

Appendix J
Visual Resources Technical Report



Visual Resources Technical Report

May 2016
Southwest LRT Project Technical Report

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Contents

Section	Page
1 Introduction.....	J-1
2 Analysis Approach.....	J-1
2.1 Background.....	J-1
2.2 Identifying, Documenting, and Assessing Viewpoints	J-3
2.3 Assessing Visual Change.....	J-5
3 Project Description	J-6
4 Affected Environment	J-7
4.1 Eden Prairie	J-7
4.1.1 Overview	J-7
4.2 North Eden Prairie/Minnetonka/South Hopkins	J-9
4.2.1 Overview	J-9
4.3 Hopkins.....	J-10
4.3.1 Overview	J-10
4.4 St. Louis Park.....	J-11
4.4.1 Overview	J-11
4.5 Kenilworth Corridor.....	J-14
4.5.1 Overview	J-14
4.6 Minneapolis Downtown Fringe	J-16
4.6.1 Overview	J-16
5 Potential Environmental Impacts.....	J-17
5.1 Introduction.....	J-17
5.2 Eden Prairie	J-19
5.2.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts	J-19
5.3 North Eden Prairie/Minnetonka/South Hopkins	J-22
5.3.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts	J-22
5.4 Hopkins.....	J-24
5.4.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts	J-24
5.5 St. Louis Park.....	J-26
5.5.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts	J-26
5.6 Kenilworth Corridor.....	J-30
5.6.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts	J-30
5.7 Minneapolis Downtown Fringe	J-34
5.7.1 Long-Term Direct and Indirect Visual Quality and Aesthetic Impacts.....	J-34
6 Long-term Indirect Visual Quality and Aesthetics Impacts.....	J-36
6.1 No Build Alternative.....	J-36
6.2 Project.....	J-36
7 Short-term Visual Quality and Aesthetics Impacts.....	J-36
7.1 No Build Alternative.....	J-36
7.2 Project.....	J-36
8 Mitigation Measures	J-37
8.1 Long-term Mitigation Measures (Substantial and Moderate Impacts).....	J-38
8.2 Short-term Mitigation Measures.....	J-39
9 References	J-40

Tables

J-1 Existing Visual Quality by Viewpoint (Viewpoints 1 through 4).....J-8

J-2 Existing Visual Quality by Viewpoint (Viewpoints 5 and 6).....J-9

J-3 Existing Visual Quality by Viewpoint (Viewpoints 7 and 8)..... J-11

J-4 Existing Visual Quality by Viewpoint (Viewpoints 9 through 12) J-12

J-5 Existing Visual Quality by Viewpoint (Viewpoints 13 through 18) J-15

J-6 Existing Visual Quality by Viewpoint (Viewpoint 19)..... J-17

J-7 Summary of Visual Quality and Aesthetics Impacts J-18

J-8 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 1 through 4)..... J-20

J-9 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 5 and 6)..... J-23

J-10 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 7 and 8)..... J-25

J-11 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 9 through 12) J-27

J-12 Anticipated Direct Change and Impact in Visual Quality from Kenilworth Corridor Visual
Analysis Unit Viewpoints (Viewpoints 13 through 18)..... 31

J-13 Anticipated Direct Change and Impact in Visual Quality (Viewpoint 19) 35

Attachment J-1. Visual Resources Exhibits

Eden Prairie Visual Analysis Unit

- J-1 Key Viewpoint Locations
- J-2 Viewpoint 1, View Looking East from Technology Drive Toward the SouthWest Transit Center
- J-3 Viewpoint 2, View Looking South Along Prairie Center Drive at Technology Drive Toward Purgatory Creek Park
- J-4 Viewpoint 3, View from the Parking Area in Front of the Picnic Pavilion in Purgatory Creek Park, Looking East Toward Prairie Center Drive
- J-5 Viewpoint 4, Eden Road at Glen Lane Looking West

North Eden Prairie/Minnetonka/South Hopkins Visual Analysis Unit

- J-6 Key Viewpoint Locations
- J-7 Viewpoint 5, Flying Cloud Drive, View Looking Northeast Toward Nine Mile Creek
- J-8 Viewpoint 6, Trail on the West Side of the Claremont Apartments, View Looking Southeast

Hopkins Visual Analysis Unit

- J-9 Key Viewpoint Locations
- J-10 Viewpoint 7, Minnesota River Bluffs LRT Regional Trail Looking East Toward the Proposed Site of the Shady Oak Station

J-11 Viewpoint 8, View From the Area South of Excelsior Boulevard Looking East Toward the Depot

St. Louis Park Visual Analysis Unit

J-12 Key Viewpoint Locations

J-13 Viewpoint 9, Cedar Lake LRT Regional Trail, View Looking East Toward the Site of the Proposed Louisiana Station

J-14 Viewpoint 10, View From 36th Street at Brunswick Avenue, Looking West toward Jorvig Park

J-15 Viewpoint 11, Beltline Boulevard at Minnesota Highway 7, Looking South-Southeast Toward the Site of the Beltline Station

J-16 Viewpoint 12, Cedar Lake LRT Regional Trail, View Looking West

Kenilworth Corridor Visual Analysis Unit

J-17 Key Viewpoint Locations

J-18 Viewpoint 13, View From Chowen Avenue South Southwest of the West Lake Station

J-19 Viewpoint 14, Kenilworth Trail North of West Lake Street, Looking North toward the Site of the South Tunnel Portal

J-20 Viewpoint 15, Kenilworth Trail at the Southern Edge of the Kenilworth Lagoon Crossing

J-21 Viewpoint 16, View from the Channel Between Cedar Lake and Lake of the Isles, View from the East toward the Kenilworth Corridor Bridges

J-22 Viewpoint 17, View from the Burnham Road Bridge Looking Southeast down the Channel toward the Kenilworth Corridor Bridges

J-23 Viewpoint 18, View Toward the Kenilworth Corridor Crossing of West 21st Street

Minneapolis Downtown Fringe Visual Analysis Unit

J-24 Key Viewpoint Location

J-25 Viewpoint 19, Royalston Avenue North at Holden Street North, View Looking North Toward the Site of the Proposed Royalston Station

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SOUTHWEST LRT (METRO GREEN LINE EXTENSION)

APPENDIX J

1 Introduction

Visual resources are the natural and cultural features of the environment that contribute to the public's appreciative enjoyment of the environment. Visual resource impacts or impacts to the aesthetics of the natural and cultural environment are further defined in terms of a project's physical characteristics and potential visibility, and the extent that the Project's presence will change the visual character and quality of the environment in which it will be located. This technical report provides a detailed description of those resources along the Project corridor, the Project's potential visual quality impacts, and measures proposed to mitigate those impacts.

Federal regulations also require that visual impacts be addressed for Section 106 (see Section 3.4 and Appendix H for further discussion of visual effects on historic properties) and Section 4(f) properties. There is no specific federal or state visual regulatory requirement that applies to properties that are not listed or eligible for listing on the National Register, or parkland. The interim use trails located on Hennepin County Regional Rail Authority (HCRRA) property are not considered Section 4(f) properties.

In addition to the light rail improvements and freight rail improvements, the Project will also include traction power substation (TPSS) facilities. These facilities will be sited in fully developed areas, including surface parking lots, existing roadway right-of-way, and vacant parcels where feasible. The potential mitigation strategies referenced below to minimize adverse visual impacts will also apply to the TPSS facilities.

This visual resources analysis was prepared using the systematic procedure described in Section 2. It identifies both long-term and short-term (construction-related) impacts that the Project will have on visual quality, including impacts to sensitive user groups and identifies mitigation strategies to minimize impacts.

2 Analysis Approach

2.1 Background

The visual and aesthetic assessment in Section 3.7 of the Draft Environmental Impact Statement (EIS) was based on a project-specific methodology that considered visual and aesthetic resources contributing to visual quality, sensitive viewers or receptors, and changes to the character of the area, resulting in potential visual impacts categorized as low, moderate, or substantial. The methodology used to assess the visual impacts in this analysis differ from the Draft EIS. Because the Draft EIS evaluated a large number of alternatives, and it used a qualitative analysis to reach its conclusions. Because this Final EIS evaluates a single alternative for which more design information is available than at the Draft EIS phase, it is possible to use a standard visual impact assessment method that makes extensive use of drawings and photo simulations and employs a systematic evaluation protocol.

The analysis of the Project's visual quality and aesthetic effects in this Final EIS applies the principles of the standardized approach for visual impact assessment developed by the Federal Highway Administration (FHWA) (FHWA, 1988). This method has been widely adopted by state highway departments and other agencies responsible for development of transportation facilities as the standard for evaluation of Project visual effects. The FTA does not have specific visual assessment guidelines and defers to the FHWA guidance on visual impact assessment.

Federal regulations require visual impacts to be addressed for Section 106 of the National Historic Preservation Act of 1966 (Section 106) for those resources where setting is a qualifying characteristic of protected historic resources (see Section 3.5 and Appendix J for further discussion of visual impacts on historic properties). Visual impacts to a protected Section 106 resource where setting is a qualifying

characteristic of the protected resource are also required to be addressed under Section 4(f) of the Department of Transportation Act of 1966 (Section 4(f)) (see Appendix I, Final Section 4(f) Evaluation, for additional information on the Section 4(f) process and analysis).

FHWA developed its visual impact assessment methodology in response to the National Environmental Policy Act of 1969 (NEPA), which requires that consideration be given to the impacts that proposed federal actions or projects are likely to have on the environment's visual quality. This method employs a systematic approach to the evaluation of visual changes. Since its inception in the late 1980s, this method has been successfully applied by FHWA and state highway departments, as well as by other visual resource specialists, to evaluate highway and other transportation projects. It is now the standard approach for evaluating the aesthetic impacts of proposed transportation projects. The method applied in preparing this supplemental analysis is based on the principles of the FHWA methodology and was selected because it is a standardized, widely recognized approach that is highly systematic. In addition, the method relies on representative-view photographs of the Project alignment and on visualizations of the Project's appearance, which provide a tangible sense of the visual character and quality of the areas that the Project will affect, as well as an idea of how the Project will affect these visual attributes. The discussion below provides a summary of how the FHWA assessment methodology was applied to prepare this technical report and the corresponding summary section of the Final EIS (Section 3.7, Visual Quality and Aesthetics).

The FHWA visual impact assessment method is based on a set of broad criteria that considers factors such as the following:

- The overall visual and aesthetic quality of the area along the Project route
- The scale and appearance of the project's elements and their contrast with the existing features of the Project's visual setting
- The visual experience and expectations of viewers (including residents, users of parks and other public spaces, pedestrians, and motorists) looking at changes the Project will introduce

The FHWA visual impact assessment methodology includes the following steps:

- Define the Project setting and the area within which the Project is likely to be visible

Divide the project area into "visual assessment units" (VAUs)

- Determine who has views of the Project
- Identify key viewpoints for visual assessment
- Determine and document the existing visual quality of the views from the viewpoints (this is where visual sensitivity is determined)
- Prepare simulations depicting the views from the viewpoints as they will appear with the Project in place
- Based on a review of the design files, plan sheets, and simulations, and team evaluations and consultation, analyze the changes to existing visual resources
- Assess the Project's visual impacts at each viewpoint, taking into account the visual changes and viewer sensitivity
- Identify methods to mitigate adverse visual impacts

FHWA's assessment method makes use of professionally accepted concepts and terminology to characterize the physical attributes of the landscape being assessed and viewer sensitivity or concern. Some of the key concepts and terms are defined below.

