto sales, truck and trailer rental, auto parts and auto repair.	Victoria
247	CarX, filling station or muffler shop (1929-2004) with LUST, RCRAGN, and UST files.	Victoria
1184	Auto Painter (1926)	Victoria
266	Auto repair or tin shop (1934-1997) with RCRAGN and Spill files.	Victoria
1185	Auto Junkyard (1950)	Victoria
239	Auto sales or car wash (1954-1991)	Victoria
1182	Garage (1926)	Victoria
1183	Auto repair (1949-1985)	Victoria
1181	Dry cleaning, auto towing (1944-1991)	Victoria
1180	Laundry mat (1926-1950)	Victoria
1178	Auto sales, auto body shop (1944-1969)	Victoria
1179	Used cars, car wash (1954-1991)	Victoria
1177	Vulcanizing	Victoria
267	Auto Repair with UST/AST and RCRAGN designations	Western
1126	Printer, dry cleaner (1929-1959)	Western
1127	Tires (1934-1939)	Western
1124	Tires (1944)	Western
1125	Auto repair (1950)	Western
1123	Dry cleaner (1926-1951)	Western
1364	Dyer and dry cleaner, silkscreen printing (1959-1969)	Western
1365	Auto repair (1926-1929)	Western
1122	Brake lining factory, auto repair (1934-1939)	Western
280	Garage, auto repair, or filling station (1929-1969) with RCRAGN, Spills, LUST, UST/AST, VIC and brownfields listings	Western
1121	Auto Painting (1926)	Western

No long-term impacts associated with the known or potential hazardous / regulated materials identified in the Phase I ESA were identified. Only short-term impacts resulting from construction-related activities were anticipated. Construction impacts include time and expense of identifying, testing, removing, transporting, and disposing of contaminated materials to properly licensed facilities. Project construction could also be affected through contact with contaminated soil and/or groundwater during excavation or drilling activities. Mitigation commitments for hazardous / regulated materials were made in the FEIS and can be found in Section 4.8.5.

Mitigation commitments for hazardous / regulated materials were made in the FEIS and can be found in Section 4.8.5. Since issuance of the ROD, mitigation commitments for hazardous / regulated materials have begun to be implemented by the Metropolitan Council. Specifically, the CCLRT Project has been enrolled in the Minnesota Pollution Control Agency's (MPCA's) Voluntary Investigation Clean-up (VIC) and Petroleum Brownfields programs. A Phase II ESA Work Plan / Sampling and Analysis Plan (SAP) was prepared for the Central Corridor LRT Study Area and approved by the MPCA. Upon the approval of the SAP in July 2009, drilling along the corridor began. All drilling and sampling identified in this SAP has been completed as of the publication of this Infill Stations EA.

A total of 32 borings were advanced at or adjacent to the three infill station locations. Based on laboratory results of these drilling samples and consultation with the MPCA, there are no short-term or long-term effects identified with the subsurface materials or groundwater found in proximity to the infill station locations.

Build Alternative

Since the No Build Alternative includes the below-grade infrastructure and construction of street improvements to accommodate the three potential infill stations, and since no additional ROW is anticipated for the construction of above-grade elements of the potential infill stations, there are no additional impacts to hazardous / regulated materials associated with the Build Alternative that have not been disclosed in the FEIS. Potential hazardous and regulated materials sites would be addressed under the No Build Alternative, since the No Build includes all subsurface construction necessary for the three potential infill stations. No additional soil or groundwater impacts would occur as a result of the construction of above-grade elements of the potential infill stations, therefore no additional mitigation beyond that committed to in the FEIS is required.

4.2.6 Electromagnetic Fields and Utilities

This section provides general information regarding existing electromagnetic interference (EMI) and utilities, the environmental setting and conditions for EMI as it relates to the No Build and Build Alternatives, and identifies potential effects that may result from the development and implementation of the alternatives.

No Build Alternative:

Section 4.9 of the FEIS provides general information regarding existing EMI and utilities and identifies potential effects that may result from the development and implementation of the No Build Alternative. Table 4.9-1 in the FEIS, Summary of EMI Concerns and Major Utility Impacts, provides a brief summary of the EMI and utility impacts and reports that water utilities are present in the Midway East segment of the alignment and no EMI issues were identified. For utilities, the intent of Section 4.9 of the FEIS was to identify existing

conditions, potential impacts, and potential mitigation efforts for affected utilities. No short-term or long-term effects of EMI were noted in the FEIS for the Midway East segment of the project. Section 4.9.6 of the FEIS details mitigation commitments made by the Metropolitan Council.

Build Alternative*:*

Because the No Build Alternative includes the below grade infrastructure and construction of street improvements to accommodate the three infill stations, no additional utilities would be anticipated to be encountered or affected with construction of above-grade elements of the infill stations. All required TPSS have been sited and provided under the No Build Alternative; therefore no additional utilities impacts due to TPSS are anticipated. No additional impacts to utilities or EMI are anticipated from the construction of above-grade elements of the infill stations. No additional mitigation of effects to electromagnetic fields or utilities is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

4.2.7 Energy

No Build Alternative:

Section 4.10 of the FEIS presents the potential effects of the No Build Alternative on transportation related energy consumption in the Study Area. No adverse effects requiring mitigation were noted.

Build Alternative:

The construction of above-grade elements of the three potential infill stations would result in a very small annual increase in total energy used compared to the No Build Alternative. This increase will not be significant and no mitigation of effects has been identified or recommended.

5.0 ECONOMIC EFFECTS

This chapter provides an analysis of the economic impacts of the No Build (Central Corridor Light Rail Transit Project) and the Build Alternatives. Evaluation of these alternatives is based on the direct, indirect, and induced economic benefits related to the construction and long-term expenditures for operations and maintenance (O&M) of the Build Alternative. This chapter also describes the potential effects on station area development and land use and policy decisions aimed at encouraging transit-oriented development (TOD). Specifically, potential incremental impacts from the Build Alternative to station area development are presented. No incremental impacts are anticipated from the Build Alternative on output, earnings, and employment effects or tax revenue effects and are addressed at the end of this chapter. Impacts of the Build Alternative on station area development are described in greater detail as follows.

5.1 Resource Areas Incrementally Affected

5.1.1 Station Area Development

This section provides a description of the existing land use characteristics and an analysis of economic development potential around each of the No Build and Build Alternatives station locations. Descriptions of transit supportive plans, public policies, and design guidelines for new TOD at station locations are included in this section. The No Build alternative stations (i.e., Rice Street, Dale Street, Lexington Parkway, and Snelling Avenue) are spaced one mile apart in the Midway East segment. The three Build Alternative potential infill stations (i.e., Western Avenue, Victoria Street, and Hamline Avenue) are spaced one-half mile between the other stations (see Figure 1-1, No Build Alternative). One-half mile was defined around each proposed station location to analyze potential development impacts. Direct impacts to current land uses were based on the comprehensive plans for both Minneapolis and St. Paul, along with planning documents from the Metropolitan Council, small-area plans for neighborhoods adjacent to the corridor, and established land use and zoning policies.

No Build Alternative:

Section 5.2 of the FEIS contains a complete discussion of station area planning in the Midway East segment. Section 5.2.1 includes descriptions and discussions of Station Area Planning and Design Guidelines (state enabling legislation); and City of St. Paul, Metropolitan Council, and Capitol Area Architectural and Planning Board (CAAPB) Development Plans, Policies, and Design Guidelines. Specific mention is made of the Land Acquisition for Affordable New Development Initiative, providing up to $1.0 million allocated to the City of St. Paul specifically for land acquisition around the Central Corridor LRT line for affordable housing. Section 5.2.2, Station Area Characteristics and Development Potential, includes the TOD potential of each proposed station and station area within a one-half mile radius. The TOD potential was determined based on the existing land use patterns, urban form, infill and redevelopment potential, planned development, and potential major trip generators. Figures 5.2-1 through 5.2-16 show detailed land use around each station. Figures 5.2-1 through 5.2-16 show detailed land use around each station, and a description of TOD potential is in the text in section 5.2.1. Section 5.2.2 of the FEIS reports no adverse impacts are expected to occur associated with station locations in the Midway East segment. Since no adverse effects of the Project were identified resulting from station area development, no mitigation commitments were made in the FEIS.

Build Alternative:

- **Additional Impacts Not Previously Disclosed:** The No Build Alternative stations (i.e., Rice Street, Dale Street, Lexington Parkway, and Snelling Avenue) are spaced one mile apart in the Midway East segment. The three Build Alternative potential infill stations (i.e., Western Avenue, Victoria Street, and Hamline Avenue) are spaced one-half mile between the other stations. Therefore, areas in the one-half mile radius analysis zones around the No Build Alternative stations overlap much of the area surrounding the Build Alternative potential infill stations. Specific policies and regulations implemented as a result of the station area planning efforts will depend on the desires of the residents and other stakeholders around the stations, and on the TOD potential at each station. For example, if policies and development regulation changes encourage new infill development, it is more likely to occur around stations with those policies, rather than around stations with development policies and regulations which encourage stability and enhancement of existing land use patterns and densities. This incremental impact will not be significant.
- **Other Issues Noted:** The City of St. Paul completed its Central Corridor Development Strategy (CCDS),which "establishes a vision and set of strategies for how the Central Corridor should grow and change over the next 25-30 years in response to the LRT investment" (City of St. Paul, 2007).

Consistent with the CCDS and the other Central Corridor stations, station area land use plans for the three potential infill stations at Western Avenue, Victoria Street, and Hamline Avenue have been under development by the City of St. Paul since Fall 2009 and are expected to be completed prior to construction of the above-grade elements of the stations.

A Steering Committee representing interested groups and stakeholders has been appointed by and is responsible to the City Planning Commission. The Steering Committee met December 16, 2009, and regular meetings are scheduled throughout the process. The city held a two-day series of community roundtable sessions in November 2009, and day-long planning workshops will be held in late spring 2010. The station area planning process will result in plans, recommendations, and proposed ordinances to the same level of detail as have been developed for the other Central Corridor stations. The final station area plans for the three potential infill stations are expected to be adopted by the City of St. Paul's City Council in late 2010.

5.2 Resource Areas not Incrementally Affected

5.2.1 Output, Earnings, and Employment Effects from Capital Expenditures

This section describes the anticipated economic impacts from capital expenditures.

No Build Alternative:

Construction of both the No Build and Build Alternatives represents substantial capital investment in the local economy. This spending will increase the employment, earnings, and output for the duration of the construction process. Capital cost estimates/construction values for this analysis are presented in year of expenditure (YOE) dollars.

Section 5.1.1 of the FEIS contains a complete discussion of economic effects of No Build Alternative capital expenditures. Table 5-5 Net Effects of Construction (Short-Term) Activity summarizes Output, Earnings, and Employment for the short-term due to the construction-related capital expenditures. Table 5-5 and Section 5.1.1.4 of the FEIS report positive short-term output, earnings, and employment effects to the Minneapolis-St. Paul-Bloomington

Metropolitan Statistical Area (MSA). Sections 5.1.1.3 and 5.1.1.4 of the FEIS report no negative short-term or longer-term effects. Therefore no mitigation of effects to economic activity is required as part of implementing the No Build Alternative.

Build Alternative*:*

Because the construction of one above-grade infill station is estimated to cost less than one percent of the total capital costs for the No Build Alternative ($941.3 million), no additional output, earnings, or employment effects due to the additional construction expenditures are expected. No mitigation of economic effects related to construction is required as part of implementing the Build Alternative.

5.2.2 Output, Earnings, and Employment Effects from Operations and Maintenance Expenditures

Both the No Build and Build Alternatives are anticipated to create jobs and additional earnings as a result of operations and maintenance (O&M) expenditures. The O&M cost model is resource-build up in structure and based upon Metro Transit's existing bus and light rail services. The analysis assumes that funding for O&M would be procured primarily from local Metropolitan Council funds and project- generated funds.

No Build Alternative:

Section 5.1.2 of the FEIS contains a complete discussion of economic effects of No Build Alternative from operations and maintenance expenditures. Table 5-6 Net Earnings Impacts from O&M Activities (in 2008 dollars) in the FEIS summarizes earnings impacts from O&M expenditures. Section 5.1.2.1 and Table 5-6 of the FEIS reports positive long-term earnings effects to the Minneapolis-St. Paul-Bloomington MSA, resulting in positive economic impacts to the local economy. No mitigation of effects to economic activity relating to No Build Alternative operations and maintenance is required as part of implementing the No Build Alternative.

Build Alternative*:*

Minor incremental additional O&M expenditures by the Metropolitan Council will be expected from construction of above-grade elements of the three potential infill stations. No additional LRT-related O&M costs are anticipated. The stations themselves will require only minor additional O&M costs to the Metropolitan Council. No additional mitigation of economic effects related to Central Corridor LRT operations and maintenance is required as part of implementing the Build Alternative.

5.2.3 Tax Revenue Effects

This section describes the potential for impacts to tax revenues from the transit improvement.

No Build Alternative:

Construction of both the No Build and Build Alternatives would require the acquisition of some private land and/or improvements for easements, right-of-way, parking, and station facilities. This purchase would remove these properties from the existing local tax base. The annual tax revenue associated with the loss of properties due to right-of-way purchase, displacement, and relocation was identified in the development of the Preferred Alternative.

Section 5.1.3 of the FEIS discusses tax revenue effects of removing property from the tax rolls for the No Build Alternative's right-of-way. Metropolitan Council developed the preliminary right-of-way cost estimate for the analysis. This amount of right-of-way to be acquired is preliminary and is subject to change as the design of the project proceeds into final design. Table 5-7 Right-of-Way (ROW) Acquisition and Associated Loss of Tax Revenues (in 2007 dollars) of the FEIS summarizes tax revenue effects for the No Build Alternative's right-of-way. The lost annual property tax revenue associated with converting land from private to public use is estimated at $154,041. Sections 5.1.3 1 and 5.3.1.2 of the FEIS report long-term and short-term effects of tax revenue losses. These are expected to be offset by project benefits. No mitigation of effects to tax revenues is required as part of implementing the No Build Alternative.

Build Alternative*:*

Since no additional right-of-way is anticipated for the construction of above-grade elements of the potential infill stations, no additional impacts are anticipated as a result of implementing the Build Alternative (see section 3.2.1 of this EA). No additional mitigation of effects to tax revenues is required as part of implementing the Build Alternative. All mitigation actions committed to in the FEIS will be implemented.

6.0 TRANSPORTATION

This chapter provides an analysis of the transportation impacts of the Project (No Build Alternative) and the Build Alternative. Evaluation of these alternatives is based on the projected ridership, transportation network capacity, transportation system performance measures, traffic impacts to the roadway network, and anticipated construction impacts on these facilities. The data for the transit and roadway analyses were generated from the regional travel demand forecasting model used by the Metropolitan Council for the Twin Cities area. Specifically, potential incremental impacts from the Build Alternative to transit effects and other transportation impacts are presented. No incremental impacts are anticipated from the Build Alternative on roadway effects and are addressed at the end of this chapter. Impacts of the Build Alternative on transit effects and other transportation impacts are described in greater detail as follows.

6.1 Resource Areas Incrementally Affected

6.1.1 Transit Effects

This section provides an overview of the methodology and anticipated effects of the No Build and Build Alternatives on existing and future transit operations.

No Build Alternative:

Section 6.1 of the FEIS describes the transit effects of the No Build Alternative. Section 6.1.4 of the FEIS describes the systemwide and corridor level trips associated with the No Build Alternative as well as LRT station volumes and beneficiaries. Tables 6-1 and 6-2 in the FEIS respectively summarize transit service frequency and transit service ridership forecast for the No Build Alternative. Ridership at the potential infill stations of Western Avenue, Victoria Street, and Hamline Avenue was not discussed in the FEIS because, at that time, only installation of the below-grade infrastructure was being considered as part of the proposed Project. Under the No Build Alternative, there would be no ridership generated at the potential infill stations; rather, transit riders living in proximity to the infill station areas would use local bus service or walk to access LRT stations at Rice Street, Dale Street, Lexington Parkway, and Snelling Avenue. Section 6.1.5 of the FEIS details mitigation commitments required for construction of the No Build Alternative.

Build Alternative*:*

- **Additional Impacts Not Previously Disclosed:** Using the same model used to forecast the No Build Alternative ridership reported in the FEIS, ridership forecasts were prepared for this Infill Stations EA to estimate ridership at the potential infill stations of Western Avenue, Victoria Street, and Hamline Avenue. Forecast ridership numbers reported presume the above-grade construction of all three potential infill stations, consistent with the definition of the Infill Stations EA Build Alternative.
- **Effects Noted:** The addition of the three potential infill stations would result in LRT station volumes shown in Table 6-1. Transit service frequency would remain unchanged from that reported in the FEIS.

Table 6-1: 2030 Central Corridor LRT Infill Station Daily Volumes by Station

Weekday Boardings			
Station	**Peak Period**	**Off Peak Period**	**Total Daily**
Western Avenue Station	170	100	270
Victoria Street Station	190	210	400
Hamline Avenue Station	310	290	600

Source: AECOM (December 2009)

Short-term construction effects to transit services, specifically buses operated by Metro Transit near the three potential infill stations, would be similar in nature to the effects to transit services under the No Build Alternative. Mitigation measures committed to in the FEIS would apply to the above-grade construction of an infill station. Specifically, Metro Transit would follow standard procedures for route changes and deletions. This would include prior communication to transit riders and the public regarding transit service changes along the corridor.

- **Additional Required Mitigation:** No additional mitigation of adverse effects to transit effects is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

6.1.2 Other Transportation Impacts

This section of the Infill Stations EA describes potential impacts to parking, pedestrians, bicycle facilities, and other transportation facilities as a result of changes in the transportation system anticipated under the No Build and Build Alternatives.

No Build Alternative:

Section 6.3 of the FEIS describes the No Build Alternative's potential to impact existing on-street parking. Section 6.4 of the FEIS discloses impacts to pedestrians, bicycle facilities, and other transportation facilities. The FEIS indicates there are currently 685 on-street parking spaces on University Avenue in the Midway East segment. Constructing the No Build Alternative would reduce total parking spaces on University Avenue in the Midway East segment to 131 spaces. Impacts to pedestrian and bicycle facilities were evaluated and reported in the FEIS. Section 6.3.5 of the FEIS details parking mitigation commitments required for construction of the No Build Alternative. Section 6.4.7 describes mitigation for pedestrian, bicycle, and other transportation impacts.

Build Alternative:

- **Additional Impacts Not Previously Disclosed:** Since the No Build Alternative will construct the below-grade infrastructure and all other University Avenue street improvement required for LRT and vehicular operation, no additional on-street parking impacts are anticipated with construction of above-grade elements of the three potential infill stations. No changes or additional impacts to pedestrian or bicycle facilities are anticipated, as all required pedestrian accommodations, including signals, accommodations for walkways and other modifications was included as part of reserving the station "footprint" at the potential infill station locations under the No Build Alternative.

- **Effects Noted:** No additional adverse effects to parking, pedestrians, bicycle facilities, or other transportation facilities are anticipated from the construction of above-grade elements of the potential infill stations. Construction of the potential infill stations will add bicycle parking capacity to the overall system with provision of bicycle racks at infill station locations. This incremental impact will not be significant.
- **Additional Required Mitigation:** No additional mitigation of adverse effects to parking, pedestrians, bicycle facilities, or other transportation facilities is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

6.2 Resource Areas not Incrementally Affected

6.2.1 Effects on Roadways

This section presents the existing and planned roadway system in the Central Corridor, as well as the potential effects of the No Build and Build Alternatives on the planned system.

No Build Alternative:

Section 6.2, Effects on Roadways, of the FEIS presents the existing and planned roadway system in the Central Corridor, as well as the potential effects of the No Build Alternative on the planned system. Table 6-9 in the FEIS provides a summary of forecast traffic level of service (LOS) in the Midway East segment of the Project area. Section 6.2.5 of the FEIS details mitigation commitments required for construction of the No Build Alternative. Measures include implementation of the following strategies at intersections forecast to operate at LOS "E" (including the University Avenue and Hamline Avenue intersection) or "F" in the future:

- Optimization of signal timing splits.
- Integration into the coordinated traffic signal systems maintained by the City of St. Paul.
- Protected left- and right-turn lanes.
- Expansion of turn lanes and/or extension of turning bay lengths.
- New signal phasing on some of the University Avenue cross-streets.

Build Alternative*:*

Because the below-grade infrastructure for the potential infill stations was included as part of the Project definition in the FEIS, and because this provision included reserving the potential infill station "footprint" for the future station platforms at the potential infill station locations, all required traffic changes and modifications (such as turn lanes, traffic signalization, etc.), was included as part of the FEIS traffic analysis. Therefore, no changes or deteriorations in traffic levels of service are anticipated with construction of the potential infill stations. Since all forecast traffic results were reported in the FEIS, with resultant mitigation commitments, no additional mitigation of adverse effects to traffic is required as part of implementing the Build Alternative. All mitigation committed to in the FEIS will be implemented.

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7.0 SECTION 4(F) EVALUATION

Section 4(f) of the US Department of Transportation Act of 1966 prohibits Federal approval and funding of the conversion of specific types of property to transportation uses unless there is no feasible and prudent alternative to such use and all possible planning has been made to minimize harm due to such use. Section 4(f) protected property consists of publicly owned parks, publicly owned recreation areas, publicly owned waterfowl and wildlife refuges and historic property regardless of ownership. Federal Department of Transportation agencies, like the FTA, follow a rigorous process for evaluating proposed projects that have the potential to use Section 4(f) protected property. Chapter 7 of the FEIS documents the identification of Section 4(f) protected property in the project, the steps taken to avoid use of Section 4(f) protected property, the coordination steps taken between the parties, and the completion of the Section 4(f) analysis process. Additional coordination and mitigation requirements related to historic property are found in the Programmatic Agreement which is incorporated into the ROD (see Appendix A of this EA). No incremental impacts are anticipated from the Build Alternative on Section 4(f).

No Build Alternative:

As noted in Tables 7-1 and 7-2 of the FEIS, there are no Section 4(f) properties in close proximity to the Midway East portion of the Project area. Section 7.7 of the FEIS describes the measures to minimize harm that will be implemented as part of the No Build Alternative due to the unavoidable use of Section 4(f) protected property. This includes a discussion of the Metropolitan Council's implementation of stipulations contained in the Central Corridor LRT Programmatic Agreement, which includes the following statement relative to the infill stations:

> The project will include all below-grade infrastructure to facilitate future construction of LRT stations at Western Avenue, Victoria Street, and Hamline Avenue in the City of St. Paul, but no station design or construction for these locations will be completed as part of the project. At such time that funding becomes available to design and construct stations at Western Avenue, Victoria Street, and/or Hamline Avenue, Metropolitan Council will consult with Minnesota SHPO and other consulting/interested parties regarding plans for station design and construction. Consultation will occur throughout the design process to allow project designers to effectively integrate historic values into the design.

Build Alternative*:*

Because no Section 4(f) properties are found within the vicinity of the potential infill stations, and because construction of above-grade elements of the potential infill stations would not require any additional right-of-way, their construction has no potential to use any Section 4(f) protected property. No additional use of Section 4(f) protected property would occur due to the construction of above-grade elements of the three potential infill stations. No additional impacts to Section 4(f) properties, beyond those documented in the FEIS, are anticipated to occur with implementation of the Build Alternative; therefore no additional mitigation beyond that committed to in the No Build Alternative FEIS is required. All stipulations of the Central Corridor LRT Programmatic Agreement, including the requirement for design consultation with the Minnesota SHPO and other parties as infill station designs are developed and finalized, will be implemented.

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8.0 INDIRECT AND CUMULATIVE IMPACTS

This chapter identifies the potential indirect and cumulative impacts occurring with implementation of the No Build and Build Alternatives. These terms are defined as follows:

Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non- Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Potential incremental effects from the Build Alternative to potential indirect and cumulative impacts associated with the No Build Alternative are described as follows.

No Build Alternative

Section 9.3 of the FEIS presents the potential for indirect and cumulative effects of the No Build Alternative. The potential effects are shown in Table 9-3 of the FEIS. As presented in Section 9.4.1.2 of the FEIS, the primary sources of potential indirect and cumulative effects would be the increased development and redevelopment surrounding the proposed station areas for the No Build Alternative. Section 9.4.2 of the FEIS details mitigation commitments required for the construction of the No Build Alternative.

Build Alternative

- **Additional Impacts Not Previously Disclosed:** Construction of above-grade elements of the Western Avenue, Victoria Street, and Hamline Avenue stations would have only incremental additional indirect or cumulative impacts not previously disclosed in the Project's FEIS. These incremental impacts will not be significant.
- **Other Issues Noted:** The City of St. Paul completed its Central Corridor Development Strategy (CCDS), which "establishes a vision and set of strategies for how the Central Corridor should grow and change over the next 25-30 years in response to the LRT investment" (City of St. Paul, 2007). Consistent with the CCDS and the other Central Corridor stations, the City of St. Paul has been developing station area land use plans for the three potential infill stations at Western Avenue, Victoria Street, and Hamline Avenue since fall 2009.

  A Steering Committee representing interested groups and stakeholders has been appointed by and is responsible to the City Planning Commission. The Steering Committee met December 16, 2009, and regular meetings are scheduled throughout the process. The city held a two-day series of community roundtable sessions in November 2009, and day-long planning workshops will be held in late spring 2010. The station area planning process will result in plans, recommendations, and proposed ordinances to the same level of detail as have been developed for the other Central Corridor stations. The final station area plans for the three potential infill stations are expected to be adopted by the City of St. Paul's City Council in late 2010.

- **Required Mitigation:** No additional mitigation of indirect or cumulative impacts is required as a part of implementing the Build Alternative. All mitigation actions committed to in the FEIS will be implemented.

9.0 PUBLIC AND AGENCY COORDINATION AND COMMENTS/PERMITS AND APPROVALS

9.1 Public and Agency Coordination and Comments

Chapter 11 of the FEIS describes the public and agency coordination efforts associated with the Central Corridor Light Rail Transit (LRT) Project (No Build Alternative). The Metropolitan Council has continued its comprehensive public involvement program for the Project since the issuance of the Record of Decision in August 2009. The Project staff have hosted or participated in well over 250 meetings or events since August 2009.

Table 9-1 shows a sampling of meetings held with communities in the Midway East segment of the Project area, near the potential infill stations.

Table 9-1. Public and Agency Coordination Efforts

Date	Community Meeting
June-August 2009	Conducted parking workshops with businesses and property owners in the areas identified as “critical” due to the loss of on-street parking
August 4, 2009	Attended at least 10 National Night Out block parties to talk to people about the project
August – September 2009	Staffed a booth at the Minnesota State Fair to talk to people about the project
September 2009 to present:	Participated in the City of St. Paul’s land use planning activities for the infill station areas
September 2009	Met numerous times with NAACP and others to plan the African American DBE/Workforce event
September 1, 2009	Participated in District 7 community visioning meeting
September 10, 2009	Attended Aurora/St Anthony Peace Sanctuary Garden to network with community leaders
September 13, 2009	Staffed a table with information about the project at India Fest
September 16, 2009	Attended FTA diversity training, along with community leaders Metric Giles and Veronica Burt
September 19, 2009	Attended the NAACP 100-year celebration
September 23, 2009	Held special meeting of the Dale Street Station, Station Art Committee to finalize concept plans for the station
September 24, 2009	Staffed a table at the Minnesota Minority Business Fair
October 3, 2009	Staffed a table at the Hmong Resource Fair to talk to people about the project
October 9 - 22, 2009	Initiated business support strategic planning activities with business community leaders
October 10, 2009	Attended Hallie Q. Brown Center's 80th Anniversary Celebration to talk to community leaders
October 14, 2009	Held a DBE/workforce event for African American community, co-hosted by the NAACP, Model Cities and Aurora St. Anthony CDC that was attended by nearly 300 people
October 21, 2009	Participated in District 7 community visioning meeting

Date	Community Meeting
October 29, 2009	Participated with the City of St. Paul in steering committee meeting for the Western, Victoria and Hamline station area planning groups
October 29 - November 1, 2009	Attended Rail-volution conference along with 25 community leaders and activists that were sponsored with full scholarships by the Central Corridor Funders Collaborative. Participated in various events and meetings intended to discuss issues and build trust.
November 2009	Met with groups such as CAPI, VSS, SEARCH and Chinese American Business Association of Minnesota to prepare for Asian workforce/DBE event
November 9, 2009	Hosted contractor informational and networking event attended by nearly 400 contractors
November 16, 2009	Chair Bell and County Commissioner McDonough met with representatives of the Preserve and Benefit Historic Rondo Committee
November 16, 2009	Business Advisory Council discussed construction contract bid specifications
November 17, 2009	Participated in City of St. Paul's Victoria Station Area Planning Open House/Roundtable
November 18, 2009	Participated in City of St. Paul's Hamline Station Area Planning Open House/Roundtable
November 18, 2009	Participated in City of St. Paul's Western Station Area Planning Open House/Roundtable
November 18, 2009	Participated in District 7 community visioning meeting
November 19, 2009	Initiated business support strategic planning activities with business community leaders
November 19, 2009	Visited with Skyline towers residents about the project and Hamline infill station
November 19, 2009	Community Advisory Committee discussed construction contract bid specifications and provides feedback
November 23, 2009	Attended Frogtown Square, an affordable housing project that received $1 million in Livable Community grant funds, ground breaking event
November 26 – 28, 2009	Staffed a table about the project at Hmong New Year event

9.2 Permits and Approvals

No Build Alternative

Permits and approvals for the No Build Alternative are documented in Table 11-1 of the FEIS.

Build Alternative

No additional permits and approvals are anticipated for the implementation of the Build Alternative, with the exception of the completion of NEPA decision document that would complete this EA process. Since no significant impacts associated with the full build out of the three potential infill stations have been identified, a Finding of No Significant Impact (FONSI) is the anticipated decision document from the FTA.

APPENDIX A

RECORD OF DECISION

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Record of Decision

on the

CENTRAL CORRIDOR LIGHT RAIL TRANSIT PROJECT

In Minneapolis-St. Paul, Minnesota

by the

Federal Transit Administration

August 2009

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DECISION

The Federal Transit Administration (FTA) has determined that the requirements of the National Environmental Policy Act (NEPA) of 1969 have been satisfied for the Central Corridor Light Rail Transit Project (the Project) proposed by Metropolitan Council and is issuing this Record of Decision (ROD) pursuant to title 23 of the Code of Federal Regulations (CFR), Part 771 and Title 40 CFR parts 1500–1508. This FTA decision applies to the Preferred Alternative, which is described in the *Central Corridor Light Rail Transit Project Final Environmental Impact Statement and Section 4(f) Evaluation* (FEIS) signed on June 18, 2009. Neither the FEIS nor this record of decision constitutes an FTA commitment to provide financial assistance for construction of the Project.

The proposed action (Project) covered by the ROD is the construction of 10.9 miles of light rail transit (LRT) between St. Paul and Minneapolis, Minnesota (9.7 miles for the Project and 1.2 miles shared with the existing Hiawatha LRT). There will be 20 stations along the line including five shared with the existing Hiawatha LRT. Below grade infrastructure to allow for later construction of three future infill stations will be provided and an operations and maintenance facility will be constructed as part of the Project.

This ROD describes the Project (also referred to as Preferred Alternative) and its development, alternatives considered, the public opportunity to comment, the public comments and responses thereto, and the basis for the decision and mitigation measures required. The descriptions provided in this Central Corridor LRT ROD are intended to provide a summary of the basis of the record of decision. This summary does not supersede or negate any of the information, descriptions, or evaluations provided in the Central Corridor LRT FEIS which provides a complete description of the Project and proposed action.

Basis for Decision

This Project ROD is based on the close monitoring and independent evaluation of the process followed by the Metropolitan Council in setting forth and considering the effects of the Project and the available alternatives. This process includes the alternatives analysis, technical considerations, and social, economic, and environmental evaluations and determinations found in the *Central Corridor Alternatives Analysis/Draft Environmental Impact Statement* (AA/DEIS) *and Draft Section 4(f) Evaluation* (April 2006), the *Supplemental Draft Environmental Impact Statement* (SDEIS) (July 2008), and the *Central Corridor Light Rail Transit Project Final Environmental Impact Statement* (FEIS) *and Section 4(f) Evaluation (*June 2009), (collectively, Environmental Review Documents). This document and the associated Environmental Review Documents, which are incorporated herein by reference, constitute the FTA environmental record for the Project.

Background

Rapid transit in the Central Corridor was initially explored in the *Midway Corridor Light Rail Transit Draft Environmental Impact Statement* (1991). A few years later the idea of providing a rapid transit connection between downtown St. Paul and downtown Minneapolis was further evaluated in the *Twin Cities Metropolitan Commuter Rail Feasibility Study, Phase II, Final Summary Report*, which was prepared by the Office of Freight, Railroads, and Waterways of the Minnesota Department of Transportation in January 1999.

AA/DEIS: To further evaluate recommendations and respond to the continued need for transportation improvements in the Central Corridor, Ramsey County (with financial support from Hennepin County and the State of Minnesota), the Metropolitan Council, and FTA prepared the AA/DEIS. The AA/DEIS was published in April 2006 to document the evaluation of alternative transit improvements for the Central Corridor. Based on the analysis in the AA/DEIS, public hearings, and comments received on the AA/DEIS, the locally preferred alternative (AA/DEIS LPA) for the Project was adopted by the Metropolitan Council in June 2006 (Resolution #2006-15). The AA/DEIS LPA was 11 miles in length of which 9.8 miles consisted of new alignment and 1.2 miles used the existing Hiawatha LRT alignment in downtown Minneapolis.

SDEIS: In response to comments received on the AA/DEIS and to identified engineering and financial constraints, several design options to the AA/DEIS LPA were identified requiring further study and public discussion. An SDEIS was prepared to consider these options within the context of NEPA. The SDEIS process explored in a public setting the potentially significant effects of implementing proposed changes to the AA/DEIS LPA. Potential impacts were evaluated for both the short-term construction period and long-term operations. Measures to avoid, minimize, or mitigate any potentially significant adverse impacts were identified.

Post SDEIS: Following the publication and review period for the SDEIS, the Metropolitan Council selected a preferred alternative (the "Preferred Alternative") for the Central Corridor, which was fully described in the FEIS. The Preferred Alternative was selected based on analysis documented in the AA/DEIS and the SDEIS, consultation with permitting agencies, and comments received during the AA/DEIS and SDEIS review and comment periods. The Preferred Alternative selected for the Central Corridor is LRT operating at-grade on Washington and University avenues, passing north of the State Capitol and turning south on Robert Street, turning west at 12th Street to Cedar Street, and then continuing south on Cedar Street into downtown St. Paul turning diagonally at 4th Street, and continuing east to end at St. Paul's Union Depot with tail track leading to an Operations and Maintenance Facility (OMF) farther east (Metropolitan Council Resolution No. 2008-26). This alternative was carried forward for evaluation in the FEIS.

FEIS: The FEIS was published in June 2009 and fully describes the Preferred Alternative. The FEIS addresses the impacts of the Preferred Alternative to human and natural resources, including Project benefits and mitigation activities. This alternative is consistent with the goals and objectives developed for the Project and best meets identified Project purpose and need.

Project Purpose and Need

The purpose and need for the Central Corridor LRT project was documented in the 2006 AA/DEIS, the 2008 SDEIS, and in the June 2009 FEIS. The purpose of the Central Corridor LRT is to meet the future transit needs of the Central Corridor LRT study and the Twin Cities metropolitan region and to support the economic development goals for the Central Corridor LRT study area. The Metropolitan Council's regional 2030 Transportation Policy Plan identified this corridor as a top priority for early implementation. Due to increasing traffic congestion and major redevelopment in the physically constrained corridor, a need currently exists for an alternative to auto travel. The introduction of fixed-guideway transit to the Central Corridor is proposed as a cost-effective measure aimed at improving mobility by offering an alternative to auto travel for

commuting and discretionary trips. The Central Corridor LRT would help to minimize congestion increases, offer travel time savings, provide better transit service and capacity to the diverse population of existing and future riders in the corridor, and optimize significant public investments in the regional transit system.

The Federal Transit Administration in consultation with Metropolitan Council has determined that the Central Corridor Light Rail Transit Project, as put forth in the FEIS and as described herein meets the purpose and need for the Project and the goals established for the Project as described and evaluated in each of the Environmental Review Documents.

Alternatives Considered

The alternatives considered in the FEIS consisted of a No-Build Alternative that serves as a basis for the evaluation of social, economic, and environmental impacts, a Baseline Alternative that demonstrates the "best that can be done" to improve transit service in the Central Corridor LRT study area without a major capital investment, and the Preferred Alternative (PA) providing for the implementation of LRT service in the Central Corridor.

No-Build Alternative: The No-Build Alternative included Metro Transit services and facilities that were programmed to be in operation in fiscal year 2014 (the Central Corridor LRT opening year) and the regional roadway/highway facilities that were programmed to be in place by 2030. The No-Build Alternative was defined as existing and committed transportation projects. The regional roadway/highway facilities included in the analysis assume implementation of all projects included in the financially constrained 2030 Transportation Policy Plan. For the transit component of this analysis, the Metropolitan Council took a more conservative approach and only included committed transit projects (i.e., only those projects with committed funding for capital and operations through 2014). The No-Build Alternative includes no other new high-capacity transit service.

Baseline Alternative: The New Starts Baseline Alternative serves as a basis for comparison to the build alternatives as part of the FTA's New Starts Process. It is designed to demonstrate the "best that can be done" to improve transit service in the Central Corridor LRT study area without a major capital investment. Low capital cost infrastructure and bus transit improvements for the Central Corridor included bus operations, intelligent transportation system (ITS) technologies, transportation demand management (TDM), and other system improvements.

Preferred Alternative: The Preferred Alternative (described below and documented in the Central Corridor LRT FEIS) consists of a light rail transit system traveling on city streets between the central business districts of St. Paul and Minneapolis. It incorporates refinements necessary to remedy design issues, reduce costs, and minimize specific environmental and community impacts along the corridor. It also responds to comments received on the SDEIS, continued coordination with project partners, and refinements made during preliminary engineering:

- Construction of 10.9-miles of double-tracked LRT alignment between downtown Minneapolis and downtown St. Paul with service to the University of Minnesota (U of M) and the State Capitol complex. The Central Corridor Preferred

Alternative would be primarily at-grade except for a new aerial structure over I-35W, and use of existing bridges over Trunk Highway 280 (TH 280), Interstate Highway 94, and the Washington Avenue Bridge over the Mississippi River.

- Connectivity with the existing Hiawatha LRT, sharing alignment and five stations between the Downtown East/Metrodome Station and the Downtown Minneapolis Ballpark Station at 5th Street and 5th Avenue.
- Modifications to the Washington Avenue Bridge over the Mississippi River to correct current design code conditions that must be addressed (the bridge is currently rated "fracture critical) and to provide for LRT operations.
- Conversion of Washington Avenue on the U of M's East Bank Campus to a transit/pedestrian mall extending from Walnut Street to Pleasant Street.
- Installation of 15 new LRT stations exclusive to Central Corridor (five stations will be shared with the existing Hiawatha Line). Station platforms will be constructed to accommodate three-car trains in the future.
- Installation of systems infrastructure including traction power substations (TPSS) and signal bungalows along the alignment.
- Modifications to existing bus service to support and complement Central Corridor LRT service, including adding two new bus routes, and changing service frequencies on other routes
- Modification of an existing industrial building in downtown St. Paul (known as Diamond Products) to serve as an LRT Operations and Maintenance Facility (OMF). This building is currently vacant and will be re-used for purposes of providing an OMF.
- Based on the analysis in and comments received on the AA/DEIS and SDEIS from neighborhood groups, Ramsey County and the City of St. Paul, and the communities comprised of minority and/or low income populations ("the Environmental Justice Community"), the Preferred Alternative includes below-grade infrastructure for three future infill stations at Hamline Avenue, Victoria Street, and Western Avenue in the City of St. Paul.

Public Opportunity to Comment

AA/DEIS: A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) Central Corridor Transit Project was published in the Federal Register on June 5, 2001. The Notice of Availability (NOA) of the Central Corridor Scoping Booklet and announcements of the Scoping Meetings were published in the Minnesota Environmental Quality Board (EQB) Monitor on June 11, 2001. Three public scoping meetings and one agency scoping meeting were held. The formal scoping comment period extended from June 11 to July 20, 2001.