- **Visual Analysis Units** are used to "break up" long linear projects into logical geographic entities for which impacts from a proposed project can be assessed. These units have been defined to encompass areas with similar visual characteristics (or character), although the visual characteristics of smaller locations within each landscape unit may differ from the overall unit's character. To assist in characterizing the existing visual conditions of the landscape units, and to assist in determining impacts

on them, viewpoints are used to provide examples of existing views of the landscape within each landscape unit. Key viewpoints (KVPs) are also used to illustrate how a proposed project would change those views. Viewpoints represent specific locations within a landscape unit from which a proposed project would be visible. The viewpoint locations are typically selected to either represent (1) “typical” views from common types of viewing areas from which a proposed project could be seen, such as a highway or residential area, or (2) specific areas such as parks, viewpoints, and historic districts that may be impacted by a proposed project. Viewpoints are useful for depicting the range of visual character and visual quality found within a landscape unit. The views from viewpoints selected for analysis serve as site-specific examples of existing visual conditions so analysts can simulate the view with the proposed project in place to assess impacts. The impact determination for an individual viewpoint may not be the same as the impact determination for the entire landscape unit in which the viewpoint is located. This is because, when determining impacts to landscape units, the entire landscape unit must be considered, not one specific location. The condition of the viewed landscape seen from a sensitive or unique viewpoint may be different than what is more typically seen in the landscape unit; thus, the impact determination to viewpoints may be different than that of the overall landscape unit.

- **Viewer groups** are defined to identify groups of people within a study area who are likely to have different levels of sensitivity toward the proposed project. Typical user groups, listed in descending order of presumed sensitivity to visual change, include residents, park and trail users, roadway/highway/rail users, viewers in commercial and office areas, and agricultural and industrial workers. Sensitivity varies among viewer types. The FHWA visual quality analysis system recognizes that most views are seen by a variety of viewer types with different sensitivities to changes in the viewed landscape. The FHWA system uses the most sensitive viewer type as the basis for determining the potential impact of a proposed project on viewers.
- **Visual quality** is an assessment of the composition of the character-defining features of the landscape. Under the FHWA visual quality analysis system, visual quality is determined by evaluating the viewed landscape’s characteristics in terms of vividness, intactness, and unity (which are defined below). Visual quality is rated as very low, low, moderately low, moderate, moderately high, high, or very high. To determine overall visual quality, the vividness, intactness, and unity of a viewed landscape are rated. The ratings of these three factors determine the overall visual quality. The following three factors determine visual quality:
 - Vividness is the degree of drama, memorability, or distinctiveness of the landscape components. Vividness is an aggregated assessment of landform, vegetation, water features, and human-made components in a view.
 - Intactness is a measurement of the visual integrity of the natural and human-built landscape, and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, as well as in natural settings. High intactness means that the landscape is free of unattractive features and is not segmented by features and elements that appear out of place. Low intactness means that visual elements that are unattractive and/or detract from the quality of the view are present.
 - Unity is the degree of visual coherence and compositional harmony of the landscape, considered as a whole. High unity can be found with an undisturbed natural landscape or in developed environments where individual components of a landscape are well designed and “fit” well in the landscape.

2.2 Identifying, Documenting, and Assessing Viewpoints

The study area analyzed extends along the Southwest Light Rail Transit (LRT) route from the SouthWest Station in Eden Prairie to the Project terminus at the existing Target Field Station north of downtown Minneapolis. This LRT route analysis also includes surrounding areas from which the Project could be visible in foreground (up to one half mile) views. One of the first steps in the visual resource analysis process was to divide the area along the LRT route into visual analysis units (VAUs) that generally include similar visual conditions, and that in some cases, take the local city’s jurisdictional boundaries into account. The six VAUs

and the exhibits on which they are mapped are Eden Prairie (Exhibit J-1), North Eden Prairie/Minnetonka/South Hopkins (Exhibit J-6), Hopkins (Exhibit J-9), St. Louis Park (Exhibit J-12), Kenilworth Corridor (Exhibit J-17), and Minneapolis Downtown Fringe (J-24).

Viewpoints

Within each of the VAUs, a sample of viewpoints was selected for analysis that represent views that are typical of conditions in the unit and which in some cases are also particularly sensitive because of the nature of the view and the numbers and types of viewers. The selection of the views used for analysis was based on a systematic process. This process began with a review of Google Earth™ aerial imagery with Project features superimposed. Informed by (1) this imagery, (2) previous viewpoint locations used in the Draft EIS and Supplemental Draft EIS, (3) consideration of comments received on the Draft EIS, and (4) review with Project team members familiar with the Project's visual context and local concerns, 31 viewpoints were identified as candidates for visual impact evaluation. These 31 candidate viewpoints included 14 from the Supplemental Draft EIS analysis (specifically from the Eden Prairie and St. Louis Park/Minneapolis areas). During spring 2014 field work, all 31 locations were visited and the corresponding views were photographed. On the basis of this field work, a review of the photographs, and the subsequent coordination/consultation process with the Project team, the 31 viewpoints were narrowed to 19 to define a set of views that was manageable but which also provided a basis for understanding the critical and typical visual issues in each of the VAUs. The locations of the final 19 viewpoints selected for simulation and analysis are indicated on the VAU maps found in Attachment J-1 (see Exhibits J-1, J-6, J-9, J-12, J-17, and J-24).

A number of the viewpoints that had been used in the Supplemental Draft EIS visual analysis were not included in the final set of 19 Viewpoints used in the Final EIS. In the Eden Prairie VAU, Supplemental Draft EIS Viewpoints 1, 2, and 3 were not carried into the Final EIS analysis because they were located along the segment of the LRT alignment between Mitchell and SouthWest Stations that was eliminated from the final definition of the Project. Supplemental Draft EIS Viewpoints 6 and 8 were eliminated because the Supplemental Draft EIS viewpoints 5 and 7 that were carried into the Final EIS captured similar impacts and provide an understanding of the impact issues in Viewpoints 6 and 8. Supplemental Draft EIS Viewpoint 10 was not carried into the Final EIS because it provided a sufficient understanding of the impacts of LRT elevated structures passing along and over roadways. The St Louis Park and Kenilworth Corridor VAUs from the Supplemental Draft EIS were treated as a single VAU in the Final EIS, referred to as St. Louis Park. In this combined analysis unit, Viewpoints 2 and 3, which captured views of an underground segment of the LRT and the backside of the underground segment's north underground to surface portal, were replaced with Final EIS Viewpoint 14. Final EIS Viewpoint 14 more fully captures the impacts of the surface to underground segments than Supplemental Draft EIS Viewpoint 3 did and captures the impacts of the tree clearing along the Kenilworth Corridor seen in Supplemental Draft EIS Viewpoint 2. A total of 19 views were selected for further assessment. The locations of these views are indicated on the VAU map exhibits (Exhibits J-1, J-6, J-9, J-12, J-17, and J-24).

The photographs taken to document the existing views toward the Project site from each of the viewpoints selected for analysis were captured with a digital camera, set to take photos equivalent to those taken with a 35-millimeter camera using a 50-millimeter focal length. For each viewpoint, one or more photo frames were selected to best represent views from the vantage point toward the Project site. In some cases, a single photo was used to represent the existing view and to serve as the basis for developing the simulation of the view with the Project in place. In other cases, where a broader view was required to capture the portion of the view potentially affected by the Project, portions of two adjacent photo frames were spliced together to create a panoramic image.

For each view, computer modeling and rendering techniques produced the simulated images of the with-project conditions. Existing topographic and site data were the basis for developing an initial digital model. Project engineers provided site plans and digital data for the LRT facilities. These elements were used to create three-dimensional digital models of the LRT tracks, catenaries, retaining walls, fences, stations, and other Project features. These models were then combined with the digital site model to produce a complete computer model of the LRT facilities. For each viewpoint, a viewer location was digitized from topographic

maps and scaled aerial photographs, based on viewer eye level of 5 feet. Computer “wire frame” perspective plots were then overlaid on the photographs of the views from the simulation viewpoints to verify scale and viewpoint location. Digital visual simulation images were produced as a next step based on computer renderings of the three-dimensional model combined with high-resolution digital versions of base photographs. Images representing the existing and simulated with-project views from each of these viewpoints are presented on exhibits for each Viewpoint that are included in the exhibit set in Attachment J-1.

Existing Visual Quality

The existing visual quality of the views from each of the viewpoints under existing and simulated with-project conditions was evaluated using the FHWA’s systematic procedure that entails application of numerical ratings. Using the FHWA methodology, the existing visual quality of each view was evaluated in terms of its vividness, intactness, and unity (which are defined below). Each of these dimensions were scored using a scale from 1 to 7 for each of these three attributes, where a low score (1) represents low visual quality and a higher score (7) represents high visual quality. The scores for these three dimensions were then added and divided by three to produce a summary rating of the view’s overall level of visual quality. This assessment considers whether this particular view is common or dramatic and whether it has a pleasing composition (a mix of elements that seem to belong together) or not (a mix of elements that either do not belong together or contrast with the other elements in the surroundings). The overall level of visual quality for each view was characterized in terms of the seven-level scale using the terms: Very Low, Low, Moderately Low, Medium, Moderately High, High, Very High. Based on the evaluation conducted, all of the views in the project area are within the middle zone of this scale, with no views with a level of visual quality lower than Moderately Low or higher than Moderately High.

Comparison of the resulting metrics for the existing and with-project conditions provided a basis for making a determination of the nature and magnitude of the visual impacts the Project will have the potential to create.

2.3 Assessing Visual Change

Degree of Visual Change

Evaluation of the visual conditions under the Project applied the same FHWA criteria and numerical rating system used for evaluating the existing view. Comparison of the *visual quality* ratings for the existing and with-Project conditions for each view provided a basis for determining the *degree of visual change* resulting from the Project, which are summarized for each viewpoint within Table J-7. The process of determining the *degree of visual change* employed the following evaluation methods:

- The *degrees of visual change* were classified as low, moderate, and high:
 - **Low degree of visual change** is assigned where the visual quality will decrease in the range of 0.1 through 0.5 points
 - **Moderate degree of visual change** would occur where the visual quality will decrease in the range of 0.6 and 1.0 points
 - **High degree of visual change** would occur where the decline in visual quality has been assessed as greater than 1.0

In the situations where the Project’s *degree of visual change* would be positive, that change was classified as a low *degree of visual change*, with a note that it was a positive visual change (only adverse changes are assigned to moderate and high *degrees of visual change*)

Level of Visual Sensitivity.

To identify the overall level of impact, the assessment of the degree of visual change was then related to the sensitivity of the view to those who see it. The *level of visual sensitivity* of each view was classified based on the following factors:

- The number and types of people who see the view.
- The length of time the view is observed. This factor was based on residents and recreational users having views of long duration, whereas motorists often experience views in short durations.
- Potential levels of viewer concern about the visual character and quality of the view. Level of concern is a subjective response that includes factors such as the visual character of the surrounding landscape, the activity a viewer is engaged in, and the viewer's values, expectations, and interests. This factor was based on residents and recreational users being more sensitive viewers and with commuters and employees in industrial areas being less sensitive viewers.

For situations where there are few viewers who experience a defined view, or when they may not be concerned with the view, a low level of sensitivity classification was applied. Situations in which there are many viewers who have high frequency or long duration views, as well as viewers who are likely to be very aware of and concerned with the view, such as viewers on trails, in recreational areas, or in residential neighborhoods, were classified as having a high level of sensitivity. Situations in between these two sets of conditions were classified as having a moderate level of sensitivity.

Level of Visual Impact.