The AA/DEIS NOA was published in the Federal Register on April 21, 2006, signaling the start of a 45-day public comment period. The comment period concluded on June 5, 2006. Upon completion of the AA/DEIS and subsequent selection of a Locally Preferred Alternative, the Metropolitan Council became the lead agency responsible for the Central Corridor LRT project's oversight and implementation.

Post AA/DEIS: In February 2007, the Metropolitan Council drafted the Central Corridor LRT Communication and Public Involvement Strategic Plan. Implementation of this plan included the hiring of a nine-person community outreach team, including a manager of public involvement and outreach coordinators assigned to geographic segments of the corridor. The coordinators are fluent in languages spoken by community residents, including Hmong, Vietnamese and Spanish. After considering comments received during circulation of the AA/DEIS and the public hearings, the Metropolitan Council established a Community Advisory Committee (CAC) and Business Advisory Council (BAC) to consider the resolution of outstanding issues. The committees also facilitated communication with residents and businesses.

AA/DEIS Comment Summary and Response: A total of 916 people, agencies and organizations offered comments on the AA/DEIS. Of these comments, 684 favored LRT as the locally preferred alternative, 92 opposed LRT and 140 expressed no opinion on mode. More than 570 people attended the four public hearings, held at the University of Minnesota (U of M), the Minnesota History Center, the Lao Family Center, and St. Paul's Central High School. Comments received influenced the identification of "key issues" for resolution during the early stages of preliminary engineering. Specifically,

- Analysis of additional LRT stations at Hamline Avenue, Victoria Street, and Western Avenue
- Analysis of parking impacts of LRT
- Analysis and identification of additional pedestrian crossings of University Avenue
- Inclusion of reconstruction of sidewalks adjacent to streets on which LRT will operate and identification of streetscaping improvements.
- Formation of a Community Advisory Committee representing the neighborhoods and communities along the Central Corridor.

All substantive comments were responded to in Appendix K of the FEIS, "Response to Comments."

SDEIS: A Notice of Intent to prepare an SDEIS for the Central Corridor LRT Project was published in the Federal Register and the Minnesota EQB Monitor on February 25, 2008. Upon completion of the document, a Notice of Availability was published in the Federal Register on July 11, 2008, and the Minnesota EQB Monitor on July 14, 2008, signaling the start of a 45-day public comment period. The comment period concluded on August 25, 2008. Three public hearings were held at various sites along the Central Corridor LRT study area during the comment period.

SDEIS Comment Summary and Response: Approximately 70 people, agencies, and organizations offered comments on the SDEIS. Comments received led to:

- Development of a Parking Solutions Team to identify mitigation strategies for loss of on-street parking.
- More detailed evaluation of noise and vibration impacts to sensitive receptors.
- A change in location of the LRT operations and maintenance facility (OMF) in downtown St. Paul.
- The addition of below-grade infrastructure for the three infill stations at Hamline Avenue, Victoria Street, and Victoria Avenue.

- Relocation of certain traction power substations (TPSSs) to avoid conflicts with neighborhood plans as well as impacts to historic properties.
- Relocation of crossover tracks to avoid noise impacts.

All substantive comments were responded to in Appendix K of the FEIS, "Response to Comments."

Post SDEIS: Since completion of the SDEIS process, over twenty meetings have been held to discuss solutions to public concerns about the Project. These included four meetings of the BAC, three meetings of the CAC, and five open house meetings on the preliminary findings through the FEIS preparation process in December 2008 (December 1, 2, 3, 4, and 6) where the public was invited to speak to technical staff. Notable topics covered in these meetings included the Washington Avenue Bridge, traffic modeling, the Transit/Pedestrian Mall, TPSS locations, the OMF, and parking. In addition, the Metropolitan Council held many other meetings with Downtown St. Paul neighborhoods and City representatives to resolve issues related to the OMF; representatives from U of M to resolve issues related to the LRT alignment through the campus; representatives of Minnesota Public Radio (MPR), St. Louis King of France Church, and Central Presbyterian Church to resolve issues related to the Cedar Street LRT alignment, and representatives of the Environmental Justice Community to resolve issues related to the Project's impact on that community.

FEIS: A Notice of Availability for the Central Corridor LRT FEIS was published in the June 26, 2009 Federal Register and in the Minnesota EQB Monitor on June 29, 2009. The FEIS included responses to all written and verbal comments received on the AA/DEIS and the SDEIS.

The AA/DEIS, SDEIS and the FEIS for the Project was available for review at local libraries, including the Rondo Community Library, the St. Paul Central Library, the Minneapolis Central Library, and the Central Corridor Resource Center.

FEIS Comment Summary and Response: Comments received on the FEIS during the FEIS review period and summary responses are discussed below. Copies of comment letters submitted and detailed responses are included in Attachment C of this record of decision.

A total of eight letters were received from regulatory agencies, local jurisdictions and public entities. Commenters included:

- **United States Coast Guard**: The U.S. Coast Guard noted that the Metropolitan Council will be required to submit owner-approved contractor work plans and procedures for their review for possible effects on navigation.
- **United States Environmental Protection Agency**: The USEPA recommended the ROD address the following issues:
    - Hazardous Waste Sites: Specifically, USEPA requested that the ROD define parameters for addressing induced secondary impacts associated with potential redevelopment of brownfield sites adjacent to the CCLRT. The Metropolitan Council partnered with the City of St. Paul and Ramsey County and was successful in receiving a grant of approximately $1 million from the USEPA to conduct Phase I and Phase II environmental site investigations of properties adjacent to the Central Corridor LRT alignment identified as having high potential for redevelopment in the City's *Central Corridor Development Strategies* plan. Grant-funded

assessment work will take begin in October 2009 and continue through the end of September 2012. Among other factors, prioritization of sites for assessment using grant dollars will be based on redevelopment potential. Overall, the criteria used in selecting and prioritizing sites will help ensure that all assessed sites are well-positioned to compete for federal, state, and local funds available to assist in clean-up.

- Stormwater Runoff: Specifically, the USEPA noted the potential for karst terrains in the project area and recommended the ROD clearly state measures for avoiding spill and run-off risks at such sites. Although the FEIS noted in Section 4.1.5.2 the potential to encounter karst terrains along the project alignment, soil geo-borings completed along the entirety of the alignment have determined that no such terrains are present within the project construction area. Therefore, no special measures of managing stormwater runoff are being proposed based on the presence of karst terrains. The Metropolitan Council staff have participated in a joint workshop with the City of St. Paul and Capitol Region Watershed District on June 25, 2009 to discuss options for stormwater management practices on the CCLRT project. This workshop included planners, educators, engineers, regulators, landscape architects and government officials from the Metropolitan Council, the cities of St. Paul and Minneapolis, Capitol Region Watershed District, Ramsey County, the University of Minnesota, and Chicago and Portland. This workshop resulted in the identification of creative designs to manage stormwater runoff, including infiltration trenches, sidewalk pavers, "green roofs," tree plantings, vegetated medians, sediment traps, and rain gardens, among other ideas. The Metropolitan Council will continue to work with the City and the CRWD to implement the most effective designs to maximize stormwater management along the corridor.
- Environmental Justice: USEPA recommended specific plans for loss of on-street parking, completion of the three additional stations at Hamline Avenue, Victoria Street and Western Avenue, and continued discussions with the Rondo community about cumulative impacts of the project on community cohesion and function. Since these issues were raised by several commenters to the FEIS, a single response has been made to these issues and can be found in Attachment C.
- Historic Preservation: Included in the FEIS was a signed copy of a Programmatic Agreement (PA) between FTA, the MnSHPO, the Advisory Council on Historic Preservation and the Metropolitan Council. This document describes commitments for ongoing consultation to avoid, or minimize potential for adverse effects of implementing the proposed action. In the event that adverse effects cannot be avoided, the PA contains measures for mitigating such effects.

- **Minnesota Department of Transportation:** The Minnesota Department of Transportation (Mn/DOT) noted that they had no additional comments on the Central Corridor LRT FEIS, beyond those previously submitted on the AA/DEIS and the SDEIS. They also noted that the CCLRT project will cross roadways under Mn/DOT jurisdiction and the requirement of the Metropolitan Council to submit intersection geometric designs and traffic analyses for Mn/DOT staff

review and approval. They further noted that this coordination of data exchange is currently underway.

- **Minnesota State Historic Preservation Office**: The MnSHPO submitted comments focused on the sufficiency of the Section 4(f) Evaluation in the FEIS relative to the project's use of historic properties. Response to these comments is included in Attachment C. Additionally, this record of decision contains an analysis of the project's use of portions of the Prospect Park Residential Historic District and changes to East River Parkway, a contributing element of the Grand Rounds Historic District.
- **Dakota County**: Dakota County acknowledged receipt of the FEIS and their understanding of the purpose of and need for the proposed action and its benefits and impacts.
- **Capitol Region Watershed District**: The CRWD noted that recommendations from their comments submitted on the SDEIS have been incorporated and that the Metropolitan Council would be required to secure a permit from the CRWD. They also requested that a Summary Report from a Workshop be included in the FEIS and that the FEIS acknowledge the impairment of the Mississippi River and address how this may affect compliance with the National Pollution Discharge Elimination System (NPDES) permit for the project.

  Staff from the Central Corridor Project Office contacted staff at CRWD to discuss comments submitted. It was determined in this conversation that the Summary Report will not be prepared as a completed document in time for inclusion in the FEIS. Metropolitan Council will continue to work with the CRWD to further evaluate concepts and implement effective stormwater designs at locations where soil and site conditions are suitable. This ongoing coordination will include ensuring that appropriate permits are secured from the CRWD, including receipt of an NPDES permit for potential discharge of stormwater into the Mississippi River, which, as was noted by the CRWD, is an impaired water, listed on the State of Minnesota's official list of such waters (303d list).
- **City of Minneapolis**: The City of Minneapolis submitted comments on the FEIS focused on parking impacts (specifically, the removal of parking), design of sanitary sewer along Washington Avenue, and issues related to traffic effects and proposed mitigation.

  A meeting with City of Minneapolis staff took place on August 3, 2009, to discuss their comments. Responses to all comments received from the City of Minneapolis are included in Attachment C.
- **University of Minnesota**: The University of Minnesota's General Counsel, Mark Rotenberg, submitted comments focused on the sufficiency of the FEIS in regard to three key areas: environmental effects related to vibration and electromagnetic interference and the sufficiency of mitigation commitments to ensure that University research activities could continue unimpeded, the sufficiency of the Section 4(f) Evaluation and the constructive use of the University of Minnesota's Campus Mall Historic and the effects of construction of the Central Corridor LRT on critical campus activities.

  Response to the U of M's comments is included in Attachment C.

- **Natural Resources Conservation Council**: The NRCS submitted a letter of comment. As the letter noted, there is no impact to agricultural lands of the Central Corridor LRT project. The comment letter also identified agencies that should be consulted regarding project effects. All noted agencies have been consulted with and the results of consultation are discussed in the FEIS.

A total of three letters were received from public officials, including comments from Ramsey County Commissioner Janice Rettman, State Representative Alice Hausman, and State Senator Larry Pogemiller.

- **Commissioner Janice Rettman**: Commissioner Rettman's submitted her personal comments on the FEIS, stating that it lacked specificity and the requisite dollars and commitments of the Metropolitan Council to address identified concerns and issues. She specifically mentioned loss of parking, issues with gentrification, and that the full construction of the three stations at Hamline Avenue, Victoria Street and Western Avenue should be part of initial project construction. She also mentioned requirements to mitigate impacts to the historic churches (Central Presbyterian and St. Louis King of France) in downtown St. Paul.

  Responses to the issues raised by Commissioner Rettman can be found in Attachment C.

- **Representative Alice Hausman**: Representative Hausman requested consideration of an alternative route for the LRT in the Capitol Area, specficially to use an alignment along Rice Street to St. Peter Street into downtown St. Paul. She further stated her intention that such a consideration not derail or delay the project.

  A similar option to the one proposed by Representative Hausman was analyzed during the Central Corridor LRT scoping process in 2001. This alternative was not carried forward for consideration in the AA/DEIS as it did not meet criteria developed during the scoping process to identify alternatives best capable of meeting project purpose and need. Specifically, this alternative did not serve the core of St. Paul's downtown business district and, since it entered downtown St. Paul on 5th and 6th Streets, would disrupt bus service. This alternative would also have had negative impacts by routing LRT on streets that had direct and indirect access to the regional roadway system.

- **Senator Larry Pogemiller**: Senator Pogemiller expressed concerns about the impacts of the CCLRT project on the Minneapolis neighborhoods surrounding the East and West Banks of the U of M, specifically, traffic mitigation, long-term population patterns, vibration issues near the campus, and livability in and around the campus. Senator Pogemiller requested that the Northern Alignment, using a corridor currently used for freight rail movements north of East Bank campus and owned by the Burlington Northern Sante Fe railroad be further investigated as a potential preferred alignment for Central Corridor LRT.

  Responses to Senator Pogemiller's comments regarding project impacts, as well as a response to whether further review of the Northern Alignment is warranted are found in Attachment C.

A total of nine comments were submitted from community groups, non-profit organizations and private entities. Responses to comments submitted are found in Attachment C. Commenters included:

- **Alliance for Metropolitan Stability**: The Alliance for Metropolitan Stability submitted comments focused on the environmental justice analysis as presented in the FEIS, specifically on the Metropolitan Council's demographic analysis. The Alliance also called for the Metropolitan Council to include construction of the three additional stations at Hamline Avenue, Victoria Street and Western Avenue.
- **Macalester Groveland Community Council**: The Macalester Groveland Community Council submitted a resolution encouraging that concerns for construction of stations at Hamline Avenue, Victoria Street, Western Avenue and Cretin Vandalia, maintaining the frequency of Route 16 local bus service, and impacts to businesses during construction be resolved prior to federal action.
- **Jewish Community Action**: Jewish Community Action submitted comments focused on the environmental justice analysis as presented in the FEIS. They acknowledged the Metropolitan Council's advance in responding to concerns regarding the sufficiency of the analysis as expressed during the SDEIS comment period. However, they noted continuing concerns with various project effects on environmental justice populations
- **District Councils Collaborative**: The DCC acknowledged the Metropolitan Council's response to many of the issues and concerns raised in the SDEIS. However, they voiced continued concerns regarding environmental justice impacts of the project, traffic impacts on surrounding neighborhoods due to closure of Washington Avenue to vehicular traffic, and the compatibility of the CCLRT operations and maintenance facility with neighborhood plans.
- **Preserve and Benefit Historic Rondo Committee**: The PBHRC submitted comments focused on the sufficiency of the environmental justice analysis in the FEIS, the identification of adverse effects, findings of disproportionately high and adverse effects and the sufficiency of committed mitigation to address identified effects.
- **St. Louis King of France Church**: Comments from the St. Louis King of France Church (submitted by Meier, Kennedy and Quinn) focused on environmental effects associated with noise and vibration effects.
- **Minnesota Public Radio**: Comments from MPR (submitted by Leonard, Street and Deinard) were received. They noted the expectation that mitigation commitments made in the FEIS be fulfilled by the Metropolitan Council. They further noted specific matters relative to the noise analysis documented in the FEIS as well as expectations relative to the design of the floating slab proposed to mitigate for groundborne noise impacts.
- **Big Top Liquors**: Comments from Big Top Liquors (submitted by Zamansky Professional Association) focused on project impacts that may have an adverse impact on their business, including parking loss, access impacts, visual effects, and other business impacts.
- **SchmoeCo LLC**: SchmoeCo indicated that they were lessees of a suite at 1951 University Avenue, which was a space identified in the FEIS as being impacted

by LRT vibration, requiring mitigation in the form of relocation assistance. SchmoeCo noted the requirement to provide relocation assistance in conformance with NEPA and the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act).

Right-of-way acquisition and relocation assistance will take place consistent with statutory and regulatory requirements of NEPA and the Uniform Act.

A total of nine comments were received from members of the general public. Comments focused on the following issues. Responses to comments received are found in Attachment C:

- Purpose and need of project
- Impacts to businesses
- Parking impacts
- Vibration and noise impacts to residents
- Safety and security
- Operations and maintenance costs
- Ridership forecasting process
- Constructing the CCLRT underground in a tunnel alignment
- Constructing the LRT on the U of M transitway behind KSTP Production Studios and Transmission Tower
- Constructing sidewalk to the maximum feasible width
- Benefits of selecting an LRT alignment along Jackson Street in downtown St. Paul

Approximately 170 comments were received from private entities and individuals and from researchers, faculty and staff at the U of M in response to the CCLRT FEIS, and in response to a solicitation for FEIS comments posted on the University of Minnesota's Web site (see Attachment C-1D). Many of these comments focused on the adequacy of committed mitigation at the U of M's East Bank campus area to address environmental effects associated with vibration and electromagnetic interference that could interfere with campus research activities. Concerns were also expressed regarding the ability to mitigate adverse effects to research activities during project construction. Other issues raised in these comments included the following:

- Using alternative alignments for the LRT to avoid impacts, specifically, alignments north of the East Bank campus area. (Responded to as Comment AL-1 in Attachment C)
- Using alternative modes, such as Personal Rapid Transit (PRT). (Responded to as Comment PRT-1 in Attachment C)

Approximately four comments were submitted supporting the LRT alignment on Washington Avenue at the U of M's East Bank campus and urging the U of M to support the CCLRT project.

As previously noted, responses to all comments received during the FEIS review period are found in Attachment C.

Community Outreach

The Project's public involvement activities have included extensive and intentional efforts to engage minority and low-income communities, informing residents about the Project and providing opportunities for participation in the Project's evaluation, planning, alternatives development, station locations development activities, and environmental issues. These efforts have included public presentations to, and meetings with, minority and low-income community groups and civic organizations, public open houses and general information sessions, stakeholder meetings, small group and one-on-one meetings, diversity training and strategies to engage non-traditional stakeholders.

Regular meetings have occurred with groups such as the National Association for the Advancement of Colored People, the Urban League, the St. Paul African American Leadership Council, the Listening House Homeless Shelter, Union Gospel Mission, Berean Church, and Central Towers Assisted Living as well as with several other community groups, churches and organizations.

The Community Outreach Staff of the Metropolitan Council include persons fluent in languages spoken by community residents for whom English is a second language. Interviews and public service announcements were also made in local and regionally broadcast ethnic media outlets including, print, television and radio programs in Somali, Hmong, Vietnamese, and Spanish. Media outlets have included the Minnesota Spokesman Recorder, Hmong Today, Hmong Times, African News Journal, Asian American Press, the Minnesota Women's Press, Vietnamese Broadcasting of Minnesota, and Hmong and Somali local television news programs.

Agency Coordination

In studying, planning, and designing the Project, the Metropolitan Council is working closely with the FTA, Mn/DOT, Ramsey and Hennepin counties, the cities of St. Paul and Minneapolis, and the U of M. The Federal Highway Administration (FHWA) also agreed to be a Cooperating Agency for the Project. The Project draws on several advisory committees that provide input from policy makers, government entities and community groups, businesses, and residents. These committees are the Central Corridor Management Committee (CCMC), Community Advisory Committee (CAC), Business Advisory Council (BAC), Central Corridor Project Office (CCPO), Project Advisory Committee (PAC), Communication Steering Committee (CSC), Land Use Coordinating Committee (LUCC), the Artist Selection Committee (ASC) and 14 Station Art Committees (SAC).

In addition to ongoing coordination with stakeholders and the public, the CCPO has coordinated and consulted with other federal, state, and local agencies and interested parties, including the Capitol Area Architectural and Planning Board (CAAPB), the U.S. Department of Agriculture, the U.S. Department of Commerce, the Minnesota Department of Health, the U.S. Department of Interior, the Minnesota Department of Natural Resources (DNR), the Minnesota Pollution Control Agency (MPCA), the State Archaeologist, the State Historic Preservation Office, the federal Advisory Council on Historic Preservation (ACHP), the U.S. Army Corps of Engineers, the U.S.

Environmental Protection Agency, the U.S. Fish and Wildlife Service, the National Park Service, and the Minnesota Indian Affairs Council.

Mitigation Measures to Minimize Harm

The mitigation measures and other Project features that are intended to minimize adverse impacts, as identified in the FEIS, are summarized in Attachment B. This summary table is provided in this ROD to facilitate the monitoring of the implementation of the mitigation measures. A complete discussion of mitigation measures that are included in the Project can be found in the Central Corridor LRT FEIS, Chapters 3 through 7.

If FTA provides financial assistance or Letter(s) of No Prejudice (LONP) to the Project, FTA will require in the funding agreement with the Metropolitan Council and as a condition of its grant that the Metropolitan Council shall implement the mitigation referenced in Attachment B and as may be further and more fully described and identified in the FEIS. Implementation of the mitigation measures in Attachment B are material conditions of this ROD and will be incorporated in any grant agreement that the FTA may award the Metropolitan Council for the construction of the Project. To the extent that the same or substantially similar impacts caused by the Project, as identified in the FEIS or ROD, are discovered during project implementation, these mitigation measures shall be undertaken for those impacts. The Metropolitan Council shall further coordinate with other public agencies on design issues related to the Project as stipulated in the FEIS and Section 106 Programmatic Agreement.

The Federal Transit Administration finds that with the accomplishment of these mitigation commitments the Metropolitan Council will have taken all reasonable, prudent and feasible means to avoid or minimize impacts from the Preferred Alternative.

FTA will require that the Metropolitan Council periodically (quarterly) submit written reports on their progress in implementing the required mitigation measures. FTA will monitor this progress through quarterly reviews of final engineering and design, land acquisition required for the Project, and construction of the Project. The mitigation-monitoring program may, upon approval of FTA, be revised as necessary during the permitting process in order to facilitate implementation of those measures during final design and construction. The Metropolitan Council shall designate an environmental manager who will be responsible to conduct regular audits and reviews for compliance with environmental mitigation commitments and make corrective actions as may be required.

DETERMINATIONS AND FINDINGS

The environmental record for the Central Corridor LRT project consists of the Alternatives Analysis / Draft Environmental Impact Statement (April 2006), the Supplemental Draft Environmental Impact Statement (July 2008), the Final Environmental Impact Statement (June 2009) and this Record of Decision. These documents represent the detailed statement required by 49 U.S.C. 5324(b) on:

- The environmental impacts of the proposed action;

- Adverse environmental impacts which cannot be avoided should the proposed action be implemented;
- Alternatives to the proposed action;
- Irreversible and irretrievable impacts on the environment.

On the basis of the evaluation of social, environmental, and economic impacts contained in the environmental record, and the written and oral comments offered by the public and other agencies, the FTA has determined, in accordance with 49 U.S.C. 5324(b) that:

- Adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest in the project and that fair consideration has been given to the preservation and enhancement of the environment and to the interests of the community in which the proposed project is to be located; and
- All reasonable steps have been taken to minimize the adverse environmental effects of the proposed project and where adverse environmental effects remain, no feasible and prudent alternative to avoid or further mitigate such effects exists.

Conformity with Air Quality Plans

The Project is subject to conformity requirements imposed by the Clean Air Act (CAA) (42 U.S.C. 7506(c)), which requires that transportation projects conform with the State Implementation Plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and of achieving expeditious attainment of such standards.

The EPA conformity regulation (40 CFR part 93) establishes criteria that a transportation project must meet in order to be found by FTA to conform to the air quality plan. The conformity criteria are that the project be included in a conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), and that the project not cause or contribute to any localized exceedances of the NAAQS, known as "hot spots." The Project is included in the Metropolitan Council's 2030 Transportation Policy Plan (TPP) and in the 2009-2012 Transportation Improvement Program. The TPP and the TIP were determined to conform to the requirements of the 1990 Clean Air Act (according to 40 CFR Parts 5, 1, and 93) by FTA and FHWA with the concurrence of the Minnesota Pollution Control Agency on August 29, 2008, in accordance with the aforementioned EPA regulation.

Further, for carbon monoxide (CO), analyses at specific intersections described in Section 4.5 of the Central Corridor LRT FEIS show that the Project would not create a new localized violation of the NAAQS for CO and would not worsen an existing violation. For the Project, intersections analyzed in Section 4.5 of the FEIS represent the "worst case" conditions. Therefore, no violations of air quality standards are predicted. FTA therefore finds that the Project meets the criteria in 40 CFR Part 93 for projects from a conforming plan and TIP, and conforms with air quality plans for the Twin Cities metropolitan region and with the Clean Air Act Amendments of 1990.

Floodplains

Pursuant to Executive Order 11988 Floodplain Management, issued May 24, 1977, impacts to floodplain areas from implementation of the Project were assessed in order to avoid potential adverse effects. The Central Corridor LRT will not encroach into any 100-year floodplains. The Project will be constructed on land that is currently developed and has significant impervious surface cover. The Project is not anticipated to have any long-term adverse impacts to water resources or to significantly increase the quantity of surface run-off; however, the use of sustainable and context sensitive best management practices to improve surface water management will be included as part of the Project. The Central Corridor Project Office will incorporate water quality best management practices as required to meet applicable federal, state, and local stormwater standards. FTA finds that no adverse impacts to any 100-year floodplains or floodways would occur as a result of the Project.

Wetlands

Two major federal laws apply to wetland resources as they are documented in the NEPA process: the Clean Water Act, and the Rivers and Harbors Act. The Clean Water Act (CWA), administered by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA), includes two sections applicable to the Project. Section 404 regulates placement of dredge or fill material into the waters of the U .S, including wetlands. Section 401 of the CWA requires the affected state to issue a water quality certification, or a waiver, for each Section 404 permit required. The Rivers and Harbors Act's Section 10 applies to activities in, over, and affecting navigable waters to preserve the navigability of U.S. waters. The Corps of Engineers administers the permit process. The only defined wetland or public water identified within the Central Corridor LRT project area is the Mississippi River, which is a navigable water. The Project is not expected to have long-term impacts on the Mississippi River. Modifications to the Washington Avenue Bridge will take place, but will not significantly alter the existing bridge profile. No additional bridge piers will be added to the bridge structure. Existing piers will be modified and short-term water access for construction may be required. The proposed activities will not alter the course, current or cross-section of the Mississippi River or its floodplain. FTA finds that no adverse impacts to any wetlands would occur as a result of the proposed Project.

Endangered Species Act (ESA)

Section 7 of the Endangered Species Act (ESA) of 1973 (16 USC 1531-1544) requires that all federal agencies consider and avoid, if possible, adverse impacts to federally listed threatened or endangered species or their critical habitats, which may result from their direct, regulatory, or funding actions. Minnesota's endangered species law (MN Statute 84.0895) and associated rules (MN Rules 6212.1800-2300) regulate the taking, importation, transportation, and sale of state endangered or threatened species. The Minnesota Department of Natural Resources (DNR) administers the state listed rare, threatened, and endangered species (RTE). In 2001, consultation was initiated with the DNR and the U.S. Fish and Wildlife Service (USFWS) to identify the potential for adverse impacts to RTE species. In DNR and USFWS letters dated April 16, 2001 and August 24, 2001 respectively, the agencies responded that the Project is not likely to

affect any known occurrences of state or federally protected species. FTA find that no adverse impacts to any RTE species would occur as a result of the Project.

Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations" (February 11, 1994), provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations." The United States Department of Transportation (DOT) Final Order on Environmental Justice requires the agency to 1) explicitly consider human health and environmental effects related to transit projects that may have a disproportionately high and adverse effect on minority and low-income populations, and 2) implement procedures to provide "meaningful opportunities for public involvement" by members of these populations during project planning and development. Specifically, the DOT Final Order states, in part:

> 8.b. In making determinations regarding disproportionately high and adverse effects on minority and low-income populations, mitigation and enhancements measures that will be taken and all offsetting benefits to the affected minority and low-income populations may be taken into account, as well as the design and comparative impacts and the relevant number of similar existing system elements in non-minority and non-low-income areas.
>
> 8.c. The Operating Administrators and other responsible DOT officials will ensure that any of their respective programs, policies or activities that will have a disproportionately high and adverse effect on minority populations or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable. In determining whether a mitigation measure or an alternative is "practicable," the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account.

Circular 4702. 1.A '"Title VI and Title VI-Dependent Guidelines for Federal Transit Administration Recipients," published May 13, 2007, provides guidance on conducting an analysis of construction projects to integrate environmental justice analysis into NEPA documentation. FTA finds that the analysis conducted in Section 3.8 of the FEIS conforms to this guidance document and to the orders referenced above.

As part of Project planning processes through completion of the Central Corridor LRT FEIS, the Metropolitan Council and FTA implemented meaningful outreach efforts to engage minority and low-income communities in the process and secure their active participation. These outreach efforts are described in Appendix F of the FEIS and are summarized in Section 3.8 of the FEIS.

The AA/DEIS, SDEIS, and FEIS indicate that there are no disproportionately "high and adverse" effects on minority and/or low-income populations. The detailed analysis demonstrates that (1) the potential adverse effects are not predominantly borne by a minority or low-income populations (the potential adverse effects are shared by all populations along the proposed route, including non-minority and non-low-income

populations); and (2) the potential adverse effects suffered by the minority or low-income populations are not appreciably more severe or greater in magnitude than the adverse effects that will be suffered by other populations along the proposed route. These documents confirm that the majority of the impacts identified will be experienced along the entire route and, in some instances, may be greater in magnitude in the non-minority and non-low income areas.

Moreover, the substantial benefits that will accrue to the minority, low-income, and transit dependent populations more than offset nearly all of the potential adverse impacts of the Project. Among other benefits, the Project will provide increased transit access to employment and activity centers, significant travel time savings, and the creation of jobs through new development along the route. (FEIS, Chapter 5 (Economic Effects) and Chapter 6 (Transportation Effects))

The only potential effect, which is not completely offset by a corresponding benefit, is a projected decrease in transit service for individuals residing in a three-census block area of the larger minority population. As explained in section 3.8 of the FEIS, this potential effect is not limited to the minority population and will be experienced by individuals residing in a total of ten census blocks – including seven census blocks in non-minority and non-low-income areas. To address this potential effect, the Metropolitan Council has committed to developing a transit plan, which will mitigate completely the potential decrease in transit service for the affected three-census block area.

Since there is no basis for concluding that the Project will have disproportionately high and adverse effects on minority or low-income populations, FTA finds that the Metropolitan Council was not required to demonstrate that alternatives with less adverse effects on protected populations would (1) result in more severe adverse effects or (2) involve increased costs of extraordinary magnitude before proceeding with the Project. Therefore, FTA finds that the additional analysis required by the Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations, 62 Fed. Reg. 18,377, 18,380 (Apr. 15, 1997), is not required because the Project does not and will not have a disproportionately high and adverse effect on minority or low-income populations.

Section 106

Section 106 of the National Historic Preservation Act of 1966, as amended, requires analysis of the effects of the proposed undertaking on historic properties listed in or determined eligible for listing in the National Register of Historic Places. Following the identification of historic properties (36 CFR 800 4) within the Project's APE and in consultation with the Minnesota State Historic Preservation Office (MnSHPO), the FTA, and the Advisory Council on Historic Preservation (ACHP), a Programmatic Agreement (Agreement) was developed to assess and mitigate the effects that the Project will have on historic properties. This Agreement has been signed by the FTA, the ACHP, and by the MnSHPO. The Metropolitan Council was an invited signatory to this Agreement (see Attachment A).

The Agreement outlines a number of compensatory mitigation measures for historic properties. A summary of the key tasks outlined in the Agreement are:

- Where historic properties need to be considered as part of the design process, all elements of the Project design will meet the Secretary of the Interior's Standards

for Archaeology and Historic Preservation (SOI Standards), taking into account the suggested approaches to new construction in historic areas in the Secretary of the Interior's Standards for the Rehabilitation of Historic Properties (SOI Rehabilitation Standards).

- A Vibration and Noise Management and Remediation Plan will be developed to address issues related to vibrations and noise caused by LRT construction and operations.
- Metropolitan Council will consult with MnSHPO and with consulting parties (Preservation Alliance of Minnesota, St. Paul Heritage Preservation Commission, Historic St. Paul, the Prospect Park and East River Road Improvement Association, St. Louis King of France Church, and Central Presbyterian Church) throughout the design process and integrate historic values into the Project design. Final designs for all Project elements in historic areas will be submitted to MnSHPO for review and written concurrence regarding effects on historic properties.
- The Project will include all below-grade infrastructure to facilitate future construction of LRT stations at Hamline Avenue, Victoria Street, and Western Avenue in the City of St. Paul.
    - When construction is possible, Metropolitan Council will consult with MnSHPO and other consulting parties regarding plans for station design and construction.
    - Consultation will occur throughout the design process to allow Project designers to effectively integrate historic values into the design.
    - Final designs for any or all of these stations will be submitted to MnSHPO for review and written concurrence regarding effects on historic properties.
- Metropolitan Council will record Midwest Federal Building (aka First Federal Savings and Loan) at 360 Cedar Street, a contributing property within the St. Paul Urban Renewal Historic District, according to the standards of the Minnesota Historic Property Record.
    - The documentation will be completed in consultation with MnSHPO, and will be submitted to MnSHPO for review and approval before any demolition of the property begins.
    - Metropolitan Council will develop design guidelines for future development of the site of 360 Cedar Street and adjacent parcels. These guidelines will establish parameters for new construction, consistent with the SOI Standards, with reference to the St. Paul Athletic Club and the St. Urban Renewal Historic District.
- Metropolitan Council will prepare National Register nomination forms, in conformance with the guidelines of the National Park Service and MnSHPO, for the following historic properties located along the Project corridor: First National Bank Building; St. Paul Athletic Club; St. Louis King of France Church and Rectory; Norwegian Evangelical Lutheran Church; Ford Motor Company Building; Minnesota Milk Company Building; Owens Motor Company Building; Fire Station No. 18; Brioschi-Minuti Company Building; Raths, Mills, Bell and Company Building; St. Paul Casket Company Factory; Quality Park Investment

Company Building; Griggs, Cooper & Company Sanitary Food Manufacturing Plant; Porky's Drive-In Restaurant; Great Lakes Coal and Dock Company Building; Fire Station No. 20; KSTP Production Studios and Transmission Tower; U of M Mall Historic District; Pioneer Hall; Mines Experiment Station Building; Washington Avenue Bridge; Fire Station G; and Minnesota Linseed Oil & Paint Company Building.

  - The nomination forms will be completed in consultation with MnSHPO, and will be submitted to MnSHPO for review and concurrence.
  - Actual nomination of these properties to the National Register of Historic Places will be at the discretion of MnSHPO and will follow the established procedures of the National Park Service (36CFR60) and MnSHPO.

- Metropolitan Council will develop an educational Field Guide of historic properties (including historic districts) along the Central Corridor.
  - The Field Guide will highlight the listed and eligible National Register properties, as well as those which are located along the portion of the Central Corridor line which parallels the Hiawatha LRT in downtown Minneapolis.
  - The Field Guide will be developed in consultation with MnSHPO and the final draft will be submitted to MnSHPO for review and concurrence.
  - Metropolitan Council will make the Field Guide available to the public in both print and electronic formats.
- In consultation with MnSHPO, Metropolitan Council will develop and implement an educational effort to encourage the rehabilitation of historic properties located along the Central Corridor.
  - This effort will include an information packet with information about proper rehabilitation practices and financial resources.
  - It will also include individual consultations with owners of historic properties and/or public workshops, as appropriate.
  - At the conclusion of the consultation and workshops, Metropolitan Council will submit a report on the effort to MnSHPO and other cooperating organizations.
- If there are any portions of the Project where it is not feasible to reach a design that meets the SOI Standards, the Project will be considered to have an adverse effect, and mitigation measures will be developed and implemented in accordance with stipulations contained in the PA.
  - Mitigation measures will be determined based on the type and level of impact.
  - Metropolitan Council agrees to take into account the views and concerns of consulting parties in the resolution of adverse effects.
- Before Project construction begins, Metropolitan Council will prepare a comprehensive summary of all identified measures needed to protect historic properties.

  - A copy of this summary will be submitted to MnSHPO for review and concurrence.
  - Copies will also be provided to consulting parties to the Agreement.
  - Before Project construction begins, Metropolitan Council will meet with the construction contractor to ensure that construction plans are consistent with the Project design as approved by MnSHPO, and with all identified protection measures.
- During construction, Metropolitan Council will monitor Project construction and shall provide a record of those monitoring activities quarterly reports prepared tracking the progress of implementation of Agreement stipulations.

Based on the cultural resources analysis, consultation and coordination with the MnSHPO, the ACHP, Indian Tribes and other interested parties and the public and with the execution of the Programmatic Agreement in Attachment A, FTA finds that the requirements of Section 106 have been fulfilled.

Section 4(f)

Section 4(f) of the Department of Transportation (DOT) Act of 1966, 49 U.S.C. 303(c) requires that use of land from a significant publicly owned park, recreation area, wildlife and waterfowl refuge, or historic site, be approved and constructed only if: 1) there is no feasible and prudent alternative to the use of the land, and 2) the project includes all possible planning to minimize harm to the site. A Section 4(f) evaluation was prepared describing the affected resources, the direct and proximity impacts that could impair the use of these resources, and identifies and evaluates alternatives that avoid such impacts as well as measures to minimize harm. This analysis is included in Chapter 7 of the Central Corridor LRT FEIS.

There will be no permanent use of parkland resources for the Project. There will be a *de minimis* use of a small portion of the Leif Erikson lawn at the State Capitol to site the Rice Street Station at the northwest corner of this property. Coordination regarding this use and its *de minimis* character is included in Appendix E3 of the FEIS indicating that placement of the LRT station in this portion of Leif Erikson lawn will not adversely affect the features, attributes or activities of this resource as a public space. Permanent uses of Section 4(f) properties will be made of the following historic resources:

- **Lowertown Historic District**: A portion of the landscaped lawn area in front of Union Depot will be used for construction of the Union Depot LRT station. This will include conversion of up to 14-feet of land from the street-side part of the building's lot, alteration of landscaping, and closure of the semi-circular driveway to automobile access.
- **St. Paul Urban Renewal Historic District**: A contributing property to this district, the vacant Midwest Federal Building (aka First Federal Savings and Loan), will be demolished in order to construct the 4th and Cedar Streets station, LRT tracks and other systems infrastructure on this parcel of property.
- **State Capitol Mall Historic District**: Lawn panels in the median of Cedar Street south of Interstate Highway 94, identified as part of the historic district, will be removed to construct the LRT tracks and station at 10th Street. A portion (approximately 2,200 square feet from a narrow strip along the northwest

boundary) of Leif Erikson lawn, identified as part of the historic district, will be used to construct the Rice Street Station and LRT tracks.

- **Prospect Park Residential Historic District**: Section 7.5.1.12 of the FEIS includes a description of this National Register–eligible historic district that is bounded by University Avenue, Southeast Williams Avenue, Interstate 94, and Emerald Street Southeast. The Historic District consists of a primarily residential, planned neighborhood along the south side of University Avenue. The City of Minneapolis owns the streets and sidewalks within the Historic District. The FEIS indicates (page 7-21) that
    - "the proposed project would be located within the existing right-of way of University Avenue and would not require the incorporation of property from the Prospect Park Residential Historic Distinct. The proposed project would require temporary occupancy of land along University Avenue and would cause temporary access disruptions during construction. The proposed project would require temporary occupancy of land along University Avenue and would cause temporary disruptions during construction. The existing sidewalk within the University Avenue right-of-way would be reconstructed. Access points at University and Malcom and at University and Clarence would be reconstructed within existing right-of-way to limit turning movements to right in/right out movements only."
    - Additionally, the FEIS states that the "proposed project does not incorporate land from contributing elements of the Prospect Park Residential Historic District."

  Based on further review of the proposed project definition specific to this location, along with comments raised by the State Historic Preservation Office in their letter dated July 23, 2009 (included in Attachment C); the determination has been made that the reconstruction of the two landscaped triangles, at the above noted intersections, both of which are contributing elements to the historic district would constitute a use of Section 4(f) property.

  Based on design requirements associated with locating LRT on University Avenue, more specifically, the ability to provide for left-turning movements from University Avenue into the Prospect Park neighborhood to the south of University Avenue, there is no feasible and prudent alternative to the use of the contributing element of the District. The proposed action has been designed to include all possible planning to minimize harm to the 4(f) properties resulting from this use as detailed. The Programmatic Agreement (included as Attachment A to the ROD) stipulates ongoing consultation regarding project design, including the requirement to consult with parties regarding effects on the Prospect Park Residential Historic District.