The final determination of the Project's *level of visual impact* on the visual environment entailed taking both the *degree of visual change* and the *level of visual sensitivity* of the view into account. Based on this composite assessment of the change in visual quality combined with the sensitivity of the view, the level of impact was determined as defined below:

- **Low.** The Project will have a low *level of visual impact* where it will result in a slight change in visual character or quality, with no substantive effect on a visually sensitive area. New visual elements would be generally compatible with existing visual character, and little to no viewer response to visual changes is expected. A low level of visual impact usually results from low degree of visual change to views that have low to high degrees of visual sensitivity. Situations in which the Project would have a positive impact on visual quality were also classified as having a "low" degree of visual impact.
- **Moderate.** The Project will have a either (1) a slight change in visual character or quality, resulting in a high level of viewer response, or (2) an extensive change in visual character or quality with only a minimal viewer response. New visual elements would be somewhat compatible with existing visual character and quality. A moderate level of visual impact results where there will be a moderate degree of visual change in areas that have a low to high degree of visual sensitivity, or where there will be a high degree of visual change in areas with moderate degree of visual sensitivity.
- **Substantial.** The Project will have a substantial level of impact where there will be an extensive change to visual character or quality, or substantial effect on a visually sensitive area. New visual elements would be generally incompatible with existing visual character and quality, resulting in a high level of viewer response. A high degree visual impact results where there will be a high degree of visual change in areas with a high degree of visual sensitivity.

This system for categorizing visual impacts is useful for putting the various types of visual impacts into perspective (i.e., identifying which are major, which are borderline, and which are not much of an issue). This categorization of impacts mirrors the three-tiered categorization of visual impacts used in the analysis of similar projects within the surrounding region, which have employed the three-tiered scale to qualitatively assess the degree of visual quality effect that project elements have on higher-quality visual features.

3 Project Description

The Project, the Southwest Light Rail Transit (METRO Green Line Extension), is an approximately 14.5-mile proposed extension of the METRO Green Line (Central Corridor LRT), which will operate from downtown Minneapolis through the communities of St. Louis Park, Hopkins, Minnetonka, and Eden Prairie, passing in

close proximity to the city of Edina. The proposed alignment includes 15 new stations, additional park-and-ride spaces, and accommodations for passenger drop-off, bicycle and pedestrian access, as well as new or restructured local bus routes connecting stations to nearby residential, commercial and educational destinations. Major activity centers from Eden Prairie to St. Paul, including the Eden Prairie Center regional mall, United Health Group campuses, the Opus/Golden Triangle employment area, Park Nicollet Methodist Hospital, the Minneapolis chain of Lakes, downtowns Minneapolis and St. Paul, the University of Minnesota, and the State Capital area. Each of these areas will be accessible by a one-seat ride. Passengers will also be able to connect to the greater METRO transit system, including METRO Blue Line (Hiawatha LRT), METRO Orange Line (I-35W BRT), Northstar Commuter Rail, METRO Red Line (Cedar Ave BRT) via Blue Line, and the planned METRO Blue Line Extension (Bottineau LRT). Passengers will also have access to future commuter rail, planned Bus Rapid Transit systems, and intercity passenger rail line at one of more of the five downtown Minneapolis stations.

4 Affected Environment

4.1 Eden Prairie

4.1.1 Overview

The Eden Prairie VAU encompasses the area along the proposed LRT route in the City of Eden Prairie, extending from the SouthWest Station eastward to a point adjacent to Highway 212 north of Lake Smetana (see Exhibit J-1). In this area, the LRT will not parallel an existing rail line and will thus require creation of a combination of entirely new rights-of-way and elevated guideways. The visual environment in this VAU is characterized by suburban development. Prominent features include wide roadways, mid- to low-rise office building campuses, multi-family residential buildings, commercial buildings, water retention ponds, and Purgatory Creek Park. Many of the commercial developments and office parks in the segment have landscaping, including lawns and trees. Gently rolling hills toward the north of the segment provide topographical relief. The individual developments have architectural treatments on their façades and other specific design elements, but there are no consistent visual or design elements that link all of the developments together to create a visually integrated whole.

Four viewpoints represent areas where changes to the visual environment could potentially occur because of the Project. The locations of these viewpoints are indicated on Exhibit J-1 in Attachment J-1. Photographs depicting the existing conditions seen in the views from these locations, as well as simulations, which include an estimated 5-years of growth for any new or replacement vegetation, that depict the views as they will appear with the Project in place are presented in Attachment J-1 on the exhibits indicated in the following list.

- **Viewpoint 1** is the view looking east from Technology Drive toward the SouthWest Transit Center (Exhibit J-2).
- **Viewpoint 2** is the view looking south along Prairie Center Drive at Technology Drive. Purgatory Creek Park is visible in the foreground of the view, on the far side of Technology Drive (Exhibit J-3).
- **Viewpoint 3** is the view from the parking area in front of the picnic pavilion in Purgatory Creek Park, looking east toward Prairie Center Drive (Exhibit J-4).
- **Viewpoint 4** is the view from Eden Road at Glen Lane looking west (Exhibit J-5).

4.1.1.1 Existing Visual Quality

Table J-1 summarizes the existing visual quality of the views seen from these viewpoints, using the FHWA visual assessment criteria and rating system.

TABLE J-1
Existing Visual Quality by Viewpoint (Viewpoints 1 through 4)
[Rating Range 1 (very low) to 7 (very high)]^a

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
1	Technology Drive looking east toward SouthWest Station	View of multistory Southwest Station and parking ramp with landscaping and roadways. Architecture combines similar colors, textures. Views of Purgatory Creek Reservoir and a trail.	The architecture of the station complex and the natural appearing area along the reservoir provide a moderate level of vividness.	4	The buildings and landscaping create a medium level of intactness.	4.5	The surroundings and generally consistent architectural scale and materials create a moderately low level of unity.	3.8	4.2 Medium
2	Prairie Center Drive at Technology Drive, view looking south	View of divided arterial boulevard with large structures supporting traffic signals and road lighting. Dense landscape trees are present along the east side of the road. Purgatory Creek Park is to the west of the boulevard, with trees and lawn. A large office building is in the background.	Flat landform with low vividness. Lawns and planted trees with average level of vividness. Human-made features include roadway, support structures for signals/lighting, large, boxy office buildings. Moderately low level of vividness.	3.3	Given the presence of the visually dominant roadway and associated equipment, the visual intactness of this view is medium.	4.0	Given the somewhat visually disparate set of elements visible in this view, the overall level of visual unity is medium.	4.0	3.8 Moderately Low
3	Purgatory Creek Park, view looking east toward Prairie Center Drive	A view down a formally landscaped promenade leading toward Prairie Center Drive	Landscaped promenade creates an element of visual interest, but its overall visual effect is reduced by its small scale.	3.8	Large arterial roadway and commercial buildings in the background encroach on the view, creating a medium level of visual intactness	4	The promenade provides a visually unifying element to the view, but its visual effect is undermined by its small scale and by disharmonious elements in the background.	5	4.3 Medium
4	Eden Road at Glen Lane, view looking west	The focal point of this view is the large water tower at the top of the rise at the far end of the street that travels up the slope. A large parking lot that serves a commercial complex is partially hidden by trees along the right side of the road.	This view has a moderate level of vividness attributable to the water tower, the slight upslope of the terrain, and the thick vegetation.	4.3	Although the water tower is a landmark, it is also an encroaching element in this view, along with the parking lot. The overall level of intactness is moderate	4	The water tower provides a focal point for this view, which has a simple, clear, organization, creating a moderate level of visual unity	4.5	4.3 Medium

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

4.1.1.2 Viewer Groups and Viewer Sensitivity

Viewer groups in the Eden Prairie VAU include park users, drivers, pedestrians, workers, shoppers, and cyclists on the existing street network. Residential and park users are more sensitive to change than the other viewer groups; this is particularly true for any visual changes that might affect their enjoyment of Purgatory Creek Park.

4.2 North Eden Prairie/Minnetonka/South Hopkins

4.2.1 Overview

The North Eden Prairie/Minnetonka/South Hopkins Visual Analysis Unit encompasses the area along the proposed LRT route in the cities of Eden Prairie, Minnetonka, and Hopkins that extends from a point adjacent to Highway 212 north of Lake Smetana to a point just north of the proposed Hopkins Operational and Maintenance Facility (see Exhibit J-6). This landscape analysis unit has a heavily developed suburban character. The proposed LRT route in this area will be located in a new right-of-way that will, along part of its route, parallel limited access highways (Highways 212 and 62). Along most of the rest of its route in this analysis unit, the LRT will thread through areas developed with a mix of low-rise suburban office, commercial, warehouse, and industrial facilities. In Minnetonka and Hopkins, near Smetana Road the proposed LRT route passes along the edges of two large multi-family residential complexes.

Two viewpoints represent areas where changes to the visual environment could potentially occur as a result of the Project. The locations of these viewpoints are indicated on Exhibit J-6 in Attachment J-1. Photographs depicting the existing conditions seen in the views from these locations, as well as simulations that depict the views as they would appear with the Project in place are presented in Attachment J-1 on the exhibits indicated in the following list.

- **Viewpoint 5** is the view from Flying Cloud Drive looking northeast toward Nine Mile Creek (Exhibit J-7).
- **Viewpoint 6** is the view looking from the trail on the west side of the Claremont Apartments looking southeast along the proposed LRT right of way (Exhibit J-8).

4.2.1.1 Existing Visual Quality

Table J-2 summarizes the existing visual quality of the views seen from these viewpoints, using the FHWA visual assessment criteria and rating system.

TABLE J-2
Existing Visual Quality by Viewpoint (Viewpoints 5 and 6)
[Rating Range 1 (very low) to 7 (very high)]^a

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
5	Flying Cloud Drive, view looking northeast toward Nine Mile Creek Trail	Paved road bordered by paved walkways through an area of thick forest.	No topographic variation. Human-made features are utilitarian. Most vivid feature is dense massing of trees bordering corridor.	4	View is relatively free of visual encroachment.	5	The curving street creates a focal point. The walls of trees that frame the view provide for a sense of visual cohesion.	5	4.7 Medium

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
6	Trail on west side of Claremont Apartments, view looking southeast	Multi-story apartment building partially hidden by trees. Pedestrian walkway along a tree-covered slope.	Thick tree cover, including distinctive cluster of birches on slope create a moderate degree of vividness	4.0	View is relatively free of encroaching visual elements.	4.5	Although there is a contrast between the natural appearing wooded area on the slope and the developed and groomed area on the other side of the walkway, there is a moderate level of visual unity.	4.5	4.0 Medium

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

4.2.1.2 Viewer Groups and Viewer Sensitivity

Viewer groups in the Eden Prairie/Minnetonka/South Hopkins VAU include drivers on local roads and Highways 212 and 64, pedestrians along local streets and on trails, workers employed at the commercial, warehouse, and industrial facilities in the area and residents in the two large apartment complexes at the area’s northern end. Most viewers in the area are motorists and are less sensitive to visual change. Residents and trail users experience a higher degree of sensitivity to visual change than motorists.

4.3 Hopkins

4.3.1 Overview

The Hopkins VAU encompasses the area along the proposed LRT route in the City Hopkins that extends from a point just north of the proposed Hopkins Operational and Maintenance Facility to the boundary between the City of Hopkins and the City of St Louis Park at Texas Avenue (see Exhibit J-9). In this area, the LRT alignment will be located in a rail corridor owned by the HCRRA and which contains a freight rail line and trails. The trail segment that extends from the western edge of this analysis area to Highway 169 is part of the Minnesota River Bluffs LRT Regional Trail, and the trail segment that extends from Highway 169 to the Hopkins/St Louis Park border is part of the Cedar Lake LRT Regional Trail. Land uses adjacent to the corridor in this area are primarily industrial, retail/commercial, and office with some multi-family and single-family residential land uses. The visual setting is a built environment with industrial and utility uses typical in a freight corridor.

Mature vegetation buffers portions of the HCRRA-owned corridor between Shady Oak Road and Fifth Avenue North in Hopkins, which partially screens the views to and from surrounding industrial land uses. Between U.S. Highway 169 and Excelsior Boulevard, vegetation adjacent to the segment is primarily groundcover. Near U.S. Highway 169, the LRT corridor route begins to parallel the existing freight rail line on the south, and there is no vegetation screen between the two corridors until they cross Excelsior Boulevard. From this point east, mature vegetation exists between the two corridors for the majority of the segment traveling to the eastern limit of the analysis unit at Texas Street.