- **East River Parkway**: Section 7.5.1.14 of the FEIS includes a description of East River Parkway, which is owned and operated by the Minneapolis Park and Recreation Board (Figure 7-7 of the FEIS). The FEIS references that the Parkway is a contributing element of the National Register-eligible Grand Rounds Historic District. The FEIS further states the following specific to East River Parkway:

- "The proposed project would require the construction of traffic signals and turn lanes on land within East River Parkway. The proposed project would cause temporary access disruptions to East River Flats; however the proposed changes would not use parkland for East River Flats. The modifications would have no adverse effect o the historic attributes of the road."
- Additionally, the FEIS states that "The proposed project would not substantially impair the features and attributes that qualify the East River Parkway for Section 4(f) protection. Thus there would be no constructive use of the East River Parkway, as discussed in Section 7.1 (FEIS) and as defined in 23 CFR 774.15. Therefore, there is no Section 4(f) use of this property and no avoidance analysis is required.

Based on comments received from the State Historic Preservation Office dated July 23, 2009 (included in Attachment C); the determination has been made that reconfiguration of the East River Road near Pioneer Hall would result in an adverse effect to the historic parkway. The effect is based on the reconfiguration of East River Parkway to favor movement off the Parkway onto Fulton Street on the U of M's East Bank campus and is being made as part of improvements to facilitate traffic diverted from the Washington Avenue Transit Mall. This change in configuration would alter the historic through movement of vehicles on East River Parkway at this intersection, by making traffic on this element of the Grand Rounds make a turning movement to continue their trip on the Parkway.

Based on design requirements associated with implementation of the Transit Mall on Washington Avenue, and specifically the requirement to make improvements to adequately manage the flow of diverted traffic, there is no feasible and prudent alternative to the use of the contributing element of the Grand Rounds Historic District. The proposed action has been designed to include all possible planning to minimize harm to the 4(f) properties resulting from this use as detailed. The Programmatic Agreement (included as Attachment A to the ROD) stipulates ongoing consultation regarding project design, including the requirement to consult with parties regarding effects on East River Parkway as a contributing element to the Grand Rounds Historic District.

A Central Corridor LRT Programmatic Agreement (see Attachment A) between the Federal Transit Administration, the Metropolitan Council, the Minnesota State Historic Preservation Office, and the Advisory Council on Historic Preservation was executed and published in the Central Corridor LRT FEIS. This Agreement commits to mitigation activities for the above uses and to ongoing consultation with SHPO and other parties so as to minimize harm.

FTA has consulted with the United States Department of the Interior (DOI). Based on this consultation and the Section 4(f) evaluation, published as Chapter 7 of the Central Corridor LRT FEIS, and the two revisions to Section 4(f) use determinations noted herein, FTA has determined that there is no feasible and prudent alternative to the use of the land from the above-referenced historic properties and that the proposed action includes all possible planning to minimize impacts from such use. By e-mail dated July 22, 2009, DOI agreed with FTA's Section 4(f) determinations referenced in the FEIS.

ENVIRONMENTAL FINDING

FTA has determined that the environmental documentation prepared for the Preferred Alternative satisfies the statutory and regulatory requirements of NEPA and fully evaluates the potential environmental impacts of the Project. On the basis of the determination made in compliance with relevant provisions of Federal law, FTA finds the Central Corridor LRT project has satisfied the requirements of the National Environmental Policy Act of 1969, the Clean Air Act of 1970, and the U.S. Department of Transportation Act of 1966, all as amended.

Marisol Simon

8-18-2009

Marisol Simon
FTA Regional Administrator
Region 5

Date

Attachments:
Attachment A: Programmatic Agreement
Attachment B: Mitigation and Monitoring Program
Attachment C: Central Corridor LRT Final EIS Comments and Responses

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ATTACHMENT C

CENTRAL CORRIDOR FEIS

Response to Comments Received

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Summary of Central Corridor LRT Comments and Responses

The following summarizes all comments and responses to substantive issues raised in comments received on the Central Corridor Light Rail Transit (LRT) Final Environmental Impact Statement (FEIS). Issues are noted in parentheses following the heading. Copies of letters received, notated by issue area, are also included in Attachment C-1.

Access to Community Facilities – Churches of St. Louis King of France and Central Presbyterian (A-1)

One commenter noted that impacts to the two historic churches in downtown St. Paul were not adequately addressed in the FEIS.

RESPONSE: Access impacts to the churches were discussed in Section 3.2 of the FEIS (Community Facilities), including commitments for mitigation. Noise and vibration impacts were discussed in Sections 4.6 and 4.7 respectively, including commitments for mitigation. Finally, the Programmatic Agreement discloses other commitments for mitigation of these and other historic properties along the Central Corridor LRT alignment.

Access Impacts to Big Top Liquors (A-2)

Big Top Liquors expressed concern about decrease in access due to the proposed action.

RESPONSE: As documented in the FEIS, there will be no change in access to Big Top Liquors as a result of the proposed action.

Alternative Alignments for Central Corridor LRT Project

Northern Alignment at the U of M Campus (AL-1)

Several comments were submitted by persons concerned about LRT impacts to the University of Minnesota's (U of M's) research corridor suggesting that an alternative alignment for Central Corridor north of the East Bank campus be studied.

RESPONSE: Northern alignment alternatives for the Central Corridor LRT were analyzed during the 2001 scoping process. These alternatives were not carried forward for consideration in the Alternatives Analysis /Draft Environmental Impact Statement (AA/DEIS) as they did not meet criteria developed during the scoping process to identify alternatives best capable of meeting project purpose and need. During the early stages of preliminary engineering, the U of M submitted comments on the proposed scope of the Central Corridor LRT project and requested that further study of the feasibility of a Northern Alignment of the Central Corridor LRT be conducted. The results of this study were published in the SDEIS (June 2006) and the entirety of the study was included in the appendix of the SDEIS. Due to a number of issues identified, including ROW acquisition, travel time and ridership, environmental concerns, and the ability for this alignment alternative to meet Federal Transit Administration (FTA) New Starts cost-effectiveness criteria, the Northern Alignment was again scoped out of the project development process. A Northern Alignment of the Central Corridor LRT, using the Burlington Northern Santa Fe (BNSF) right-of-way north of the East Bank campus is not part of the Preferred Alternative for the proposed action.

Alternative Alignment at State Capitol (Rice Street to St. Peter Street in downtown St. Paul) (AL-2)
One comment was submitted requesting study of an alternative route for the LRT in the Capitol Area, specifically to use an alignment along Rice Street to St. Peter Street into downtown St. Paul. This commenter also requested that such a consideration not derail or delay the project.

RESPONSE: A similar option to the one proposed was analyzed during the Central Corridor LRT scoping process in 2001. This alternative was not carried forward for consideration in the AA/DEIS as it did not meet criteria developed during the scoping process to identify alternatives best capable of meeting project purpose and need. Specifically, this alternative did not serve the core of St. Paul's downtown business district and, since it entered downtown St. Paul on 5th and 6th Streets, would disrupt bus service. This alternative would also have had negative impacts by routing LRT on streets that had direct and indirect access to the regional roadway system.

Alternative Alignment on Jackson Street in Downtown St. Paul (AL-3)
One comment was submitted detailing the benefits of a Jackson Street alignment of Central Corridor LRT in downtown St. Paul as opposed to the Preferred Alternative alignment.

RESPONSE: A Jackson Street alignment of the Central Corridor was evaluated during project scoping in 2001. This alternative was not carried forward for consideration in the AA/DEIS as they did not meet criteria developed during the scoping process to identify alternatives best capable of meeting project purpose and need. Specifically, there were significant traffic concerns identified with the use of Jackson Street, including a roadway closure. In addition, it did not well serve the St. Paul downtown business district.

Tunnel Alignment for LRT (AL-4)
One comment was received requesting study of a tunnel alignment for the Central Corridor LRT.

RESPONSE: A tunnel alignment was considered at the U of M campus in the 2006 AA/DEIS. This option was eliminated for a number of reasons, as documented in the 2008 Supplemental Draft Environmental Impact Statement (SDEIS). Constructing a tunnel for the LRT for the entirety of the alignment was not under serious consideration at any stage of project planning due to the extraordinary costs and other associated impacts.

Constructing the LRT on the U of M Transitway behind KSTP (AL-5)
One comment was received suggesting that consideration be given to constructing the Central Corridor LRT on the U of M transitway behind the KSTP broadcasting studios.

RESPONSE: This alignment was not studied during previous phases of Central Corridor LRT project development because it would not meet project objectives due to increased travel time and isolation from populations likely to use the Central Corridor LRT.

Alternative Alignment off University Avenue Right-of-Way Acquiring Homes North of the Avenue (AL-6)
One comment was received requesting analysis of an alternative alignment that would acquire homes and properties north of University Avenue, to avoid issues regarding traffic and access.

RESPONSE: An alternative requiring the acquisition and demolition of multiple homes and businesses was not considered in the project development process because these impacts are avoidable with the Preferred Alternative.

Freeway Alignment (AL-7)
One comment was received requesting study of a freeway alignment of the LRT.

RESPONSE: A freeway alignment of the Central Corridor was studied in the early 1990s and was identified at that time as the preferred alignment for Central Corridor LRT. This project was not developed beyond the environmental review phase and the planning process was re-opened in 2001 with scoping of the current Central Corridor LRT project. The planning process was reopened to identify an alignment of the Central Corridor that would better meet the future transit needs of the Central Corridor LRT study area and to support the economic development goals of the Central Corridor LRT study area. An alignment on University Avenue was identified as best meeting these goals, as documented in the 2006 Central Corridor Alternatives Analysis / Draft Environmental Impact Statement (AA/DEIS).

Construction of LRT Stations at Hamline Avenue, Victoria Street, and Western Avenue (AS-1)

Several comments were received stating that full construction of the additional stations at Hamline Avenue, Victoria Street, and Western Avenue should occur during initial project construction. The FEIS project definition includes the below-grade infrastructure and other street improvements (including associated systems infrastructure) required to construct the stations but does not include full station buildout.

RESPONSE: During the formal public comment period following publication of the AA/DEIS (April 2006), numerous comments were received expressing concern about station spacing on University Avenue in the City of St. Paul. In response to comments received, the Metropolitan Council analyzed the potential ridership impacts and costs associated with the construction of additional stations at Hamline Avenue, Victoria Street, and Western Avenue. During the early stages of preliminary engineering, the Metropolitan Council prepared a technical memorandum, *Central Corridor LRT: Evaluation of Western, Victoria, and Hamline Station Options, Issue #15a, 15b, and 15c*, (see Attachment 1, FEIS Appendix J5). This memorandum documents that constructing these stations as part of the project results in a net increase in LRT operating time, loss in overall corridor ridership and user benefits and an overall increase in the project's cost effectiveness index (CEI). Consequently, the Metropolitan Council and Central Corridor Management Committee (CCMC) deemed that including full construction of the stations at Hamline Avenue, Victoria Street, and Western Avenue was not consistent with the primary principles the CCMC established for major scoping decisions, namely that scoping decisions must be made in keeping with project cost effectiveness criteria used to evaluate projects in the federal New Starts process. Adding a complete station to the project scope would increase the project CEI by $0.28 to $0.50, which would exceed the FTA threshold. Consequently, the Central Corridor LRT Preferred Alternative was modified to include the infrastructure for the Hamline Avenue, Victoria Street, and Western Avenue future stations, but does not include complete build out with the initial phase of construction. The Metropolitan Council has precedents with the Hiawatha LRT and Northstar Commuter Rail projects of adding stations or project features as a later phase. Further, the Metropolitan Council has resolved that construction of one of these

stations, after further environmental review, would be the first priority in the event that contingency dollars become available during the course of Central Corridor LRT project construction.

Construction of an LRT Station at Cleveland Avenue (AS-2)

One comment was received stating that construction of an LRT station at Cleveland Avenue should be part of the proposed action.

RESPONSE: Constructing a Central Corridor LRT station at Cleveland Avenue is not part of the Preferred Alternative project definition. A Cleveland Avenue station was not identified as an option during the 2001 process of scoping alternatives, during which process criteria, including intermodal connectivity and connection to transit service routes, were established for locating future transit stations. The City of St. Paul has not identified Cleveland Avenue as a location for a future LRT station as part of official comments submitted, nor has it been identified in any current city land use or other development plans, including the St. Paul's *Central Corridor Development Strategy*. The Central Corridor LRT Preferred Alternative will not be modified to include a station at Cleveland Avenue.

Air Quality Impacts (AQ-1)

One comment was received on the air quality analysis and questioning whether there would be any benefits to air quality as a result of the project.

RESPONSE: The focus of the air quality analysis disclosed in Section 4.5 of the FEIS was on identifying the potential for any adverse effects related to the proposed action. There was no discussion of proposed project benefits and this analysis has not and will not be completed as part of the NEPA process for the Central Corridor LRT project. The project is included in the MPO's regional transportation plan, which has been shown to be in conformity with air quality plans for the area; any significant benefits of planned transit system improvements, including the Central Corridor LRT project, were taken into account during the regional air conformity analysis of the metropolitan transportation plan.

Business Impacts during Construction (BI-1)

Several comments were received regarding impacts to businesses during construction and mitigation of potential adverse impacts.

RESPONSE: The Metropolitan Council is responsible for construction mitigation activities. This includes developing and implementing a construction communication plan that provides multiple ways people can get construction information and submit comments or concerns. People can get current information from the weekly construction updates, monthly newsletter, construction updates webpage, construction meetings and conversations with the outreach staff. People will be able to submit comments via the general project office phone number, online comment form, standard project email or contact with their community outreach coordinator or resident engineer. The community outreach staff and the resident engineers will work closely with impacted businesses and properties to maintain access and minimize impacts during construction.

The Metropolitan Council is also coordinating with local organizations, foundations and non-profits that are providing business assistance. The Central Corridor Partnership is

working on developing a corridor wide brand and marketing campaign to bring customers into the corridor before, during and after construction. The University Avenue Business Preparation Collaborative's mission is to assist existing small businesses along University Avenue "survive and thrive" before, during, and after the construction of the Central Corridor LRT. They have hired two small business consultants, established a business resource center and hired two marketing interns. The Central Corridor Funders Collaborative has raised funds to support these organizations with implementation. The Energy Innovation Corridor collaborative is looking at ways to make businesses and properties more energy efficient.

Potential for Gentrification to Dislocate Community and Affect Community Cohesion (CC-1)

Several commenters raised concerns about the potential for gentrification to dislocate the existing communities adjacent to the Central Corridor LRT.

RESPONSE: The FEIS discussed planning efforts and other activities that would limit the potential for adverse secondary and cumulative effects. The City of St. Paul addressed this concern in their *Central Corridor Development Strategy*, which identifies areas of stability and areas of change. The areas of stability identified in this planning document are primarily the residential areas north and south of University Avenue and the vibrant business areas along University Avenue. The areas of change are areas identified for redevelopment including property surrounding the planned LRT stations, vacant auto dealerships and underutilized auto-oriented malls and parking lots. The *Central Corridor Development Strategy* was adopted by the City Council as a chapter of the Saint Paul Comprehensive Plan on October 24, 2007. The City has also updated its zoning ordinances to be consistent with and implement the recommendations of the *Central Corridor Development Strategy*.

In addition to adoption of land use policies, the City and Metropolitan Council have provided grants for affordable housing and redevelopment along the corridor. Following is a summary of Metropolitan Council funding to support affordable housing activities in the corridor:

- In 2007, the Metropolitan Council awarded a $1.05 million grant for a mixed use development at the intersection of Dale and University that will include 46 units of affordable housing. The project will be developed by a collaboration that includes the Aurora Saint Anthony Neighborhood Development Corp.
- In 2008, the Metropolitan Council awarded a $150,000 grant to assist Model Cities in the acquisition and renovation of foreclosed/vacant homes in Thomas-Dale and Summit-University.
- In 2008, the Metropolitan Council authorized a $1 million loan to help the City of St. Paul with land acquisition for affordable housing near the Central Corridor LRT route along University Avenue.
- In 2009, the Metropolitan Council approved $448,800 for asbestos abatement at a vacant nursing home on Lexington Parkway North near the future Central Corridor LRT line. The building will be converted into 48 supportive apartments for people who have been homeless for a long time.

The City of St. Paul has also provided funding assistance for affordable housing in the corridor:

- 808 Berry (267 rental); financing closed in 2002
- Episcopal Homes (47 units for the elderly) - University and Fairview; financing closed in 2003
- Emerald Gardens (211 ownership) - University and Emerald; financing closed in 2003/2004
- Model Cities, Phase II (6 rental) - 849 University Avenue, financing closed in 2004
- University and Dale Apartments (98 rental) - University and Dale, financing closed in 2005
- Carleton Place Lofts (169 rental) - University and Carleton; financing closed in 2005
- The Metro (67 ownership) - 2650 University; financing closed in 2005
- Dale Street Townhomes (16 units; some with Habitat for Humanity) - 636-674 North Dale; financing closed in 2006
- Carty Heights (50 units for the elderly; Episcopal Homes) - University and Lexington; financing closed in 2006
- 2700 University Avenue (97 units); financing not yet closed
- Frogtown Square (46 units for the elderly) - University and Dale; financing not yet closed

Environmental Justice

Several letters of comment were received that focused, in the main, on issues of environmental justice along the Central Corridor and the adequacy of the analysis of impacts in the FEIS. These issues are summarized and responded to as follows:

Adequacy of Demographic Analysis (EJ-1)

The Alliance for Metropolitan Stability, Jewish Community Action, and the District Councils Collaborative submitted comments on the adequacy of the Central Corridor LRT FEIS in documenting and describing project area demographics as part of the environmental justice analysis presented in Section 3.8 of the FEIS.

RESPONSE: The demographic analysis conducted for and documented in the Central Corridor LRT FEIS relied on local and federal guidance and precedent for describing populations and identifying the presence of environmental justice populations in a project's area of effect. Using county populations (Hennepin and Ramsey) was a "maximum impact" scenario for identifying environmental justice populations as the concentration of populations at the county level for race/ethnicity and poverty tend to be less than for the cities of St. Paul and Minneapolis. Census data on income and race/ethnicity were reported in the FEIS at the census block group level, for consistency of reporting. It is acknowledged that race/ethnicity data is available at the census block level. However, reporting on it as such in the FEIS would not have changed the conclusions of the analysis, namely the identification of concentrations of environmental justice populations in the Cedar-Riverside community, on University Avenue between Hamline Avenue and Rice Street, and in the Capitol Area at the Mt. Airy Homes public housing complex.

Adequacy of Identification of Environmental Justice Populations (EJ-2)
A comment submitted by Jewish Community Action focused on the identification of low-income populations and specifically the identification of populations in the University/Prospect Park segment of the project area. The comment notes the large number of students at the U of M who reside in this area and whose poverty is, presumably, temporary and differs from poverty that may be found elsewhere in the project area.

RESPONSE: The FEIS acknowledges in Section 3.8 that the low-income population identified in this segment of the project area is "specifically in the Cedar-Riverside area of Minneapolis" and was not intended to include the areas consisting of student housing in closer proximity to the U of M's west and east bank campus areas. The Cedar Riverside area includes a very high concentration of low income, minority and immigrant residents.

Adequacy of Ridership Analysis (EJ-3)
Several comments were submitted focused on the adequacy of the ridership analyses completed during the Central Corridor LRT project development process.

RESPONSE: In 2000 – 2001 the Metropolitan Council, in cooperation with the Minnesota Deparment of Transportation (Mn/DOT), conducted the 2000 Travel Behavior Inventory (TBI). This study included two origin-destination surveys: a Home Interview Survey and an External Station Survey. The Council also conducted a highway speed survey. The surveys provided data to update and recalibrate the region's travel demand model. This model is a state of the practice four-step travel demand model. The four steps are trip generation, trip distribution, mode choice, and assignment to the highway and/or transit systems. The model was reviewed by the FTA subsequent to the model's development over a two year period before the release of the Central Corridor AA/DEIS. As part of that review the mode choice portion of the model was calibrated to the observed ridership counts of the Hiawatha line to ensure a realistic forecast of future ridership in the Central Corridor (the TBI survey was conducted and the initial model was developed prior to the opening of the Hiawatha LRT corridor). This model was used to provide ridership forecast results for various scenarios during the preliminary engineering phase of the project, when the scope of the proposed action was being determined. It was used to forecast the results of adding additional stations at Hamline Avenue, Victoria Street, and Western Avenue and has been used to forecast ridership and attendant cost effectiveness of the Preferred Alternative.

Much time and effort has been invested by FTA, consultants and Metropolitan Council staff to ensure that the model is as accurate as possible.

Adequacy of Title VI Service Analysis (EJ-4)
The District Councils Collaborative (DCC) submitted a letter of comment on the FEIS that discussed the Metropolitan Council's Title VI review and specifically questioned the adequacy of the methodology used to complete the review.

RESPONSE: The Title VI review was completed by staff at Metro Transit, an entity within the Metropolitan Council responsible for planning and operating the regional transit system, including the Central Corridor LRT project. Metro Transit's Title VI review of the Central Corridor LRT project uses the same Title VI methodology that has been used for several recent major service changes. This methodology is based on

measuring the change in access- to-transit to each census unit, with access to transit defined as the number of transit vehicle trips serving each census unit. The analysis did include as part of its assumptions for future service conditions, the reduction of frequency in Route 16 service as noted by the DCC in their letter of comment. A separate analysis focusing solely on this change of service to the Route 16 bus is not warranted because such a service change would never be considered in the absence of implementation of Central Corridor LRT service.

The Title VI review of future Central Corridor LRT service was completed as part of the Metropolitan Council's efforts to explore fully all the potential environmental justice effects of implementing the project. Because the Title VI review methodology relies heavily on an assumed walking distance to transit stops, it was important to determine a reasonable walking-distance assumption for LRT service and whether the same assumptions should be used for bus as for LRT. For bus service, Metro Transit assumes that all census units with a center point within ¼-mile of a bus stop are served by that bus stop. Metro Transit staff researched whether the same walk distance assumption should apply to light rail stops given the unique features of light rail transit, including faster speed, better reliability, and higher passenger amenities. Metro Transit's own experience with the Hiawatha Line, from the *2007 Vehicle, Pedestrian and Bike Rail Safety Survey,* found that 54 percent of respondents lived 3 to 10 blocks from a rail station and 10 percent lived within 2 blocks. The survey did not specify short blocks or long blocks, so 10 blocks can be presumed as a distance somewhere between 0.625 and 1.25 miles With two-thirds (64 percent) of respondents coming from an area within 10 blocks of a station, Metro Transit made a conservative estimation that a large portion of riders were walking more than ¼-mile and less than 1 mile to an LRT station. This suggests that light rail customers are willing to walk further than bus transit customers.

A follow-up customer survey conducted in October 2008 confirmed these findings. This survey, also conducted of Hiawatha LRT riders, found that 26 percent of riders walked to light rail and that, of those, 58 percent walked ¼-mile or less and 22 percent walked ¼- to ½-mile. Combined, 80 percent of riders who walked to light rail were within ½-mile from an LRT station. In addition to reviewing data on the patterns of Hiawatha LRT customers, Metro Transit staff also looked at other agencies' standards for measuring LRT station service areas. Seattle's Sound Transit used a 0.5-mile buffer around stations to analyze the net benefit of the project on low-income and minority populations in the environmental justice section of its 2006 North Link Light Rail Project SEIS. http://www.soundtransit.org/x3009.xml, Chapter 4a) A follow-up e-mail discussion with Sound Transit's Jim Moore and Matt Sheldon confirmed that their organization uses ½-mile walk distance for light rail service and that they generally strive for average LRT stop spacing of no closer than one mile. Likewise, Los Angeles Metro included all population within ½-mile of rail stations in the SEIS/SEIR for its Metro Gold Line Eastside Extension project (http://www.metro.net/projects_studies/eastside/eir.htm) Finally, a 1996 survey of U.S. and Canadian transit properties found that a ½-mile rail walking distance is also the accepted guideline for TransLink of Vancouver and New Jersey Transit (S. O'Sullivan and J. Morrall, Walking distances to and from light-rail transit stations, *Transportation Research Record* 1538 (1996), pp. 19-26). The practice of these peer agency experiences, coupled with the findings of the Hiawatha LRT customer survey, indicated that ½-mile is the appropriate walking distance standard for light rail stations. This standard was used for the Central Corridor LRT Title VI review to determine access to light rail transit in the project area. In all other respects, the Central

Corridor LRT Title VI review methodology was the same as prior Title VI reviews conducted by Metro Transit and accepted by the FTA.

The DCC comment letter contains data comparing the demographics of riders of the Hiawatha LRT who walk to stations to riders of the Route 16 bus service. The Metropolitan Council has acknowledged the need to consider the unique transit needs of the community as part of implementation of committed mitigation for the Central Corridor LRT project. Specifically, the Metropolitan Council will develop a targeted transit service plan for the environmental justice community, involving members of the community in its development, and implementing its recommendations concurrent with the start of LRT service.

Adequacy of Environmental Justice review in NEPA Decision Making (EJ-5)
In the comment letter submitted by the Preserve and Benefit Historic Rondo Community (PBHRC) to the Central Corridor LRT FEIS, the PHBHRC alleges that the Metropolitan Council "has failed to recognize that environmental justice requirements are triggered so long as the Project's impacts are 'predominantly borne by a minority population and/or low income population.'"

RESPONSE: Presumably, PBHRC is referring to the requirement that a project proponent demonstrate that (1) additional mitigation is not practicable; (2) a substantial need for the project exists; and (3) alternatives with less adverse effects on protected populations would either (i) have more severe adverse impacts or (ii) would involve substantially increased costs. This additional analysis is required only where the proposed project will have a disproportionately high and adverse effect on minority or low-income populations. A disproportionately high and adverse effect on minority and low-income populations is an adverse effect which is:

> (1) predominantly borne by a minority population and/or low-income population, or
>
> (2) will be suffered by the minority populations and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority and/or non-low-income population. *See* 62 Fed. Reg. at 18,380.[1]

The potential adverse effects of the Central Corridor LRT project are identified and analyzed in the AA/DEIS, SDEIS, and the FEIS. These documents indicate that there are no "high and adverse" effects on minority and/or low income populations. Moreover, the detailed analysis demonstrates that (1) the potential adverse effects are not predominantly borne by a minority or low-income population (the potential adverse effects are shared by all populations along the proposed route, including non-minority and non-low-income populations); and (2) the potential adverse effects suffered by the minority or low-income populations are not appreciably more severe or greater in magnitude than the adverse effects that will be suffered by other populations along the proposed route. These documents confirm that the majority of the impacts cited by the PBHRC (i.e., business interruption, increased property values, traffic impacts, and parking impacts) will be experienced along the entire route and, as is the case with parking impacts, may be greater in magnitude in the non-minority and non-low income areas.

Moreover, the substantial benefits that will accrue to the minority, low-income, and transit dependent populations more than offset nearly all of the potential adverse impacts of the Central Corridor LRT project. Among other benefits, the project will provide increased transit access to employment and activity centers, significant travel time savings, and the creation of jobs through new development along the route. FEIS, Chapter 5 (Economic Effects) and Chapter 6 (Transportation Effects).

The only potential effect which is not completely offset by a corresponding benefit is the projected decrease in transit service for individuals residing in a three-census block area of the larger minority population. As explained in section 3.8 of the FEIS, this potential effect is not limited to the minority population and will be experienced by individuals residing in a total of ten census blocks – including seven census blocks in non-minority and non-low –income areas. Moreover, Metropolitan Council has committed to developing a transit plan which will mitigate completely the potential decrease in transit service for the affected three-census block area. This mitigation was neither offered to nor contemplated for the affected census blocks outside of the minority communities.

Since there is no basis for concluding that the Central Corridor LRT project will have disproportionately high and adverse effects on minority or low-income populations, the Metropolitan Counsel is not required to demonstrate that alternatives with less adverse effects on protected populations would (1) result in more severe adverse effects or (2) involve increased costs of extraordinary magnitude before proceeding with the project

Adequacy of Committed Mitigation for Environmental Justice Impacts (EJ-6)
Comments were received by Jewish Community Action, the District Councils Collaborative and the Preserve and Benefit Historic Rondo Committee noting that additional mitigation beyond that committed to in the FEIS is required to address impacts to environmental justice populations.

RESPONSE: As discussed above, since the FTA has found that the environmental justice review in the Central Corridor FEIS is adequate, including its assessment of population, effects and mitigation, there is no additional mitigation being committed to address impacts to environmental justice populations, beyond that described in the FEIS and summarized in the record of decision.

Funding Assumptions (F-1)

One comment was received questioning the validity of the funding assumptions for the Central Corridor LRT project.

RESPONSE: An analysis of financial impacts of constructing, operating and maintaining the Central Corridor LRT project was disclosed in Chapter 8 of the FEIS. This analysis was based on the best available data at the time the information was prepared, including financial forecasts and committed capital resources.

City of Minneapolis Comments to FEIS

The City of Minneapolis submitted comments on the FEIS's response to comments, on utilities and on traffic and transportation issues. Responses are summarized below by issue raised. A notated copy of the city's comments is included in Attachment C-1.

Response to Comment M-1
A plan for management of traffic diverted from the Washington Avenue Bridge (WAB should it require closure for repairs or any other activities that would limit accessibility for a 24-hour or greater period will be developed during final design. This plan will be developed jointly by all affected entities, including the City of Minneapolis, the Metropolitan Council, Mn/DOT, Hennepin County, and the University of Minnesota.

Response to Comment M-2
The City's comments regarding parking loss are addressed in comments M-11 below.

Response to Comment M-3
It is noted that p. 4.9-9 of the FEIS contains outdated information on an existing sanitary sewer line along Washington Avenue. A single sanitary line will be installed, not the dual-line noted. This statement in response to the comment received is intended to clarify the matter.

Response to Comment M-4
The FEIS did disclose in Section 3.3 all impacts to individual business accesses resulting from implementation of the Transit Mall at the U of M. No further discussion or analysis of impacts is required based on the proposed action.

Response to Comment M-5
An analysis of 2014 traffic impacts was not completed as part of studying traffic impacts of converting Washington Avenue to a Transit Mall. An analysis of impacts in 2030 was completed to determine impacts of converting Washington Avenue to a Transit Mall and the results are summarized in the referenced table. Consistent with other traffic analyses which identified 2014 impacts, resultant commitments for mitigation were actually made based on the 2030 forecast year, therefore no change to mitigation commitments would result from running a 2014 forecast. No further analysis will be completed as part of the proposed action.

Response to Comment M-6
The FEIS commits the Metropolitan Council to take action to mitigate for traffic impacts occurring at the intersection of University/Huron/23rd streets. The Council will continue to work with the City of Minneapolis throughout the process of final design, including seeking formal comment on 60-percent design plans submitted in late summer 2009. The Council and the City will determine jointly the exact measures implemented to mitigate for traffic impacts at this location and will consider the effects of implementation of mitigation strategies on adjacent intersections as part of determining the appropriate final design for these measures.

Response to Comment M-7
The FEIS commits the Metropolitan Council to take action to mitigate for traffic impacts occurring in the Cedar-Riverside community of Minneapolis. The Council will continue to work with the City of Minneapolis throughout the process of final design, including seeking formal comment on 60-percent design plans submitted in late summer 2009. The Council and the City will determine jointly the exact measures implemented to mitigate for traffic impacts in this neighborhood and will consider the effects of parking loss or impacts to planned bike facilities as part of determining the appropriate final design for these measures.

Response to Comment M-8
The proposal to remove parking on the north side of Franklin Avenue to allow two-lanes of westbound traffic is intended to only cover the block immediately east of TH 280 in the City of St. Paul. The response to this comment and its inclusion in the Record of Decision provides clarity regarding the exact extent of this impact.

Response to Comment M-9
There are numerous contributing factors that could lead to future issues with intersection levels of service at the intersection of 5th Street and 2nd Avenue N in downtown Minneapolis, including the extension of the Hiawatha LRT, and implementation of recommendations from the city's Access Minneapolis plan. The Metropolitan Council will work with the City to develop refined estimates, including visual simulations, of future traffic operations at this location. Based on these estimates, the City and the Council will determine if any striping or other intersection modifications within the existing roadway right-of-way may be required as part of refining final mitigation strategies.

Response to Comment M-10
The Metropolitan Council will continue to work with the City and local businesses to ensure that freight loading capabilities for the businesses on Washington Avenue is maintained and/or adequately replaced based on final project designs.

Response to Comment M-11
Parking impacts noted in Section 6.3.3.2, under the heading "Midway East and Midway West did include parking lost along University Avenue in the City of Minneapolis. Section 6.3.5 of the FEIS, Parking Mitigation, was intended to discuss a range of parking mitigation solutions that will be applied in the City of Minneapolis as well as the City of St. Paul. The response to this comment and its inclusion in the Record of Decision is intended to clarify this matter.

Response to Comment M-12
The Metropolitan Council will continue to coordinate with City of Minneapolis as final design proceeds, including the opportunity to review and comment on 60 percent design plans. The Central Corridor LRT project will require changes to the City's planned bike facility along University Avenue and the Metropolitan Council will continue to work with the City to coordinate these changes.

Response to Comment M-13
The referenced section of the FEIS did not propose streetscaping as a mitigation element, but described the potential opportunity for streetscaping to result in an improved environment.

Minnesota State Historic Preservation Office Comments to FEIS

Comments to the FEIS were submitted by the Minnesota State Historic Preservation Office (MnSHPO), many of which focused on the Section 4(f) Evaluation, published as Chapter 7 of the FEIS. A notated copy of the city's comments is included in Attachment C-1.

Response to Comment SHPO-1
The FTA concurs with the statement made by MnSHPO that the executed Programmatic Agreement (PA) for the Central Corridor project specifically calls for additional study of

the potential effects of vibration and/or noise on several historic properties. It is appropriate for this additional noise and vibration study to occur, and in actuality be dependent upon final design. The FTA carefully considered this, and other stipulations set forth in the referenced PA in making a no effect determination specific to potential noise and vibration impacts to surrounding historic properties. The referenced study will be completed in accordance with the requirements of the PA. All possible planning has been done and will be done to minimize harm associated with potential noise- and vibration-related impacts to surrounding historic resources. The detailed findings of the noise and vibration study completed for the project, and associated mitigation measures can be found in Sections 4.6 and 4.7 of the FEIS. Based on the findings in the FEIS, the stipulations called for in the executed PA, and the commitment to fulfill the requirements of the PA; FTA stands by the determination that noise and vibration will not substantially diminish the historic activities, features, and attributes of referenced historic properties.

Response to Comment SHPO-2
The FTA concurs with the statement made by MnSHPO that Stipulation I.B.3 of the executed PA for the project outlines that consultation resolving effects on access to Central Presbyterian Church and St. Louis King of France Church will continue in subsequent project phases. FTA also concurs with the conclusion that the project does not result in a taking of Section 4(f) property. MnSHPO's comment specifically references future development on the Minnesota Public Radio (MPR) parking lot parcel, and the potential impact future development could have on this project's commitment to maintain access to the Church. The Metropolitan Council and the FTA have developed a solution for this specific area based on current development on the project site. FTA cannot control potential future development on the MPR lot, and its potential impact on this proposed action.

Response to Comment SHPO-3
The FTA concurs with MnSHPO's adverse effect determination to the two historic landscape triangles in the Prospect Park Residential Historic District. We acknowledge that although they are in public street right of way, they are contributing elements of the Historic District, and hence the proposed action would result in a use of this Section 4(f) resource. The Record of Decision (ROD) includes this finding. The FTA has determined that, based on safety and access issues associated with the project design in this specific location, there are no prudent and feasible alternatives to the use and that all possible planning to minimize harm has been conducted. The measures to minimize harm to the triangular traffic islands are included in the Record of Decision in Section XXX.

Response to Comment SHPO-4
Similar to FTA's response to comment SHPO-3 above, FTA finds that the project does require the use of East River Road, a historic resource, as suggested by MnSHPO, and has included this finding in the ROD. The FTA has determined that, based on safety and road continuity in this area, there is no prudent and feasible alternative to the use, and that all possible planning to minimize harm has been conducted. The reconfiguration of the intersections will be designed to be as consistent with the original historic design as possible while ensuring road safety and continuity.

Response to Comment SHPO-5
Although the preferred alternative includes placement of project infrastructure outside the existing curbline of Washington Avenue near the intersection of Church Street (at the east border of the Campus Mall Historic District) this placement is within the existing

street/public right-of-way and will not result in a direct taking of Historic District land. It is therefore FTA's finding that the preferred alternative would not result in a use of this Section 4(f) property.

Response to Comment SHPO-6
The executed PA for the Central Corridor (which is Attachment A of this ROD) calls for specific stipulations to address the project effects on the St. Paul Union Depot and on the Lowertown Historic District. The commitments called for in the PA will be adhered to for this project.

Response to Comment SHPO-7
The executed PA for the Central Corridor calls for specific stipulations to address the project effects on the State Capitol Mall Historic District. The commitments called for in the PA will be adhered to for this project.

Response to Comment SHPO-8
The FTA concurs with MnSHPO's comment that it is important to be clear that the Section 4(f) Evaluation completed in the FEIS treated Leif Erikson lawn as a park resource separately from Leif Erikson Lawn as an element of the State Capitol Mall Historic District. Indeed, the Section 4(f) Evaluation, published as Chapter 7 of the FEIS, provided distinction between these two separate uses of this same resource, disclosing impacts to Leif Erikson Lawn as a historic resource in Section 7.5.2.4 and as a park in Section 7.5.2.5. In addition, Table 7-2 in the FEIS summarized impacts to Leif Erikson Lawn as a historic resource separate from its potential use as a park resource.

Response to Comment SHPO-9
The FTA seriously considers and conducts a rigorous analysis of the adequacy of efforts to avoid and minimize impacts to properties protected under Section 4(f). The Section 4(f) Evaluation conducted for the Central Corridor project underwent significant scrutiny and legal sufficiency review. The outcome of this rigorous review was FTA's final Section 4(f) determination, which received concurrence from the U.S. Department of the Interior by e-mail dated July 22, 2009.

Response to Comment SHPO-10
Section 7.6.4.4. of the FEIS includes an avoidance alternative evaluation specific to the contributing elements to the State Capitol Mall Historic District, namely, the Cedar Street lawn panels. The FEIS record stands corrected with the incorrect reference to 23 CFR 774.13 (c), pertaining to properties that have late designations, removed. FTA concludes that this reference is not relevant to this specific Section 4(f) resource, and that an appropriate alternative evaluation was completed and documented in the FEIS/Section 4(f) Evaluation. This analysis resulted in the determination that alignments that avoid the resource are not feasible and prudent alternatives to the use of the Section 4(f) protected property, namely, the Cedar Street lawn panels.

Requirement to Fulfill Mitigation Commitments (MI-1)

Several commenters noted the expectation for fulfillment of mitigation commitments made by the Metropolitan Council in the FEIS.

RESPONSE: Mitigation commitments made in the FEIS will be fulfilled. Reporting on the progress of commitments to mitigation will become part of the project reporting

process to the FTA, who will also monitor the implementation of mitigation commitments. Attachment B of this ROD is intended to be the first version of a dynamic document used during final design and construction to monitor the implementation of mitigation commitments.

Adequacy of Noise Analysis (St. Louis Church) (N-1)

St. Louis King of France Church submitted a comment regarding assumptions of the noise analysis completed and documented in the FEIS. Specifically, they questioned the exclusion of LRT horn noise from the analysis of project impacts. The church further noted concerns with impacts to the rectory, which is a Category 2 (residential) property.

RESPONSE: The Metropolitan Council is committed, as documented in the FEIS, to establishing standard operating procedures for the Central Corridor LRT, eliminating the use of LRT horns under typical operating conditions. LRT horn use will be limited to emergency situations which, by their nature, are occasional and unpredictable. The results of the noise analysis, as disclosed in the FEIS, did not identify any noise impacts to the church (as a Category 3, institutional property) or to the rectory (as a Category 2, residential property). No change to noise modeling to include LRT horn use is being proposed.

Vibration and Noise Impacts at MPR

MPR submitted comments on the noise and vibration analysis completed as part of the Central Corridor LRT FEIS and mitigation commitments made therein.

Methodology of Noise Analysis (N-2)

MPR notes that their own consultant's analysis of effects differed from that completed by the Metropolitan Council's technical consultant but acknowledges that the Mitigation Agreement (Appendix F-1 of the FEIS), if timely and fully performed by the Council and the Central Corridor Project Office, are intended to mitigate those noise impacts to the extent required under FTA guidelines.

Design of Vibration Mitigation at MPR (V-2)

RESPONSE: The Metropolitan Council acknowledges MPR's desire to include a floating-slab that would, in MPR's view, account for uncertainties in the analysis, climatic and other site conditions. The Metropolitan Council will fulfill its obligations under the Mitigation Agreement (Appendix F-1) in this matter.

Operations and Maintenance Costs (OM-1)

A comment was received regarding operating and maintenance costs for the Central Corridor LRT.

RESPONSE: Operations and maintenance costs of the Central Corridor LRT were discussed in Chapter 8 of the FEIS. This information will be updated annually as the project moves forward, consistent with FTA New Starts reporting requirements.

Loss of On-Street Parking and Associated Mitigation (P-1)

Several commenters to the FEIS noted the loss of on-street parking resulting from LRT and concerns regarding impacts to businesses and residents.

RESPONSE: Parking loss on roadways on which the Central Corridor LRT would operate was noted in Chapter 6 of the FEIS. Mitigation strategies were committed to address this loss of on-street parking. As noted by the City of Minneapolis (see response M-11), the mitigation strategies noted were also intended to identify mitigation that would be appropriate for the loss of parking in Minneapolis. No additional mitigation, beyond that described in the FEIS, is being proposed.

In summer 2009, the City of St. Paul and CCPO staff held eleven workshops with the property owners, businesses and a neighborhood representative to identify site-specific mitigation strategies and develop detailed plans for mitigating the loss of on-street parking. The City of St. Paul has also identified $300,000 for grants to implement these mitigation strategies and is working to identify additional resources to provide incentives for making parking lot improvements and sharing spaces. As these detailed plans are developed during final design, they will be shared with the affected businesses, neighborhoods and residents and posted on the Central Corridor LRT Web site for public review.

Constructing Sidewalks to the Maximum Feasible Width (Ped-1)

One comment was received regarding the desire to build sidewalks to the maximum feasible width in order to safely accommodate pedestrians

RESPONSE: Metropolitan Council staff worked very closely with the cities of Minneapolis and St. Paul, as well as other neighborhood groups and interested stakeholders to ensure that the width of sidewalks in areas adjacent to the Central Corridor LRT were maintained at their current width, or in some instance made wider. There were locations where this goal was not achievable due to right-of-way constraints. In these instances, Metropolitan Council staff worked with affected parties to ensure that the sidewalk width was maintained to its maximum feasible width.

Meaningful Participation in Central Corridor LRT Project Planning (PI-1)

The Metropolitan Council has been intentional about engaging all project stakeholders. One of the initial steps in the creation of the Communication and Public Involvement Strategic Plan was a stakeholder analysis including low income, transit dependent and minority populations. The information gathered in the stakeholder analysis influenced the development and implementation of the outreach program by identifying strategies to engage low income and minority populations including:

- Providing materials in alternate languages
- Creating the Business Advisory Council, the Community Advisory Committee and Station Art Committees that have representatives from these populations including two members of the PBHRC, Veronica Burt and Metric Giles
- Hiring outreach staff that are familiar with the corridor and fluent in languages commonly spoken, including Vietnamese, Hmong and Spanish
- Holding informational meetings, listening sessions and public hearings in the corridor at locations easily accessible by public transit
- Staffing an informational table at community events such as the Hmong Resource Fair, Vietnamese Fest and Rondo Days
- Making contacts at and engaging ethnic and neighborhood media such as Asian American Press, Spokesman-Recorder, Midway Monitor, Somali TV and Hmong radio program on KFAI (an independent community station)

The Metropolitan Council's approach to public involvement includes communicating with the public to identify issues and concerns early in the Preliminary Engineering phase of the project so that those impacts can be avoided or minimized through the engineering process. Comments on the AA/DEIS and meetings with community groups and the Community Advisory Committee identified community concerns early in the process including:

- Concern about community cohesion, specifically, the perception of LRT being another barrier dividing the community similar to what resulted from construction of I-94
- Ability for pedestrians, especially children, to safely cross University Avenue (safety concerns)
- Request for additional stations at Hamline, Victoria and Western
- Interest in having University Avenue reconstructed building face to building face
- Noise and vibration impacts
- Changes in bus service frequency, importance of providing connections between bus and LRT service

Many of these issues were identified during the July, August and September 2007 CAC meetings that focused on the NEPA process and Environmental Justice issues. The outcome of these meetings was an outline of the issues and summary of how the issues would be addressed in the FEIS or other planning documents. The result of these three focused meetings with the CAC was a change to the Communications and Public Involvement Strategic Plan to address community concerns. Changes to the project due to public comments have been presented to the community through various means including public open houses, advisory committee meetings, *Making Tracks* and reports posted on the www.centralcorridor.org webpage:

- Infrastructure for the future stations at Hamline, Victoria and Western (Jan.-Feb. 2008 scoping open houses)
- Non-signalized pedestrian crossings, including safety features (Nov. 2007 BAC and CAC)
- Replacement of the sidewalks from façade to façade (Dec. 2007 BAC, CAC)
- Changes to the public involvement activities including addition of listening sessions (Feb. 2008, ongoing)
- Relocation of crossovers to avoid noise impacts to low income residential areas (documented in Section 4.7 of the FEIS)

Compatibility of LRT Operations and Maintenance Facility with Neighborhood Plans (PL-1)

The District Councils Collaborative noted that the Metropolitan Council committed to mitigation addressing potential conflicts with neighborhood plans resulting from using the Diamond Products facility as an LRT operations and maintenance facility.

RESPONSE: All mitigation commitments in the FEIS will be adhered to, as required by NEPA and MEPA. The Metropolitan Council has formed the Operation and Maintenance Facility Task Force (OMFTF), which includes representation by the surrounding businesses and residences as well as the Capitol River Council. This group has met several times to develop final design recommendations. The FTA will monitor

implementation of mitigation commitments as final design proceeds and through construction of the Central Corridor LRT to ensure that all mitigation commitments are met.

Long-term Population Patterns (PL-2)

One commenter noted the long-term population patterns as an issue.

RESPONSE: All ridership and other forecasting done as part of justifying the project's purpose and need and cost-effectiveness was based on long-range population forecasts prepared by the Metropolitan Council.

Purpose and Need for Proposed Action (PL-3)

The purpose and need for the Central Corridor LRT project was documented in the 2006 AA/DEIS, the 2008 SDEIS, and in the FEIS. The purpose of the Central Corridor LRT is to meet the future transit needs of the Central corridor LRT study area and the Twin Cities metropolitan region, and to support the economic development goals for the Central Corridor LRT study area. The Metropolitan Council's regional 2030 Transportation Policy Plan identified this corridor as a top priority for early implementation. Due to increasing traffic congestion and major redevelopment in the physically constrained corridor, a need currently exists for an alternative to auto travel. The introduction of fixed-guideway transit to the Central Corridor is proposed as a cost-effective measure aimed at improving mobility by offering an alternative to auto travel for commuting and discretionary trips. The Central Corridor LRT would help to minimize congestion increases, offer travel time savings, provide better transit service and capacity to the diverse population of existing and future riders in the corridor, and optimize significant public investments in the regional transit system.

Neighborhood Livability (PL-4)

One commenter expressed concern with neighborhood livability in and around the U of M campus.

RESPONSE: Although "livability" is not a stand-alone element analyzed in the FEIS, many effects such as traffic, noise, vibration, air quality, impacts to parklands and historic properties are part of the analysis. The effects of constructing the Preferred Alternative on these and other issues that could be construed as contributing to "livability" were documented in the FEIS.

Personal Rapid Transit (PRT-1)

The use of personal rapid transit (PRT) was suggested by one commenter as a preferred mode for the Central Corridor LRT process.

RESPONSE: PRT was considered as a travel mode for the Central Corridor in the 2001 scoping phase of the project. It was not considered feasible for implementation in the Central Corridor and was eliminated from further consideration.

Process of Right-of-Way Acquisition and Relocation (RW-1)

One comment was received from a business owner of a recording studio at 1951 University whose studio was identified as being affected by groundborne noise and vibration.

RESPONSE: Section 4.7 of the FEIS did note the potential for adverse effect to the recording studio at 1951 University Avenue (p. 4.7-19). Table 4.7-10, Summary of Detailed Vibration Assessment Mitigation for Category 1 Land Uses, notes that mitigation may include relocating the studio. Upon issuance of the Record of Decision, right-of-way acquisition and relocation assistance can proceed. All such activities will take place consistent with statutory requirements of NEPA and the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Safety and Security (SS-1)

Several comments focused on the need to ensure that measures were taken to protect LRT riders and others and ensure overall system safety and security.

RESPONSE: Safety and security measures were discussed in Section 3.7 of the FEIS. As discussed in Section 3.7.5, Mitigation, the Metropolitan Council will implement a Safety and Security Management Plan for the Central Corridor LRT. This plan covers requirements for safety and security design criteria, hazard analyses, threat and vulnerability analyses, construction safety and security, operational staff training, and emergency response measures. Security and safety for the Central Corridor LRT project will also be facilitated by a Metro Transit Fire Life Safety Committee. No further mitigation is being proposed.

Traffic Impacts (TR-1)

Several comments were submitted regarding future traffic operations and the belief that operations on roadways would deteriorate with LRT in place.

RESPONSE: The results of future traffic operations were discussed in Chapter 6 of the FEIS. Mitigation activities, including signal timing improvements and other system and intersection improvements are committed to address impacts.

Maintaining Route 16 Service Frequency (TS-1)

Several comments were submitted regarding changes in frequency to the Route 16 local bus operating on University Avenue and the desirability of maintaining the existing peak- and off-peak-service frequency.

RESPONSE: At the request of the Central Corridor Management Committee, the Central Corridor Project Office completed an analysis of the impacts of maintaining the existing Route 16 bus service at current levels along University Avenue. Results of this analysis were shared at the August 27, 2008 meeting of the CCMC. Compared to the service frequency reported and analyzed as part of the Preferred Alternative (20-minute peak / 30-minute off-peak) a Route 16 bus operated at current levels of frequency would increase project operations and maintenance costs by approximately $947,000 a year. The resultant impact to the project's overall cost effectiveness was to increase it above the threshold required to qualify for federal funding.

Effects on Research Activities at the University of Minnesota's East Bank Campus

A large number (over 170) of comments were received expressing concern regarding the Central Corridor LRT project's effect on research activities at the U of M. Many comments were received in response to a solicitation made by the U of M on their Web site, noting the publication of the FEIS, the U of M's concerns regarding noise and vibration impacts, and directing interested parties on how FEIS comments could be submitted. The issues raised in each of the comments relating to the effects on research

activities at the U of M are addressed in the responses below to the 31-page letter of comment submitted by U of M General Counsel, Mark Rotenberg.

As a preliminary matter, the Metropolitan Council has acknowledged the importance of maintaining the U of M's ability to conduct research, retain faculty, train graduate students, and provide facilities for students and researchers around the country to conduct research. Staff and technical consultants from the Central Corridor Project Office (CCPO) have been meeting frequently with U of M staff and its consultants for several months to work collaboratively to gather and share data, discuss the results of various analyses, and to reach a consensus regarding the final design of mitigation measures. This effort will continue through advanced preliminary engineering, final design, construction, and even into revenue-service operations.

The following responses address the substantive issues raised in the U of M's comment letter; not the legal conclusions. As set forth in the Record of Decision, the Federal Transit Administration has determined that the Final Environmental Impact Statement fulfills all legal requirements.

Process of Identifying Laboratories/Equipment and Conducting Tests on Campus (UM-1)
The U of M notes the provision of data, specifically a list of sensitive research equipment, to the CCPO and alleges that staff "completely ignored this list," such that "the existing background conditions for vibration at the majority of University Laboratories and the predicted vibration levels from Central Corridor LRT operations at these laboratories are unknown.

RESPONSE: Contrary to the U of M's assertion, CCPO and U of M staff worked cooperatively to identify from the long list of equipment submitted a manageable sub-set of research equipment, representing that most sensitive to vibration and/or electromagnetic interference (EMI) as well as that most likely to be affected by LRT operations (i.e., in close proximity to the alignment). The U of M was made aware of the plan for testing and meetings were held with faculty, staff, and researchers after the initial round of testing in May 2008 to discuss preliminary results. The CCPO determined that supplemental vibration testing was required. As part of planning for this supplemental testing, the U of M's vibration consultant requested that additional ambient tests be completed at 15 different laboratories. The CCPO conducted ambient conditions measurements at all these laboratories, in addition to laboratories identified by U of M liaison staff in medical / health-related locations on campus. Extensive coordination has occurred to conduct similar tests of ambient conditions and assessment of impacts for equipment sensitive to EMI.

It should be noted that all data gathered, which provides the basis for the vibration impact analysis and the assessment of ambient conditions, has been shared with the U of M and with their vibration consultant, that staff from the U of M have been part of all plans for conducting vibration testing, and that their support has been invaluable in facilitating access to research labs for testing.

Definition of Impact Criteria – Ambient Vibration Conditions (UM-2)
The U of M comment letter noted that the FEIS states that vibration from the operation of the Central Corridor LRT should be mitigated to "existing background" or ambient conditions. It further notes that the Metropolitan Council's definition of ambient

vibration on campus differs from the definition of ambient conditions that the U of M is proposing and from the definition of ambient conditions used in an early version (July 2008) of ATS Consulting's Vibration Report.

RESPONSE: The early draft version of the vibration report did report Leq conditions for the labs where vibration propagation tests were performed. However, the early draft did not state that the ambient vibration was considered a threshold for impact. The average ambient (Leq) was shown in the graphs to provide the reader a perspective on how the predicted train vibration compared to existing vibration in the labs. A change made in the December 2008 final draft version was to define ambient conditions as a threshold for impact.

There is no FTA or other requirement to mitigate to ambient conditions; however, the Metropolitan Council recognized the U of M's interests in maintaining the existing vibration environment in the future as part of mitigating LRT effects on the Washington Avenue research corridor. Criteria for impact to ambient conditions were identified by the Metropolitan Council in the December 2008 final draft Vibration Report and in Section 4.7 of the FEIS. No impact to ambient conditions was considered to occur if: (1) the predicted train vibration was lower than the measured L1 in all 1/3 octave bands up to 100 Hz, or (2) the predicted train vibration was at least 5 decibels below the FTA's VC-E curve at all frequencies. L1 represents the vibration level that is exceeded at least 36 seconds out of an hour, or one percent of any given time period. This measure was selected to represent ambient conditions at the U of M because, if the train vibration in any 1/3 octave band approaches the ambient L1, the total time that the train vibration would be at that level in an hour would be approximately two seconds for each train. Based on peak-hour LRT operations at the U of M campus, this would mean that the train vibration might approach L1 at specific frequencies for a maximum of 20 to 25 seconds in an hour (less than the 36 second L1 timeframe). Thus, over a one-hour period, the ambient vibration would exceed the vibration generated by the train. For equipment that is sensitive to vibration, one or two disruptive vibration events are usually sufficient that the measurement or experiment would be unsuccessful. Because there would be times that the ambient (L1) vibration would exceed the train vibration, there would be a substantially higher probability for ambient vibration to cause a measurement or experiment to fail than the train vibration.

The Metropolitan Council disagrees with the U of M's assertion that nighttime Leq should be used to establish the ambient vibration conditions. Such a criterion would artificially decrease the magnitude of the ambient vibrations by focusing exclusively on the overnight hours when the vibrations are lesser in magnitude and disregarding the higher than average, yet nonetheless frequent, vibrations that occur on a daily basis. Although Metropolitan Council maintains that the L1 criterion accurately reflects ambient conditions for purposes of analyzing the potential impacts of the CCLRT project, Metropolitan Council has committed to implementing mitigation measures capable of maintaining ambient conditions determined using the L10 criteria.

Vibration Mitigation to Frequencies above 100 Hz / Use of VC Curves (UM-3)
The U of M states that the FEIS erroneously assumes that Central Corridor LRT vibration at frequencies higher than 80 Hz will not adversely affect the University's research and relies on the VC curves to limit mitigation.

RESPONSE: The Metropolitan Council is proposing to mitigate the effects of Central Corridor LRT-generated vibration at the U of M's campus at frequencies up to 100 Hz. A citation contained on p. 12 of the U of M's letter, stating that the FEIS proposed to mitigate only to 80 Hz at the U of M was a misinterpretation of the FEIS text, which was intended to be a factual restating of the VC curves, which are used by the FTA to identify vibration impacts from proposed LRT projects. In the December 2008 Final Draft Vibration Report, and in all supplemental analysis completed since that time, the CCPO's vibration consultant has reported impacts in frequencies up to 160 Hz. However, the limit for impacts at the U of M has consistently been defined by the Metropolitan Council at 100 Hz. Vibrations at higher frequencies tend to attenuate quickly from the source (dissipating within 5-15 feet of the LRT tracks) and would not be anticipated to reach or to affect the U of M's sensitive research equipment. Finally, it should be noted that the Master Implementation Agreement between Sound Transit and the University of Washington, which is referenced by the U of M and attached to their letter of comment, mitigates only to frequencies of 100 Hz.

Adequacy of Committed Mitigation at the U of M (UM-4)
The U of M comment letter took exception to the vibration mitigation design solution proposed at the U of M's East Bank campus, specifically the use of high-resilience track fasteners. They requested that a floating slab track be installed through the entire 1,800' Mitigation Zone instead.

RESPONSE: The final design of the vibration mitigation measures will be refined through final design and engineering. Such refinements may include the construction of some shorter independent floating slabs in key locations in conjunction with resilient fasteners. The Council and the U of M agree that the first and best option for mitigation is at the source, or at the LRT alignment. Many factors, including cost-effectiveness, will influence the selection of the appropriate and final mitigation design at the U of M to address vibration impacts. At locations where full mitigation cannot be met with improvements at the source, the Metropolitan Council will coordinate with the U of M to determine the appropriate receiver-based mitigation measures. Receiver-based mitigation could include active or pneumatic (passive) vibration isolation systems for individual equipment. Although unlikely, it may include relocation of sensitive research equipment.

System Maintenance and Monitoring – Vibration (UM-5)
The U of M requests commitments for monitoring of vehicle condition and cites a system planned for construction in Seattle in proximity to the University of Washington, including real-time monitoring, to identify trains with wheel flats or other conditions that may cause higher-than-average levels of vibration.

RESPONSE: The Metropolitan Council has committed to vibration testing and/or monitoring at select and appropriate locations at the U of M's East Bank campus to ensure that vibration measures are working as specified. The details of this program are being developed in consultation with the U of M. The Metropolitan Council is considering the installation of real-time wheel monitoring systems that would measure conditions of light rail vehicles in operation. This system would be used to identify vehicles that would cause higher-than-anticipated levels of vibration so that maintenance could be performed as soon thereafter as practical. Such a measure will benefit all properties adjacent to the Central Corridor LRT, in addition to U of M research uses adjacent to the Washington Avenue research corridor.

Completion of an Uncertainty Analysis for Vibration Assessment (UM-6)
The U of M requested analysis of the "level of uncertainty associated with the CCLRT Project's vibration mitigation strategy" as part of the FEIS.

RESPONSE: The CCPO's technical consultant has completed numerous analyses at the request of U of M staff and their technical consultant. One such analysis investigated the effects of vibration predictions with low data coherence, or for locations where the predictions are close to the ambient. Test results showed that low coherence means that the measured LSTM, or line source transfer mobility, a means of measuring the transmissibility of LRT vibration, is an upper bound, or worst-case scenario. The true LSTM is often 10+ decibels lower. Further testing with heavier weights subsequently verified these predictions. In addition, since the Metropolitan Council is willing to implement mitigation measures to maintain ambient conditions based upon L10 data, rather than the L1 values used to assess potential impacts, this will provide an additional "margin of error" from the originally proposed L1 values. The Council does not believe that conducting additional tests of uncertainty, beyond that already completed, is required or of benefit and no such analysis is currently planned.

Construction Impacts (UM-7)
The U of M expressed concerns regarding the impacts of Central Corridor LRT construction on their research equipment and the adequacy and detail provided for mitigation of construction impacts in the FEIS.

RESPONSE: In an effort to inform the U of M regarding anticipated construction activities on Washington Avenue for the Central Corridor LRT, the CCPO developed a potential schedule providing detailed, block by block information identifying construction activity sequencing and activity durations. This schedule was provided to the U of M in July 2009. The schedule identifies construction activities with anticipated higher levels of noise and vibration. The combined durations of which for a single block are approximately six-to-eight weeks in duration.

Upon receipt of a federal funding and award of construction contracts, the Metropolitan Council will work with the U of M and project Construction Contractors to reduce the duration and extent of construction-induced vibrations, particularly immediately adjacent to sensitive research laboratories in Kolthoff, Hasselmo, Amundson, and Weaver Densford halls by staging construction activities to shorten durations and avoid critical times and/or employ alternative construction methods such as compacting backfill using static rolling or hand-held compaction equipment and using additional saw cutting in lieu of hoe rams.

In recent conversations with U of M staff discussing project impacts and means to avoid and/or minimize impacts, there was discussion of lessons learned from the recent construction of the TCF Bank Stadium on the East Bank campus. According to discussions with U of M staff, this project, involving pile driving (which is not required for Central Corridor LRT construction) and other activities with high noise and vibration thresholds has been managed in a way to minimize disruptions to sensitive research activities nearby. Additionally, the U of M recently completed demolition of an older campus classroom building and is in the midst of constructing a new Science Teaching and Student Services Center along Washington Avenue near the Mississippi River. The CCPO will work closely with U of M staff to implement the construction protection

measures found to be successful in prior construction at the U of M and which are appropriate for use mitigating potential impacts associated with the Central Corridor LRT project construction.

Electromagnetic Interference – Mitigation to Ambient Conditions (UM-8)
The U of M has requested that ambient conditions of electromagnetic emissions be used as a criterion to establish impacts caused by Central Corridor LRT operations requiring mitigation.

RESPONSE: The potential impacts of EMI, and potential mitigation measures were identified and evaluated in the FEIS. As the U of M's experts have acknowledged, ambient conditions for EMI are extremely difficult to establish given that widely varying electromagnetic fields exist throughout the campus, due to numerous sources of EMI. In addition, some of the sensitive equipment generates significant electromagnetic fields such as the Hasselmo nuclear magnetic resonator (NMR) equipment, which produces fields of 5,000 milligauss, some amount of which extends beyond the building walls. The Metropolitan Council and its technical consultants have been working closely with U of M staff and their technical consultants for over a year to understand the potential for Central Corridor LRT to disrupt research equipment due to electromagnetic interference. In recent months, this work has focused on development of a state-of-the-art computer model, which has been used to simulate the EMI fields that will be created by the Central Corridor LRT and assist in further refinement of mitigation measures. This model is based on well-accepted scientific principles and formulas and has been validated using data collected from the existing Hiawatha LRT system. In recent conversations with the U of M and their technical consultant, it was agreed that good progress has been made in gathering data and developing a model accurate enough to predict future impacts. However, the U of M's consultants have not completed their validation of the model. The recommended mitigation measure in the FEIS, namely a "double-split" power supply system is based on results from the model, validated with actual field measurements from the Hiawatha LRT system. Refinements to the proposed mitigation strategies will continue through the advancement of preliminary engineering and final design and engineering.

EMI Mitigation – Length and Location (UM-9)
The U of M requested that the FEIS provide detail as to the length and location of the proposed EMI mitigation strategy.

RESPONSE: In Section 4.9.6.1 (p. 4.9-10) of the FEIS, the EMI mitigation system proposed is described as being "installed on Washington Avenue from approximately 75 feet east of the East River Parkway to approximately 50 feet west of Ontario Street. The exact boundaries may change by some distance to the east or west as the U of M and the Metropolitan Council continue to negotiate the details of the final mitigation design.

Effectiveness of EMI Mitigation at Transition Zones (beginning and end of mitigation zone) (UM-10)
The U of M's comment letter stated that there is no information in the FEIS establishing that EMI mitigation will be sufficient at the beginning and end of the proposed mitigation segment.

RESPONSE: As described in response to comment UM-8 above, the Metropolitan Council has been working with the U of M and their technical consultants in recent

months to develop and refine a forecast model for EMI emissions on the U of M campus that can be used to refine the mitigation measures and has been used to generate information about the effectiveness of transition zones at the beginning and end of the mitigation zone on Washington Avenue. This information has been shared with the U of M and their technical consultants and mitigation design appropriate to address issues at transition zones continues to be refined during preliminary and final design activities.

Completion of an Uncertainty Analysis for EMI Assessment (UM-11)
The U of M requested completion of an uncertainly analysis associated with elements of the EMI analysis.

RESPONSE: Validation of the Central Corridor LRT EMI model against actual EMI values emitted from operations of the Hiawatha LRT system was performed with excellent results and has removed much of the uncertainty of the analysis. The U of M consultant expressed much satisfaction from the test results. It is not necessary to conduct additional tests of uncertainty.

System Maintenance and Monitoring – EMI (UM-12)
The U of M's comment letter stated that acceptable EMI mitigation must include integration of real time monitoring of EMI conditions along Washington Avenue.

RESPONSE: The Metropolitan Council has committed in the FEIS to testing and/or monitoring at select and appropriate locations. The details of this testing and/or monitoring program are being developed in consultation with the U of M.

Constructive Use, under Section 4(f), of the University Campus Mall Historic District (UM-13)
The U of M contended that the Central Corridor LRT project will result in the constructive use of the Campus Mall Historic District and that the FEIS must therefore include a Section 4(f) avoidance analysis.

RESPONSE: A "constructive use" of a Section 4(f) property occurs where "a transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished." 23 C.F.R. 774.15(a). The impacts of the Central Corridor LRT project, as disclosed in the FEIS, do not rise to the level to which a constructive use finding would be made. Specifically, constructing a modern light rail line within roadway right-of-way (along which a streetcar had operated historically) does not rise to the level of substantial impairment of the Campus Mall Historic District that would result in a constructive use of this resource.

Use and Adequacy of a Programmatic Agreement in the Section 106 Process (UM-14)
The U of M questioned the use of a Programmatic Agreement to analyze and address Central Corridor LRT effects to historic resources. The U of M also stated that their concerns regarding the Section 4(f) and Section 106 processes were not responded to by the Metropolitan Council.

RESPONSE: A Programmatic Agreement may be used to analyze and address effects to historic resources:

(i) When effects on historic properties are similar and repetitive or are multi-State or regional in scope;
(ii) When effects on historic properties cannot be fully determined prior to approval of an undertaking;
(iii) When nonfederal parties are delegated major decisionmaking responsibilities;
(iv) Where routine management activities are undertaken at Federal installations, facilities, or other land-management units; or
(v) Where other circumstances warrant a departure from the normal section 106 process.

36 CFR § 800.14(b)(1).

The FTA has determined that use of a Programmatic Agreement is appropriate for the Central Corridor LRT project, as stated in the Programmatic Agreement, because the "full range of effects on historic properties will not be known prior to the approval of grant funds." The Programmatic Agreement was made in consultation with the Minnesota State Historic Preservation Officer, the federal Advisory Council on Historic Preservation and other consulting parties to the process. Public involvement in the Section 106 process was coordinated with the scoping, public review and comment, and public hearings conducted by FTA and the Metropolitan Council to comply with NEPA and its implementing regulations.

The University of Minnesota was invited to join as a consulting party to the Programmatic Agreement, developed as part of the Section 106 process, in fall 2008 and declined to do so. Nevertheless, draft copies of the Programmatic Agreement were shared with the U of M. The U of M was invited to meetings to receive input into the draft Programmatic Agreement, and comments on the draft agreement were received from the U of M and incorporated into the Programmatic Agreement, as appropriate. As the Section 106 consultation proceeds, consistent with stipulations in the Programmatic Agreement, the U of M will continue to be invited to be involved in the process, to consult regarding proposed project effects, to avoid effects if possible, minimize where practicable and, if avoidance and minimization is not practicable, to develop mitigation plans as appropriate.

Design of Vibration Mitigation on Cedar Street in St. Paul (St. Louis Church) (V-1)

St. Louis King of France Church submitted a comment stating their concerns about the efficacy of the floating slab technology proposed in the FEIS to mitigate groundborne noise impacts predicted at the church and requesting additional commitments to test the slab after a number of freeze-thaw cycles.

RESPONSE: The Metropolitan Council has committed in the FEIS and in the MPR Mitigation Agreement (Appendix F1 of the FEIS) to testing the effectiveness of the installation and performance of the floating slab on Cedar Street during pre-revenue service and during the first year of revenue service operations. Furthermore, the commitment was made to conduct testing in the summer and in the winter to account for climatic conditions and variation.

Visual Effects to Big Top Liquors (VE-1)

Big Top Liquors expressed concern about altered visibility to their business from University Avenue.

RESPONSE: Based on the results of analysis performed and reported in the FEIS (Chapter 3) there are no adverse effects to visual quality anticipated to result to Big Top Liquors as a result of the proposed action.

Vibration and Noise Impacts to Residents (VN-1)

One comment was received from a member of the general public expressing concern about impacts from noise and vibration to residents along the Central Corridor LRT alignment.

RESPONSE: The effects of potential noise and vibration effects of the Central Corridor LRT project were discussed in Sections 4.6 and 4.7 of the FEIS. Potential adverse effects to residences will be avoided by relocation of special trackwork away from sensitive receptors. In the instance of the one severe impact that is anticipated, even after relocation of trackwork, which will occur to a City of St. Paul firehouse, mitigation is committed to increasing the resistance of the residence to sound by improved windows or other appropriate treatments.

Adequacy of Traffic Analysis of Washington Avenue Transit Mall Impacts (WA-1)

Several commenters noted the effects on traffic patterns related to closure of Washington Avenue to automobile traffic and the adequacy of mitigation commitments.

RESPONSE: As part of analyzing effects of implementation of the Preferred Alternative, a comprehensive traffic study of over 45 intersections surrounding an approximately five-square-mile area around the University of Minnesota's East Bank campus was completed. This process is discussed and the results disclosed in Chapter 6 of the FEIS. Mitigation to address all identified impacts, including improvements to intersections on the east and west sides of the Mississippi River in the City of Minneapolis and on the University of Minnesota has been identified and is committed in the FEIS and in the record of decision. No additional analysis or additional mitigation commitments are being proposed.

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ATTACHMENT B

CENTRAL CORRIDOR FEIS

Mitigation Monitoring Program

The mitigation measures and other project features that reduce adverse impacts, to which FTA and the Metropolitan Council committed in the Final EIS, are summarized in the table below. This summary table is provided in the record of decision to facilitate the monitoring of the implementation of the mitigation measures. However, the FEIS provides the full description of all mitigation measures that are included in the Project and, to the extent that there is an inconsistency in the measures summarized in Attachment B and those provided in the FEIS, the FEIS statement of mitigation measures shall prevail. The Metropolitan Council will establish a program for monitoring and reporting the implementation of the mitigation measures as part of its Project Management Plan.

The Metropolitan Council is prohibited from eliminating or altering any of the mitigation commitments identified in the FEIS for the Project without express written approval by FTA. In addition, any change to the Project that may involve new or changed environmental or community impacts not considered in the FEIS must be reviewed in accordance with FTA environmental procedures (23 CFR Part 771.130). The Metropolitan Council will immediately notify FTA of any change to the Project that differs in any way from what the FEIS says. If a change is needed, the FTA will determine the appropriate level of environmental review (i.e., a written re-evaluation of the FEIS, an environmental assessment of the change, or a supplemental environmental impact statement), and the NEPA process for this supplemental environmental review will conclude with a separate NEPA determination, or, if necessary, an amendment of this ROD.

University of Minnesota Mitigation

The project will generate vibration that is predicted to exceed the existing vibration criteria as reported in the FEIS. As provided in their Memorandum of Understanding dated July 18, 2008, the University of Minnesota and the Metropolitan Council agreed to implement measures to mitigate impacts caused by noise, vibration and electro-magnetic field interferences. The parties agreed to continue to refine project plans and designs to, among other things, the mutual acceptance of the parties. Therefore, based on that commitment, the Metropolitan Council and the University of Minnesota will cooperatively determine acceptable mitigation measures and strategies through final design, construction and operation. The mitigation measures agreed to by the parties shall be incorporated in this ROD and any subsequent mitigation measures agreed to by the parties prior to entry into final design will be reflected in the project scope and budget upon entrance into final design.

ATTACHMENT B

Summary Table of Impacts and Mitigation Measures

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
Long-Term (Operations) Impacts			
Land use: The Central Corridor LRT (CCLRT) project is expected to have the following impacts: • Existing development trends would continue. • In downtown St. Paul, a new center of activity would be created surrounding the 4th and Cedar Streets station. • In downtown St. Paul, the location of the operations and maintenance facility (OMF) may affect nearby residential and commercial development due to its reuse of the Diamond Products building, which will prevent a portion of this property from being redeveloped. • The placement of traction power substations (TPSS) and signal bungalows is required along the corridor. **Mitigation measures**: • Façade treatments and provisions for street front retail space at the OMF will help ensure that surrounding residential and commercial uses are enhanced. See Section 3.1 of the Final Environmental Impact Statement (FEIS) for details on impacts and mitigation measures.	• In recognition of the stress new development may place on housing costs and opportunities for low income populations, the Metropolitan Council has partnered with Minnesota Housing and the Family Housing Fund to establish a new Land Acquisition for Affordable New Development (LAAND) Initiative. In November 2008, the Council authorized up to $3.6 million in loans to help some metro-area cities buy land now for affordable housing in the future. Of the $3.6 million, $1.0 million will go to help with land acquisition for affordable housing near the CCLRT alignment along University Avenue. • The access ramps to Washington Avenue from I-35W have been refined to limit impacts to development opportunities near the Cedar-Riverside community, and to enhance transit-oriented development potential. • TPSS impacts will be reduced through restricting their sites to underutilized parcels such as surface parking lots. Five of the 13 TPSS are located at the OMF or near LRT stations and these TPSS will be seen as a part of the main transportation system.	Metropolitan Council	Final design

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing

Community facilities:
The following impacts have been identified:
• Access impacts and on-street parking impacts including at community facilities.
Mitigation measures:
• The Metropolitan Council has mitigated access impacts to the fullest possible extent. For example:
  • Metropolitan Council has been in consultation with Central Presbyterian Church to develop an agreement to provide daily access to the south church entrance, and special, but limited, access to the north church entrance.
  • At the U of MTransit/Pedestrian Mall, private vehicles will be diverted to adjacent roadways by information signs.
The Metropolitan Council will continue to work with the City of ST. Paul and affected property owners and tenants for parking measures as identified in the FEIS.
 	