Two viewpoints represent areas where changes to the visual environment could potentially occur as a result of the Project. The locations of these viewpoints are indicated on Exhibit J-9 in Attachment J-1. Photographs depicting the existing conditions seen in the views from these locations, as well as simulations that depict the views as they will appear with the Project in place are presented in Attachment J-1 on the exhibits indicated in the following list.

- **Viewpoint 7** is the view from the Minnesota River Bluffs LRT Regional Trail looking east toward the proposed site of the proposed Shady Oak Station (Exhibit J-10).
- **Viewpoint 8** is the view from the area south of Excelsior Boulevard looking east toward The Depot, a 1903 train station that now serves as a youth coffee house and gathering place, and a staging area and rest stop for cyclists using the adjacent bike trail (Exhibit J-11).

4.3.1.1 Existing Visual Quality

Table J-3 summarizes the existing visual quality of the views seen from these viewpoints, using the FHWA visual assessment criteria and rating system.

TABLE J-3
Existing Visual Quality by Viewpoint (Viewpoints 7 and 8)
[Rating Range 1 (very low) to 7 (very high)]^a

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
7	Minnesota Bluffs LRT Trail, view looking east toward site of Shady Oaks Station	Unpaved trail extending off into the distance, framed by thick overstory and understory tree cover on both sides	The straight trail, lined with trees and extending far into the distance creates a moderately low level of vividness.	3.5	In this leaf-on view, the vegetation screens out the features of the surrounding environment that might otherwise intrude on the view, creating a high level of visual intactness.	6	The straight trail that extends off into the distance provides a focal point for the view, and the tree cover that lines up along it creates a coherent composition with a moderately high level of visual unity.	5	4.8 Medium
8	View From the Area South of Excelsior Boulevard, Looking East Toward The Depot	The area between a 1903 depot structure and the existing freight rail right-of-way, which has been developed as an outdoor plaza that is associated with the youth coffee house that occupies the depot.	The most distinctive visual elements in this view are the historic depot and the small, vividly painted shed. The other elements of this view are largely utilitarian in character.	3.5	Disparate vertical elements (light and utility poles) and railroad infrastructure intrude on the view.	2.5	The many elements of this view are disparate in form and character and do not combine to create a coherent pattern.	3	3 Moderately Low

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

4.3.1.2 Viewer Groups and Viewer Sensitivity

Viewer groups in the Hopkins VAU include pedestrians and bicyclists using the Minnesota River Bluffs and Cedar Lake LRT Regional Trails, people working in the industrial areas along the HCCRA corridor, motorists on Excelsior Boulevard, and residents of the area to the southeast of the point where the rail corridor crosses Excelsior Boulevard. Motorists and workers within the industrial areas of this VAU will generally be less sensitive to visual changes caused by the Project, while residents and trail users will be more sensitive.

4.4 St. Louis Park

4.4.1 Overview

The St. Louis Park VAU encompasses the area along the proposed LRT route in the City of St. Louis Park, extending to the City of Hopkins at Texas Avenue on the west to the boundary between the City of St. Louis

Park and the City of Minneapolis at France Avenue South on the east (see Exhibit J-12). In this area, the proposed LRT route is located within the CP property to the south of and adjacent to the HCRRA-owned rail corridor that contains a freight rail line and the Cedar Lake LRT Regional Trail. Land uses adjacent to the corridor in this area consist of a mix of industrial, retail/commercial, office, and single family and multi-family housing. Much of the visual setting is a built environment with industrial and utility uses typical in a freight corridor.

Three viewpoints represent areas where changes to the visual environment could potentially occur as a result of the Project. The locations of these viewpoints are indicated on Exhibit J-12 in Attachment J-1. Photographs depicting the existing conditions seen in the views from these locations, as well as simulations that depict the views as they will appear with the Project in place are presented in Attachment J-1 on the exhibits indicated in the following list.

- **Viewpoint 9** is the view from the Cedar Lake LRT Regional Trail, looking east toward the site of the Proposed Louisiana Station (Exhibit J-13).
- **Viewpoint 10** is the view from 36th Street at Brunswick Avenue looking west toward Jorvig Park (Exhibit J-14).
- **Viewpoint 11** is the view from Beltline Boulevard at Minnesota Highway 7, looking south southeast toward the site of the Beltline Station (Exhibit J-15).
- **Viewpoint 12** is the view from the Cedar Lake LRT Regional Trail looking west (Exhibit J-16).

4.4.1.1 Existing Visual Quality

Table J-4 summarizes the existing visual quality of the views seen from these viewpoints, using the FHWA visual assessment criteria and rating system.

TABLE J-4
Existing Visual Quality by Viewpoint (Viewpoints 9 through 12)
[Rating Range 1 (very low) to 7 (very high)]^a

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
9	Cedar Lake LRT Regional Trail, View Looking East Toward the Site of the Proposed Louisiana Station	Paved trail extending off into the distance, lined by dense vegetation, paralleled by a freight rail line that is mostly hidden behind the vegetation that lines the trail.	The straight trail extending off into the distance, lined by thick vegetation creates a moderately low level of vividness in this flat area without other distinguishing features	3.5	This view is relatively free of intrusive visual features.	4.0	The long axis created by the straight trail that extends off into the distance provides a focal point for this view, creating a moderate level of visual unity.	4.5	4.0 Medium

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
10	View from 36 th St. at Brunswick Avenue, Looking West Toward Jorvig Park	This view includes the existing rail corridor, as well as Jorvig Park, where an 1887 Milwaukee Road depot building is partially visible behind the trees at the left edge of the photo	The memorability of this view is moderately low. The most visually distinctive elements are the large trees in Jorvig Park and the partially visible depot building.	3.8	Visually intrusive elements in this view, including the rail corridor, a pile of railroad ties alongside it, a large power pole, a light pole, and visually intrusive traffic signage all detract from the visual intactness of this view	3.0	Because the disparate elements of this view do not combine to create a coherent whole, the level of visual unity is moderately low.	3.0	3.3 Moderately Low
11	View from Beltline Boulevard at Minnesota Highway 7 looking south/south east toward the site of the Beltline Station.	This view includes Beltline Boulevard and the signs and other roadway appurtenances, the roadway crossing of the rail/trail corridor, and the partially developed area to the east of the boulevard that is occupied by tall trees along its southern edge, an open grassed area, and a one-story commercial building.	This view is relatively prosaic. The most visually distinctive elements are the large trees seen against the sky at the southern edge of the area on the east side of Beltline Boulevard. The overall level of memorability is moderately low.	3.5	Visually intrusive elements in this view, the visual clutter created by the multiple road signs along the boulevard, the bright orange road divider at the approach to the rail-trail crossing, the bright white commercial building on the east side of the road, and the lack of landscaping in the parking area in front of it. The overall level of intactness is moderately low.	3.5	The disparate elements of this view do not combine to create a coherent whole. Therefore, the visual unity of this view is moderately low.	3	3.3 Moderately Low
12	Cedar Lake LRT Regional Trail, View Looking West	View includes the paved Cedar Lake Trail, a band of trees that separates the trail from the freight rail line, and a second band of trees that screens an apartment complex.	The thick band of trees that borders the slightly curving trail creates a moderately low level of vividness.	3.5	This view is relatively free of intrusive visual elements.	4.5	The thick band of trees along the curving trail unifies the elements of the view, creating a moderate level of visual unity.	4.0	4.0 Medium

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

4.4.1.2 Viewer Groups and Viewer Sensitivity

Pedestrians and bicyclists using the Cedar Lake LRT Regional Trail, which parallels the proposed LRT alignment, and users of several parks and neighborhoods of single-family residences and multifamily complexes that that lie adjacent to the freight rail and trail corridor in this area will be highly sensitive to visual changes brought about by the Project. Motorists using the roadway that cross the freight rail and trail corridor and viewers in the several industrial areas located along this segment will be less sensitive.

4.5 Kenilworth Corridor

4.5.1 Overview

The Kenilworth Corridor VAU is located within the City of Minneapolis. It encompasses the area along the proposed LRT route that extends from the boundary between the cities St. Louis Park and Minneapolis, eastward to I-394 (see Exhibit J-17). In this area, the LRT will be located in a corridor owned by the HCRRA that contains a freight line that is paralleled by the Kenilworth Trail, which consists of separate lanes for bicycles and pedestrians (generally). Although the westernmost end of this this corridor passes through an area characterized by multi-family housing complexes and shopping centers, most of the corridor is bordered by neighborhoods of single-family and multi-family residences and by parklands. For the most part, the freight rail and trail corridor are fringed by overstory and understory deciduous vegetation, which in the summer, screens views into the corridor. During the leaf-off season, the degree to which the vegetation screens views from the surrounding area into the corridor is reduced. There are some areas of clearing at several locations along the right-of-way that open up the bicycle and pedestrian trail to views to and from the surrounding urban environment. For example, at locations where the trail crosses roads, there are cleared areas adjacent to residential developments, and at the open, maintained trail corridor north of Burnham Road. Within the corridor views from the trails, including the trails themselves, the freight rail line, the freight trains of varying length that travel in the corridor, and the thick bands of vegetation that border the corridor. The views from the trails also include occasional views of adjacent residential development and occasional views of the distant Minneapolis skyline in the background. One of the areas of special visual interest along this segment of the proposed LRT route is the location where the Kenilworth Corridor crosses the Kenilworth Channel, which connects Cedar Lake with Lake of the Isles. Views from the trail toward the channel are limited because of the thick vegetation that surrounds the trail (Exhibit J-20). For boaters and for wintertime cross-country skiers using the channel, the rustic trestle bridge that carries the trails and the freight rail line across the channel is a visually distinctive and dominant element of the view.

Six viewpoints provide representative views of areas along the corridor where the Project has the potential to change to the visual environment. The locations of these viewpoints are indicated on Exhibit J-17. Photographs depicting the existing conditions seen in the views from these locations, as well as simulations that depict the views as they will appear with the Project in place are presented in Attachment J-1 on the exhibits indicated in the following list.

- **Viewpoint 13** (Exhibit J-18) is from Chowen Avenue South southwest of the West Lake Station.
- **Viewpoint 14** (Exhibit J-19) is on the Kenilworth Trail at a point just north of West Lake Street, looking north toward the site of the South Tunnel Portal. The view looks north along the bike and pedestrian trails. The freight rail line is located behind the weeds vegetation that border left side of the trail.
- **Viewpoint 15** (Exhibit J-20) is on the Kenilworth Trail at the southern edge of the Kenilworth Lagoon crossing over the channel that connects Cedar Lake with Lake of the Isles. The view looks north along the combined bike and pedestrian trail. The freight rail line is visible to the left of the trail. The railing of the bridge over the channel is visible along the left and right sides of the trail.
- **Viewpoint 16** (Exhibit J-21) is from the channel that connects Cedar Lake with Lake of the Isles via the Kenilworth Lagoon. The view was taken from the channel at a point east of where the freight rail line and parallel bike and pedestrian trail cross the channel.
- **Viewpoint 17** (Exhibit J-22) is from the Burnham Road Bridge over the channel that connects Cedar Lake with Lake of the Isles via the Kenilworth Lagoon. The view looks southeast down the channel toward the existing freight rail bridge.
- **Viewpoint 18** (Exhibit J-23) is from West 21st Street at Thomas Avenue South. The view looks northwest toward Kenilworth Corridor. Although the corridor is mostly hidden behind the thick tree cover, the freight rail line and Kenilworth Trail are glimpsed at the point at which they cross West 21st Street.

4.5.1.1 Existing Visual Quality

Table J-5 summarizes the existing visual quality of the views seen from these viewpoints, using the FHWA visual assessment criteria and rating system.