See Section 3.2 of the FEIS for detailed information about impacts and mitigation measures.
	• Alternate routes, additional traffic signals, and modifications to traffic lanes will help minimize the impact of additional traffic on local streets near the Transit/Pedestrian Mall.
	• Emergency vehicles will have access to the Transit/Pedestrian Mall maintaining existing access to critical health facilities. Metropolitan Council will install directional signs directing automobile traffic to alternate routes.
	• All fire stations will have surmountable curbs installed by Metropolitan Council.
	• A surmountable curb will allow special event access for St. Louis King of France and Central Presbyterian churches from 10th Street.
		Metropolitan Council	Final design

Displacements and relocations: Operation of the CCLRT requires a mix of permanent acquisition of portions of both public and private properties, utility easements, and property access closures. • Three privately owned properties would be taken in their entirety.	The Minnesota Department of Transportation (Mn/DOT), acting for the Metropolitan Council, will acquire all lands, easements, and other property rights required for the CCLRT. Although some lands will be acquired through fee purchase, other property will be acquired through temporary or permanent easements.	Metropolitan Council, MnDOT	Final design

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
• Permanent private takings on 63 parcels would range in size from five square feet to 249,599 square feet (7.65 acres). • Permanent use (property within project construction limits) of existing public property would impact 42 parcels ranging from 500 square feet to 157,645 square feet (26.67 ac). • Three utility easements would be required on private property together with two easements on public property. • Twenty-four accesses, 15 private and 9 public, would be affected by project construction. **Mitigation measures:** • Where private property is to be acquired, the Metropolitan Council, with the assistance of MnDOT, will acquire that property in full compliance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended (42 U.S.C. Sec. 4601 et seq.), and 49 CFR Part 24. FTA Circular 5010.1D dated November 1, 2008, as amended, will apply to CCLRT real estate acquisitions. See Section 3.3 of the FEIS.			
Archaeological and Historic resources: In consultation with the Minnesota State Historic Preservation Officer (MnSHPO) and other parties, an Area of Potential Effect was defined for the project and historic properties listed in or eligible for the National Register of Historic Places were identifed. Since a determination on all effects on historic properties could not be made at the time the NEPA process would conclude, the FTA, the Advisory	• The CCLRT Programmatic Agreement commits to reporting to all consulting parties on a quarterly basis details on how measures stipulated in the Agreement are being implemented.	Metropolitan Council	Final design

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
Council on Historic Preservation and MnSHPO developed and executed a Programmatic Agreement to assess effects on historic properties and to identify measures to avoid, minimize or mitigate adverse effects. **Mitigation measures**: • Metropolitan Council will comply with the stipulations contained in the CCLRT Programmatic Agreement. See Section 3.4 of the FEIS for detailed information about impacts. A copy of the Programmatic Agreement is included in Attachment A.			
Section 4(f) Resources • Permanent use of the following resources will occur: o St. Paul Urban Renewal Historic District o Lowertown Historic District (portion of lawn in front of St. Paul Union Depot) o Capitol Mall Historic District o *De minimis* use of Leif Erikson Lawn (as a parkland resource). **Mitigation measures:** • Metropolitan Council will comply with stipulations contained in the CCLRT Programmatic Agreement (See Attachment A). See Section 3.5 of the FEIS for detailed information about impacts and mitigation.	Use of Section 4(f) protected properties has been evaluated in accordance with Section 4(f) of the U.S. Department of Transportation Act of 1966. Details on Section 4(f) impacts are provided in Chapter 7 of the FEIS. No mitigation is required for the *De minimis* use of Leif Erikson lawn (as a parkland resource).	Metropolitan Council	Final design
Visual and Aesthetic conditions: The project is expected to have the following impacts: • Overhead Contact System (OCS), LRT tracks,	• The overall impact on the visual environment along University Avenue would be positive because the Preferred Alternative, described in	Metropolitan Council	Final design

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
TPSS, stations, and other system elements will add new visual elements to the streetscape. • A new bridge will be constructed over I-35W to provide a connection of CCLRT to the existing Hiawatha LRT line. • The OMF will reuse a portion of the existing Diamond Products Building. **Mitigation measures**: Although the elements listed above would be designed and constructed to maintain visual consistency with existing transportation uses, specific design elements will be incorporated during final design to mitigate potential effects. • To the extent practicable, stations will be designed to ensure compatibility with its setting. • Where TPSS placement will alter visual quality, the Metropolitan Council will work with the respective neighborhoods and business districts to develop appropriate screening. • Measures for façade improvements on the southern and western edges of the Diamond Products building (the OMF site) will be taken, identifying and installing treatments that fit the character of the surrounding neighborhood. • Existing boulevard trees removed due to the construction of the CCLRT will be replaced consistent with local ordinances. See Section 3.6 of the FEIS for details about impacts and mitigation.	the FEIS, will include a complete rebuilding of the street, curbs, and sidewalks. • The Metropolitan Council hired artists and established station art committees to develop and install station art reflecting the culture and character of the adjacent community. • The Preferred Alternative includes installing improved pedestrian crossings at signalized intersections, and installing non-signalized pedestrian crossings at many of the other street intersections.		
Environmental justice: The Central Corridor LRT FEIS included an analysis	• Off-setting benefits of the Central Corridor LRT project have been identified for all but three	Metropolitan Council	Final design

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
of environmental justice impacts of the project in compliance with Title VI of the Civil Rights Act of 1964 and the intent of Executive Orders 12898 and 13166, along with the USDOT Final Order on Environmental Justice and FTA Circular 49 CFR 21.5. This analysis identified the presence of minority and low-income populations and the effects of the project borne by these populations. Impacts of the CCLRT project which are not completely off-set by other benefits have been identified for three census blocks near Western Avenue. These three census blocks could experience a decrease in overall transit service. **Mitigation measures**: • Metropolitan Council has committed to preparing a targeted transit service plan for the affected environmental justice community identified in the Title VI analysis of proposed service changes for the CCLRT. This plan will also provide for community input into the process and measures of need as expressed by and as tailored for this transit-dependent community. • This plan will be completed at least six months prior to CCLRT beginning revenue service operations and will be implemented concurrent with the start of LRT service. • The Metropolitan Council has committed to working toward resolution of community concerns that don't rise to the level of state or federal standards of adverse impacts. See Section 3.8 of the FEIS for details about impacts and mitigation.	census blocks near Western Avenue. • Mitigation of impacts not offset by identified project benefits is committed to by the Metropolitan Council to address decreases in access to transit service experienced in isolated areas along the Central Corridor.		
Geology, Groundwater Resources, and Soils	• The project will require coordination and	Metropolitan	Final design,

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
• No long-term impacts to geology, groundwater resources or soils have been identified. See Section 4.1 of the FEIS for details about impacts and mitigation.	permitting from local, state, and federal water resource agencies. The proposed project will comply with applicable state, federal, and local regulations, and will implement best management practices (BMPs) to control and minimize erosion and potential impacts to surface water resources.	Council	operation
Biota and Habitat • No long-term impacts to biota and habitat Wetlands have been identified. See Section 4.3 of the FEIS for details.	No mitigation is required.	Metropolitan Council	N/A
Threatened and Endangered Species • No long-term impacts to threatened and endangered species have been identified. See Section 4.4 of the FEIS for details.	No mitigation is required.	Metropolitan Council	N/A
Contribution to Regional Air Quality Goals • The project will have no adverse impacts on air quality as a result of CO emissions. See Section 4.5 of the FEIS for details.	No mitigation is required.	Metropolitan Council	Operation
Noise • There are 16 "severe" Category 2 impacts within the CCLRT project corridor. **Mitigation measures**: • Metropolitan Council commits to mitigation of severe noise impacts by moving special trackwork associated with identified impacts to less noise sensitive locations. In locations where this will not address all severe impacts, receiver-based mitigation has been identified. Finally,	The "severe " Category 2 impact remaining after mitigation is located at a City of St. Paul fire station in which firefighters sleep during their shift. Because it is used for sleeping, the fire station is categorized as a "residential" land use. Receiver-based mitigation (treatment of windows to increase sound resistance) has been committed to in the FEIS. An agreement with MPR committing to noise and vibration mitigation has been executed and is included in Appendix F1 of the FEIS. Also included in	Metropolitan Council	Final design, construction, operation

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
administrative measures to limit the sounding of high horns to emergency situations have been committed. See Section 4.6 of the FEIS for details about impacts and mitigation and the statement of required mitigation provided at page 1 of Attachment B.	Appendix F1 are commitments made to Central Presbyterian church that address noise and vibration concerns.		
Vibration: • Impacts have been identified to a total of 21 structures along the Central Corridor. **Mitigation measures**: • Metropolitan Council commits to mitigation of vibration impacts due to crossovers by moving them to locations where they will not impact sensitive receptors. • Metropolitan Council commits to mitigation of wheel-rail vibration with a floating slab at some impact locations, or high-resilience track fasteners at other impact locations. See Section 4.7 of the FEIS for details about impacts and mitigation and the statement of required mitigation provided at page 1 of Attachment B.	Where installation of treatments below the LRT trackway is being made to mitigate vibrations caused by wheel-rail interface, the Metropolitan Council will test such installations during pre-revenue service and after LRT begins revenue service operations to ensure that mitigations measures are working as specified.	Metropolitan Council	Final design, construction, operation
Hazardous materials: • A Phase I Environmental Site Assessment (ESA) completed and described in the FEIS identified the likely presence of contaminated soils and hazardous materials at several sites along the corridor. **Mitigation measures**: • Phase II ESAs will be conducted for specific areas along the alignment that have the potential for	No mitigation is required.	Metropolitan Council	Construction

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
impact from contaminated sites, including but not necessarily limited to all of the sites identified in the FEIS. See Section 4.8 of the FEIS for details about impacts and mitigation.			
Utilities: • No long-term impacts to utilities are anticipated. See Section 4.9 of the FEIS for details about impacts and mitigation.	The MnDOT Utility Manual and the CCPO Utility Relocation Management Plan process will be followed to identify and facilitate relocation of utilities. The project will obtain agreements or permits, as necessary, for the relocation of public utilities. Met Council and utility owners may enter an agreement delineating each entity's responsibilities in compliance with Minnesota Statutes, Minnesota Rules, and Federal Regulations.	Metropolitan Council	Final design, construction
Electromagnetic interference (EMI) • Impacts to nuclear magnetic resonating machines (NMRs) and other sensitive research equipment located on the U of M's East Bank campus have been identified. **Mitigation measures**: • Metropolitan Council commits to mitigation of EMI impacts for research equipment affected by the operation of Central Corridor LRT on Washington Avenue. The mitigation design will reduce the impact to sensitive equipment to acceptable levels. See Section 4.9 of the FEIS for details about impacts and mitigation and the statement of required mitigation provided at page 1 of Attachment B.	The Metropolitan Council continues to work with the U of M and their EMI consultant, and will continue to work through the process of final design, to identify potentially impacted equipment and mitigation strategies that address potentially sensitive research equipment along Washington Avenue.	Metropolitan Council	Final design, operation

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
Energy • The Preferred Alternative would result in an increase in total energy used annually by a very small amount compared to the No-Build Alternative described in the FEIS. See Section 4.10 of the FEIS.	No mitigation is required.	Metropolitan Council	Construction, operation
Transportation: The following impacts have been identified: ***TRANSIT*** • Route 16 – all-day service frequency is modified to 20-minute peak period, 30-minute midday, evening, and weekend service. **Mitigation measures**: • Metro Transit would follow standard procedures for route changes and deletions. Metro Transit would communicate service changes along the corridor as part of its community outreach program. ***ROADS*** • The implementation of the Preferred Alternative will impact traffic operations on roadways where the LRT is proposed to operate and on streets the LRT crosses. • Some intersections are forecast to operate at level of service (LOS) "E" or "F" in the future. • The Transit/Pedestrian Mall at U of M will affect secondary roadways. **Mitigation measures**:	The following mitigation measures will be implemented to address impacts on signalized intersections throughout the corridor: • Optimized signal timing splits at each intersection. • Interconnected coordinated traffic signal system along each section. • Detection of the light rail vehicle (LRV) will be provided at every signalized intersection with priority treatment at the signals for LRVs. • Adding traffic signals on University Avenue. • New traffic signal controllers, pedestrian controls, and signage at signalized intersections. • Protected left- and right-turn lanes at specific intersections. The Metropolitan Council will work with the City of Minneapolis to develop traffic signal timing to accommodate joint operations of the CCLRT and the Hiawatha LRT in downtown Minneapolis, particularly at the intersection of North 5th Street and 2nd Avenue North. All CCLRT vehicles will be capable of accommodating travelers with bicycles. Reconstruction of the portion of the Hiawatha LRT Bicycle Trail requiring relocation due to CCLRT	Metropolitan Council	Final design, construction, operation

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
• For impacts at intersections forecast to operate at LOS "E" or "F," mitigation measures include: Optimization of signal timing splits, integration into the coordinated traffic signal systems, protected left- and right-turn lanes, expansion of turn lanes and/or extension of turning bay lengths, and new signal phasing on some cross streets. • The Metropolitan Council has worked with the U of M, the City of Minneapolis, and Hennepin County to define mitigation commitments for intersections in the U of M area affected by the conversion of Washington Avenue to a transit/pedestrian mall. • Lane geometrics at the intersection of Cedar Avenue and Riverside Avenue will be reconfigured. ***PARKING*** • Parking spaces will be removed in the State Capitol area, along University Avenue between 29th Avenue and Rice Street, and along Washington Avenue. **Mitigation measures**: • The Metropolitan Council will work with the City of St. Paul on a Parking Solutions Team to identify parking mitigation strategies. • The Metropolitan Council and the City of St. Paul will work with the affected property owners and tenants to maximize parking on and near University Avenue.	operations will be concurrent with construction of the Central Corridor LRT.		

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
PEDESTRIANS AND BICYCLES • No long-term adverse effects requiring mitigation have been identified. • The operation of the Central Corridor LRT will require a portion of the currently HLRT bicycle trail to be relocated just north of its current configuration.			
Short-Term (Construction) Impacts			
Land use The following short-term/construction impacts have been identified: • One skyway bridge in downtown St. Paul will be removed to allow for construction of the diagonal alignment between 4th and Cedar Streets and the 4th and Cedar Streets Station platform. **Mitigation measures**: • The project includes funds for a temporary skyway bridge connection to be reconstructed to reconnect the downtown St. Paul skyway system between 4th and 5th Streets. This connection will be permanently restored with redevelopment of this site by the City of St. Paul.	• Short-term impacts will be minimized by using standard construction best management practices (BMPs):	Metropolitan Council	
Neighborhoods and Community Facilities The following short-term/construction impacts have been identified: • Inconvenience to patrons of businesses, clients of community facilities, patients of medical clinics and hospitals, and those attending schools and places of worship along the corridor.	BMPs would be implemented, including the following: • Work with residents and business-owners to provide an alternate access to their neighborhoods and businesses • Maintenance of access for fire stations, hospitals, emergency vehicles, day care, schools, etc. • Maintenance of traffic and sequence of	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
• Where the grid pattern of streets is discontinuous, residents and patrons may experience some delays in gaining access to homes and businesses near construction. **Mitigation measures**: • Residents and patrons, as well as medical and emergency service responders, will be directed to alternate routes to gain access to homes and businesses.	construction would be planned and scheduled to minimize traffic delays and inconvenience. • Access to all neighborhoods would be maintained throughout the construction period.		
Acquisitions and Displacements/Relocations The following short-term/construction impacts have been identified: • Temporary construction easements would be required on 173 parcels for installation of project features. • Three privately owned parcels would be affected by utility easements. • Temporary easements are needed on 10 parcels of public property and two easements for utility work. **Mitigation measures**: • Impacts related to temporary changes to parking and access will be mitigated by developing a Construction Outreach Coordination Plan during final design. The plan will detail planned activities during construction, partnerships, and specific programs to assist local businesses and residents affected by construction and methods to minimize impacts during construction of the project.	BMPs would be implemented: • Work with residents and business-owners to provide an alternate access to their neighborhoods and businesses • Maintenance of access for fire stations, hospitals, emergency vehicles, day care, schools, etc. • Maintenance of traffic and sequence of construction would be planned and scheduled to minimize traffic delays and inconvenience. • Access to all neighborhoods would be maintained throughout the construction period.	Metropolitan Council	
Cultural Resources	Mitigation for construction related impacts would be	Metropolitan	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
The following short-term/construction impacts have been identified: • Temporary vibration, noise, traffic, and visual impacts will affect all NRL and NRE properties, except Minnesota Historical Society (NRL), including parts of Prospect Park Residential HD, University of Minnesota Campus Mall HD, Washington Avenue Bridge, East River Parkway, and Pioneer Hall (all NRE). **Mitigation measures**: • Metropolitan Council will comply with the stipulations contained in the Central Corridor LRT Programmatic Agreement. See Section 3.4 of the FEIS and the PA, which is included in Attachment A to this ROD.	implemented as for all other portions of the project. Additional or specific mitigation measures for construction impacts will be implemented through consultation as specified in the PA (see Attachment A).	Council	
Visual/Aesthetic Conditions The following short-term/construction impacts have been identified: • Construction staging areas will be viewable from sensitive uses such as residences and recreational areas. • Construction activities would be noticeable to area residents and others traveling through the corridor. • Existing trees and vegetation could be injured during construction activity. **Mitigation measures**: • Metropolitan Council would ensure that construction crews working at night direct any artificial lighting onto the work site to minimize "spill over" light or glare in adjacent residential	Mitigation for construction-related impacts would be implemented as for all other portions of the project.	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
areas. • The Metropolitan Council will develop a plan for protecting existing trees and vegetation. • The Metropolitan Council will assess the need for additional landscaping to mitigate potential visual intrusion or privacy vegetation-clearing.			
Parklands The following short-term/construction impacts have been identified: • f air, noise, vibration, visual, and access impacts to parks and recreation resources that are within 350 feet of the CCLRT. • Detours or short-term closure of some park access points. • Construction activities may interfere with normal park use and access. **Mitigation measures**: • Short-term impacts will be minimized by using standard construction BMPs such as dust control, erosion control, and proper mufflers.	Impacts related to temporary changes to access will be mitigated by working through appropriate permitting processes and coordinating with the Minneapolis Park Board and St. Paul Parks and Recreation Department.	Metropolitan Council	
Geology, Groundwater Resources, and Soils • Groundwater could be contaminated by spill of hazardous or regulated materials in proximity to karst features. **Mitigation measures**: • During construction, Metropolitan Council will establish engineering controls and safety measures as described in Section 4.8 that will limit spills of hazardous substances that could potentially affect groundwater, particularly in areas	Standard operating procedures and BMPs will be developed to minimize spills and expeditiously and appropriately respond to spill events in light of karst potential.	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
identified as having high sensitivity to pollution. As part of the final design and permitting, a Stormwater Pollution Prevention Plan and spill prevention plan will be developed in compliance with local, state and federal regulations. • BMPs, such as sub-soiling in compacted areas and establishing permanent vegetation in areas where erosion may be a concern, will be used to mitigate construction impacts to soil resources.			
Water Resources • Construction activities will expose soils and may result in the generation of sediment laden stormwater within the construction area. **Mitigation measures**: Construction BMPs will be used to protect other water resources. • Inlet protection of catch basins – filters, bio-bags, and catch basin drop filters • Excavation silt control – silt fence and bio-bags as appropriate • Temporary seeding of open excavations and stockpiles – as appropriate for surface soil areas that remain exposed for several weeks or longer • Swales with check dams – surface waterways with periodic check dams for silt removal • Temporary paving of area to receive traffic prior to final restoration • Infiltration of storm water runoff after removal of heavy sediments	• The project will require coordination and permitting from local, state and federal water resource agencies. The proposed project will comply with applicable federal, state, and local regulations and will install BMPs to control and minimize erosion and potential impacts to surface water resources. • The project will be monitored under grading permits issued by the Capitol Region Watershed District (CRWD) as well as the cities of St. Paul and Minneapolis.	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
• Temporary re-routing of storm water away from exposed slopes and stockpiles • Vehicle tracking pads to reduce the amount of mud transported offsite			
Biota and Habitat • No short-term/construction impacts to biota and habitat have been identified.	No mitigation is required.		
Threatened and Endangered Species • No short-term/construction impacts to threatened and endangered species have been identified.	No mitigation is required.	Metropolitan Council	
Air Quality Short-term emissions due to construction operations will include emissions from vehicles due to traffic detours, operations of construction vehicles, and fugitive dust generated within the construction site. **Mitigation measures**: Emissions due to construction operations for the Preferred Alternative would be mitigated by implementation of BMPs including the following: • The contractor would be required to follow Minnesota air quality regulations • A construction traffic control plan would be developed to minimize vehicle emissions due to traffic issues caused by construction activities • Construction, operation, and maintenance vehicles would be maintained to make sure that engines remain tuned and emission-control	Air quality issues related to construction activities are subject to Minnesota Pollution Control Agency (MPCA) standards. Best management practices will be implemented to ensure compliance with MPCA standards.		

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
equipment is functioning properly • No unnecessary idling of vehicles or construction equipment will be allowed. • Fugitive dust will be minimized or avoided by using BMPs			
Noise The following short-term/construction impacts have been identified: • Construction noise impacts from multiple types of machinery (diesel) during the daytime and nighttime • Potential for some impact pile driving and pavement breaking **Mitigation measures**: • Most construction activities will take place during daytime hours; however, it is possible that some work will have to be performed at nighttime and the Metropolitan Council will require its contractors to use BMPs to minimize intrusive levels of construction noise. • Use well-maintained construction equipment, and effective and well-maintained mufflers or silencers on loud equipment. • Loud construction activities will be prohibited during nighttime in areas near the U of M dormitories, near student housing apartments near the U of M campus, and near residences along University Avenue and on East 4th Street in downtown St. Paul. • Construction noise has potential to interfere with	The noise ordinances of both the cities of Minneapolis and St. Paul are applicable to this project; however both defer to the MPCA noise standards for maximum allowable noise levels. Metropolitan Council commits to coordinating with affected project stakeholders to minimize intrusive construction noise.	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
use of Studio M, Studio P, and the Forum at MPR. The scheduling of the construction activities with the potential to interfere with these uses will be coordinated with MPR so as to minimize potential disruptions. • Use of loud construction equipment in the immediate vicinity of St. Louis King of France and Central Presbyterian churches will be coordinated with the churches to ensure minimal disruption of activities inside the churches. • Construction contractors will be required to develop a noise mitigation plan. • See also the statement of required mitigation provided at page 1 of Attachment B.			
Vibration The following short-term/construction impacts have been identified: • Construction activities with the potential for generating high levels of vibration have been identified and include pile driving, demolition using jackhammers and hoe rams, and operation of heavy tracked equipment such as bulldozers and backhoes. • Use of high-vibration construction equipment at distances of less than approximately 0.5 mile from research labs may interfere with use of vibration sensitive equipment. • Use of high-vibration construction equipment at distances of less than approximatley 1,000 feet from recording studios may interfere with use of the studios.	The following measures are recommended to mitigate vibration impacts (see more detail in Section 4.7 of the FEIS). • A standard pre-construction survey will be performed to document the existing condition of all structures in the vicinity of sites where major construction will be performed. • Three sets of vibration limits are recommended for various building types and usages. • The contractor will be required to monitor vibration to verify that no construction activities exceed the vibration limits to minimize the potential for damage to structures. • Stakeholders will be consulted and notified of the schedule in advance of high vibration	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
Mitigation measures: • Whenever construction will be performed near U of M research facilities, the MPR studios, or the Fitzgerald Theater, coordination with these entities will take place to minimize potential disruption to building and/or equipment usage. • Vibration monitoring is a crucial requirement when construction will be within 150 ft of fragile historic buildings. If vibration from the test approaches or exceeds the limits, the force of the pile driver will be reduced until the vibration amplitudes at all sensitive buildings are below the applicable limit. • See also the statement of required mitigation provided at page 1 of Attachment B.	construction activities. • Where feasible and cost effective, low vibration construction procedures will be required. • A Vibration and Noise Management and Remediation Plan (VNMRP) will be developed to address issues related to construction noise and vibration affecting historic properties.		
Hazardous Materials The following short-term/construction impacts have been identified: • Section 4.8 of the FEIS includes the descriptions and locations of sites where contamination or hazardous materials could be encountered during construction or demolition. **Mitigation measures**: • Phase II ESAs will be conducted for specific areas along the alignment that have the potential for impact from contaminated sites, including but not necessarily limited to all of the sites identified in the FEIS. • Upon Metropolitan Council and MPCA approval of the mitigation plans, cleanup of identified contamination will commence prior to or concurrent with project excavation and or drilling	• Track bed construction will be closely monitored to mitigate any migrating contaminants that may unexpectedly occur. A Construction Contingency Plan will be prepared prior to the start of construction to account for the discovery of unknown sites. Contamination removal and disposal will be in accordance with this plan, monitored by qualified inspectors, and documented in final reports for submittal to the Metropolitan Council and MPCA. • An application will be made to enroll the project into the MPCA Voluntary Investigation and Clean-up (VIC) and/or Voluntary Petroleum Investigation and Clean-up (VPIC) Brownfields (Petroleum Remediation) programs upon initiation of Phase II ESA studies.	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
activities. • Any existing structures will be surveyed for the presence of hazardous/regulated materials such as asbestos-containing materials, lead-based paint, chemical storage, etc., prior to their demolition or modification. These structures will include the modifications to the Gillette/Diamond Products building at the OMF, the demolition of 360 Cedar Street for the diagonal alignment, and the demolition or modification of any buildings on properties acquired for the TPSS. See Section 4.8 of the FEIS.			
Electromagnetic Interference No EMI impacts are anticipated during construction.	No mitigation is required.	Metropolitan Council	
Utilities The following short-term/construction impacts have been identified: • In general, underground utilities that parallel the proposed CCLRT alignment for some distance may need to be relocated. • Manholes, valves, vaults, hydrants, etc. located within the construction area would generally be relocated or access restricted. • All overhead or subsurface utility crossings, where physical conflicts occur, would be relocated, including those associated with the U of M campus. • Construction of station facilities, traction power supply systems, as well as civil construction (roads, sidewalks, walls, traffic signals, etc.) would	• The Metropolitan Council commits to continuing to work in coordination with District Energy through advancing preliminary engineering and final design to identify solutions throughout downtown St. Paul to minimize impacts to District Energy's utilities. • A potential impact is possible, but no longer anticipated to a large 96-inch-diameter metropolitan interceptor sewer which crosses Washington Avenue at Oak Street. Any possible need to relocate this pipe would require the project staff to work with the Metropolitan Council Environmental Services, as well as the City of Minneapolis to gain relocation approval. • The project will continue efforts to minimize and mitigate impacts with existing utilities during final design.	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
have site specific impacts. • eating and cooling pipelines would be affected. • Along the alignment, public water, storm, and sanitary sewer lines would be affected. • Short-term impact to existing pipelines for natural gas transmission **Mitigation measures**: • Disruptions to utility service, to the extent possible, will be planned for periods of no-usage or minimal usage. • All consumers affected by such operation shall be notified by the contractor a minimum of twenty-four hours before the operation and advised of the probable time when the service will be restored. • If larger services or commercial properties are affected by the shut-offs, a minimum of three days notice shall be given.			
Energy • Energy use will be localized and temporary, and would not be expected to substantially impact regional energy consumption. **Mitigation measures**: No mitigation has been identified or recommended.	Because the operation of the Preferred Alternative would use slightly more energy than the operation of a No-Build Alternative, the energy used in construction would not be recouped as a result of the project.	Metropolitan Council	
Transportation The following impacts have been identified: ***TRANSIT*** • Some disruption of Route 16 and Route 50 service on University Avenue would occur during construction.	• Project outreach coordinators began surveying business and property owners in the spring of 2008 for details on their points of access to help engineers design the line and plan construction. Additional sequencing, along with close coordination with all of the project stakeholders, community groups, and local businesses, will be	Metropolitan Council	

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
Mitigation measures: • Information would be posted at bus-stops. Detour information would also be placed on Metro Transit's web site and updated daily. • Metro Transit would follow standard procedures for route changes and deletions. • Metro Transit would communicate service changes along the corridor as part of its community outreach program described in Chapter 11 of the FEIS. ***ROADS*** • Construction of the Preferred Alternative will involve subsurface and at-grade construction along the project route and relocation of existing utlities. • Partial closures of existing streets where the LRT line will be located for construction operations. • There will be additional congestion and delays in areas of street closures including adjacent parallel streets and cross-streets. **Mitigation measures**: • Access for delivery vehicles will be maintained including access for businesses without alleyway access. • Notification of roadway disruptions will be provided to neighboring property owners/operators. • In cases of roadway blockages, neighboring property owners/operators will be notified and provided with descriptions of alternative routes. • Access to local businesses and to off-street	implemented to effectively deal with and minimize the impacts that may occur. • City/county permits will be acquired by project contractors from the appropriate city offices for roadway disruptions and blockages. • Maintenance of traffic details will be finalized during final design and may be modified by the contractor with permission from the CCPO and project partners. • For construction, specific mitigation will be developed during final design to determine maximum number of lanes closed during peak traffic hours, maintenance and removal of traffic control devices, efficient traffic rerouting measures, and scheduling of construction activities within the roadways for times other then peak traffic periods. • The Metropolitan Council and the City of St. Paul will work with the affected property owners and tenants to maximize parking on and near University Avenue during construction periods.		

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
parking will be maintained. ***PEDESTRIANS AND BICYCLES*** • There will be temporary closures or detours for bike and pedestrian facilities, including a relocation of the Hiawatha LRT trail between 15th and 11th avenues in Minneapolis. **Mitigation measures**: • A detour route for the HLRT bicycle trail will be identified and signed during construction. • Notifications would be managed according to the traffic management plan developed during final design. • Bicyclists would be notified through signage and public notice that bike lanes are detoured. • Where construction activities affect sidewalk areas, special facilities, such as temporary handrails, fences, ramps, barriers, walkways and bridges may be provided for the safety of pedestrians. • If crosswalks are temporarily closed, pedestrians will be directed to use alternative crossings. • All sidewalk and crosswalk surfaces will meet minimum standards for accessibility and be free of slipping and tripping hazards. ***WASHINGTON AVENUE BRIDGE*** To accommodate the proposed CCLRT project, and achieve current code standards, improvements must be made to the Washington Avenue Bridge. • The inside lane in each direction on the lower deck would be converted to exclusive LRT use,			

Impact/Mitigation Measure	Implementation and Monitoring	Responsible Party	Timing
• One lane of vehicular traffic would remain in each direction on the outside lanes. **Mitigation measures**: • The Central Corridor Project Office (CCPO) anticipates that for most of the construction period, one lane of traffic in each direction will be maintained. • Portions of the pedestrian bridge are also expected to remain open during most of the construction. • It is likely that short term closures of traffic lanes and the pedestrian deck will be required. • All of the work proposed by the CCPO could be constructed from the lower bridge deck with the exception of the bridge pier work which would likely require short term water access. ***PARKING*** • Some on-street parking facilities will be temporarily unavailable to allow for construction equipment and vehicles to park or be located near construction sites. **Mitigation measures**: • The Metropolitan Council is working collaboratively with the City of St. Paul on a Parking Solutions Team to identify parking mitigation strategies that will address impacts and mitigation of impacts during construction.			

PROGRAMMATIC AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
METROPOLITAN COUNCIL,
THE MINNESOTA STATE HISTORIC PRESERVATION OFFICE
AND
ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE CONSTRUCTION OF
THE CENTRAL CORRIDOR LIGHT RAIL TRANSIT PROJECT
BETWEEN MINNEAPOLIS AND ST. PAUL, MINNESOTA

WHEREAS, the Metropolitan Council (MC) is proposing to construct the Central Corridor Light Rail Transit Project (PROJECT) located between Minneapolis and St. Paul, Minnesota as more fully described in the Draft Environmental Impact Statement (DEIS) of June 2006 and the Supplemental Draft Environmental Impact Statement (SDEIS) of June 2008 and the proposed Final Environmental Impact Statement (FEIS); and

WHEREAS, MC is proposing to use funding assistance from the Federal Transit Administration (FTA) to implement the PROJECT, assistance that would render the PROJECT a Federal undertaking pursuant to Section 106 of the National Historic Preservation Act (Section 106), 16 U.S.C. Section 470(f), as amended; and

WHEREAS, FTA has consulted with the Minnesota State Historic Preservation Officer (MnSHPO) pursuant to federal regulations at 36 CFR Part 800 implementing Section 106; and

WHEREAS, the FTA and MC have also consulted with a wide variety of agencies, organizations, and other persons who have an interest in this project's effects on historic properties; and

WHEREAS, the Preservation Alliance of Minnesota, the St. Paul Heritage Preservation Commission, Historic St. Paul, the Prospect Park and East River Road Improvement Association, St. Louis King of France Church, and Central Presbyterian Church have elected to participate as consulting parties in the consultation process for this PROJECT and have been invited to concur with this AGREEMENT; and

WHEREAS; the full range of effects on historic properties will not be known prior to the approval of grant funds, and this AGREEMENT provides for ongoing consultation to assess effects and resolve adverse effects in fulfillment of the requirements of Section 106 in accordance with 36 CFR 800.14(b)(1)(ii).

WHEREAS, the FTA and Minnesota Department of Transportation, Cultural Resources Unit (Mn/DOT CRU), in consultation with MnSHPO, have determined the Area of Potential Effect (APE) for the project as all properties within the construction zones and the first tier (all properties fronting the alignment, including buildings, structures, and objects) of adjacent properties, with the addition of properties potentially affected by secondary redevelopment impacts around the proposed station sites, as shown in Attachment B, recognizing that the APE may need to be adjusted as additional project elements are identified pursuant to Stipulation XII of this AGREEMENT; and

WHEREAS, FTA and MnDOT/CRU, in consultation with MnSHPO have identified historic properties in the PROJECT's APE which are listed in or eligible for the National Register of Historic Places (as listed in Attachment A to this AGREEMENT), and MnSHPO has concurred with these determinations; and

WHEREAS; upon initiation of the Section 106 consultation process and in accordance with 36 CFR 800.2(c)(2)(ii), the FTA contacted potentially affected Indian tribes (*The Lower Sioux Indian Community, Prairie Island Indian Community, and the Shakopee Mdewakanton Sioux Community*) inviting their participation in consultation via formal letter, phone call, and e-mail; and

WHEREAS, this AGREEMENT was developed with appropriate public involvement (pursuant to 36 CFR 800.2(d) and 800.6(a)) coordinated with the scoping, public review and comment, and public hearings conducted by FTA and MC to comply with NEPA and its implementing regulations; and

WHEREAS, a Community Advisory Committee (CAC) was formed in January 2007 consisting of representative of neighborhood organizations, district planning councils, business representatives, advocacy groups, educational institutions, ethnic communities and religious organizations to keep these organizations informed about the PROJECT and to provide feedback on issues related to the planning, design, and construction of the PROJECT; and

WHEREAS; the FTA invited the Advisory Council on Historic Preservation (ACHP) to participate in the development of this AGREEMENT and the ACHP indicated it would participate in consultation by letter of June 17, 2008, to the Federal Transit Administrator; and

WHEREAS, the purpose of this Programmatic Agreement (AGREEMENT) is to assess effects on historic properties (where such determination cannot be made at this time) and to identify measures to avoid, minimize, or mitigate adverse effects, as agreed with consulting parties; and

WHEREAS, the FTA will be responsible for ensuring that all aspects of PROJECT implementation meet the terms of this AGREEMENT, in collaboration with the MnDOT/CRU , which assisted the FTA in the preparation of information, analysis and recommendations regarding Section 106 consultation; and

WHEREAS, the Ramsey County Regional Rail Authority and the Hennepin County Regional Rail Authority will be providing local funding for the PROJECT; and

WHEREAS, the MC will administer the implementation of the PROJECT and will complete the stipulations of the agreement; and

NOW, THEREFORE; the FTA, the MC, MnSHPO, and the ACHP agree that the PROJECT will be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic properties.

STIPULATIONS

The FTA will ensure that the following measures are carried out:

I. PROJECT DESIGN DEVELOPMENT

A. The PROJECT design will effectively meet the project purpose and need, while avoiding, minimizing, and/or mitigating adverse impacts to the environment, including adverse effects to historic properties. Avoidance of adverse effects is preferable and will be considered to the extent feasible.

B. The PROJECT areas listed below have been identified as those where MC shall consult further regarding effects on historic properties as part of the design process. In these areas, all elements of the PROJECT design, including but not limited to, stations, platforms, shelters, ramps, walkways, tracks, poles, catenaries, public art, and associated streetscape improvements, will meet the Secretary of the Interior's Standard for Archaeology and Historic Preservation (SOI STANDARDS), taking into account the suggested approaches to new construction in historic areas in the *Secretary of the Interior's Standards for the Rehabilitation of Historic Properties* (SOI REHABILITATION STANDARDS).

1. Union Depot Station area (from the Central Corridor LRT Operations and Maintenance Facility to Jackson Street). Historic properties in this area include the Lowertown Historic District and the Union Depot. In addition to general design compatibility of project elements in this area, consultation will address potential impacts on the Union Depot's approach and relationship to associated streetscaping, landscape, and principal interior spaces of the headhouse; any easements to facilitate associated streetscaping and landscaping will include provisions to protect the historic character of the areas covered.

2. 4th Street Station area (block bounded by 4th Street, Cedar Street, 5th Street and Minnesota Street). Historic properties in this area include the St. Paul Athletic Club, the First National Bank Building, the Minnesota Building, and the St. Paul Urban Renewal Historic District.

3. 10th Street Station area (from 7th Street to 12th Street). Historic properties in this area include St. Louis King of France Catholic Church and rectory, Central Presbyterian Church, Shubert (Fitzgerald) Theatre, St. Agatha's Conservatory (Exchange Building), and Cedar Avenue lawn panels that contribute to the State Capitol Historic District. In addition to general design compatibility of project elements in this area, consultation will address potential impacts on access to St. Louis King of France Church and to Central Presbyterian Church (also see Section IV for vibration issues).

4. Rice Street Station/State Capitol area (from 14th Street to Marion Street). Historic properties in this area include the State Capitol Historic District (including the State Capitol, Power Plant, and Leif Erickson Park), the Ford Motor Company Building, and the Norwegian Evangelical Lutheran Church (Christ Lutheran Church) (also see Section IV for vibration and noise issues).

5. Snelling Avenue Station area (from Asbury Street to Snelling Avenue). Historic properties include the Quality Park Investment Company Building (Midway Books).

6. Fairview Avenue Station area (from Fairview Avenue to Lynnhurst Avenue). Historic properties in this area include the Krank Building; Porky's Drive-In Restaurant; and the Griggs, Cooper, and Company Sanitary Food Manufacturing Plant.

7. Raymond Avenue Station area (from Pillsbury Street to Highway 280). Historic properties in this area include the University-Raymond Avenue Historic District (also see Section IV for parking and traffic issues).

8. Prospect Park area (from Westgate Station to the 29th Avenue Station) Historic properties include KSTP Production Studies and Transmission Tower, the Prospect Park Residential Historic District and The Prospect Park Water Tower/Tower Hill Park (also see Section VI for parking and traffic issues).

9. East Bank Station area (from Oak Street to the Mississippi River). Historic properties in this area include the University of Minnesota Mall Historic District, the University of Minnesota Old Campus Historic District, East River Parkway, the Washington Avenue Bridge (including buildings/structures built/designed as part of the bridge approaches on both banks), the Mines Experiment Station Building, Grace Lutheran Church, and Pioneer Hall (see Section VI for parking and traffic issues).

10. West Bank Station area (from the Mississippi River to I-35W). Historic properties include the Washington Avenue Bridge (including buildings / structures built / designed as part of the bridge approaches on both banks) and Fire Station G/Engine House No. 5 (Mixed Blood Theatre).

11. Traction Power Substations. The following traction power substations are proximate to historic properties: TPSS 13/14, TPSS 12, TPSS 11, TPSS 08, TPSS 05, and TPSS 02.

12. Signal Bungalows. The following signal bungalows are proximate to historic properties: UNI, AVO, RMI, WAX, WBI, and SPY.

13. Poles and Catenaries proximate to historic properties (see Attachment A to this AGREEMENT) throughout the project.

14. Associated streetscaping proximate to historic properties (see Attachment A to this AGREEMENT) throughout the project.

C. MC will develop the PROJECT design for these areas in close consultation with MnSHPO and with other consulting parties (Preservation Alliance of Minnesota, St. Paul Heritage Preservation Commission, Historic St. Paul, the Prospect Park and East River Road Improvement Association, St. Louis King of France Church, and Central Presbyterian Church) and other local and state agencies. Consultation will occur throughout the design process so that historic values are integrated, incorporated and implemented into the project design. MC will submit plans to MnSHPO and other consulting parties for review and comment at minimum at the 30 and 60 percent completion stages. A set of 30-percent complete plans will be provided prior to the MC submitting application to FTA to enter into final design. A set of 60-percent complete plans will be provided by December 31, 2009. All design consultation commitments, as detailed in this stipulation, will be complete prior to receipt of a full funding grant agreement (FFGA) from the FTA (anticipated to occur in the third quarter of 2010). MnSHPO and other consulting parties will provide comments to MC within 30 days of receipt of the plans or MC may presume they have no comments. MC

shall use the Central Corridor project Web site to inform signatories and consulting parties of the project schedule, milestones, and review deadlines so that all parties are duly notified of the PROJECT design development and other reviews.

D. MC will take into consideration any timely comments received in developing final designs for all PROJECT elements in historic areas. MC will submit final designs to MnSHPO for review and written concurrence regarding effects on historic properties and notify consulting parties of the availability of the plans for review. All final designs will be submitted prior to receipt of a full funding grant agreement (FFGA) from the FTA (anticipated to occur in the third quarter of 2010). MnSHPO shall have 30 days to provide comments on final designs as submitted. Where MC is unable to integrate the MnSHPO's comments into final designs, MC shall provide a written explanation to MnSHPO and to FTA within 30-days of receipt of MnSHPO's written comments.

E. If there are any portions of the PROJECT areas where it is not feasible to reach a design that meets the SOI REHABILITATION STANDARDS, the project improvements at issue will be considered to have an adverse effect, and mitigation measures will be developed and implemented in accordance with Stipulation IV of this AGREEMENT.

F. If there are any portions of the PROJECT areas where it is not feasible to reach a design that meets the MnSHPO's written comments based on factors other than the SOI REHABILITATION STANDARDS, FTA, in consultation with MnSHPO, will make a determination on whether the project improvements at issue will have an adverse effect and, if so, mitigation measures will be developed and implemented in accordance with Stipulation IV of this AGREEMENT.

II. DESIGN OF FUTURE STATIONS AT HAMLINE, VICTORIA AND WESTERN

A. The PROJECT will include all below-grade infrastructure to facilitate future construction of LRT stations at Hamline Avenue, Victoria Street, and Western Avenue in the City of St. Paul, but no detailed station design or construction for these locations will be completed as part of this PROJECT.

B. If funding becomes available to design and construct stations at Hamline Avenue, Victoria Street, and/or Western Avenue during the duration of this AGREEMENT, MC will consult with MnSHPO and other consulting parties according to the process set forth in Stipulation I.C. of this AGREEMENT. Consultation will occur throughout the design process to allow PROJECT designers to effectively integrate historic values into the PROJECT design.

C. MC shall submit final designs for any of these stations to MnSHPO for review and written concurrence regarding effects on historic properties. MnSHPO shall have 30 days to provide comments on final designs as submitted. Where MC is unable to integrate the MnSHPO's comments into final designs, MC shall provide a written explanation to MnSHPO and FTA within 30-days of receipt of MnSHPO's written comments.

D. If any of these designs fail to meet the suggested approaches to new construction in historic areas in the SOI STANDARDS, the project will be considered to have an adverse effect, and mitigation measures will be developed and implemented in accordance with Stipulation IV of this AGREEMENT.

E. If there are any portions of the PROJECT areas where it is not feasible to reach a design that meets the MnSHPO's written comments based on factors other than SOI STANDARDS, FTA, in consultation with MnSHPO, will make a determination on whether the project improvements at issue will have an adverse effect and, if so, mitigation measures will be developed and implemented in accordance with Stipulation IV of this AGREEMENT.

F. If federal funding for any or all of these stations shall be secured following the expiration of this AGREEMENT, MC shall request an amendment to the AGREEMENT in accordance with Stipulation XVII or conduct an individual Section 106 review that recognizes the relationship of the future stations to this original PROJECT.

III. ARCHAEOLOGY

A. The MC will ensure that a qualified historical archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards (36 CFR 61)) monitors excavation along 4th Street in downtown St. Paul to ascertain whether all or portions of early cable car infrastructure (the cable conduit) remain. If this feature does remain, the MC will ensure that it is documented through photographs, measured drawings, and descriptive text. Following documentation, the MC will work with the Minnesota Streetcar Museum to determine whether any cable car system components can be salvaged for potential interpretive use by the museum.

B. MC agrees that where curation is required, the cost of curation shall be borne by the PROJECT. If required, MC will work with MnSHPO to identify a repository for curation that shall meet federal repository standards established under 36 CFR Part 79.9. and as outlined on the MHS web site: http://www.mnhs.org/collections/archaeology/curation.htm.

C. Any archaeological work and documentation will be in accordance with the Secretary of the Interior's Guidelines for Archaeological Documentation and carried out under the direct supervision of an individual meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology. (See Attachment C to this agreement for a copy of the *Archaeological Investigation Plan for the Central Corridor LRT Project,* February 2, 2009, which was developed in consultation with MnSHPO.)

D. Any cultural or archaeological materials discovered would be handled pursuant to measures established in Stipulation XIII of this AGREEMENT.