TABLE J-5
Existing Visual Quality by Viewpoint (Viewpoints 13 through 18)
[Rating Range 1 (very low) to 7 (very high)]^a

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
13	View from Chowen Avenue Southwest of site of the West Lake Station	Paved city street, on-street parking and no sidewalks bordered by low vegetation and dense rows of overhanging trees. Break in trees provides partial view into rail and trail corridor bordered at the far side by a dense mass of tall trees.	No topographic variation. The paved street is the only visible human-made element. The tree canopy over the street and the mass of trees bordering the far side of the rail and trail corridor are the most memorable elements.	4	View is relatively free of visual encroachment. The most visually intrusive elements are the cars parked along the street.	5	The parallel street and rail/trail corridors framed by dense walls of trees create a degree of visual cohesion, but the view does not have focal point or a high level of visual organization.	4.5	4.5 Medium
14	Kenilworth Trail North of West Lake Street, Looking North toward the Site of the South Tunnel Portal	Paved bike and pedestrian trails paralleled by a freight rail line that is mostly hidden the trees along the trail.	No topographic variation. Trees bordering corridor the most memorable element.	3.8	View is free of visual encroachment except for the chain link fence along the trail.	5	Unity of the view is moderately high because of the orderly arrangement of the view's elements	5	4.6 Medium
15	Kenilworth Trail at Southern Edge of the Kenilworth Lagoon Crossing	Wide, paved trail paralleled by a narrow, at-grade freight rail line, cutting through an area of overstory and understory deciduous vegetation. Rustic split rail fence separates trail from rail line. View includes at-grade bridges that cross over channel.	No topographic variation. Human-made features mostly utilitarian. Most vivid feature is dense massing of trees bordering corridor.	4	View is relatively free of visual encroachment. Visual intrusiveness of freight rail line is reduced by its small scale and location behind the split rail fence.	5	Parallel trail and rail corridors framed by dense wall of trees create a cohesive visual pattern.	6	5.0 Moderately High

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
16	View from the Channel between Cedar Lake and Lake of the Isles – View from the East toward the Kenilworth Corridor Bridges	Waterway framed by banks with a dense cover of understory and overstory deciduous trees. Rustic and massive appearing trestle constructed of heavy timber is the focal point of the view.	Water and sloped banks add to vividness of view, along with dense massing of trees, and distinctive-looking trestle.	4.8	View is relatively free of visual encroachment. Heavy construction of trestle that partially blocks view down the channel creates an element of encroachment.	5	The view’s elements generally combine to create a coherent composition.	5.5	5.1 Moderately High
17	View from Burnham Road Bridge looking Southeast down the Channel toward the Kenilworth Corridor Bridges	Linear channel defined by banks with a dense cover of deciduous trees that arch over the water expanse. Railroad bridge serves as the focal point of the view.	Linear water surface and border of trees contribute to a moderately high level of vividness, along with the simple appearing trestle structure.	5	View is relatively free of visual encroachment. In this view, the sight lines permit the view of the channel to continue under the trestle.	6	The organization of the view’s elements around the channel that runs through the center of the view creates a visually strong composition.	6	5.6 Moderately High
18	View toward the Kenilworth Corridor Crossing of West 21st Street	Street intersection bordered by tall thick trees. View toward point where rail/trail corridor through heavily forested area crosses a two-lane street	No topographic variation. The human-made elements include the paved streets, the bike trail, and rail lines as they cross the streets. The tree masses that border the streets, and the glimpse of the cleared rail/trail corridor through the thick trees create a medium degree of memorability	4	View is relatively free of visual encroachment.	5	The view up the tree-bordered road provides a focal point for the view, and the hint of the rail/trail corridor cut through the forest provides a point of visual interest.	4.5	4.5 Medium

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

4.5.1.2 Viewer Sensitivity

The sensitive viewer groups present in the Kenilworth Corridor VAU include adjacent residents and recreational users of the trails and the channel connecting the lakes, who have a high level of visual sensitivity.

4.6 Minneapolis Downtown Fringe

4.6.1 Overview

The Minneapolis Downtown Fringe VAU encompasses the area along the proposed LRT route in the City of St. Minneapolis that extends from I-394 eastward to the route’s terminus at the Target Field Station (see Exhibit J-24). From I-394 to Royalston Avenue, this segment of the proposed LRT is a below-grade rail

corridor that is now occupied by a freight rail line and the eastern segment of the Cedar Lake LRT Regional Trail. Land uses along the corridor consist of a mixture of rail lines, roadways, industrial uses, and to the north of the corridor, Bryn Mar Meadows Park. At Royalston Avenue, the route leaves the below-grade rail corridor and travels north along Royalston Avenue and then curves east through an industrial area to arrive at the Target Field Station.

One viewpoint has been selected to represent areas where changes to the visual environment could potentially occur because of the Project. This viewpoint is Viewpoint 19, located on Royalston Avenue at Holden Street North; it provides a view looking north along Royalston Street toward the site of the Royalston Station. The location of this viewpoint is indicated on Exhibit J-24, and images documenting the existing view and the simulated with-project view are provided on Exhibit J-25.

4.6.1.1 Existing Visual Quality

The existing visual quality of the views seen from Viewpoint 19, using the FHWA visual assessment criteria and rating system, is summarized in Table J-6.

TABLE J-6
Existing Visual Quality by Viewpoint (Viewpoint 19)
[Rating Range 1 (very low) to 7 (very high)]^a

View Point	Viewpoint Description	Elements of the Visual Environment	Existing Visual Quality						Overall Visual Quality Rating (Scale of 1-7; 7=very high and 1=very low)
			Vividness		Intactness		Unity		
			Description	Rating	Description	Rating	Description	Rating	
19	Royalston Avenue North at Holden Street North, View Looking North Toward the Site of the Proposed Royalston Station	View looking up a street with a landscaped median that passes through an area with a commercial and industrial character	The vividness of this view is low. The only distinguishing feature is the wide median in the middle of the street, with its grass and trees.	2.6	There are many visually intrusive elements in this view, including industrial stacks, a tall chain link fences tall utility poles,	2.0	The disparate elements of this view do not combine to create a coherent whole.	2.5	2.4 Moderately Low

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

4.6.1.2 Viewer Sensitivity

The sensitive viewer groups including people hiking and biking on the Cedar Lake LRT Regional Trail and the residents of the shelter located to the north of the proposed Royalston Station. These groups will be most sensitive to the visual changes brought about by the Project, while those traveling and working in the industrial area between Royalston Avenue North and the Target Field Station will be less sensitive.

5 Potential Environmental Impacts

5.1 Introduction

This section identifies the potential long-term direct and indirect impacts, along with short-term changes resulting in visual and aesthetic impacts that the Project will bring about in each of the VAUs. This analysis focuses on the changes that will occur in the views seen from representative viewpoints identified in each of the units.

The effects of the Project on each of the 19 viewpoints used for analysis are summarized in Table J-7. This table is followed by sections that provide an analysis of the visual changes in each of the VAUs and the impacts to each of the viewpoints analyzed. This assessment of the impacts by VAU and viewpoint is followed by a section that proposes a set of measures to mitigate the visual impacts identified.

TABLE J-7
Summary of Visual Quality and Aesthetics Impacts

VAU	Viewpoint	Ratings		
		Degree of Visual Change	Visual Sensitivity	Level of Impact
Eden Prairie	Viewpoint 1 View Looking East from Technology Drive Toward the SouthWest Transit Center	Low	High	Low
	Viewpoint 2 View Looking South along Prairie Center Drive at Technology Drive Toward Purgatory Creek Park	High	Moderate	Moderate
	Viewpoint 3 View from the Parking Area in Front of the Picnic Pavilion in Purgatory Creek Park, Looking East Toward Prairie Center Drive	Moderate	High	Moderate
	Viewpoint 4 Eden Road at Glen Road Looking West	Moderate	High	Moderate
North Eden Prairie/Minnetonka/South Hopkins	Viewpoint 5 Flying Cloud Drive, Looking Northeast Toward Nine Mile Creek ^b	High	Moderate	Moderate
	Viewpoint 6 Trail on the West Side of the Claremont Apartments, View Looking Southeast	High	High	Substantial
Hopkins	Viewpoint 7 Minnesota Bluffs LRT Regional Trail Looking East Toward the Proposed Site of the Shady Oak Station	High	High	Substantial
	Viewpoint 8 View from the Area South of Excelsior Boulevard Looking East Toward The Depot	Low ^a	Moderate to High	Low
St. Louis Park	Viewpoint 9 Cedar Lake LRT Regional Trail, View Looking East toward the Site of the Proposed Louisiana Station	High	High	Substantial
	Viewpoint 10 View From 36th Street at Brunswick Avenue, Looking West Toward Jorvig Park	Moderate	Moderate to High	Moderate
	Viewpoint 11 Beltline Boulevard at Minnesota Highway 7, Looking South-Southeast Toward the Site of the Beltline Station	Low ^a	Moderate	Low
	Viewpoint 12 Cedar Lake LRT Regional Trail, View Looking West	High	High	Substantial
Kenilworth Corridor	Viewpoint 13 View from Chowen Avenue South Southwest of the West Lake Station	Low	High	Low
	Viewpoint 14 Kenilworth Trail North of West Lake Street, Looking North toward the Site of the South Tunnel Portal	High	High	Substantial

VAU	Viewpoint	Ratings		
		Degree of Visual Change	Visual Sensitivity	Level of Impact
	Viewpoint 15 Kenilworth Trail at Southern Edge of the Kenilworth Lagoon Crossing	Moderate	High	Moderate
	Viewpoint 16 View from the Channel Between Cedar Lake and Lake of the Isles, View from the East toward the Kenilworth Corridor Bridges	Low	High	Low
	Viewpoint 17 View from the Burnham Road Bridge Looking Southeast down the Channel toward the Kenilworth Corridor Bridges	High	High	Substantial
	Viewpoint 18 View Toward the Kenilworth Corridor Crossing of West 21st Street	Low ^a	High	Low
Minneapolis Downtown Fringe	Viewpoint 19 Royalston Avenue North at Holden Street, Looking North Toward the Site of the Proposed Royalston Station	Low ^a	Low to Moderate	Low

^a The degree of visual change for these four viewpoints (Viewpoints 8, 11, 18, and 19) would result in a positive change, as described in Section 3.7.1

^b The project includes both a partial property acquisition and temporary construction easement with the Nine Mile Creek Conservation Area. The conservation area also includes an easement for scenic preservation purposes over and above land. The partial acquisition associated with the project and within the Nine Mile Creek Conservation Area will require a permanent boundary adjustment to the limits of this conservation area, including the limits of the easement for scenic preservation purposes.

5.2 Eden Prairie

5.2.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts

New elements introduced with the Project in the Eden Prairie Landscape Analysis Unit (Exhibit J-1) will consist of light rail guideway (some at-grade and some structured), including tracks, signal systems, and overhead wires, stations, structured and surface park-and-ride lots, and TPSS's. The visual impacts of the at-grade segments of the LRT and of the stations located in this landscape unit will not be substantial because they will be located in areas that are already developed and where they are located adjacent to major streets that already visually dominate views. In the short segments to the east of the SouthWest Station and along flying Cloud Drive at the intersection with Prairie Center Drive where the LRT will be on elevated structures, these structures will be visually dominant features that will contrast with their settings that will have the potential to create substantial impacts.

This summary of the impacts in this VAU is supported by Exhibits J-2 through J-5 in Attachment J-1. These Exhibits present photographs of the existing view from each of the viewpoints selected for analysis and simulations that depict the view as it will appear with Project elements in place. Comparison of the simulation with the photo of the existing view provided a basis for making a determination of the visual change the Project would bring about and the nature and level of any visual impacts that will result.