IV. RESOLUTION OF ADVERSE EFFECTS

A In any instance where the final design of PROJECT components does not meet the SOI REHABILITATION STANDARDS, or if, in consultation with MnSHPO, FTA and MC determine it is not practicable to avoid other adverse effects, MC will consult with MnSHPO and other consulting parties to develop a mitigation plan appropriate to the historic property and type and degree of effect.

B. MC shall notify consulting parties to this AGREEMENT when a mitigation plan will be prepared pursuant to this stipulation. The mitigation plan shall be developed within 60 calendar days of such notification. If more time is required to develop the mitigation plan, MC will notify consulting parties to this AGREEMENT regarding the reason for the delay and the anticipated timeframe for mitigation plan

distribution. MC will provide a copy of the draft mitigation plan to consulting parties for a 30-day comment period during which consulting parties may provide written comments to MC.

C. MC agrees to take into account any timely comments of consulting parties in the development of final mitigation plans. A mitigation plan will be final upon acceptance by FTA and MnSHPO. Consulting parties will receive copies of all final mitigation plans and may also be invited to concur in mitigation plans.

V. NOISE AND VIBRATION ASSESSMENT AND MITIGATION

A. The MC will develop and implement a historic properties Vibration and Noise Management and Remediation Plan (VNMRP) to address issues related to vibrations and noise caused during LRT construction and operations. The VNMRP will be developed in consultation with parties to this AGREEMENT consistent with procedures stipulated in Subparagraph E of this stipulation.

1. Pre-construction survey. The VNMRP will develop a schedule and methodology for a pre-construction survey of all historic properties within fifty feet of the PROJECT track alignment (including contributing properties in historic districts). This survey will provide a baseline of existing structural conditions to facilitate later identification of any structural and/or cosmetic damage caused by PROJECT construction. A post-construction survey of all properties will identify any changes from pre-construction condition and assess possible cause of these changes.

The list of properties to be included in this survey follows:

Fire Station G, Engine House 5 (Mixed Blood Theatre)
University of Minnesota Campus Mall Historic District
Prospect Park Residential Historic District
University-Raymond Commercial Historic District
KSTP Production Studios & Transmission Tower
Fire Station No. 20
Great Lakes Coal and Dock Company Office Building
Krank Building (Iris Park Place)
Porky's Drive-In Restaurant
Griggs, Cooper & Company Sanitary Food Manufacturing Plant
Quality Park Investment Company Building
St. Paul Casket Company Factory
Brioschi-Minuiti Company Building
Raths, Mills & Bell Company Building
Fire Station No. 18
Owens Motor Company Building
Minnesota Milk Company Building

Ford Motor Company Building
Norwegian Evangelical Lutheran Church
State Capitol Mall Historic District
Minnesota State Capitol
Minnesota Historical Society Building
State Capitol Power Plant
Central Presbyterian Church
St. Louis, King of France Church and Rectory
St. Agatha's Conservatory of Music and Fine Arts
St. Paul Athletic Club
Minnesota Building
St. Paul Urban Renewal Historic District
Pioneer Press Building
First National Bank Building
Endicott Building
Lowertown Historic District
St. Paul Union Depot Including elevated railroad track deck (determined eligible)

2. Vibration from PROJECT construction. The VNMRP will outline a methodology for monitoring vibration during PROJECT construction at certain historic properties. It will specify thresholds for vibration during construction and will include details about the process, equipment (including crack-monitoring gauges), documentation standards, and frequency of monitoring. Thresholds will be set using guidance from FTA. If different thresholds are set, MC will submit to FTA documentation to support a different threshold for FTA's review and approval.

The following historic properties will be monitored during PROJECT construction: Lowertown Historic District (contributing properties within 50 feet of light rail track); St. Paul Athletic Club; Central Presbyterian Church; St. Agatha's Conservatory of Music and Fine Arts; Church of St. Louis, King of France and Rectory; Minnesota State Capitol; Norwegian Evangelical Lutheran Church; and University of Minnesota Campus Mall Historic District.

3. Groundborne Noise from PROJECT operations. The VNMRP will document special PROJECT design features (including aspects of the track bed) incorporated to mitigate groundborne noise near certain historic properties. It will also include a methodology for monitoring the effectiveness of those measures after the PROJECT has been put into operation.
The following historic properties are adjacent to these PROJECT design features: Central Presbyterian Church; Church of St Louis, King of France and Rectory; and KSTP Production Studios.

4. Airborne Noise from PROJECT operations. The VNMRP will document the specific measures that will be included as part of the LRT standard operating procedures to reduce and/or mitigate

airborne noise near historic properties. Measures to ensure adherence to these procedures will be included. These procedures will be developed for operations in the vicinity of Central Presbyterian Church, St. Louis, King of France Church, and any other historic properties identified in the VNMRP.

5. The VNMRP will include provisions for timely reporting of the results of the pre-construction survey and construction monitoring efforts to MnSHPO and owners of historic properties. It will also include a process to notify MC of any observed vibration or noise effects on the above-referenced properties and, if problems are identified, identify specific provisions to address those problems (including, but not limited to, cessation of construction activity, repair of damage, and other appropriate measures).

C. All owners of historic properties will be consulted regarding the provisions of the VNMRP. This consultation will provide information on the purpose of, and process for completing, the pre-construction survey and other work under the plan, and the process for substantiating damages and for seeking remediation for substantiated damage claims should damage result from construction or operations of the PROJECT. Any agreements with owners of historic properties that contain provisions related to vibration or noise issues will be consistent with the provisions of the VNMRP. Copies of such agreements will be made a part of the VNMRP and/or forwarded to MnSHPO.

D. The team preparing the VNMRP will include a historian or architectural historian meeting the Secretary of the Interior's Professional Qualifications Standards.

E. The VNMRP will be developed by the MC in consultation with MnSHPO and the draft plan will be submitted to MnSHPO and other consulting parties for a 30-day review and comment period. The MC shall consider all comments received in a timely fashion prior to issuing a final report. FTA will approve the final VNMRP. The final plan will be submitted to MnSHPO for concurrence regarding effects on historic properties by December 31, 2009.

VI. PARKING AND TRAFFIC

A. The closure of Washington Avenue to automobile traffic on the East Bank of the University of Minnesota will cause changes to traffic patterns within and adjacent to the following historic properties: University of Minnesota Old Campus Historic District, the University of Minnesota Campus Mall Historic District, the Grand Rounds Parkway System (East River Parkway), Pioneer Hall, Grace Lutheran Church, and the Prospect Park Residential Historic District.

1. Changes to the street system (including new lanes, signals, widening, signage, and other modifications) that will be installed as part of PROJECT construction will be reviewed under the provisions of Stipulation I of this AGREEMENT.

2. Previous studies completed by the MC indicate that traffic modifications to be installed during PROJECT construction are projected to adequately accommodate forecasted traffic volumes. To assess actual traffic volumes and to address any potential effects to the above historic properties from any needed additional modifications, MC will conduct a traffic monitoring study.

a. The study will measure actual traffic volumes at selected locations within and adjacent to the above-referenced historic properties, at specified time intervals between the

closing of Washington Avenue during PROJECT construction until one year after the beginning of revenue-service operations of the PROJECT.

b. The study will assess effects (as defined in 36CFR 800.5) of traffic volumes on the above-referenced historic properties, including effects from the traffic itself as well as potential effects from any additional traffic control measures needed to address increased volumes. The study will recommend ways to avoid or reduce adverse effects, including design of any needed new control measures to SOI REHABILITATION STANDARDS and/or consideration of alternative control measures. When avoidance of adverse effects is not feasible, MC will develop and implement mitigation measures. The roles of various parties (including the MC) will be clearly delineated.

c. The MC will develop a scope of work for the traffic monitoring study outlined in A and B above in consultation with the MnSHPO, the University of Minnesota, other consulting parties, and other local and state agencies. The scope of work will include identifying tasks, deliverables, and a schedule for implementation. Special consideration will be given to ensuring that tasks, especially the scheduling of traffic counts, will minimize disruptions to University of Minnesota campus activities and reflect traffic patterns at a time when classes are in session. The scope of work with be shared with MnSHPO, the University of Minnesota and other consulting parties for a 30-day review and comment period. The MC shall consider all comments received in a prior to completing a final scope of work.

d. The team completing the study will include a Historian or Architectural Historian who meets the Secretary of the Interior's Professional Qualifications Standards. The final study will be submitted to MnSHPO for a 30-day review and request for concurrence regarding effects on historic properties.

B. The location of a PROJECT station near the Prospect Park Historic District has the potential to adversely affect the district through an increase in the number of vehicles parked in the district. To assess the actual increase in parking and address any resulting potential adverse effects to the district, MC will complete a parking study.

1. The study will measure the number of vehicles parked in the historic district by non-resident drivers. The assessment will be done approximately one year after the beginning of revenue-service operations of the PROJECT.

2. The study will assess effects, including cumulative effects of any increased parking volumes on the historic district, including but not limited to effects on the livability of the neighborhood, which could lead to devaluation and neglect. Recommended measures will be developed to avoid or reduce adverse effects; when avoidance of adverse effects is not feasible, MC will develop and implement mitigation measures in consultation with MnSHPO and other consulting parties.

3. The study will be developed in consultation with MnSHPO, the Prospect Park East River Road Improvement Association, other consulting parties to this AGREEMENT and other agencies who may have a role in implementing the recommended measures. The team completing the study will include a Historian or Architectural Historian who meets the Secretary of the Interior's Professional Qualifications Standards. The final study will be submitted to MnSHPO for 30-day review and concurrence regarding effects on historic properties.

C. The removal of a substantial amount of on-street parking on University Avenue has the potential to adversely affect commercial historic properties in the University-Raymond Historic District and several individual commercial historic properties located along University Avenue.

1. In partnership with the City of St. Paul, MC has developed the report "Mitigating the Loss of Parking in the Central Corridor" (April 2009) (Report). The Report identifies strategies and responses for implementation by the City of St. Paul to address parking loss on University Avenue.

2. The MC will support the City of St. Paul in implementing strategies identified to address parking issues in the University-Raymond Commercial Historic District, including identifying sources of potential funding, providing staff support for writing grant applications, and administering grants received, if appropriate. In addition, MC will support the City of St. Paul in implementing measures recommended in the Report, including providing MC staff support for public outreach and information efforts and conducting workshops on parking for critical areas (as identified in the Report) along University Avenue.

VII. RECORDATION OF 360 CEDAR STREET AND REDEVELOPMENT DESIGN GUIDELINES

A. MC shall demolish the Midwest Federal Building (aka First Federal Savings and Loan) at 360 Cedar Street, a contributing element of the St. Paul Urban Renewal Historic District, as part of the PROJECT. Prior to demolition, MC will record this building to the standards of the Minnesota Historic Property Record. The documentation will be completed in consultation with MnSHPO, and will be submitted to MnSHPO for review and approval before demolition activities are initiated.

B. MC will develop design guidelines for future development of the site of the block bounded by Cedar, 4th, 5th and Minnesota streets. These guidelines will establish parameters for new construction, consistent with the SOI STANDARDS, with reference to the St. Paul Athletic Club, the First National Bank Building, the Minnesota Building, and the St. Paul Urban Renewal Historic District. MC will consult with the City of St. Paul, the Saint Paul Heritage Preservation Commission, and the MnSHPO to draft the guidelines. MC will submit the guidelines to MnSHPO for review and concurrence.

C. If design guidelines are completed prior to adoption of the 4th and Cedar Streets Station Area Master Plan being prepared by the City of St. Paul, the guidelines will be integrated into the Master Plan. If completed after the adoption of this Plan, the MC shall propose to the City of St. Paul that the Plan be amended to include the design guidelines. Development of this block will be guided by the Station Area Master Plan and approved by the City of St. Paul.

VIII. NATIONAL REGISTER NOMINATION FORMS

A. MC will prepare National Register nomination forms, in conformance with the guidelines of the National Park Service and MnSHPO, for the following historic properties located along the project corridor: First National Bank Building; St. Paul Athletic Club; St. Louis King of France Church and Rectory; Norwegian Evangelical Lutheran Church; Ford Motor Company Building; Minnesota Milk Company Building; Owens Motor Company Building; Fire Station No. 18; Brioschi-Minuti Company Building; Raths, Mills, Bell and

Company Building; St. Paul Casket Company Factory; Quality Park Investment Company Building; Griggs, Cooper & Company Sanitary Food Manufacturing Plant; Porky's Drive-In Restaurant; Great Lakes Coal and Dock Company Building; Fire Station No. 20; KSTP Production Studios and Transmission Tower; University of Minnesota Mall Historic District; Pioneer Hall; Mines Experiment Station Building; Washington Avenue Bridge; Fire Station G; and Minnesota Linseed Oil & Paint Company Building.

B. The nomination forms will be completed in consultation with MnSHPO, and will be submitted to MnSHPO for review and concurrence regarding effects on historic properties. MC will complete all nomination forms before the Central Corridor LRT line begins revenue service operations.

C. Actual nomination of these properties to the National Register of Historic Places will be at the discretion of MnSHPO and will follow the established procedures of the National Park Service (36 CFR Part 60). Property owners will be given the opportunity to object to nominations in accordance with 36 CFR Part 60.6(g).

D. Listing of historic properties in the National Register would enable the owners and developers of these properties to access certain financial incentives for preservation, including the federal preservation tax incentives. MC will encourage historic rehabilitation of the properties as part of the development of station areas and the project as a whole through the educational effort in Stipulation IX.B.

IX. PUBLIC EDUCATION

A. MC will develop an educational Field Guide of the historic properties (including historic districts) along the Central Corridor line. The Field Guide will highlight the historic properties identified in Attachment A of this AGREEMENT, as well as those located along the portion of the Central Corridor line which parallels the Hiawatha Line in downtown Minneapolis. The Field Guide will be developed in consultation with MnSHPO and other consulting parties, and the final draft will be submitted to MnSHPO for review and concurrence. MC will make the Field Guide available to the public in both print and electronic formats. The Field Guide will be completed and available before the Central Corridor LRT line begins revenue service operations.

B. In consultation with MnSHPO and other consulting parties, MC will develop and implement an educational effort to encourage the rehabilitation of historic properties located along the Central Corridor line. This effort will include an information packet with information about proper rehabilitation practices and financial resources as well as the benefits of pursuing National Register listing for eligible properties. It will also include individual consultations with owners of historic properties and/or public workshops, as appropriate. At the conclusion of the consultations and workshops, MC will submit a report on the effort to MnSHPO and other consulting parties.

C. The MC will develop a scope of work for the public education tasks in A and B above in consultation with the MnSHPO prior to the initiation of major project construction activities (defined as installation of LRT tracks, stations, catenary poles, traction power substation, signal bungalows and other major LRT system components). The scope of work will include an outline of the specific tasks to be carried out and products to be delivered as a part of the public education effort, a timeline for the completion of all tasks in relationship to the PROJECT development schedule, and a distribution plan.

D. All public education efforts, in this Stipulation will be complete before the Central Corridor LRT Line begins revenue service operations.

X. PUBLIC INFORMATION AND INVOLVEMENT

A. The MC will make information available to the public about the activities stipulated in this AGREEMENT consistent with procedures in the Central Corridor LRT Communication and Public Involvement Strategic Plan and will include, at a minimum, posting of materials on the Central Corridor project Web site.

B. During implementation of the measures stipulated in this AGREEMENT, should a member of the public raise an objection pertaining to this AGREEMENT or the effect of any activity on historic properties, MC shall notify the parties to this AGREEMENT and take the objection into account, consult with the objector and, should the objector so request, consult with any of the parties to this AGREEMENT to resolve the objection.

XI. PROTECTION MEASURES

A. Before major PROJECT construction begins (defined as installation of LRT tracks, stations, catenary poles, traction power substation, signal bungalows and other major LRT system components), MC shall develop a construction protection plan in consultation with FTA, MnSHPO, and other consulting parties as appropriate detailing all measures to protect historic properties from physical damage or indirect adverse effects during the construction of the PROJECT. Identified protection measures shall be clearly identified in construction documents. MC will include the construction protection plan within specific contract packages to inform contractors of their responsibilities relative to historic properties. Copies of the construction protection plan will also be provided to the consulting parties of this AGREEMENT. The construction protection plan will consist of the following:

1. Inspection and documentation of existing conditions at the historic properties adjacent to PROJECT construction activities
2. Establishment of protection measures and procedures
3. Any documentation and protection measures contained within the vibration monitoring plan developed pursuant to Stipulation V.

B. Before PROJECT construction begins, MC shall meet with the construction contractor to review the construction protection plan and ensure that construction plans are consistent with the PROJECT design as reviewed by MnSHPO.

D. MC will monitor PROJECT construction to ensure that the measures in the construction protection plan are implemented and shall provide a record of monitoring activities in the quarterly reports prepared pursuant to Stipulation XIV.

XII. PROJECT MODIFICATIONS

A. FTA and MC shall not make substantial changes to the PROJECT, defined as activities that could result in adverse effects to historic properties, such as changing LRT track alignment, changing the location of

associated project infrastructure such as traction power substations and signal bungalows, and substantially changing components of design such as catenary pole type and station design components, without first affording the parties to this AGREEMENT the opportunity to review the proposed change and to determine whether amendments to the AGREEMENT are required, based on the proposed changes. Should changes be proposed to the PROJECT after consultation has been completed, MC shall submit revised project drawings to the MnSHPO. Prior to initiation of major project construction, this review process shall take place consistent with the design review procedures and processes as described in Stipulation I of this AGREEMENT. If occurring during major project construction, the review process shall take place consistent with the requirements of project construction and in such a manner to minimize construction delay. Consultation on such changes shall occur in accordance with the steps identified in Stipulation I of this AGREEMENT.

XIII. DISCOVERY

A. A plan for the unexpected discovery of archaeological remains entitled *Archaeological Investigation Plan for the Central Corridor LRT Project,* February 2, 2009 was developed in consultation with MnSHPO and is included to this AGREEMENT as Attachment C.

1. If previously unidentified historic properties are discovered unexpectedly during construction of the PROJECT, all ground-disturbing activities will cease in the area where any historic property is discovered as well as in the immediately adjacent area. The contractor will immediately notify MC and the MnDOT/CRU of the discovery and implement interim measures to protect the discovery from looting and vandalism. The MnDOT/CRU will record, document, and provide an opinion on the National Register eligibility of the discovery to FTA within seventy-two (72) hours of receipt of notification and will notify MnSHPO, ACHP, and other consulting parties, including any Indian tribes that may attach religious and cultural significance to the property, of the discovery.

2. FTA will have ten (10) business days following notification provided in accordance with Stipulation XIII.A. to determine the National Register eligibility of the discovery after considering timely filed views (received within seven (7) business days of notification) of the MnSHPO, MnDOT/CRU, and other consulting parties. FTA may assume the newly discovered property to be eligible for the National Register for the purposes of Section 106 pursuant to 36 CFR 800.13(c).

3. For properties determined eligible, the MnDOT/CRU, in consultation with the MnSHPO, MC, and the FTA, will design a plan for resolving adverse effects taking into account the nature of identified properties and the feasibility of resolving the adverse effects. Consulting parties will have forty-eight (48) hours to provide their views on the proposed actions. FTA will ensure that the timely filed recommendations of consulting parties are taken into account prior to granting approval of the measures that MC will implement to resolve adverse effects. MC will carry out the approved measures prior to resuming ground-disturbing work in the area of discovery.

B. If any previously unidentified human remains are encountered during PROJECT construction, all ground-disturbing activities will cease in the area where such remains are discovered as well as in the immediately adjacent area. The contractor will immediately notify appropriate law enforcement agencies in order to determine whether the site discovered is a crime scene. The contractor will also notify MnDOT/CRU of the discovery of human remains. MnDOT/CRU will immediately notify FTA of the discovery. The FTA (with the assistance of the MnDOT/CRU) will consult with the Office of the State

Archaeologist (OSA) and Indian tribes to develop treatment measures for the remains. In the event that a determination is made that the remains are of Native American origin, treatment measures will accord with the ACHP's *Policy Statement on the Treatment of Burial Sites, Human Remains and Funerary Objects* (February 23, 2007). The MnDOT/CRU will develop a treatment plan in consultation with the FTA, the OSA, the MnSHPO, and, if appropriate, the Minnesota Indian Affairs Council (MIAC). Treatment measures will be consistent with the Minnesota Private Cemeteries Act (Minn. Stat. Sect. 307.08); the Native American Graves Protection and Repatriation Act of 1990, as amended; and the Archaeological Resource Protection Act of 1979, as amended. FTA will take into account the recommendations of consulting parties prior to granting approval of the plan. The FTA will ensure that MC has fully implemented the terms of any treatment plan prior to allowing ground-disturbing work to proceed in the area of discovery.

C. The MC will include in appropriate construction contracts provisions to ensure that the stipulations established above are carried out by the contractor.

XIV. QUARTERLY REPORT ON AGREEMENT IMPLEMENTATION

A. Beginning three months from the execution of this AGREEMENT, MC shall submit a quarterly report to the signatories of the AGREEMENT detailing the measures carried out pursuant to its terms. MC shall submit the quarterly reports until all the terms of the AGREEMENT have been satisfied.

B. The quarterly report will itemize all actions required to be taken by MC during the preceding months to implement the terms of this AGREEMENT, identify what actions MC has taken during the reporting period to implement those actions, identify any problems or unexpected issues encountered during that time, any disputes and objections submitted or resolved, any changes recommended in implementation of the AGREEMENT, and any scheduling changes. The quarterly reports shall also include a timetable of activities proposed for implementation within the following three months.

C. The signatories shall review the quarterly reports and provide any comments to FTA within thirty (30) days of receipt of the report.

D. MC shall notify consulting parties and the public about the publication of the quarterly reports and make those reports available for their inspection and review on the Central Corridor project Web site. MC shall share any comments received from consulting parties and the public with the signatories.

E. At its own discretion or at the request of any signatory to this AGREEMENT, MC shall convene a meeting to facilitate review and comment on the semi-annual reports, and to resolve any questions about its content and/or to resolve objections.

XV. STANDARDS

A. All work carried out pursuant to this AGREEMENT will meet the Secretary of the Interior's Standards for Archaeology and Historic Preservation, taking into account the suggested approaches to new construction in historic areas in the SOI REHABILITATION STANDARDS. In instances where this is not feasible, mitigation measures will be developed pursuant to Stipulation IV of this AGREEMENT.

B. MC shall ensure that all work carried out pursuant to this AGREEMENT will be done by or under the direct supervision of historic preservation professionals who meet the Secretary of the Interior's Professional Qualifications Standards (36 CFR 61 Appendix A). The MnDOT/CRU, assisting in AGREEMENT implementation through the FTA, meets these standards. FTA and MC shall ensure that consultants retained for services pursuant to the AGREEMENT shall meet these standards.

XVI. DISPUTE RESOLUTION

A. Should any signatory to this AGREEMENT, including any invited signatory, object at any time to any actions proposed or the manner in which the terms of this AGREEMENT are implemented, FTA shall consult with such party to resolve the objection. FTA consultation shall take place within 10 days of receipt of said objection and shall be documented in the form of meeting notes and/or a written letter of response. If FTA determines, within 30 days of documenting consultation efforts with the objecting party that the objection cannot be resolved, FTA shall:

1. Forward all documentation relevant to the dispute, including the FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any advice or comments from the ACHP, signatories, and concurring parties, and provide them with a copy of this written response. FTA will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period after receipt of adequate documentation, FTA may render a final decision regarding the dispute and proceed accordingly. In reaching its decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the AGREEMENT, and provide them and the ACHP with a copy of such written response.

3. FTA's responsibility to carry out all other actions subject to the terms of this AGREEMENT that are not the subject of the dispute remains unchanged.

XVII. AMENDMENTS

Any signatory or invited signatory to this AGREEMENT may request that it be amended, whereupon the signatories and consulting parties shall consult to consider such amendment. Any amendments shall be in writing and signed by all signatories to be effective.

XVIII. TERMINATION OF AGREEMENT

Any signatory to this AGREEMENT may terminate it by providing thirty (30) days notice to the other parties. The parties must consult with each other during the notice period in an attempt to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the FTA will comply with 36 CFR §§800.3 through 800.13 with regard to the undertaking covered by this AGREEMENT.

XIX. DURATION OF AGREEMENT

This AGREEMENT will terminate December 31, 2015 or upon mutual agreement of the signatories. Prior to such time, FTA may consult with the other signatories to reconsider the terms of the AGREEMENT and revise, amend, or extend it in accordance with Stipulation XVII.
Execution of this AGREEMENT and implementation of its terms is evidence that the FTA has afforded the ACHP a reasonable opportunity to comment on the PROJECT and that the FTA has taken into account the effects of the PROJECT on historic properties.

SIGNATORIES:

FEDERAL TRANSIT ADMINISTRATION

By: Marisol Simon Date: 6/16/09
Marisol Simon, Region V Administrator

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 6/18/09
John M. Fowler, Executive Director

MINNESOTA STATE HISTORIC PRESERVATION OFFICE

By: Nina Archabal Date: 6/17/09
Nina Archabal, State Historic Preservation Officer

INVITED SIGNATORIES:

METROPOLITAN COUNCIL

By: _____ Date: 6/16/09

Tom Weaver, Regional Administrator

CONCURRING PARTIES:

I concur with the Programmatic Agreement among the Federal Transit Administration, the Advisory Council on Historic Preservation, the Minnesota State Historic Preservation Office and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

PRESERVATION ALLIANCE OF MINNESOTA

By: Bonnie McDonald Date: June 16, 2009

Bonnie McDonald, Executive Director

I concur with the Programmatic Agreement among the Federal Transit Administration, Minnesota State Historic Preservation Office, the Advisory Council on Historic Preservation and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

PROSPECT PARK AND EAST RIVER ROAD IMPROVEMENT ASSOCIATION

By: Richard E Poppele Date: 6/16/09

Richard Poppele, President

I concur with the Programmatic Agreement among the Federal Transit Administration, Minnesota State Historic Preservation Office, the Advisory Council on Historic Preservation and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

HISTORIC ST. PAUL

By:_____ Date: 6/12/09

Carol Carey, Executive Director

I concur with the Programmatic Agreement among the Federal Transit Administration, Minnesota State Historic Preservation Office, the Advisory Council on Historic Preservation and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

ST. LOUIS KING OF FRANCE CHURCH

By: Paul F. Morrissey Date: 6/16/09

Fr. Paul F. Morrissey, Pastor

I concur with the Programmatic Agreement among the Federal Transit Administration, Minnesota State Historic Preservation Office, the Advisory Council on Historic Preservation and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

CENTRAL PRESBYTERIAN CHURCH

By: _____ Date: 6/17/2009

Jeff Jones, President

I concur with the Programmatic Agreement among the Federal Transit Administration, Minnesota State Historic Preservation Office, the Advisory Council on Historic Preservation and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

ST. PAUL HERITAGE PRESERVATION COMMISSION

By: _____ Date: 6/17/09

John Manning, Chair

On behalf of the City of Saint Paul, I concur with the Programmatic Agreement among the Federal Transit Administration, the Advisory Council on Historic Preservation, the Minnesota State Historic Preservation Office and the Metropolitan Council regarding the Central Corridor Light Rail Transit project.

CITY OF SAINT PAUL

By:_____ Date: 7/22/2009

Christopher B. Coleman, Mayor

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ATTACHMENT A

Properties Determined Eligible for or Listed on the National Register of Historic Places

Inventory No.	Property Name	Address	National Register Status
HE-MPC-0615	Minnesota Linseed Oil & Paint Company Building (Valspar Building)	1101 3rd St. S., Mpls	Determined eligible (1)
HE-MPC-4636	Fire Station G, Engine House 5 (Mixed Blood Theatre)	1501 4th St. S, Mpls	Determined eligible (1)
HE-MPC-4918	Washington Avenue Bridge	Washington Ave. between Pleasant St. SE and 21st Ave. S., Mpls.	Determined eligible (3)
Not Assigned	East River Parkway	East River Parkway, Mpls.	Contributing to eligible Grand Rounds (3)
Historic District	University of Minnesota Campus Mall Historic District	U of M Minneapolis Campus	Determined eligible (1) (3)
HE-MPC-3046	University of Minnesota Old Campus Historic District (The Knoll)		Listed (3)
HE-MPC-3265	Mines Experiment Station Building	56 East River Road, Minneapolis	Determined eligible (3)
HE-MPC-3171	Pioneer Hall	615 Fulton St. SE, Minneapolis	Determined eligible (3)
HE-MPC-3315	Grace Evangelical Lutheran Church	324 Harvard St., SE Minneapolis	Listed
Historic District	Prospect Park Residential Historic District	Vicinity of I-94, SE Williams Ave, University Ave SE and Emerald St SE. Mpls	Determined eligible (2) (3)
HE-MPC-3052 Listed with HE-MPC-3177 and included in historic district	Prospect Park Water Tower	55 Malcolm Ave, Mpls	Listed
HE-MPC-3177 Listed with HE-MPC-3052 and included in historic district	Tower Hill Park	55 Malcolm Ave, St. Paul, Mpls	Listed

ATTACHMENT A

Properties Determined Eligible for or Listed on the National Register of Historic Places

Inventory No.	Property Name	Address	National Register Status
Historic District	University-Raymond Commercial Historic District	Along University Ave. W between Hampden and Cromwell Aves, St. Paul	Determined eligible (2); Certified local historic district
RA-SPC-6105	KSTP Production Studios & Transmission Tower	3415 University Ave, W., St. Paul	Determined eligible (2)
RA-SPC-3931	Fire Station No. 20	2179 University Ave. W., St. Paul	Determined eligible (2)
RA-SPC-6103	Great Lakes Coal and Dock Company Office Building	2102 University Ave, W. St. Paul	Determined eligible (2)
RA-SPC-6309 Note: This item combined into a historic district with RA-SPC-6310	Minnesota Transfer Railway Company including Main Line, yard A, University Ave. bridge, round house and leads	East and west of Cleveland and Transfer Road, University Ave.	Determined eligible (1) (2) (3)
RA-SPC-6310 Note: This bridge combined into a historic district with RA-SPC-6309	Minnesota Transfer Railway Company University Avenue Bridge	Bridge over University Ave near Prior St., St. Paul	Determined eligible (2) (3)
RA-SPC-3927	Krank Building (Iris Park Place)	1885 University, St. Paul	Listed
RA-SPC-6102	Porky's Drive-In Restaurant	1884 University Ave, W. St. Paul	Determined eligible (2)
RA-SPC-3923	Griggs, Cooper & Company Sanitary Food Manufacturing Plant	1821 University Ave. W., St. Paul	Determined eligible (2)
RA-SPC-3912	Quality Park Investment Company Building	1577-1579 University Ave. W., St. Paul	Determined eligible (2) (3)
RA-SPC-3903	St. Paul Casket Company Factory	1222 University Ave, W., St. Paul	Determined eligible (2)
RA-SPC-3895	Brioschi-Minuiti Company Building	908-910 University Ave, W., St. Paul	Determined eligible (2)

ATTACHMENT A

Properties Determined Eligible for or Listed on the National Register of Historic Places

Inventory No.	Property Name	Address	National Register Status
Not assigned	Raths, Mills & Bell Company Building	823 University Ave. W., St. Paul	Determined eligible (3)
RA-SPC-3887	Fire Station No. 18	681 University Ave. W., St. Paul	Determined eligible (2)
RA-SPC-3889	Owens Motor Company Building	709-719 University Ave, W., St. Paul	Determined eligible (2)
RA-SPC-3877	Minnesota Milk Company Building	370-378 University Ave. W., St. Paul	Determined eligible (2) (3)
RA-SPC-3868	Ford Motor Company Building	117 University Ave, W., St. Paul	Determined eligible (2)
RA-SPC-3867	Norwegian Evangelical Lutheran Church	105 University Ave. W., St. Paul	Determined eligible (2)
RA-SPC-5619	State Capitol Mall Historic District	University Ave and Robert St., St. Paul	Determined eligible (1) (2) (3)
RA-SPC-0229	Minnesota State Capitol	75 Constitution Ave, St. Paul	Listed
RA-SPC-0557	Minnesota Historical Society Building	690 Cedar St, St. Paul	Listed
RA-SPC-6109 Note: also included in historic district (RA-SPC-5619)	State Capitol Power Plant	691 Robert St., St. Paul	Determined eligible (2)
RA-SPC-0553	Central Presbyterian Church	500 Cedar St, St. Paul	Listed
RA-SPC-0554	St. Louis, King of France Church and Rectory	506 Cedar St., St. Paul	Determined eligible (1)
RA-SPC-1200	St. Agatha's Conservatory of Music and Fine Arts	26 Exchange St., St. Paul	Listed
RA-SPC-5452	Shubert (Fitzgerald) Theater	10 Exchange St. and 494 Wabasha Street St. Paul	Determined eligible
RA-SPC-0550	St. Paul Athletic Club	340 Cedar St., St. Paul	Determined eligible (1) (3)
RA-SPC-5222	Minnesota Building	46 E. 4th St., St. Paul	Determined eligible (1) (3)
Historic District	St. Paul Urban	Approximately	Determined eligible

ATTACHMENT A

Properties Determined Eligible for or Listed on the National Register of Historic Places

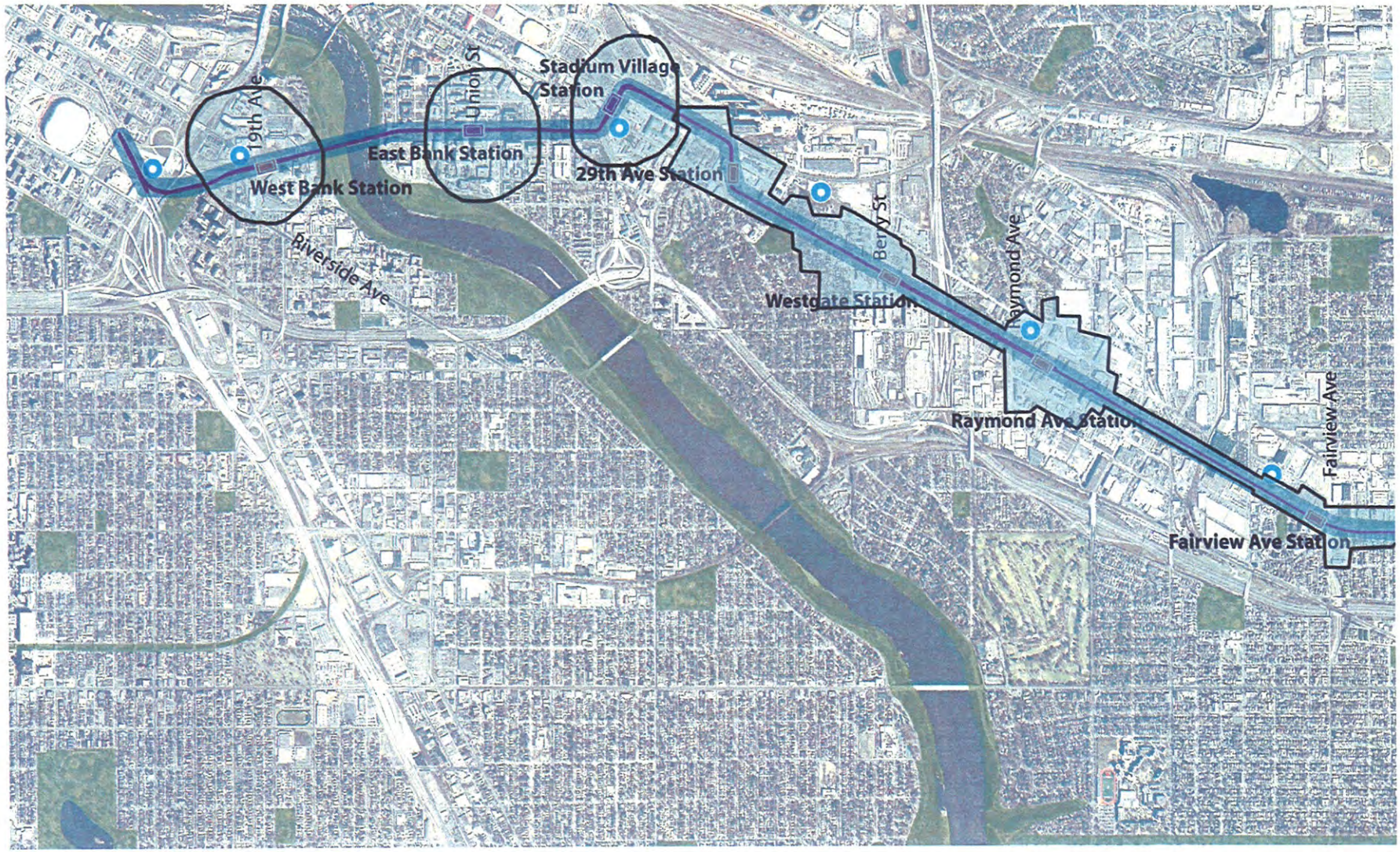
Inventory No.	Property Name	Address	National Register Status
	Renewal	Wabasha, Kellogg, Robert, and East 6th St., St. Paul	(3)
RA-SPC-3167	Pioneer Press Building	336 Robert St N, St. Paul	Listed
RA-SPC-4645	First National Bank Building	107 E. 4th St, St. Paul	Determined eligible (1)
RA-SPC-5223	Endicott Building	141 E. 4th St, St. Paul	Listed
RA-SPC-4580	Lowertown Historic District	Vicinity of Kellogg Blvd & Jackson, 7th and Broadway Sts, St. Paul	Listed (2)
RA-SPC-5225 Also included in Lowertown Historic District	St. Paul Union Depot Including elevated railroad track deck (determined eligible)	214 E. 4th St, St. Paul	Listed (3)

[1] Property studied in: *Phase I and II Cultural Resources Investigations of the Central Corridor, Volume I,* BRW, Inc., 1995

[2] Property studied in: *Phase II Architectural History Investigation for the Proposed Central Transit Corridor Study,* The 106 Group, Inc. 2003-2004

[3] Property studied in: *Supplemental Historic Properties Investigations and Evaluations for the Central Corridor Light Rail Transit Project,* Hess, Roise and Company, 2008

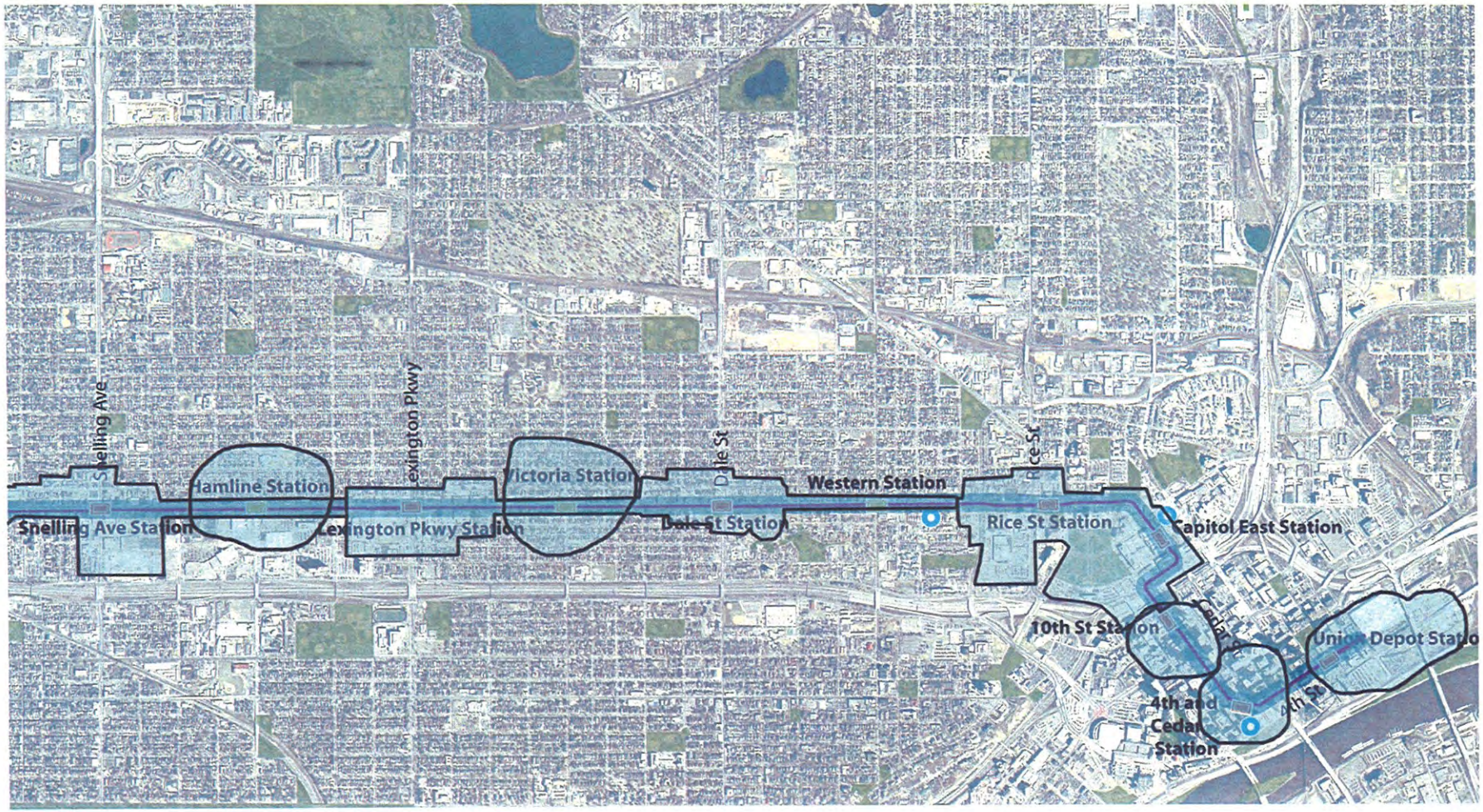
Central Corridor LRT Project
Section 106 - Area of Potential Effect



Central Corridor LRT Programmatic Agreement (West Project Area)

Attachment B1

Central Corridor LRT Project
Section 106 - Area of Potential Effect



Central Corridor LRT Programmatic Agreement (East Project Area)

Attachment B2

Archaeological Investigation Plan

for the
Central Corridor LRT Project
February 2, 2009

The Mn/DOT Cultural Resources Unit staff conducted documentary research and discussed their findings with SHPO staff and two local experts on the Twin Cities streetcar system in December 2008. The parties agreed that the water, sewer and streetcar infrastructure beneath streets to be opened during LRT construction is largely understood. However, two areas of archaeological interest were identified. These are potential remnants of Minneapolis' and Saint Paul's early wooden water mains systems and a metal conduit housing the cable that operated Saint Paul's early (1880s) cable car system along 4th Street.