Table J-8 summarizes the anticipated visual changes that will occur within each of the four Eden Prairie Segment analysis viewpoints, and evaluates the changes to visual quality through application of the FHWA visual impact assessment system to assess the view as it will appear with the Project in place. An assessment was made of each of the three landscape dimensions (vividness, intactness, and unity), rating each dimension using the seven-point evaluation scale. Comparison of these scores and the overall score versus the scores for the view's existing condition provided a basis for pinpointing the nature and degree of the changes to the view's level of visual quality. A brief narrative following the table summarizes the visual changes and the nature and degree of visual impact to each of the views.

TABLE J-8
 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 1 through 4)
[Rating Range 1 (very low) to 7 (very high)]

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
<p>1. Technology Drive looking east toward SouthWest Station.</p> <p>A new parking ramp will extend from the west side of the SouthWest Transit Center, and the area between this parking ramp and Technology Drive will be converted to access drives.</p>	<p>The overall level of vividness of this view, which is currently moderate, will be slightly reduced, reflecting the removal of some of the landscaping in the area in front of the transit center by the new parking ramp's blockage of the SouthWest Station's curved roof, which currently provides a measure of visual interest to this view.</p>	3.8	<p>The intactness of this view will be reduced slightly by removal of some landscaping currently visible in front of the Transit Center and by the additional structural mass added by new parking ramp.</p>	4	<p>The level of visual unity will remain about the same. Although the LRT facilities will add more built elements to the view, their forms and arrangement will be visually consistent with the view's other built features</p>	3.8	3.9	From 4.2 to 3.9 Low
<p>2. Prairie Center Drive at Technology Drive, view looking south</p> <p>A concrete elevated light rail structure will travel along the western edge of the roadway, adding a visually prominent structure to the setting that will split the view.</p>	<p>The overall level of vividness of this view, which is currently moderately low, will remain the same.</p>	3.3	<p>The intactness of this view will be substantially reduced by addition of the large, visually dominant LRT structure in the immediate foreground.</p>	1.5	<p>The level of visual unity will decrease because the elevated LRT structure will split the view</p>	3.5	2.8	From 3.8 to 2.8 High
<p>3. Purgatory Creek Park, view looking east toward Prairie Center Drive</p> <p>A concrete elevated light rail structure along eastern edge of park, adding a prominent structure to the setting. Landscape trees between the park's primary use areas and the elevated structure will partially screen the structure and partially integrate it into the view. Over time, with tree growth, the degree of visual integration will increase.</p>	<p>The addition of the elevated LRT structure will create a slight increase in the overall vividness of this view.</p>	4.3	<p>The overhead LRT structure will intrude on the view and contrast with the visual character of the other elements in the view, reducing the overall level of visual intactness.</p>	2	<p>The level of visual unity will decrease somewhat because of the contrast of the constructed forms of the LRT structure with the park features in the foreground of the view.</p>	4	3.4	From 4.1 to 3.4 Moderate

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
4. Eden Road at Glen Lane, view looking west. The light rail tracks and catenaries will be visible alongside Eden Road, and the tree removal required to insert the LRT facility will open up views toward the existing Redstone American Grill. The continuation of Leona Road into the site of the future Eden Prairie Town Center Station is shown in the area to the right of the base of the water tower. This feature is barely detectable and will have little effect on the visual quality of this view.	The level of vividness of this view will remain essentially the same.	4.3	The intactness of the view will be reduced by the removal of the large trees that now line the northern edge of Eden Road, by the insertion of the tracks and the visually intrusive catenary structures and wires, and by the revealing of the shopping center structures that are now hidden.	3.0	The level of visual unity of the view will remain about the same because the LRT facilities will create linear features that will parallel Leona Road and lead the eye toward the water tower that is the focal point of the view.	3.8	3.7	From 4.3 to 3.7 Moderate

^a Scale is from *Visual Impact Assessment for Highway Projects* (FHWA, 1988).

Viewpoint 1 - View Looking East from Technology Drive toward the SouthWest Transit Center (Exhibit J-2)

Overall Level of Impact: Low

A structured park-and-ride lot will extend from the west side of the SouthWest Transit Center, and the area between this parking ramp and Technology Drive will be converted into access drives. Based on the of the Project feature implementations, developments as described above, there will be a slight increase in the perceived intensity of development of this view. The view’s level of vividness will decrease slightly because of removal of the landscaping in front of the station and because of the parking ramp’s blockage of the SouthWest Station’s curved roof. The level of visual intactness will decrease to a small degree because of the removal of the landscaping in front of the transit center and the increase in building mass related to the addition of the new parking ramp. The overall visual unity of the view will remain the same. The overall change in the level of visual quality of this view will be low. Given the recreational use of the trail along the south side of Technology Drive, and the presence of residential viewers in the apartment buildings on the north side of Technology Drive, the viewers in this area include those with high levels of sensitivity. The combination of a low level of visual change and a high level of visual sensitivity results in a level of impact that is low.

Viewpoint 2 - View Looking South Along Prairie Center Drive at Technology Drive Toward Purgatory Creek Park (Exhibit J-3)

Overall Level of Impact: Moderate

A concrete elevated light rail structure will travel along the western edge of the roadway, adding a visually prominent structure to the setting that will split the view. With the addition of the overhead structure, the visual character of this view will be changed by the enclosed view and the greatly increased level of development. The overall level of vividness of this view, which is currently moderately low, will remain the same. The intactness of this view will be substantially reduced by addition of the large, visually dominant LRT structure in the immediate foreground. The level of visual unity will decrease because the elevated LRT structure will split the view. The overall change to the level of visual quality will be high. Given the high

degree of change to visual quality and the moderate sensitivity of the roadway users in this area, the overall level of impact is moderate.

Viewpoint 3- View From the Parking Area in Front of the Picnic Pavilion in Purgatory Creek Park, Looking East toward Prairie Center Drive (Exhibit J-4)

Overall Level of Impact: Moderate

A concrete elevated light rail structure will be built along the eastern boundary of the park, adding a visually dominant linear element to the setting that will frame the park's eastern edge. Landscape trees between the park's primary use areas and the elevated structure will partially reduce the structure's visibility and partially integrate it into the view. The overhead LRT structure will intrude on the view and contrast with the visual character of the other elements in it. Consequently, there will be a reduction in the view's levels of intactness and unity. The overall reduction in visual quality will be moderate. This view, based on the recreational viewers in the park, is highly sensitive. The moderate degree of visual change, combined with the high level of visual sensitivity will result in a moderate level of impact.

Viewpoint 4 - Eden Road at Glen Lane Looking West (Exhibit J-5)

Overall Level of Impact: Moderate

In this area, the LRT will be sited along the northern edge of Eden Road. This will require removing the trees along Eden road that now screen the views into the parking lot of the Redstone American Grill and installation of at-grade tracks, catenaries, and perimeter fences. In addition, Eden Road will be modified, including a new access road into future Eden Prairie Town Center Station at the top of the hill to the right of the water tower. The station's features will not be visible in this view. With the implementation of these changes, the view's level of vividness will remain essentially the same. The intactness of the view will be reduced by the removal of the trees that now line the northern and southern edges of Eden Road, by the building of the visually intrusive, tracks and OCS, and by the revealing of the commercial center structures that are now hidden. The level of visual unity will remain about the same because the LRT facilities will create linear features that will parallel Eden Road and lead the eye toward the water tower that is the focal point of the view. The overall degree of change in the visual quality of this view will be moderate. The viewers in this area include motorists on Eden Road and employees and customers of the commercial uses. Because of the pedestrian amenities the City of Eden Prairie has been installing in this area, the viewers also include substantial numbers of pedestrians. Because of the presence of these pedestrians, the visual sensitivity of the viewers in this area is high. When the moderate degree of visual change is considered in the context of the high sensitivity of the viewers, the overall level of visual impact will be moderate.

5.3 North Eden Prairie/Minnetonka/South Hopkins

5.3.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts

In the North Eden Prairie/Minnetonka/South Hopkins VAU (Exhibit J-6), the Project will require insertion of light rail guideway of which about 60 percent will be at grade and 40 percent on elevated structures; stations; structured and surface park-and-ride lots; and TPSS's. For the most part, the visual impacts of the at-grade segments of the LRT and of the stations located in this landscape unit will not be substantial because they will be located in areas that are already developed and where views are dominated by existing transportation infrastructure. The new bridge carrying the LRT over U.S. 212 are located in an area already dominated by transportation infrastructure and will not be seen by sensitive viewers, so its visual impact will not be substantial. There will be a moderate level of visual impact in the area along Flying Cloud Drive, near the Nine Mile Creek Conservation Area, seen from Viewpoint 6 where the overhead LRT structure will dominate and contrast with the existing visual setting in an area where the level of visual sensitivity is moderate. There is a potential for a high level of visual impact in the area south of Smetana Road seen in the view from Viewpoint 7 where removal of vegetation on a hillside and construction of a 9- to 20-foot retaining wall topped by a noise barrier to create an elevated roadbed for the LRT that will degrade the view from an adjacent trail and apartment complex. North of Smetana Road, construction of the LRT will require clearing thick tree cover and building a long bridge structure to cross over ponds and existing freight rail lines.

Because this structure will intrude on the views seen by sensitive viewers in the multi-family development located on the east edge of the corridor the visual impacts have the potential to be substantial.

Exhibits J-7 and J-8 in Attachment J-1 present photographs of the existing view from each viewpoint selected for analysis and simulations that depict the view as it will appear with the Project elements in place.

Table J-9 summarizes the anticipated visual changes that will occur within each of the two viewpoints in this segment, and evaluates the changes to visual quality through application of the FHWA visual impact assessment system to assess the view as it will appear with the Project in place. Comparison of the FHWA evaluation scores and the overall score versus the scores for the view’s existing condition provided a basis for pinpointing the nature and degree of the changes to the view’s level of visual quality. A brief narrative following the table summarizes the visual changes and the nature and degree of visual impact to each of the views.

TABLE J-9
 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 5 and 6)
[Rating Range 1 (very low) to 7 (very high)]

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
5. Flying Cloud Drive, view looking northeast toward Nine Mile Creek Trail. The LRT will be carried on an elevated structure that will parallel the north side of Flying Cloud Drive, pass over it, and then travel into the wooded area on the south side of the road, where some tree clearing will be required to accommodate the right-of-way.	The presence of the elevated LRT structure will have a mixed effect on the vividness of this view. It will partially block the view of the thick forest cover reducing the contribution of the forest to the vividness of the view. However, as a visually striking addition to the view, it will add to the vividness of the view’s human-made elements. Thus, the overall level of vividness will remain the same.	4	The intactness of the view will be reduced by the addition of the visually dominant elevated LRT structure and catenaries and the creation of a cleared corridor through the dense forest on the south side of the road.	2	The addition of the visually dominant LRT overhead structure will change the visual composition of the view, Although the view of the tree backdrop that currently makes a substantial contribution to visual unity will be partially screened, the LRT structure will add a visually unifying element that extends across the entire view. As a consequence, the level of visual unity will be only slightly reduced.	4.5	3.5	4.7 to 3.5 High
6. Trail on the west side of the Claremont Apartments. View looking southeast The LRT tracks and catenaries will be located on the slope adjacent to the trail, requiring removal of the dense tree cover that now lines the trail, and construction of a high retaining wall and noise wall.	Removal of the thick tree cover that lines that trail will remove an important element that contributes to the existing level of vividness of this view.	3.5	The retaining and noise wall, which will extend up to 28 feet in height, and which will be located immediately adjacent to the trail, will intrude on this view, reducing its level of visual intactness	2.5	Disruption of the continuous band of trees along the trail will reduce the view’s level of visual unity.	2.5	3.2	From 4.0 to 2.8 High

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

Viewpoint 5 – Flying Cloud Drive, View Looking Northeast Toward Nine Mile Creek (Exhibit J-7)**Overall Level of Impact: Moderate**

In the area encompassed in this view, the light rail alignment will travel on an overhead structure that will parallel the western side of Flying Cloud Drive, pass over it, and then travel into the wooded area on the eastern side of the road. The predominant visual resources in this area include a bucolic natural setting surrounding the immediate area with mature trees. Tree clearing will be required to accommodate the right-of-way. The presence of the elevated light rail alignment structure will have a mixed effect on the vividness of this view. The intactness will be reduced by the addition of the visually dominant elevated light rail structure and OCS and the creation of a cleared corridor through the wooded area on the eastern side of the road. The addition of the visually dominant light rail alignment overhead structure will change the visual composition. Although the view of the tree backdrop that currently makes a substantial contribution to visual unity will be partially screened, the LRT structure will add a visually unifying element that extends across the entire view. As a consequence, the level of visual unity will be only slightly reduced. Although the immediate context of this view appears to be an undeveloped, forested area, the reality is that this area part of a district of Eden Prairie that is primarily devoted to large office parks. Thus, the overall visual character of this district is that of a highly developed suburban office park landscape. Given the utilitarian function of this district, the visual sensitivity of motorists and pedestrians in the area along Flying Cloud Drive is moderate. When the high degree of visual change is considered in the context of the moderate sensitivity of the viewers in the area, the level of visual impact will be moderate.