- All archaeological work and documentation will be carried out under the direct supervision of an individual meeting the Secretary of the Interior's Professional Qualification Standards for a professional in historic archaeology (31 CFR 60).

Early Water Infrastructure

Municipal records and Twin Cities' histories document a water mains system constructed of cast iron and cement, vitrified clay, and brick. Wood was likely used to construct systems that predated record keeping; for example, in one known instance, along Washington Avenue in Minneapolis. Although background research did not indicate any specific locations where early wooden pipes are likely to have been laid within the LRT area of potential effect (APE), there is some limited potential for such features to be present.

- If wooden pipes are discovered during construction, the Metropolitan Council (MC) will ensure that the procedures outlined in Stipulation XI.A of the MOA are implemented.

Early Cable Car Infrastructure - 4th Street

The cable that operated cars along 4th Street was housed beneath the surface of the street in a cast-iron collar or within a series of cast-iron yokes. The conduit system was likely located down the center of the street and may have been enclosed in brick or concrete. The MC is currently planning to begin LRT related work along 4th Street during 2009.

- The MC will ensure that a qualified historical archaeologist (Secretary of the Interior's Standards 36 CFR 61) monitors excavation along 4th Street to ascertain whether all or portions of the cable conduit remain.
- If this feature does remain, the MC will ensure that it is documented through photographs, measured drawings, and descriptive text.
- Following documentation, the MC will work with the Minnesota Streetcar Museum to determine whether any cable car system components can be salvaged for potential interpretive use by the museum.

All Other Areas

Deeper LRT construction excavation will occur within areas that have historically been streets. Beyond the 4th Street cable car conduit and the possibility for remnants of early wooden pipes, there is no basis to anticipate archaeological resources directly associated with anything other than well-documented transportation activities and utility construction. Materials that are likely to be encountered but are not of archaeological interest include:

- Remnants of the old streetcar tracks and pavers
- Remnants of clay, cast iron, concrete or steel pipes
- Artifacts scattered in fill or occasional isolated artifacts (e.g., bricks, bottles, broken dishes, coal cinders, nails, pieces of lumber, etc.)

It is possible, although not likely, that construction excavation will encounter features or materials that are of archaeological interest. If any of the materials below are discovered during construction, the MC will ensure that the procedures outlined in Stipulation XI.A of the MOA are implemented.

- Wooden water main pipes (as discussed above)
- Potentially ancient objects (e.g., stone points, pottery, animal or human bones), although, it is not likely that any of these survive beneath the modern roadway and fill

APPENDIX B

SELECT FEIS FIGURES

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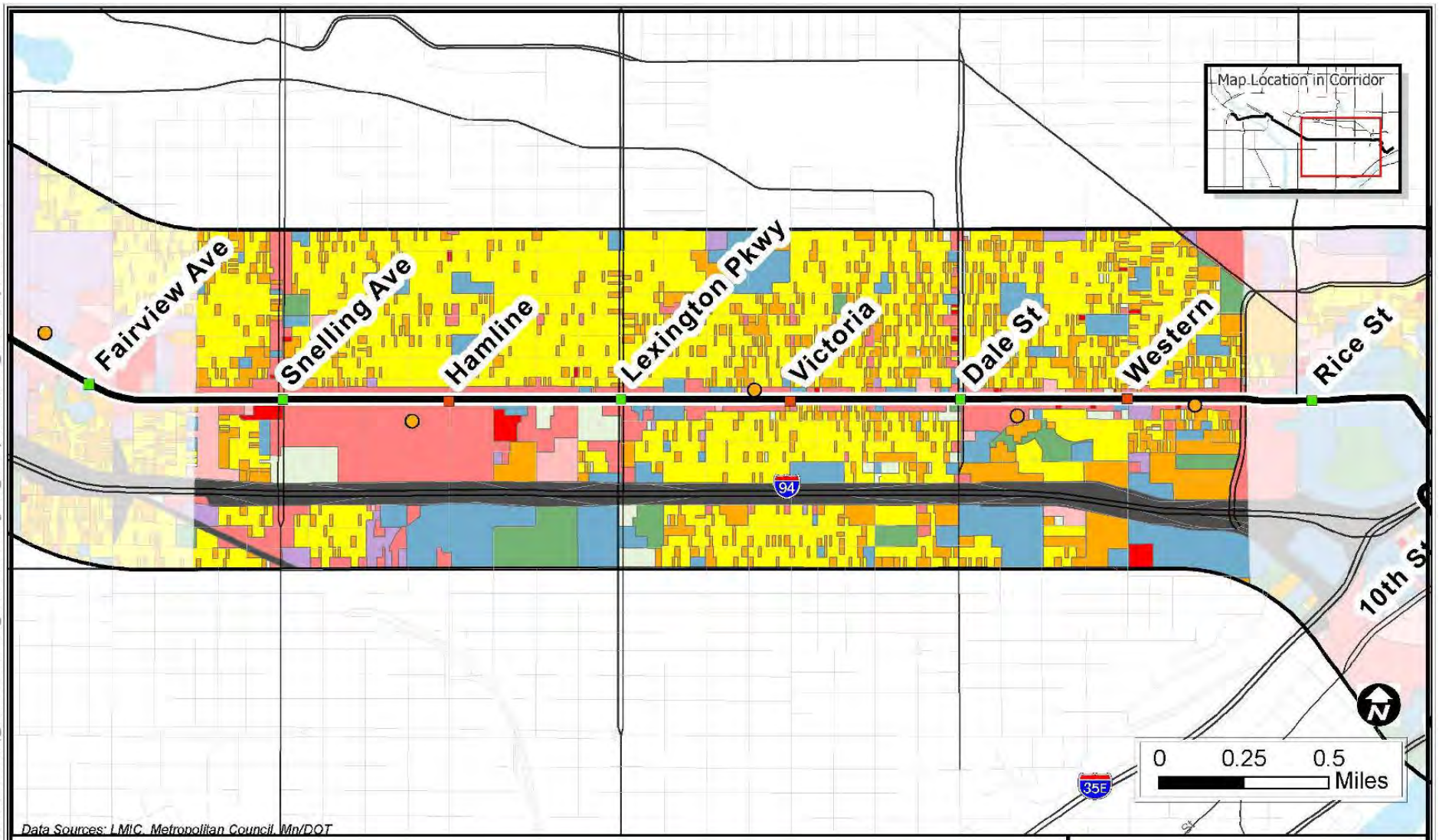

Figure 3.1-4

Land Use - Midway East

Final Environmental Impact Statement

Metropolitan Council

Central Corridor Light Rail Transit

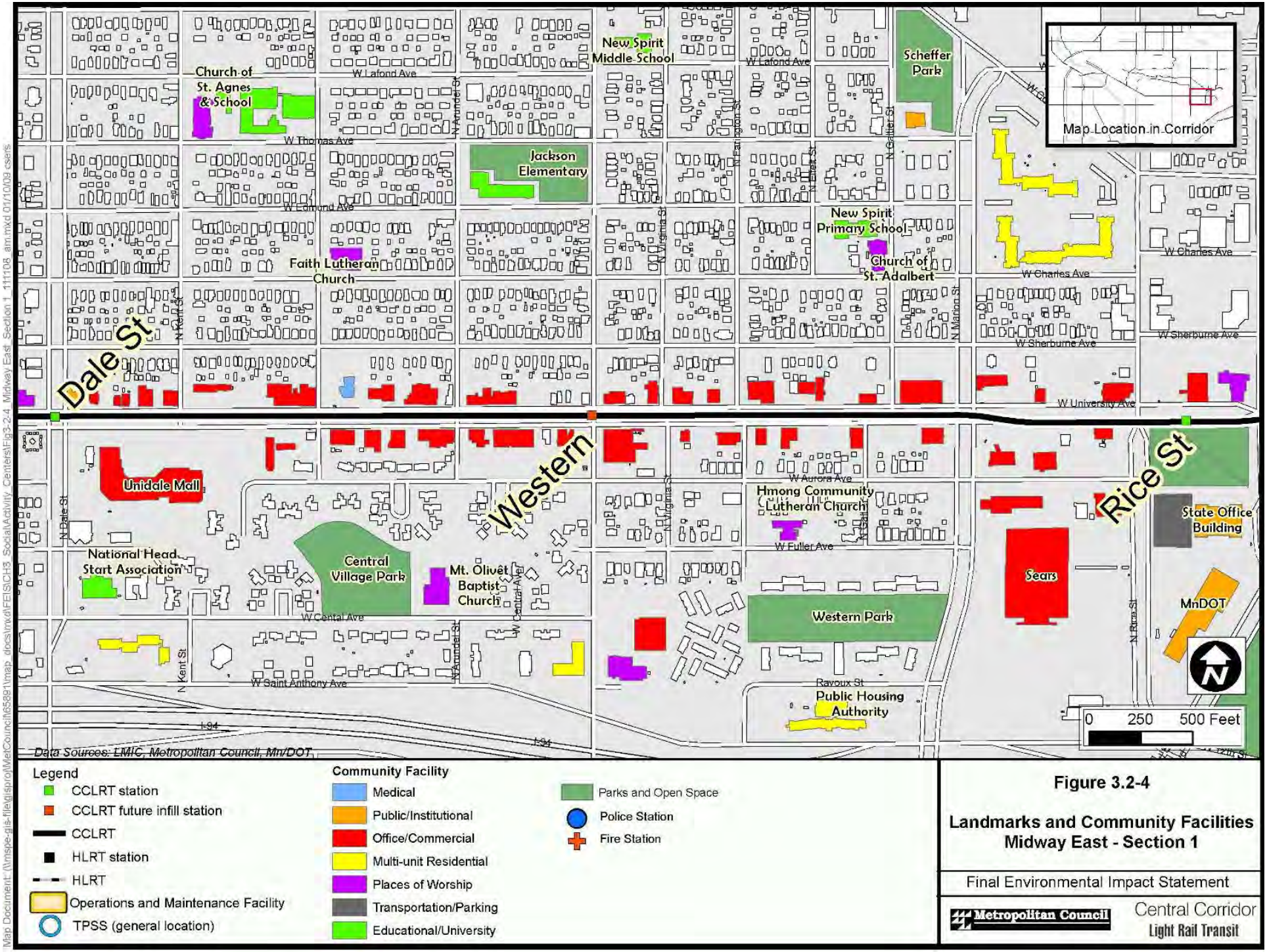

Figure 3.2-4

Landmarks and Community Facilities
Midway East - Section 1

Final Environmental Impact Statement

Metropolitan Council

Central Corridor
Light Rail Transit

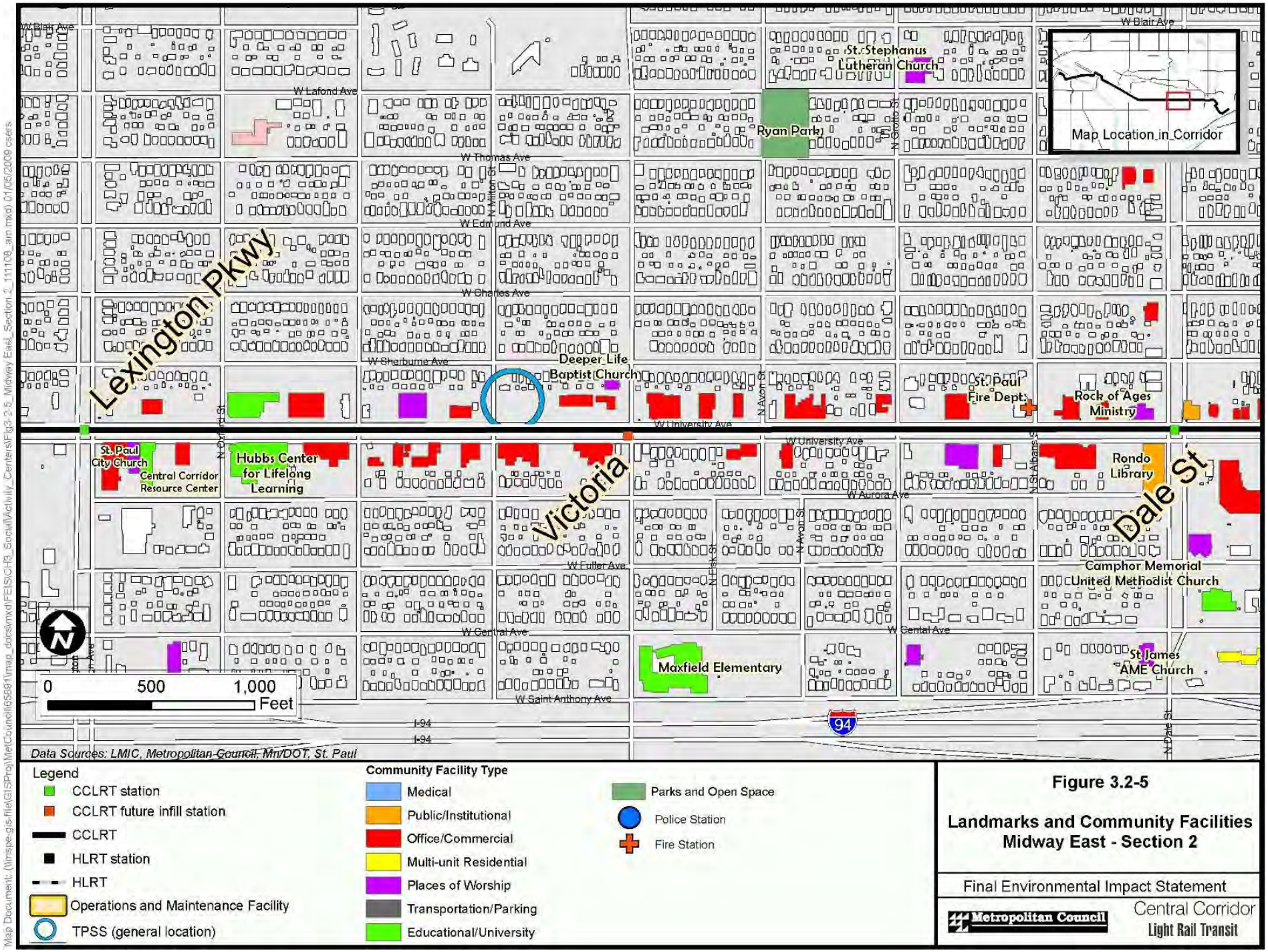

Figure 3.2-5

Landmarks and Community Facilities
Midway East - Section 2

Final Environmental Impact Statement

Metropolitan Council

Central Corridor
Light Rail Transit

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APPENDIX C

ENVIRONMENTAL JUSTICE SECTION FROM FEIS

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3.8 Environmental Justice

3.8.1 Introduction and Summary

This section contains a description of the methods used to identify minority and low-income populations and evaluate potential environmental justice issues. The discussion includes long-term implications for environmental justice communities related to development of the Central Corridor LRT project, along with short-term construction impacts and potential mitigation measures.

In determining compliance with Title VI of the Civil Rights of Act of 1964 and the intent of Executive Orders 12898 and 13166, along with the USDOT Final Order on Environmental Justice, and FTA Circular 49 CFR 21.5, this analysis examines whether the Preferred Alternative provides transit service equity, whether minority or low-income populations are disproportionately exposed to the adverse effects associated with the project's development, and whether these communities have had the opportunity to participate in activities related to planning the project.

3.8.2 Legal and Regulatory Context

Environmental justice in the context of transportation project development began with the issuance of Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" on February 11, 1994. This order requires federal agencies to "Identify and address disproportionately high and adverse human health or environmental effects of federal policies, programs, and activities on minority and low-income populations." Key provisions of the order include:

- To the greatest extent practicable and permitted by law, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations [Subsection 1-101].
- Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under such programs, policies, and activities, because of their race, color, or national origin [Subsection 2-2].
- Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public [Subsection 5-5 {c}].

The United States Department of Transportation (USDOT) issued its *Final Order on Environmental Justice* on April 15, 1997 [DOT Order 5610.2, "Environmental Justice" (April 15, 1997)]. This document provides guidance to state agencies receiving USDOT funding on implementing environmental justice requirements pursuant to Executive Order 12898. The Minnesota Department of Transportation (MnDOT) issued *Hear Every Voice: a Guide to Public Involvement at MnDOT*, which contains the *Environmental Justice Draft Guidance*, along with the USDOT regulations, and suggested guidance for engaging non-traditional transportation stakeholders in June 1999. In accordance with these guidelines, a public

involvement plan was developed and implemented for the Central Corridor LRT project (see Chapter 11, Public and Agency Coordination and Comments).

The Central Corridor LRT project's public involvement activities have included extensive and intentional efforts to engage environmental justice communities, informing residents about the project and providing opportunities for participation in the project's evaluation, planning, alternative development, station locations development activities, and environmental issues. These efforts have included public presentations to and meetings with minority community groups and civic organizations, public open houses and general information sessions, stakeholder meetings, small group and one-on-one meetings, diversity training and strategies to engage non-traditional stakeholders. Regular meetings have occurred with groups such as the National Association for the Advancement of Colored People (NAACP), the Urban League, the St. Paul African American Leadership Council (AALC), the Listening House Homeless Shelter, Union Gospel Mission, Berean Church, and Central Towers Assisted Living among several other community groups, churches and organizations. The Community Outreach Staff include several persons fluent in languages spoken by community residents for whom English is a second language. Interviews and public service announcements were also made in local and regionally broadcast ethnic media outlets including, print, television and radio programs in Somali, Hmong, Vietnamese, Thai, and Spanish. Media outlets have included the Minnesota Spokesman Recorder, Hmong Today, Hmong Times, African News Journal, Asian American Press, the Minnesota Women's Press, Vietnamese Broadcasting of Minnesota, along with Hmong and Somali local television news programs. Details about when, where, with whom, and what was discussed at the outreach meetings conducted by the project are provided in Appendix F.

In addition to considering minority and low-income populations, Executive Order 13166 entitled "Improving Access to Services for Persons with Limited English Proficiency," issued on August 11, 2000, establishes the compliance standards for Federal agencies and recipients of Federal funding to provide services to those persons for whom English is not their primary language. On May 13, 2007, the Federal Transit Administration issued an Advisory Circular entitled "Title VI and Title VI-Dependent Guidelines for Federal Transit Administration Recipients," reaffirming the requirements set forth in EO 12898 and EO 13166. As described in the Title VI Circular issued by the FTA, the finding of environmental justice impacts consists of the following steps:

1. A description of the low-income and minority population within the study area affected by the project, and a discussion of the method used to identify this population (e.g., analysis of Census data, minority business directories, direct observation, or a public involvement process).
2. A discussion of all adverse effects of the project both during and after construction that would affect the identified minority and low-income populations.
3. A discussion of all positive effects that would affect the identified minority and low-income population, such as an improvement in transit service, mobility, or accessibility.
4. A description of all mitigation and environmental enhancement actions incorporated into the project to address the adverse effects, including, but not limited to, any special features of the relocation program that go beyond the requirements of the Uniform Relocation Act and address adverse community effects such as separation or cohesion issues; and the replacement of the community resources destroyed by the project.

5. A discussion of the remaining effects, if any, and why further mitigation is not proposed.

The following discussion of environmental justice effects related to the implementation of the Central Corridor LRT Preferred Alternatives is consistent with the procedures as discussed in the Title VI circular (FTA C 4702.1A, page IV-4) and as part of assessing the impacts of the Central Corridor LRT project to environmental justice populations consistent with Executive Order 12898 and the USDOT's Final Order on Environmental Justice as issued April 15, 1997.

3.8.3 Identifying Protected Populations in the Study Area

This section contains a description of the methodology used to identify minority or low-income populations. This section also provides an analysis and discussion of Limited English Proficiency (LEP) populations living within the project area, pursuant to the guidelines set forth in Executive Order 13166, which requires federal agencies, programs and activities to identify any need for services to those persons who, by virtue of national origin, "are limited in their English proficiency (LEP)" in order to ensure nondiscrimination on the basis of national origin and the meaningful participation and access to those public services.

Determining the presence of low-income, minority, and Limited English Proficiency (LEP) populations in the Central Corridor was done through an analysis of Census data. The analysis considered several population characteristics as they pertained to minority and low-income populations including total population and households, population by age, race and ethnicity, individual and household income, poverty, and housing status. Additional social factors were considered including vehicle accessibility, English language proficiency, and disability status.

As described in the USDOT Final Order on Environmental Justice (Federal Register, Vol. 62, No. 72), minority populations are defined in the following ways: Black (a person having racial origins in any of the black racial groups of Africa), Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race), Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands), or American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition). Low-income persons have an individual or household income at or below the Department of Health and Human Services poverty guidelines. A "population" of low-income or minority persons is defined as a group of people who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected.

For the purposes of the Central Corridor LRT project's analysis of environmental justice impacts, the area for assessing the presence of protected populations was defined as one-half mile on either side of the proposed alignment, or the "walkshed" area for the Central Corridor. Furthermore, a comparison geographic area at the County level (Hennepin and Ramsey) was established as part of the identification of protected populations.

3.8.4 Existing Conditions

This section identifies the minority, low-income, and special populations potentially affected by construction of the Preferred Alternative.

3.8.4.1 Minority Populations

Persons responding to Census 2000 self-identified their race based on a perception of racial identify. Ethnicity is defined as the classification of a population that share common characteristics such as ancestry, religion, traditions, culture, language, tribal or national origin.

Table 3.8-1 shows the total population and percent of total population by identified racial or ethnic heritage, as defined by U.S. Census Bureau in 2000, for Hennepin and Ramsey Counties compared with the one-half mile study area in the Central Corridor. Compared to Hennepin and Ramsey Counties, the Central Corridor study area has a greater percentage of ethnic minorities.

Table 3.8-1. Population and Percent of Total Population by Identified Racial or Ethnic Heritage

Race/Ethnicity	Hennepin County		Ramsey County		Central Corridor Study Area	
	Number of Persons	Percentage of Total	Number of Persons	Percentage of Total	Number of Persons	Percentage of Total
White (Non-Hispanic)	898,921	80	395,406	77	64,573	54
Black or African-American	99,943	9	38,900	8	24,121	20
Hispanic or Latino[a]	45,439	4	26,979	5	8,310	7
Asian	53,555	4	44,836	9	15,101	13
All Others[b]	63,781	6	31,893	6	6,933	6
Total[c]	1,116,200	100	511,035	100	119,038	100

Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1), 2001

[a] By Census Bureau definition, the ethnic category "Hispanic or Latino" includes persons of any race.

[b] The category "All Others" includes American Indian and Alaska Native, Native Hawaiian and other Pacific Islander, "some other race," and persons who identified themselves as being of two or more races.

[c] The final totals for number of persons and percentage of totals in the counties exclude the Hispanic or Latino ethnic category to avoid double counting. When the columns are summed including the Hispanic or Latino ethnic category, the total number of persons is higher than the stated final total, and the percentage of total is greater than 100%.

As Table 3.8-1 outlines above, in 2000 there was a small majority of non-Hispanic white persons living in the Central Corridor study area. However, ethnic minority populations comprise a significant portion of study area population (46 percent), and account for a higher total minority population percentage than Hennepin County (19 percent) and Ramsey County (23 percent) (excluding the Hispanic or Latino category). Within the study area, the Black or African-American population represents the largest ethnic minority group next to non-Hispanic Whites with the Asian community being the next largest ethnic community group.

Figure 3.8-1 shows the locations of minority populations by Census block group within the study area. Although distributed throughout the study area, the highest concentrations of minority populations are located along University Avenue from Rice Street to Snelling Avenue. Minority populations also represent a significant portion of the downtown St. Paul population. In Minneapolis, the Cedar-Riverside neighborhood located just east of Downtown Minneapolis is home to a concentration of ethnic minorities, comprised primarily of recent Somali and East African immigrants. As shown by the data, minority populations of African-Americans and Somali or other East African immigrants are also higher near the Hubert H. Humphrey Metrodome and in

the Elliot Park neighborhood of Minneapolis. Native American populations are highest along Franklin Avenue between the Franklin Avenue Hiawatha LRT station and Interstate 35W.

3.8.4.2 Low-Income Populations

Low-income populations were identified through an examination of U.S. Census block group level data for one-half mile on each side of the proposed alignment. Consistent with the definition of low-income established by the USDOT Final Order on Environmental Justice, persons living in poverty within the study area of the Central Corridor were identified in order to determine any adverse impacts as a result of construction and operation of the Preferred Alternative. In addition, an expanded analysis identifying low-income populations included households within the project area whose median household income is 80 percent or less than the county median. The study area traverses portions of both Ramsey and Hennepin Counties. Ramsey County, the county with the lower median household income level, was used for the calculation. Table 3.8-2 compares income characteristics of the Central Corridor with Hennepin and Ramsey Counties.

In 2000, the median household income of Ramsey County was $45,722 and 80 percent of this value is $36,577. Therefore for the purposes of this study, households with incomes below $36,577 were defined as low income. Within the study area, 64 Census block groups were identified as having median incomes below $36,577 annually. The Census Bureau identifies approximately 33,719 households within these 64 block groups (U.S. Census Bureau, 2000).

Table 3.8-2 2000 Income Characteristics

Characteristic	Hennepin County		Ramsey County		Study Area	
	Population	Percentage of Total County Population	Population	Percentage of Total County Population	Population	Percentage of Total Study Area Population
Persons Below Poverty Level[a]	90,384	8.3	52,673	10.6	27,338	22.9
Median Household Income	$51,711		$45,722		$29,912[b]	

Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3), 2001.

[a] U.S. Census Bureau Poverty Definition: "Following the Office of Management and Budget's (OMB) Statistical Policy Directive 14, the Census Bureau uses a set of income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or non-cash benefits (such as public housing, Medicaid, and food stamps)."

[b] This figure represents the weighted average of median incomes for the Census block groups located within the Central Corridor LRT study area. A weighted average was used because median household incomes for Census block groups within the corridor varied. In order to determine the median household income for the entire corridor, the total number of households in each Census block group were weighted against the median household incomes for the block group, and averaged across the entire number of households in the study area. The final figure was rounded to the nearest whole dollar value.

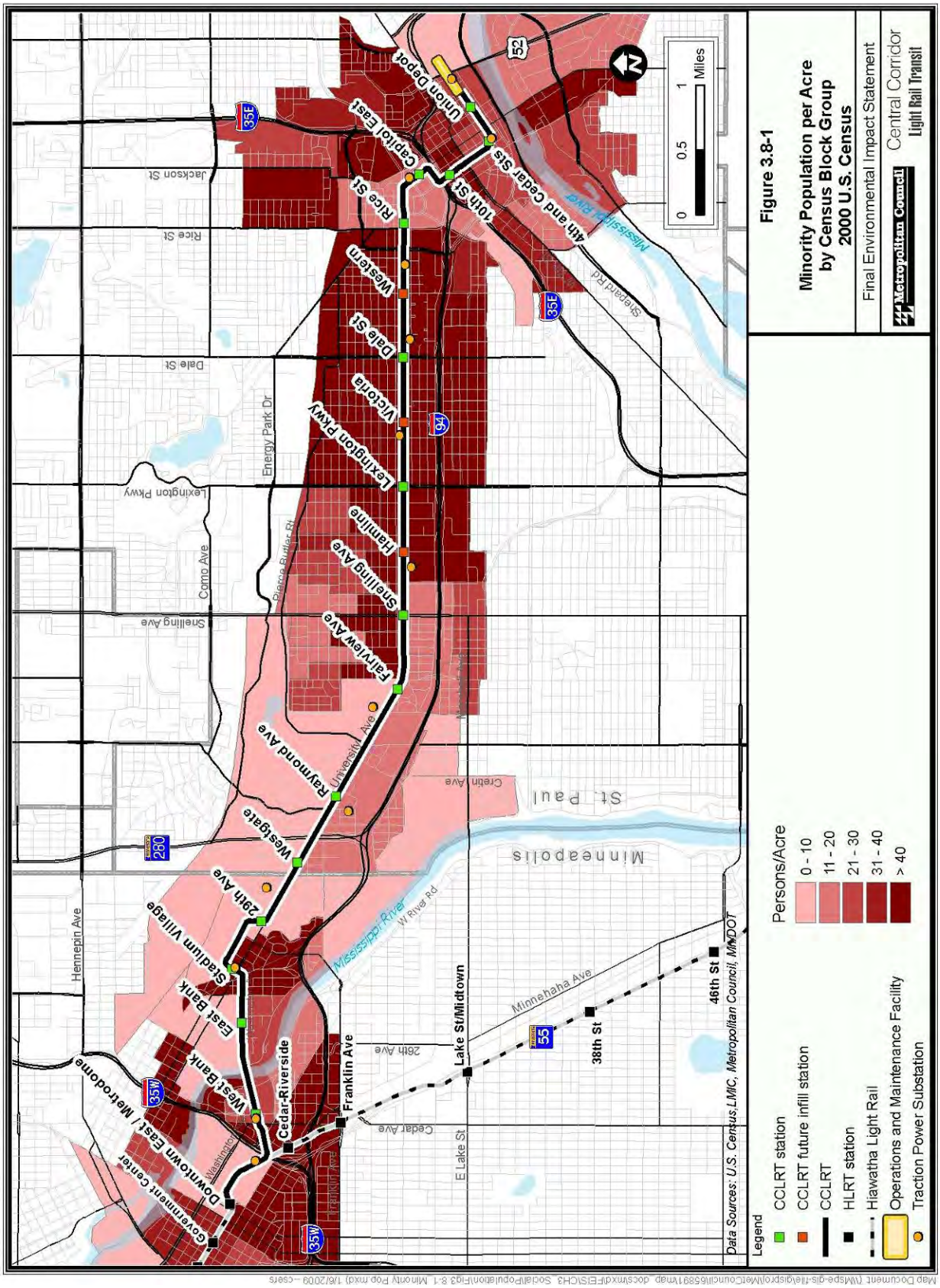
Figure 3.8-1
Minority Population per Acre by Census Block Group 2000 U.S. Census
Final Environmental Impact Statement
Metropolitan Council
Central Corridor Light Rail Transit
Persons/Acre
0 - 10
11 - 20
21 - 30
31 - 40
> 40
Legend
CCLRT station
CCLRT future infill station
CCLRT
HLRT station
Hiawatha Light Rail
Operations and Maintenance Facility
Traction Power Substation
Data Sources: U.S. Census,LMIC, Metropolitan Council, MnDOT
Miles
0
0.5
1
Union Depot
Capitol East
10th St
4th and Cedar Sts
Rice St
Western
Dale St
Victoria
Lexington Pkwy
Hamline
Snelling Ave
Fairview Ave
Raymond Ave
Westgate
29th Ave
Stadium Village
East Bank
West Bank
Cedar-Riverside
Franklin Ave
Lake St/Midtown
38th St
46th St
Minnehaha Ave
Mississippi River
St. Paul
Minneapolis
Energy Park Dr
Como Ave
Hennepin Ave
Jackson St
Shepard Rd
Cretin Ave
University Ave
W River Rd
E Lake St
Cedar Ave
26th Ave
Washington
Government Center
Downtown East / Metrodome
35E
35W
94
52
280
55

Figure 3.8-2 displays the distribution of median household incomes for the study area. Areas with significantly lower incomes are predominantly located north, south, and west of downtown St. Paul. Along the corridor, median household incomes are also relatively low in the Midway East segment, with incomes moderately rising in the Midway West segment. Low-income populations are also located on the southeast side of Downtown Minneapolis, particularly the Elliot Park neighborhood south of the Downtown East/ Metrodome Hiawatha LRT station. Median household incomes rise in select Census block groups paralleling the river in Downtown Minneapolis, an area that has recently seen significant residential and some commercial development. Incomes are lowest surrounding the University of Minnesota. Relatively few households are located within the Census block groups that surround the University of Minnesota. The primary form of housing on the campus is dormitories populated by students for select periods of time. Students typically comprise a lower-income group, and that group is reflected in the data (Figure 3.8.3).

3.8.4.3 Other Populations

Additional social and demographic factors often play a role in determining transit dependency. Although the 2000 Census contains a wealth of social data that could be considered part of any analysis, age, disability, language proficiency, and access to a personal vehicle were selected as demographic characteristics for consideration as part of this analysis.

Age

Age has a direct impact on a person's mobility, and as such, can play a determining factor in transit ridership. Adolescent populations must cope with driving age restrictions, and are dependent upon others for transportation Elderly populations may not have access to vehicles, may not wish to drive, or may be physically incapable of operating a vehicle. Transit service provides independence and mobility for both of these populations. Table 3.8-3 displays the age and percentage of population by age for the study area compared to Hennepin and Ramsey Counties. According to the data, the 2000 Census indicates that the majority of residents in the study area are between the ages of 18 and 64.

Table 3.8-3 Age and Percentage of Population

Age Cohort	Hennepin County		Ramsey County		Study Area	
	Number of Persons	Percentage of Total	Number of Persons	Percentage of Total	Number of Persons	Percentage of Total
Under 18 Years	267,319	24	130,629	26	24,405	21
18 to 64 Years	726,998	65	320,854	63	83,772	70
65 Years and Over	121,883	11	59,552	12	10,861	9
Total	1,116,200	100	511,035	100	119,038	100

Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1), 2001.

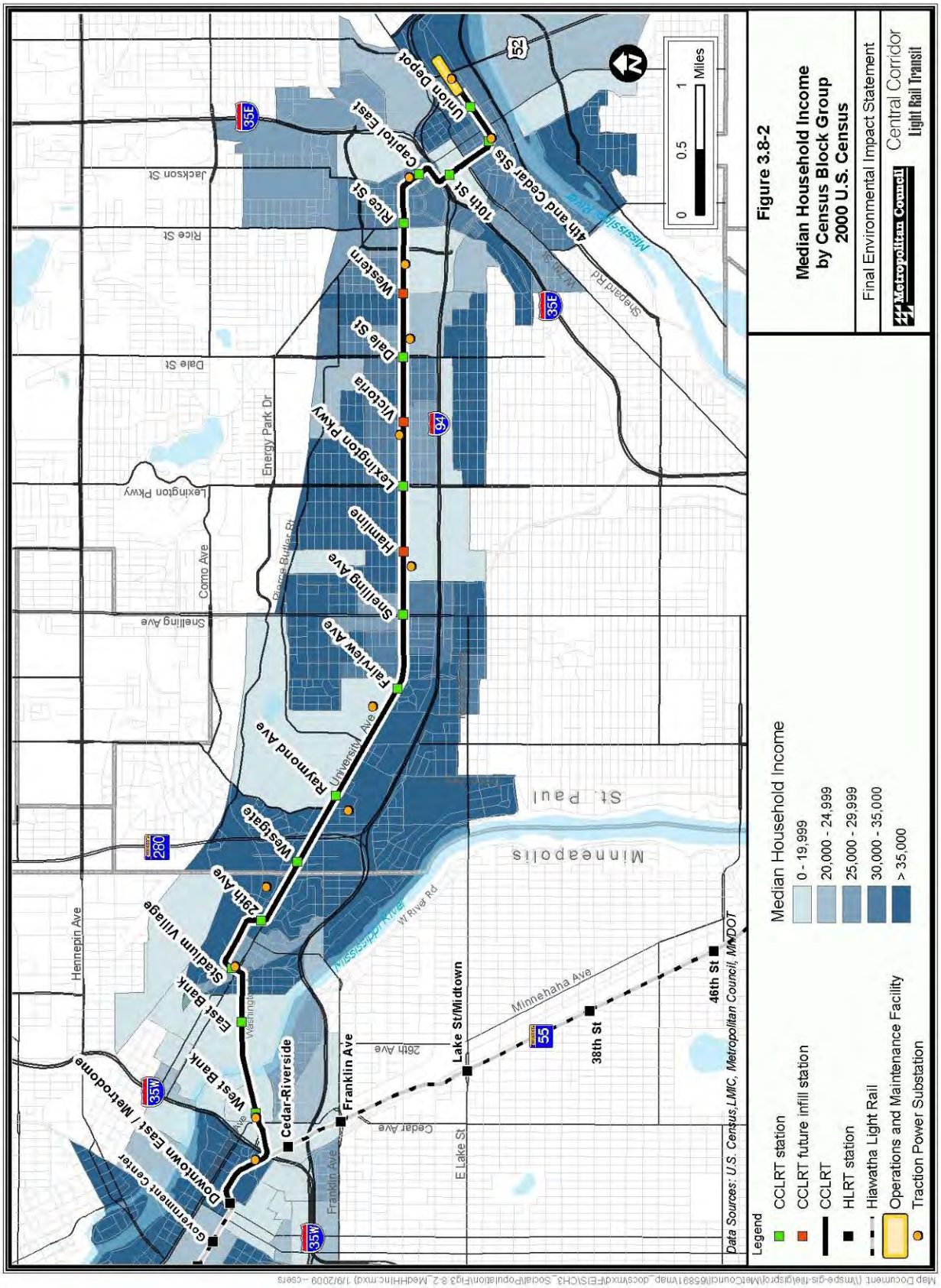
Figure 3.8-2
Median Household Income by Census Block Group 2000 U.S. Census
Final Environmental Impact Statement
Central Corridor Light Rail Transit
Metropolitan Council
Legend
CCLRT station
CCLRT future infill station
CCLRT
HLRT station
Hiawatha Light Rail
Operations and Maintenance Facility
Traction Power Substation
Median Household Income
0 - 19,999
20,000 - 24,999
25,000 - 29,999
30,000 - 35,000
> 35,000
Data Sources: U.S. Census,LMIC, Metropolitan Council, MnDOT
Union Depot
Capitol East
Rice St
Western
Dale St
Victoria
Lexington Pkwy
Hamline
Snelling Ave
Fairview Ave
Raymond Ave
Westgate
29th Ave
Stadium Village
East Bank
West Bank
Downtown East / Metrodome
Government Center
Cedar-Riverside
Franklin Ave
Lake St/Midtown
46th St
38th St
4th and Cedar Sts
10th St
Minneapolis
St. Paul
Miles

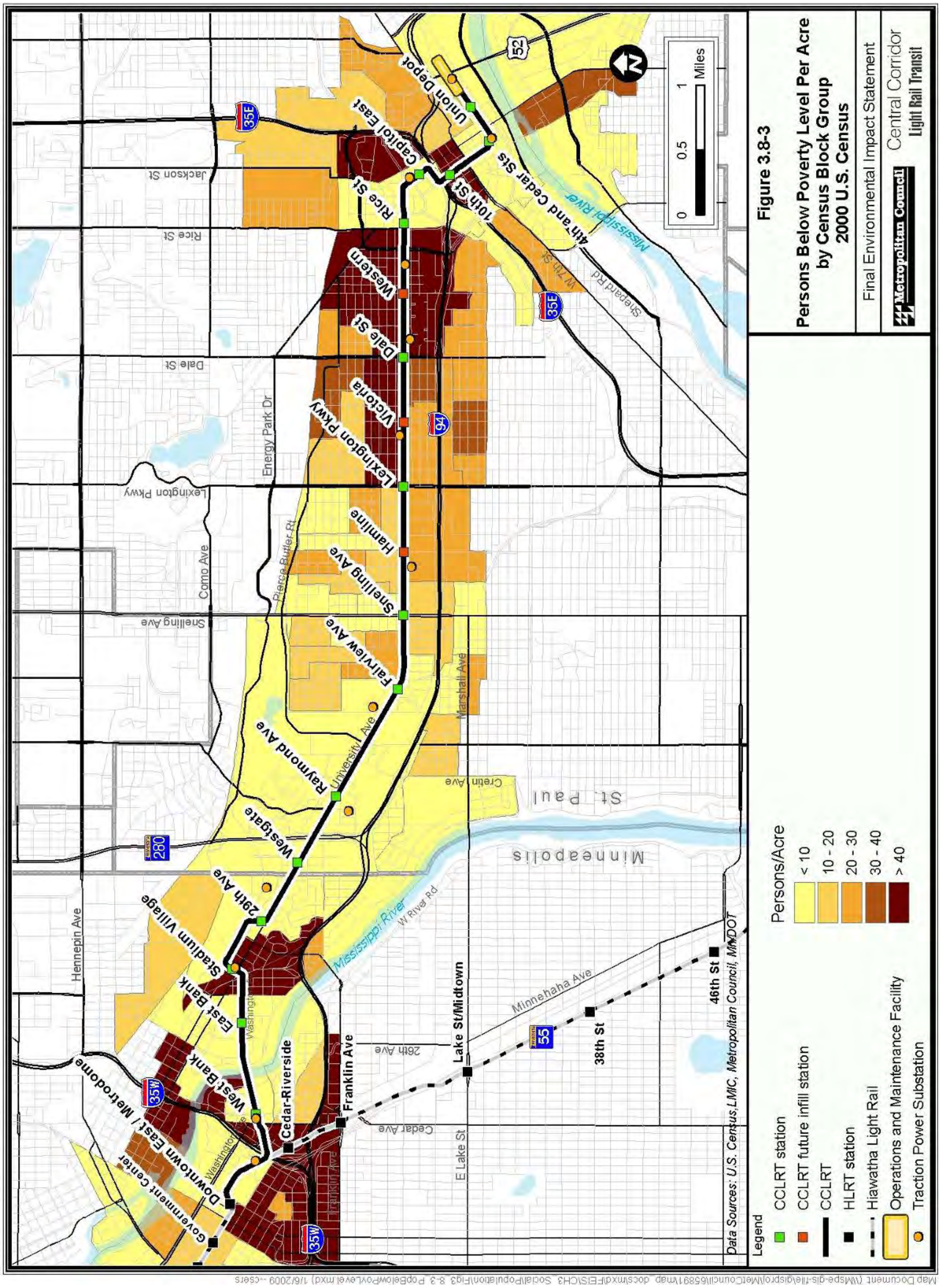
Figure 3.8-3
Persons Below Poverty Level Per Acre by Census Block Group 2000 U.S. Census
Final Environmental Impact Statement
Central Corridor Light Rail Transit
Metropolitan Council
Legend
CCLRT station
CCLRT future infill station
CCLRT
HLRT station
Hiawatha Light Rail
Operations and Maintenance Facility
Traction Power Substation
Persons/Acre
< 10
10 - 20
20 - 30
30 - 40
> 40
0 0.5 1 Miles
Data Sources: U.S. Census, LMIC, Metropolitan Council, MnDOT
Union Depot
Capitol East
4th and Cedar Sts
10th St
Rice St
Western
Dale St
Victoria
Lexington Pkwy
Hamline
Snelling Ave
Fairview Ave
Raymond Ave
Westgate
29th Ave
Stadium Village
East Bank
West Bank
Cedar-Riverside
Downtown East / Metrodome
Government Center
Franklin Ave
Lake St/Midtown
38th St
46th St
Mississippi River
St. Paul
Minneapolis
Jackson St
Rice St
Dale St
Lexington Pkwy
Snelling Ave
Como Ave
Energy Park Dr
Pierce Butler Rt
University Ave
Marshall Ave
Cretin Ave
Hennepin Ave
Washington Ave
Cedar Ave
26th Ave
E Lake St
Minnehaha Ave
W River Rd
Shepard Rd
W 7th St
35E
35W
94
280
55
52

Disabled Persons

The 2000 Census data indicate approximately 42,734 persons living within the study area identified themselves as having a disability. According to the data, persons with disabilities are distributed throughout the study area, with some noticeable concentrations. This is likely due to the availability of special needs housing facilities for persons with specific disabilities. Persons with disabilities, as defined by the U.S. Census, present a special user group that requires a transit system which is responsive and sensitive to their mobility needs. Metro Transit buses currently traveling in the Central Corridor are accessible for persons with special transportation needs. The Metropolitan Council and Metro Transit currently provide the Metro Mobility transportation service, an ADA-compliant paratransit service for certified riders unable to use regular fixed-route buses. The Hiawatha LRT station platforms and trains allow for easy access and safe travel on-board trains; the Central Corridor stations and trains will provide a similar set of facilities.

Limited English Proficiency

Public transportation serves as a vital means of mobility for many Limited English Proficiency (LEP) persons, particularly new immigrants to a community who may otherwise not have access to a private vehicle. Pursuant to the guidelines established by Title VI of the Civil Rights Act of 1964 and Executive Order 13166 (as outlined above), an analysis of non-English speaking populations and households was conducted to identify concentrations of LEP populations living within the study area. This analysis was conducted in accordance with FTA analysis methods as outlined in “Implementing the Department of Transportation’s Policy Guidance Concerning Recipients’ Responsibilities to Limited English Proficient (LEP) Persons: A Handbook for Public Transportation Providers,” published on April 13, 2007.

Table 3.8-4 details English proficiency for the study area LEP population. The 2000 Census provides data on the number of persons aged 5 and above who self-identified their ability to speak English “very well,” “well,” “not well,” and “not at all.” The data displayed in Table 3.8-4 were derived from the Census block groups within the study area, the lowest aggregated statistical level for which this information is publicly available.

Table 3.8-4 English Language Proficiency by Population 5 Years and Over of Study Area LEP Populations

	Spanish		European		Asian		Other[a]	
	Number	Percent of Study Area	Number	Percent of Study Area	Number	Percent of Study Area	Number	Percent of Study Area
Speak English "Very Well"	3,295	49.4	2,673	69.5	4,532	36.0	3,074	42.0
Speak English "Well"	1,232	18.5	557	14.5	4,305	34.2	2,581	35.3
Speak English "Not Well"	1,394	20.9	571	14.8	2,722	22.0	1,359	18.6
Speak English "Not At All"	728	11.2	45	1.2	972	7.7	301	4.1
Total	6,649	100	3,846	100	12,531	100	7,315	100

Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3), 2001.

[a] The U.S. Census specifies that "Other" languages include Uralic languages, such as Hungarian; the Semitic languages, such as Arabic and Hebrew; languages of Africa; native North American languages, including the American Indian and Alaska native languages; and some languages of Central and South America.

Among households, the 2000 Census data indicate that 4,876 households within the study area Census block groups are categorized as linguistically isolated or speak English as a second language. The data suggest that 36.1 percent (1,758) of those households primarily are Asian or Pacific language-speaking households, 33.3 percent (1,624) are households that speak some other type of language not categorized by the Census, and 19.7 percent (960) are primarily Spanish-speaking households. Other Indo-European language-speaking households account for 11 percent of the study area, or 534 households.

Non-English speaking households were analyzed with other environmental justice characteristics, and thematic mapping analysis suggests a strong relationship between household income and English proficiency (non-English speaking households are predominantly located in Census block groups where median incomes are typically lower than other block groups in the study area). In these identified areas, special efforts were taken during the Central Corridor LRT planning and preliminary engineering process to engage potentially underrepresented community members, particularly those for whom English may not be their first language. These efforts are detailed in Chapter 11.

Households without Vehicles

The availability of a personal vehicle is strongly correlated with the amount of trips taken and distance traveled. Data from the National Household Travel Survey indicate that persons in households without a vehicle took approximately 1,000 trips in 2001, as compared to households with at least 1 vehicle, which averaged 1,500 person trips for the same year. Households without vehicles made 37 percent of their total trips by foot and 20 percent by some mode of transit service. A strong relationship between household income and vehicle ownership is also observed (USDOT, Bureau of Transportation Statistics and the Federal Highway Administration, 2001 National Household Travel Survey, January 2003).

According to 2000 Census data for the study area, within one-half mile of the proposed LRT alignment, approximately 15,502 households are without an automobile, or approximately 31 percent of all households in the study area. The data suggest that approximately 21,238

households (43 percent) have at least one vehicle, and 9,464 households (19 percent) have at least two vehicles. Despite the majority of households within the study area having access to at least one vehicle, thematic mapping indicates that the majority of no-vehicle households are clustered around the downtown areas of Minneapolis and St. Paul. Furthermore, a relationship is established between the Census block groups with the lowest median household incomes and the highest proportion of no vehicle households. Table 3.8-5 provides an analysis of no-vehicle households for the study area compared with no-vehicle households in Hennepin and Ramsey Counties and the Cities of Minneapolis and St. Paul. As evidenced, the proportion of households without a vehicle in the Central Corridor study area is significantly higher than in either the cities or the counties.

Table 3.8-5 No Vehicle Households

Area	No Vehicle Households	Percentage No Vehicle Households
Hennepin County	48,930	11
Ramsey County	23,666	12
Minneapolis	31,991	20
St. Paul	18,866	16
Study Area	15,502	31

Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3), 2001.

3.8.5 Conclusions Regarding the Presence of Protected Populations

3.8.5.1 Minority Populations

As summarized in Table 3.8-1, the Central Corridor area generally has higher percentages of minority populations than do the broader Hennepin and Ramsey county areas. As indicated in Figure 3.8-1, predominantly minority areas in the Central Corridor are clustered in the following areas:

- The University/Prospect Park segment of the corridor, specifically in the Cedar-Riverside area of Minneapolis.
- The Midway East corridor segment between Rice Street and Lexington Parkway.
- The Capitol Area corridor segment, most notably near I-35E, which includes the Mt. Airy Homes public housing complex.

3.8.5.2 Low Income Populations

As summarized in Table 3.8-2, the Central Corridor area generally has higher percentages of low-income persons (defined as persons living in poverty according to Department of Health and Human Services guidelines), than do the broader Hennepin and Ramsey county areas. As indicated in Figure 3.8-3, low-income populations are clustered in the following locations:

- The University/Prospect Park segment of the corridor, specifically in the Cedar-Riverside area of Minneapolis.
- The Midway East corridor segment and most especially on the south side of University Avenue between Hamline Avenue and Lexington Parkway, and then between Lexington Parkway and Rice Street.

- The Capitol Area corridor segment and most especially in the area near I-35E, which includes the Mt. Airy Homes public housing complex.

For the purposes of the analysis which follows, the communities identified above as having concentrations of minority and low-income populations were used to identify potential disproportionately high and adverse impacts of the Central Corridor LRT project.

3.8.6 Long-Term Effects

This section describes the long-term effects of the No Build Alternative and the Preferred Alternative on environmental justice issues. As described in Chapter 11, Public and Agency Coordination and Comments, extensive public information and outreach activities were conducted as part of the AA/DEIS and SDEIS process for the Central Corridor LRT project to inform area residents and businesses about the project and provide an opportunity for public comment. These informational and outreach activities, coupled with the public hearings and comment periods, have allowed the public to provide input on the proposed alignment and alternatives, station locations, environmental issues, future development implications, the project planning process, and the selection of the Preferred Alternative. This input has resulted in concurrent planning processes undertaken by the City of St. Paul in the development of the Central Corridor Development Strategy (Urban Strategies, October 2007). This planning process addresses many of the issues and concerns raised by adjacent neighborhoods (see Section 3.1). Additionally, this input influenced the Central Corridor LRT project by assisting in the identification of future stations that will reduce station spacing and create economic opportunities.

3.8.6.1 Adverse Effects to Protected Populations

For the purpose of this analysis, adverse effects are defined as major transportation, social, economic, environmental, or human health effects anticipated to result from the Preferred Alternative which exceeded an established federal or state standard. Adverse impacts associated with a project for which no federal or state standards exist encompass a broad range of potential effects, including traffic, parking, transit accessibility, community cohesion, acquisitions and displacements, along with other effects. For some potential adverse effects, such as traffic, long-standing engineering practice and methodologies exist to quantify impacts and their relative level of adversity. For instance, traffic impacts have graded levels of service from “A” through “F.” Other potential adverse effects are qualitative in nature, such as community cohesion. A discussion of these effects is also included.

No-Build Alternative

The No-Build Alternative, as described in Chapter 2, includes roadway and bus system improvements along University Avenue and I-94 as specified in the appropriate agency Transportation Improvement Programs (TIP) and 2030 Transportation Policy Plan for which funding has been committed. The current transportation and transit facilities and services, with minimal modifications or expansions, form the basis of the No-Build Alternative. From this analysis, the No-Build Alternative would not cause adverse or disproportionate impacts to the human or environmental health of minority, low-income, or special populations in the Central Corridor. The No-Build Alternative would not lead to major public infrastructure investments and improvements, and development throughout the corridor would continue at the current pace. Mobility benefits that would accrue with changes proposed to the Preferred Alternative would not be realized under the No-Build Alternative.

Preferred Alternative

The project would result in significant capital and economic investments throughout the Central Corridor Study Area, along with major transportation access and mobility improvements for area residents. The Preferred Alternative represents a substantial long-term capital investment in transit in an area with higher-than-average transit dependent populations. Increased transit access to employment and activity centers would benefit all area populations, regardless of socioeconomic status. Minority and low-income communities would not disproportionately experience any high or adverse impacts associated with implementation of the Preferred Alternative except under the transit accessibility criteria, and the entire study area would benefit from this significant public infrastructure investment.

Table 3.8-6 provides a comparison of impacts relative to their location within the corridor and their potential impact to environmental justice communities.

Table 3.8-6 Comparison of Effects to Protected Populations

Resource	No Build Alternative	Preferred Alternative	Environmental Justice Communities
Air Quality	No Change to Existing Conditions	Modest Improvements to Air Quality are Expected	Modest Improvements to Air Quality are Expected
Noise	No Change to Existing Conditions	No severe noise impacts - mitigated condition	No severe noise impacts
Vibration	No Change to Existing Conditions	15 structures are adversely effected	5 structures are adversely impacted
Traffic	No Change to Existing Conditions	14 intersections are forecast to operate below LOS D during p.m. peak in 2030	3 intersections are projected to move from LOS D to E or F ratings with implementation of the Preferred Alternative
Parking	No Change to Existing Conditions	Loss of 975 on-street parking spaces	Loss of 339 on-street parking spaces
Transit Accessibility	No Change to Existing Conditions	Overall improvement in transit service	3 Census blocks would experience a decrease in overall transit service
Community Cohesion	No Change to Existing Conditions	No Change to Existing Conditions	No Change to Existing Conditions
Acquisitions and Displacements	No Change to Existing Conditions	Property acquisitions and building removal in downtown St. Paul	No acquisitions or displacements required
Placement of System Components	No Change to Existing Conditions	13 Traction Power Substations Located Along the Corridor	5 Traction Power Substations

A discussion of these impacts relating to the entire corridor population and identified environmental justice communities is provided below:

Air Quality – Both Hennepin and Ramsey Counties have been designated as maintenance areas for CO and SO_2 by EPA. The air quality data from the monitoring locations nearest the Central Corridor LRT Study Area, including the Preferred Alternative indicate compliance with Minnesota and NAAQS. The Preferred Alternative is included in the current air quality

conformity determination, and therefore, no project-specific regional analysis is required under Transportation Conformity rules. The Preferred Alternative is not anticipated to result in any adverse or long-term air quality impacts to protected populations. A discussion of impacts to air quality is provided in FEIS Section 4.5.

Noise – Initial results of the noise analysis indicated that 11 severe noise impacts were anticipated in the environmental justice community between Rice Street and Lexington Avenue as a result of the Preferred Alternative's implementation and operation. These impacts were the result of a trackway crossover's placement on University Avenue between Grotto and Avon Streets. However, working with neighborhood residents and area businesses, along with project engineers, the crossover was moved out of this area. Therefore, no severe noise impacts resulting from the project's operation are anticipated. Environmental justice communities are not anticipated to experience any disproportionate or adverse noise impacts as a result of the Preferred Alternative's operation.

Vibration – Potential LRT-induced vibrations were assessed for three different land use categories using FTA's General and Detailed Vibration Assessment methods (FTA, 2006) for the entire CCLRT corridor. Vibration impacts are based on categories of land use. Residential land uses are Category 2 and institutional land uses (which include commercial land uses) are Category 3. Results of the analysis determined that 2 Category 2 vibration impacts and 3 Category 3 vibration impacts in the environmental justice community between Rice Street and Lexington Avenue. Specifically, these impacts were determined between North Grotto and Victoria Streets and attributable to trackway crossovers. As a vibration mitigation measure, Metropolitan Council commits to the relocation of crossovers that were originally proposed to be installed in the EJ neighborhoods. As a result of the relocation commitment, vibration impacts are no longer predicted to occur in the EJ neighborhoods. Results of the vibration analysis and mitigation commitments are provided in Section 4.7.

Traffic – Quantifying adverse effects to traffic resulting from a proposed project is typically done by reporting impacts in terms of levels of service, "A" through "F." Much like grades received in school, "A" indicates the best operations possible, while "F" indicates an intersection that is failing. In urban areas such as the Twin Cities, level of service "D" is understood to indicate an acceptable level of service and level of service "E" indicates an intersection that is approaching its capacity. Level of service "F" indicates an intersection that is operating beyond capacity, or, from a driver's perspective, an intersection where he or she would wait through at least one green cycle before moving through the intersection.

As described more fully in Chapter 6.0 of the FEIS, a total of 14 intersections would be expected to operate at LOS "E" or "F" in the future (2030) as a result of Central Corridor LRT operating. Of these intersections, three are found in the areas identified as having concentrations of environmental justice populations.

- University Avenue and Hamline Avenue: Under existing conditions, this intersection is currently operating at level of service "D" in the p.m. peak hour. In 2014 when Central Corridor LRT begins operating, it is anticipated to continue to operate at level of service "D" and by 2030 it is anticipated to operate at level of service "E" or close to capacity.
- University Avenue and Lexington Parkway: Under existing conditions, this intersection is currently operating very close to capacity, at level of service "E" during the p.m. peak hour. It is anticipated to operate at level of service "F" in the p.m. peak in 2014, with Central Corridor LRT operating.

- University Avenue and Marion Street: This intersection currently operates at level of service “B” in the p.m. peak hour and is anticipated to operate at level of service “D” which is an acceptable level of service in 2014 when Central Corridor LRT begins operations and at level of service “E” or close to capacity in the year 2030.

The traffic model used to make future assumptions regarding traffic levels of service did presume that mitigations to optimize signal timing were in place as part of forecasting future levels of service. Further mitigation is not being identified as part of the Preferred Alternative. A full discussion of traffic mitigation is found in Section 6.2 of the FEIS.

As discussed above, traffic levels of service are quantified and reported in terms of levels of service, whether for intersections or segments of roadways. However, transportation systems are part of a broader pattern of land use and development opportunities. Traffic improvements, particularly those adding capacity and requiring ROW takings, must be considered in this broader context. The communities adjacent to the Central Corridor have expressed concern about the acquisition of properties, residences, and businesses and the disruption this would cause (see discussion under community cohesion and acquisitions and displacement, below). Improvements required to provide optimal traffic LOS, particularly at the intersection of Lexington Parkway and University Avenue, (the only intersection in the environmental justice community anticipated to operate at LOS E or F during the PM peak periods in 2030), would require capacity improvements including the acquisition of ROW and demolition of existing minority-owned businesses. It is important to note that the failing LOS anticipated at the intersection of Lexington Parkway and University Avenue will not result in other associated negative environmental impacts, such as deteriorating air quality standards.

Although two intersections are anticipated to be operating near capacity in the future (University Avenue and Hamline Avenue, and Marion Street and University Avenue) and one intersection is anticipated to operate over capacity (Lexington Parkway and University Avenue), the adverse impacts associated with providing improved levels of service (requiring ROW and property acquisition) outweigh the benefits of improved traffic flow. The offsetting benefits of increased transit service with the Central Corridor LRT project (as discussed in Section 6.1) are anticipated to address some impacts associated with deteriorating traffic LOS resulting from the Preferred Alternative.

Although increasing overall capacity at intersections with deteriorated LOS is not being considered because of severe ROW impacts, other mitigation strategies are being implemented along the entire corridor to minimize traffic impacts at failing or near-failing intersections (Section 6.2). These strategies include the following:

- Optimization of signal timing splits
- Integration into the coordinated traffic signal systems
- Protected left- and right-turn lanes
- Expansion of turn lanes and/or extension of turning bay lengths.
- New signal phasing on some of the University Avenue cross-streets.

Traffic impacts have been identified at intersections located throughout the corridor. As shown in Table 3.8-6, the impacts are not disproportionately borne by environmental justice neighborhoods. Only three of the 14 intersections anticipated to have LOS D through F with implementation of the Preferred Alternative are located within the environmental justice neighborhoods. Additionally, mitigation strategies and improvements are equitably distributed to these intersections. Therefore, no adverse traffic impacts predominantly borne by minority and/or low-income populations are anticipated.

Parking – Construction of the Preferred Alternative would result in the loss of on-street parking along University Avenue. A detailed discussion of this issue can be found in Section 6.3 of the FEIS.

Overall, 85 percent of on-street parking spaces (975 out of 1,150) will be eliminated due to the Central Corridor LRT project along University Avenue in St. Paul. In the identified environmental justice community between Rice Street and Lexington Parkway, 76 percent of the on-street parking spaces (339 out of 444) will be eliminated. This represents a 30 percent net loss of the on-street parking spaces within the entire corridor. In addition to reviewing aggregate parking loss, the analysis of on-street parking conducted as part of preliminary engineering for the project considered individual businesses in effort to determine impacts based on the availability of off-street parking. Four "hot-spot" areas along University Avenue were identified where mitigation of parking loss would be required. One of these four hot spot areas was located in the environmental justice community between Rice Street and Lexington Parkway, specifically on the northwest corner of Dale Street and University Avenue. Mitigation strategies for the loss of on-street parking have been identified and are summarized in Section 6.3 of the FEIS. There will be no on-street parking lost in the environmental justice community in the Cedar-Riverside area of Minneapolis.

Although there will be on-street parking loss as a result of the Central Corridor LRT project, there will be proportionately less parking lost in the environmental justice areas of the corridor. A further analysis of potential adverse impacts specific to individual business needs identified four areas along the corridor requiring further study and/or mitigation. One of these areas is found in the environmental justice area between Rice Street and Lexington Parkway, at the northwest corner of Dale Street and University Avenue. Since proportionately less parking will be lost in the environmental justice area and since proportionately fewer areas of concern were identified there, no adverse parking impacts predominantly borne by minority and/or low-income populations are anticipated.

There will be no on-street parking lost in the environmental justice community in the Cedar-Riverside area of Minneapolis.

Transit Accessibility – As summarized in Section 3.8.4 above, the Central Corridor project area is highly transit dependent, with approximately 31 percent of all households not having an automobile (Census 2000). As such, the community depends on regular and reliable transit service to meet mobility needs, as expressed in the Purpose and Need statement for the project. During public comment periods and community forums for both the AA/DEIS and the SDEIS, community members expressed concerns regarding planned changes in frequency to the Route 16 bus operating on University Avenue. In addition to changes in service frequency, residents, businesses, and neighborhood organizations have also expressed concerns regarding the spacing of stations, particularly for residents between Rice Street and Lexington Parkway in St. Paul.

In addressing these concerns, the SDEIS examined the social, economic, and environmental impacts of constructing three additional stations at Hamline Avenue, Victoria Street, and Western Avenue in the City of St. Paul. Analysis of the impacts to ridership on the Central Corridor LRT were conducted as part of the analysis. The analysis determined that the addition of these stations would not result in ridership gains, but rather a loss of overall ridership due mostly to the increase in overall travel time. This analysis report is provided in Appendix J of the FEIS. In response to community concerns, the Metropolitan Council has committed funding as part of the Preferred Alternative for the construction of the below-ground infrastructure for these future infill stations to be constructed once funding is identified. The Metropolitan Council intends to construct these stations, which will allow enhanced access to

the surrounding neighborhoods and community. The methodology for this analysis was consistent with the guidelines of the FTA Circular and is also consistent with analysis of service change impacts routinely completed by the Metropolitan Council when changes in transit service are proposed.

In response to community concerns regarding disproportionate impacts from the operation of the Central Corridor LRT, station spacing, and service reduction of the Route 16 bus, the Metropolitan Council completed a detailed Title VI Review (*Central Corridor Title VI Review, 2008*), consistent with FTA Circular 4702.1A guidance issued on May 14, 2007, of the impacts resulting from the proposed changes in transit service. The analysis was conducted using available Census data at the block and block group levels. The analysis determined that construction and operation of the project would lead to increased access to transit services for most of the Census blocks within the identified environmental justice communities. However, 10 Census blocks in the Central Corridor would experience a decrease in transit access. Three of these blocks are located in the identified environmental justice region, located along Western Avenue north and south of University Avenue. This decrease in service is considered an adverse impact that would be disproportionately borne by the identified environmental justice populations. The complete Title VI Review with graphic representations of the Census blocks in question is provided in Appendix I.

Methods for Analyzing Proposed Service Changes

The geographic extent for analyzing proposed service changes was limited to a one-half mile buffer around the Central Corridor. Census data was used to identify low-income and minority populations at the smallest unit for which data is available – the block level for minority status and the block group level for income. A one-half mile buffer was used around LRT stations as the standard for estimating walking distance access. Examination of peer agencies' rail experiences suggested use of a one-half mile standard and this standard was also suggested by FTA.

Results of Analysis of Service Changes

Low-Income Populations: Results of the Title VI transit service change analysis indicated that transit access will increase for all census block groups within the Central Corridor area of analysis.

Minority Populations: Results of the Title VI transit service change analysis indicated that almost all census blocks in the Central Corridor will have an increase in transit service and capacity. However, three census blocks in the Midway East planning segment, a region predominantly comprised of minority residents are anticipated to experience a decrease in transit service. These three census blocks are located along Western Avenue north and south of University Avenue within the environmental justice community identified for minority populations.

Community Cohesion - Following the publication of the AA/DEIS, numerous public comments were received concerning access and mobility within and particularly across the corridor, with particular concerns raised about the possibility of the LRT creating a physical barrier between neighborhoods on either side of University Avenue. Concerns regarding community cohesion are brought into sharper relief by a sensitive understanding of the history of what was known as the Rondo neighborhood and which encompassed the environmental justice community between Lexington Parkway and Rice Street. The Rondo community, a historically African-American community, was devastated with the construction of Interstate Highway 94 in St. Paul during the 1960s. The stakeholders that are engaged in the planning for the Central Corridor LRT remain committed to ensuring such disproportionate impacts are not borne again by this community.

As part of responding to community concerns about community cohesion, expressed during the AA/DEIS comment period and at other forums for public input to the project, there were a number of accommodations added to the project during preliminary engineering to enhance community cohesion. These included providing for non-signalized pedestrian crossings of University Avenue to ensure that pedestrians will be able to cross University Avenue at virtually every legal crossing that currently exists. A depiction of a typical non-signalized pedestrian crossing and a description of how it would work are included in Section 6.3 of this FEIS.

Not all existing intersections of University Avenue will be provided non-signalized pedestrian crossings. Intersections where these accommodations are not provided are typically three-legged or offset intersections. In all instances, where a non-signalized pedestrian crossing is not being installed, a legal pedestrian crossing is possible within one block. Additionally, the intersections that would not be outfitted with non-signalized pedestrian crossings are intersections that currently do not permit pedestrian crossings. The following intersections currently do not allow pedestrian crossings, and pedestrian crossings will not be permitted with implementation of the Central Corridor LRT:

- Arthur Ave. SE and University Avenue
- 30th Avenue SE and University Avenue
- Clarence Avenue and University Avenue
- Pillsbury Street and University Avenue
- Montgomery Street and University Avenue
- W. Lynnhurst Avenue and University Avenue
- Beacon Street and University Avenue
- Herschel Street and University Avenue
- Pierce Street and University Avenue
- Asbury Street and University Avenue
- Virginia Avenue and University Avenue
- Galtier Street and University Avenue
- Capitol Boulevard and University Avenue
- Rev. Martin Luther King Jr. Boulevard and Robert Street
- Wacouta Street and 4th Street

Out of 15 intersections that will not accommodate pedestrian crossings in the future, the Virginia Avenue and Galtier Street intersections with University Avenue are located within the environmental justice community area between Rice Street and Lexington Avenue. In the case of the Virginia Avenue intersection, a non-signalized crossing is not being installed in order to accommodate the future infill station that will be constructed at Western Avenue. At Galtier Street, a non-signalized pedestrian crossing is not being provided as this is an offset intersection and a pedestrian crossing of University Avenue is available at Marion Street, approximately 200-feet to the east.

With the addition of non-signalized pedestrian crossings, the reconstruction of sidewalks along University Avenue and associated streetscaping elements, impacts to community cohesion

are not anticipated with construction and operation of the Preferred Alternative. Since no adverse impacts are anticipated to community cohesion, there is no potential for impacts to be disproportionately borne by environmental justice populations.

Acquisitions and Displacements - Concerns regarding the acquisition and displacement of businesses and residences as part of the Central Corridor LRT project were expressed frequently by members of the community. The AA/DEIS indicated that approximately 53 land parcels would need to be partially acquired in the environmental justice community between Hamline Avenue and Rice Street. The AA/DEIS determined that no residential or business buildings would need to be acquired. As part of project refinements during preliminary engineering, no residential or business acquisitions are required as a result of the Preferred Alternative in the environmental justice community area; therefore no adverse impacts are anticipated. Since no adverse impacts are anticipated, there is no potential for impacts to be disproportionately borne by environmental justice populations.

Placement of System Components - Concerns were expressed during the SDEIS comment period regarding the placement of traction power substations (TPSS) needed to provide power to the LRT and whether the placement of these resulted in disproportionate impacts to environmental justice populations. There are a total of 12 traction power substations that will be required as part of operating the Central Corridor LRT. Of these, five will be located in the environmental justice communities located along the corridor (one TPSS in the Cedar-Riverside area and four located in the Midway East corridor segment). The location of the TPSS in the Capitol Area segment is not located in an environmental justice neighborhood.

Concerns were expressed during public outreach and comment periods regarding the spacing of traction power substations, particularly in the environmental justice community between Rice Street and Lexington Parkway. Traction power substations are spaced based on several considerations but are generally more closely spaced as more power is required for train operations, an example being when trains must negotiate grade changes.

Along the Central Corridor, traction power substations are, on average, placed approximately 5,000 feet apart. It was noted that the substations in the environmental justice community between Rice Street and Lexington Avenue are more closely spaced. This observation is accurate – the distance from the substation located near Victoria Street to the substation located near Dale Street is approximately 4,000 feet and the distance from the substation located near Dale Street to the substation located near Western Avenue is approximately 3,000 feet. However, the reason for placing the substation near Western Avenue is to accommodate the future infill stations at Victoria Street and Western Avenue. A focus of the SDEIS prepared for the Central Corridor LRT project was to assess the environmental impacts of future infill stations in the environmental justice community and was done in response to comments received during the AA/DEIS comment period. A key policy objective of the Central Corridor Management Committee overseeing the project was to build the Central Corridor LRT to provide all below-ground infrastructure and other system components required in order that these stations can be constructed quickly and efficiently.

The placement of system components is not anticipated to result in any adverse impacts to environmental justice populations. Since no adverse impacts are anticipated, there is no potential for impacts to be disproportionately borne by environmental justice populations.

3.8.7 Offsetting Project Benefits

Construction of the Preferred Alternative is anticipated to produce offsetting project benefits to all communities living adjacent to the Preferred Alternative alignment, impacted by

construction and operation of the line. These benefits include increased transit service, improvements to the existing streetscape environment, and economic benefits.

3.8.7.1 Increased Transit Service

As discussed in Section 6.1, increases in transit service associated with the Preferred Alternative will provide benefits to protected populations living along the corridor. Both minority and low-income populations will see their overall levels of transit service increase by almost half from existing levels. A documented benefit of LRT in the Central Corridor is that it will provide faster, more reliable, more frequent, and higher capacity service for transit riders. In addition, LRT stations will provide safer and more comfortable amenities for passengers waiting to board light rail vehicles than those currently available for bus riders. These amenities include partially enclosed passenger shelters, heating elements, and a station art program that will be reflective of the neighborhood and cultural context within which the LRT station is sited.

3.8.7.2 Improved Streetscape Environment

Construction of the Preferred Alternative will improve the existing pedestrian infrastructure along University Avenue, and improve the safety of pedestrians and bicyclists through implemented design guidelines. The current configuration of University Avenue poses a barrier to pedestrian travel within the corridor. The development of the Preferred Alternative will channel pedestrian movements to crossing locations at intersecting streets, where curb improvements and pedestrian islands within the street will shield pedestrians from both LRT vehicles and automobile traffic. Crossings will still be available throughout the corridor, at both signalized and non-signalized intersections, and the pedestrian channelization is intended to discourage mid-block crossings and improve pedestrian safety. All pedestrian crossings will be designed in accordance with current design standards and ADA requirements to ensure access and mobility for all.

3.8.7.3 Economic Benefits

As defined by the project Purpose and Need statement in Chapter 1, a series of goals and objectives for the corridor were developed, the first of which was to promote economic opportunity and investment. The Preferred Alternative is expected to have positive effects on commercial and residential development. As a result of the project, the surrounding communities would likely see an increase in employment opportunities due to a greater number of commercial and residential businesses along the corridor. This should result in positive economic gains in the form of increased wages and spending. The additional transportation capacity could create competitive advantages for businesses located in the corridor. The City of St. Paul has been engaged in a concurrent planning process for future development along the Preferred Alternative alignment in St. Paul. Adopted as part of the City of St. Paul Comprehensive Plan, Central Corridor Development Strategy seeks to stabilize natural market forces in the neighborhoods adjacent to the Central Corridor and create a set of guidelines for the development, in effort to retain existing businesses located along the corridor. Additionally, the Metropolitan Council's Livable Communities program has allocated up to $1 million dollars to the City of St. Paul to assist with the purchase of land to be used later for affordable housing near the Preferred Alternative alignment. A description of this program is provided in Section 5.2.

3.8.7.4 Construction Economic Benefits

While it is not the primary intent to benefit the Central Corridor community, the Metropolitan Council's DBE program and the State of Minnesota's workforce goals will provide residual benefits to residents and businesses.

The Metropolitan Council works with a variety of partners on DBE and workforce inclusion efforts. The Council created the Central Corridor LRT DBE and Affirmative Action Joint Committee and the DBE Internal Advisory Committee to support monitoring of compliance and innovation in development of inclusion practices for the Central Corridor LRT project. The Central Corridor LRT DBE and Affirmative Action Committee is comprised of a mix of community advocates and representatives from partner agencies, such as MnDOT, St. Paul, Minneapolis, Ramsey County, Department of Human Rights for Minnesota, and Hennepin County as well as representatives of local business associations such as the Association of Women Contractors, National Association of Minority Contractors, the Black Chamber of Commerce, St. Paul Urban League and the Metropolitan Economic Development Agency. The partners help implement the CCLRT DBE Strategic Plan.

Specific items committed to as part of the Central Corridor LRT DBE Strategic Plan include the following:

- Hold lessons learned workshop with DBE's that participated in the Hiawatha LRT project
- Work with the Central Corridor Project Office in developing DBE requirements for Request for Proposal's (RFP) for the project
- Work with project partners, stakeholders, educational institutes, and nonprofit organizations to provide training opportunities
- Provide training to DBEs
- Provide technical assistance to DBEs and Primes
- Work with appropriate agencies in DBE capacity development

A secondary focus of the joint committee is the implementation of a sound workforce development program that supports training and hiring of residents from the local Central Corridor community.

3.8.8 Short-Term Effects

Construction of the Preferred Alternative would result in several major and minor impacts to adjacent communities. Construction would be phased in order to avoid lengthy impacts to adjacent residents and businesses. Roadway operations and parking, access to businesses, public utility services, pedestrian and bicycle facilities along with short-term impacts to air quality, noise, and vibration are likely to be the most significant impacts experienced by the people and businesses located adjacent to or near the construction zones. These short-term construction effects would not be disproportionately borne by the minority or low-income populations identified along the Central Corridor.

3.8.9 Mitigation

The Preferred Alternative would result in one impact for which the benefits of the project would not offset the impacts. Analysis determined that three Census blocks would experience a decrease in transit service levels as a result of operation of the Preferred Alternative, particularly near Western Avenue in St. Paul. Throughout the public comment periods and

during outreach activities comments have been received regarding the need for increased bus service. .

There is always a need in major construction projects to sensitively address community-expressed needs, some of which can be quantitatively measured but many of which are beyond measure. From this perspective, it should be acknowledged that the perceived need of the community likely would extend beyond the limited areas identified in the Title VI analysis of proposed service changes for the Central Corridor LRT (See Appendix I, Central Corridor Title VI Review).

Mitigation of adverse effects related to decreases in access to transit service will be accomplished through the following action:

- As part of the Central Corridor LRT project, the Metropolitan Council will commit to preparing a targeted transit service plan for the environmental justice community identified in this analysis. This service plan will be based on regional transit service standards and accepted quantitative methods typically used by Metro Transit but will also provide for community input into the process and measures of need as expressed by and as tailored for this transit-dependent community. This plan will be completed at least six months prior to Central Corridor LRT beginning revenue service operations and will be implemented concurrent with the start of LRT service.

3.8.10 Environmental Justice Conclusions

The findings resulting from the environmental justice analysis for minority and low-income populations living within the study area of the Central Corridor LRT are as follows:

- Populations of both minority and low-income persons are present within the Central Corridor LRT area.
- Minority populations are found in the following areas:
- The University/Prospect Park segment of the corridor, specifically in the Cedar-Riverside area of Minneapolis.
- The Midway East corridor segments and most especially between Lexington Parkway and Rice Street.
- Portions of the Capitol Area and most especially in the area near I-35W, which includes the Mt. Airy Homes public housing complex.
- Low-income populations are found in the following areas:
- The University/Prospect Park segment of the corridor, specifically in the Cedar-Riverside area of Minneapolis.
- The Midway East corridor segment and most especially on the south side of University Avenue between Hamline and Lexington and then between Lexington Parkway and Rice Street.
- Portions of the Capitol Area corridor segment and most especially in the area near I-35W, which includes the Mt. Airy Homes public housing complex.

Adverse impacts of the Central Corridor LRT project have been identified. They consist of:

- Traffic LOS at three intersections in the environmental justice areas that will experience levels of service near or over capacity.
- Pascal Street and University Avenue

- Lexington Parkway and University Avenue
- Marion Street and University Avenue
- A decrease in transit service accessibility in some limited blocks in the environmental justice area near Western Avenue in St. Paul.
- Off-setting benefits of the Central Corridor LRT project have been identified.
- Mitigation of adverse effects not offset by identified project benefits is committed to address decreases in access to transit service experienced in isolated areas along the Central Corridor and is anticipated to address this adverse effect.

The required elements for determining of environmental justice impacts as specified within the FTA Title VI Circular have been addressed in this analysis. The Metropolitan Council has committed to mitigating the identified adverse impacts as stated above. The Metropolitan Council has also committed to working toward resolution of community concerns that don't rise to the level of state or federal standards of adverse impacts.