Viewpoint 6 – Trail on the West Side of the Claremont Apartments. View Looking South (Exhibit J-8)**Overall Level of Impact: Substantial**

In the area seen in this view, development of the light rail alignment will require removing existing trees that currently cover a slope bordering the western side of the trail building. A high concrete retaining and noise wall will be built to create a flat, elevated right-of-way for the light rail alignment tracks. Removal of the thick tree cover that lines that trail provides will remove an important element that contributes to the existing level of vividness of this view. The retaining and noise wall, which will extend up to 28 feet in height, and which will be located immediately adjacent to the trail, will intrude on this view, reducing its level of visual intactness. Disruption of the continuous band of trees along the trail will reduce the view's level of visual unity. The overall effect of these changes will be to create a high decrease in the view's level of visual quality. This view is seen by residents of the apartment complex to the east, and by those using the trail that lies at the base of the slope on which the LRT will be located. Given the high sensitivity of the viewers in this area, the high degree of change to view quality will translate into a level of impact that is substantial.

5.4 Hopkins**5.4.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts**

In the Hopkins VAU (Exhibit J-9), the LRT will be located entirely at-grade within the HCRRA corridor, except in the area of Excelsior Boulevard. An elevated bridge structure will be required to cross Excelsior and allow the freight rail line to cross under the LRT thereby shifting to a new location on the north side of the corridor. The proposed Shady Oak, Downtown Hopkins, and Blake Stations, which will be located in this unit, will each include parking areas. The visual impacts of most of the at-grade segments of the LRT will not be substantial. Because the stations will be constructed in areas which already have a developed character, their visual impacts will be less than substantial as well. The bridge structure over Excelsior Boulevard has the potential for substantial impacts, because of its possible effects on views from a small number of nearby residences. In the segment east of Excelsior Boulevard, the relocated freight line will require a shift in the existing trail to the northern edge of the corridor. The relocation of the freight line and the trail will require elimination of much of the tree cover that now lines the trails. In this area, the visual impacts of the Project have the potential to be substantial. Viewpoint 9 (Exhibit J-13), which is located in a nearby area of the St. Louis Park VAU is representative of the nature and extent of the visual changes that will occur in this segment of the corridor in the Hopkins VAU.

Exhibits J-10 and J-11 in Attachment J-1 present photographs of the existing view from each of the viewpoints in the Hopkins VAU that were selected for analysis and simulations that depict the view as it will appear with the Project elements in place.

Table J-10 summarizes the anticipated visual changes that will occur within each of the two viewpoints in this segment, and evaluates the changes to visual quality through application of the FHWA visual impact assessment system to assess the view as it will appear with the Project in place. A brief narrative following the table summarizes the visual changes and the nature and degree of visual impact to each of the views.

TABLE J-10
 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 7 and 8)
[Rating Range 1 (very low) to 7 (very high)]

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
<p>7. Minnesota Bluffs LRT Regional Trail, view looking east toward site of proposed Shady Oaks Station</p> <p>The trail alignment will be changed to curve to the right, and much of the vegetation that now lines the trail will be removed. The vegetation removal will open up a view toward the extension of 17th Avenue that will be seen in the foreground of the view, the LRT tracks and catenaries, and the proposed Shady Oak Station; in addition, the vegetation removal will open up the view toward the existing single story industrial and warehouse buildings located in the area on the east side of the 17 Avenue Extension.</p>	<p>The removal of the corridor of trees, which is a major contributor to the existing level of vividness of this view will lead to a substantial drop in vividness.</p>	2.5	<p>The substantial removal of vegetation and the introduction of new built elements as well as visual exposure of the industrial/warehouse area across the 17th Avenue Extension will substantially reduce the existing level of visual intactness of this view.</p>	2	<p>The disparate elements that will become visible in this view will combine to create a composition with only a moderately low degree of visual cohesion.</p>	3.5	2.7	From 4.8 to 2.6 High
<p>8. View Looking East Toward The Depot</p> <p>The addition of the LRT tracks and catenaries adjacent to the existing freight rail line will entail removal of the trees and wooden utility poles that now line the corridor. An elevated segment of the LRT tracks will be visible at the left side of the view.</p>	<p>The relatively slight visual changes associated with insertion of the LRT into this view will have no effect on the vividness of this view.</p>	3.5	<p>The visual intactness of this view will be slightly improved by removal of the wooden utility structures that now line the rail corridor, which will have the effect of reducing the visual clutter.</p>	3	<p>Removal of the tall wooden utility structures with their complex forms will lead to a slight improvement of the visual unity of this view.</p>	3.5	2.9	From 3.0 to 3.3 Low

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

Viewpoint 7 – Minnesota River Bluffs LRT Regional Trail Looking East Toward the Proposed Site of the Shady Oak Station (Exhibit J-10)

Overall Level of Impact: Substantial

The modified trail alignment in this area will curve to the right and the vegetation that now lines the trail in the foreground and middleground of the view will be removed, opening up a view toward the extension of 17th Avenue, the LRT tracks and catenaries, and the proposed Shady Oak Station. In addition, the removal of the trees along the trail will open up the view toward the one-story industrial and warehouse buildings located in the area to the east of the 17th Avenue extension. The removal of the corridors of trees that now frame the trail will substantially reduce the vividness of the trail. The visual intactness of the view will be substantially reduced by the visibility of a large collection of built features. The disparate elements that will become visible in this view will combine to create a composition with only a moderately low degree of visual cohesion. The overall level of visual change will be high. Given the high level of visual sensitivity of the users of the Minnesota River Bluffs LRT Regional Trail and the high degree of visual change, the overall level of visual impact will be substantial.

Viewpoint 8 – View From the Area South of Excelsior Boulevard Looking East Toward The Depot (Exhibit J-11)

Overall Level of Impact: Low

The addition of the LRT tracks and catenaries adjacent to the existing freight rail line will entail removal of the trees and wooden utility poles that now line the corridor. An elevated segment of the LRT tracks will be visible at the left side of the view. Because the visual changes associated with construction of the LRT in this view are relatively slight, the vividness of this view will not change. The visual intactness of will be slightly improved by removal of the wooden utility poles that currently line the rail corridor, which will have the effect of reducing the visual clutter. Removal of the tall wooden utility structures with their complex forms will lead to a slight improvement of the visual unity of this view. The viewers in this area include the patrons of The Depot coffee shop, who are considered to have a moderate level of visual sensitivity and walkers and bicyclists using the Cedar Lakes Trail who are considered to have a high level of sensitivity to visual change. Because the overall degree of visual change will be low, the overall level of visual impact will be low.

5.5 St. Louis Park

5.5.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts

In the St. Louis Park VAU (Exhibit J-12), the LRT will require addition of at-grade light rail track, the proposed Louisiana, Beltline, and Woodside Stations, and traction power substations (TPSSs). Structured parking will not be included as part of these improvements. Along the segment of the HCCRA corridor from the Hopkins/St. Louis Park city boundary to a point east of the Beltline Station, development of the LRT will require shifting the freight rail line to the center of the existing corridor and the trail to northern edge of the corridor, resulting in removal of much of the tree cover that currently lines the trail. In the segment from east of Beltline Station to the St. Louis Park/Minneapolis boundary, the trail will shift to the southern edge of the corridor and the freight rail line will shift to the northern edge of the corridor, which will also require elimination of existing trees that line the trail. For this reason, in the views from the segments of the trails in the HCCRA-owned corridor in this VAU, the visual impacts of the Project will range from moderate to substantial. In the view from Beltline Boulevard, there will be a positive visual effect,

Exhibits J-13, J-14, J-15, and J-16 in Attachment J-1 present photographs of the existing view from each viewpoints selected for analysis and simulations that depict the view as it will appear with the Project elements in place.

Table J-11 summarizes the anticipated visual changes that will occur within each of the two viewpoints in this segment, and evaluates the changes to visual quality through application of the FHWA visual impact assessment system to assess the view as it will appear with the Project in place. A brief narrative following the table summarizes the visual changes and the nature and degree of visual impact to each of the views.

TABLE J-11
 Anticipated Direct Change and Impact in Visual Quality (Viewpoints 9 through 12)
 [Rating Range 1 (very low) to 7 (very high)]

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
<p>9. Cedar Lake LRT Regional Trail, View Looking East Toward the Site of the Proposed Louisiana Station</p> <p>This view will be substantially altered, with shifting of the trail to the north, and shifting of the freight rail tracks into the alignment now occupied by the trail. The trees that now line the trail corridor will be completely removed, opening up the view to the transmission line and elevated rail line to the east and to the proposed Louisiana Station that will be located in the lower elevation area to the south.</p>	<p>The view will become more open, and human-made elements will play a larger role in the view. The overall level of vividness of this view will decrease</p>	3.0	<p>Removal of the trees will reveal the transmission line, and freight lines, visual elements that will intrude on the view and reduce the overall level of intactness.</p>	2.0	<p>The substantial alteration of this view will create a view that is more complex, and which will have a moderately low degree of visual order.</p>	3.5	2.8	4.0 to 2.8 High
<p>10. View from 36th St. at Brunswick Avenue, Looking West Toward Jorvig Park</p> <p>LRT tracks and catenaries will be added in the corridor along the existing freight rail tracks. Trees along the south side of the corridor will be cleared to create a trail that, in places, will be bordered by noise walls.</p>	<p>The addition of the LRT and trail to this view will reduce the mass of large trees along the edge of the right-of-way. However, removal of the trees and addition of the trail will open up a long view parallel to the tracks that will increase the level of visual interest. The overall effect will be to leave the level of vividness unchanged.</p>	3.8	<p>The addition of the catenaries and sound walls and the removal of some of the tree cover that now screens the bridge structure and transmission tower in the background will lead to a moderate decrease in the intactness of this view.</p>	2.0	<p>The addition of the linear LRT facilities and trail to this view will not introduce elements that will contrast with the prevailing landscape pattern, creating a moderate decrease in the existing level of visual unity.</p>	2.0	2.6	From 3.3 to 2.6 Moderate

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
<p>11. View from Beltline Boulevard at Minnesota Highway 7 looking south southeast toward the site of the Beltline Station</p> <p>Development of the project will require removal of the commercial structure and trees now located on the east side of Beltline Boulevard and north of the rail and trail right of way. This area will be converted to a landscaped parking lot, which will have an open appearance. The most prominently visible project feature will be the pedestrian bridge that will parallel the north side of the LRT corridor and extend across the view. The Beltline Station will be visible behind the pedestrian bridge structure.</p>	<p>The addition of the pedestrian bridge, particularly the section over Beltline Boulevard that is bordered by wooden trusses adds a human made element that somewhat increases the vividness of the view</p>	4	<p>Development of the project removes the intrusive appearing commercial building on the east side of the boulevard and adds features including the landscaping in the parking area, the pedestrian bridge, and that station that are well designed and contribute to enhancing the visual intactness of the view.</p>	4.5	<p>Development of the project greatly improves the visual intactness of the view by removing the visually discordant commercial structure and adding the pedestrian bridge and station structures that will create strong horizontal forms across the view that will help to tie the visually disparate element of the existing view together</p>	4.5	4,3	3.3 to 4.3 Low
<p>12. Cedar Lake LRT Regional Trail Near France Avenue, View Looking West</p> <p>Development of the LRT will require shifting the trail to the south and removing the thick tree cover now located in the area between the trail and the freight rail tracks. The view in the area along the north side of the trail will be completely open, providing a close-up view of the LRT tracks and catenaries. In addition, the apartment buildings on the north side of the corridor will become more visible.</p>	<p>The removal of the thick band of trees along the trail will eliminate one of the elements important in establishing the current level of vividness.</p>	2.8	<p>The addition of the close-up views of the LRT tracks and catenaries and the increased visibility of the freight rail tracks and nearby multifamily housing will substantially reduce the level of visual intactness.</p>	2.0	<p>Although there will be a substantial change in the composition of this view, because the major elements of the view will align with each other, they will create a visual composition with a moderate level of visual unity.</p>	4	2.9	From 4.0 to 2.9 High

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

Viewpoint 9 – Cedar Lakes Trail, View Looking East Toward the Site of the Louisiana Station (Exhibit J-13)

Overall Level of Impact: Substantial

This view will be substantially altered, with shifting of the trail to the north, and shifting of the freight rail tracks into center of the corridor between the existing trail and existing freight rail tracks. The trees that currently line the south side of the trail corridor will be cleared, opening up the view to the transmission line

and elevated rail line to the east and to the proposed Louisiana Station that will be located in the lower elevation area to the south. The view will become more open, and human-made elements will play a larger role in the view. As a result of these changes, the overall level of vividness will decrease. Removal of the trees will reveal the transmission line, and freight lines, visual elements that will intrude on the view and reduce the overall level of intactness. The substantial alteration of this view will create a view that is more complex, and which will have a moderately low degree of visual order. The change in the overall level of visual quality will be high. This view is seen by users of the Cedar Lake LRT Regional Trail, who have a high level of sensitivity to visual change. When the high degree of change to visual quality is considered in the context of the high level of visual sensitivity of this view, the overall level of impact is substantial.

Viewpoint 10 – View From 36th Street at Brunswick Avenue, Looking West Toward Jorvig Park (Exhibit J-14)

Overall Level of Impact: Moderate

In this view, LRT tracks and catenaries will be added in the corridor along the existing freight rail tracks. Trees along the south side of the corridor will be cleared to create a trail that, in places, will be bordered by noise walls. The addition of the LRT and trail to this view will reduce the mass of large trees along the edge of the right-of-way. However, removal of the trees and addition of the trail will open up a long view parallel to the tracks that will increase the level of visual interest. The overall effect will be to leave the level of vividness unchanged. The addition of the catenaries and sound walls and the removal of some of the tree cover that now screens the bridge structure and transmission tower in the background will lead to a moderate decrease in the intactness of this view. The addition of the linear LRT facilities and trail to this view will not introduce elements that will contrast with the prevailing landscape pattern, creating a moderate decrease in the existing level of visual unity. The combined effect of these factors on the overall level of visual quality will be moderate. There will be no effects on views from the park or from the historic station, because the thick band of trees that lies between the park and the HCRRA-owned corridor. The visual sensitivity of views in this area ranges from moderate for travelers on 36th Street to high for users of Jorvig Park. Given the moderate to high sensitivity of the views and the moderate degree of change to the visual quality, the overall level of visual impact will be moderate.

Viewpoint 11 – Beltline Boulevard at Minnesota Highway 7, Looking South Southeast Toward the Site of the Beltline Station (Exhibit J-15)

Overall Level of Impact: Low

The project will require removal of the commercial structure and trees now located on the east side of Beltline Boulevard and north of the freight rail track and trail. This area will be converted to a landscaped parking lot, which will have an open appearance. The most prominently visible project feature will be the pedestrian bridge that will parallel the north side of the LRT corridor and extend across the view. The Beltline Station will be visible behind the pedestrian bridge structure. The addition of the pedestrian bridge, particularly the section over Beltline Boulevard that is bordered by steel trusses adds a human made element that somewhat increases the vividness of the view. The project removes the commercial building on the east side of the boulevard and adds features including the landscaping in the parking area, the pedestrian bridge, and that station that are well designed and contribute to enhancing the visual intactness of the view. The project greatly improves the visual intactness of the view by removing the visually discordant commercial structure and adding the pedestrian bridge and station structures that will create strong horizontal forms across the view that will help to tie the visually disparate element of the existing view together. The impact on the level of visual quality will be low. This impact, when combined with the moderate sensitivity of the viewers on Beltline Boulevard translates into a level of impact that has been categorized as low.

Viewpoint 12 – Cedar Lake LRT Regional Trail, View Looking West (Exhibit J-16)

Overall Level of Impact: Substantial

The Project will require shifting the trail further to the south and removing the existing tree cover in the area between the existing trail and the freight rail tracks. The view in the area along the north side of the trail will be completely open, providing a close-up view of the LRT tracks and catenaries. In addition, the apartment buildings on the north side of the corridor will become more visible. The removal of the line of trees along the trail will eliminate one of the elements important in establishing the current level of vividness. The addition of the close-up views of the LRT tracks and catenaries and the increased visibility of the freight rail tracks and nearby multi-family housing will substantially reduce the level of visual intactness. Although there will be a substantial change in the composition of this view, because the major elements of the view will align with each other, they will create a visual composition with a moderate level of visual unity. The overall change in the level of visual quality will be high. The users of the Cedar Lakes Trail area will have a high level of sensitivity to visual change. When the high degree of change to visual quality is considered in the context of the high level of visual sensitivity, the overall level of impact will be substantial.

5.6 Kenilworth Corridor

5.6.1 Long-term Direct and Indirect Visual Quality and Aesthetic Impacts

In the Kenilworth Corridor VAU (Exhibit J-17), there will be a mix of at-grade and below-grade LRT infrastructure. Just north of West Lake Street, the LRT tracks will slope down to enter a shallow tunnel that will extend to a point just south of the Kenilworth Lagoon. There, the tracks will come back to existing grade before crossing the lagoon and will continue at grade to the northern limit of the VAU at I-394. Visual changes associated with the LRT in areas of this segment will include those associated with vegetation removal, relocation of the existing freight rail tracks, relocation of trails, and the addition of station facilities. In the at-grade light rail sections, there will also be impacts associated with the LRT tracks, signal systems, catenary wires, safety fencing, and noise walls. The at-grade crossing of the Kenilworth Channel will require construction of new bridge structures. In the transition areas between the at-grade and below-grade segments, there will be impacts associated with portal structures. Substantial visual impacts will occur in the areas of transition between the at-grade and tunneled segments of the route both because of the extensive tree clearing required to accommodate the LRT in the corridor and the visual dominance of the large trenches and the massive concrete retaining walls they will require. In most other segments of the LRT alignment in this VAU, the visual impacts will have the potential to be significant because of the need for extensive clearing of trees now located in the corridor in order to make room for the LRT. The visual impacts will be particularly evident in views looking south along the Kenilworth Lagoon toward the Kenilworth Corridor's crossing of the channel where substantial tree clearing will be required to accommodate construction of the new bridges for the pedestrian and bike trail, the LRT, and the freight rail line. Because the proposed stations along this segment of the Project will be built in areas where they can be well integrated into their visual settings, the potential of the stations proposed in this segment to create visual impacts will not be substantial.

The locations of the viewpoints selected to assess the visual changes created by the light rail-related improvements and freight rail are indicated on Exhibit J-17. Exhibits J-18 through J-23 present photographs of the existing view from each viewpoint, and simulations that depict the view as it will appear with the Project elements in place.

Table J-12 summarizes the anticipated visual changes that will occur in the views seen from each of the Kenilworth Corridor viewpoints, and evaluates the changes to visual quality through application of the FHWA visual impact assessment system to assess the view as it will appear with the Project in place. A brief narrative following the table summarizes the visual changes and the nature and degree of visual impact to each of the views.

TABLE J-12

Anticipated Direct Change and Impact in Visual Quality from Kenilworth Corridor Visual Analysis Unit Viewpoints (Viewpoints 13 through 18) [Rating Range 1 (very low) to 7 (very high)]

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
13. View from Chowen Avenue southwest of site of West Lake Station Addition of LRT right-of-way in corridor with catenaries and perimeter fencing on left side of view. Bike and pedestrian trails pushed closer to the street. Addition of West Lake Station with waiting platform, catenaries, and perimeter fencing.	Removal of trees along north side of street and along the northern perimeter of the rail/trail corridor will decrease the vividness of the vegetation. The addition of the station structures and opening up a view down the rail corridor toward the West Lake Street bridge will make a positive contribution to the level of vividness that more than counterbalances the loss of vividness due to vegetation removal.	4	Intactness reduced by the removal of trees, the addition of the station infrastructure, and the overhead equipment required by the LRT.	4	The visual unity of this view will be increased by the tree clearing that will open the view corridor along the road and open up a view toward the station, which will provide the visual focal point of a well-ordered rail/trail/transit corridor.	5	4.6	From 4.5 to 4.3 Low
14. Kenilworth Trail north of West Lake Street Addition of LRT right-of-way to north of bike and pedestrian trail, with shift of freight line into a widened area along the northern edge of the corridor. Addition of a fenced transition to the tunnel portal next to the bike trail.	Removal of large trees along the edges of the corridor that now contribute substantially to the vividness of the view will reduce the vividness level.	3.3	Intactness reduced by reduction in the tree canopy, exposure of large apartment buildings overlooking the corridor, and by addition of a depressed corridor defined by retaining walls, fencing and the catenary structures and wires	2.5	Unity reduced by juxtaposition of linear trail and LRT elements with the vertical and bulky forms of the apartment structures that will be exposed.	3.5	3.1	From 4.6 to 3.1 High
15. Kenilworth Trail at southern edge of channel crossing Trail corridor will be widened to accommodate an aboveground segment of the LRT as it approaches the channel crossing. Freight line moved north up to 4 feet. Installation of fencing on both sides of the bike/pedestrian trail corridor.	Reduction in tree masses visible from the trail and elimination of the split rail fencing along the trail will reduce the vividness of the view.	3.8	Fencing located immediately adjacent to the trail corridor and presence of new rail corridor with overhead infrastructure will intrude on the view, reducing intactness.	4.0	View's current high level of unity will be reduced somewhat by reduction in the tree masses that now frame the view and by the addition of built elements that contrast with the rustic setting.	5.5	4.4	From 5.0 to 4.4 Moderate

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
16. Channel between Cedar Lake and Lake of the Isles – view of Kenilworth Corridor crossing from the east The existing wood trestle bridge will be removed and replaced by three concrete bridges. The easternmost and most visible of these bridges will be a single arch bridge for the pedestrian and bike trail. The other two bridges will be hidden behind the pedestrian bridge, except for their concrete supporting piers that will be located in the middle of the channel.	There will be little change to the vegetation, the primary element contributing to the vividness of the view. Although visually quite different from the existing bridge, the new bridges will be neutral in terms of their contribution to vividness. As a consequence, the level of vividness will remain about the same.	4.8	The intactness of the view will be reduced somewhat by replacement of the wood trestle bridge with the concrete bridge whose mass, light color, and curving form will have a higher level of contrast with the setting.	4.5	The increased clearance and openness under the bridge will create a visual connection between the segments of the lagoon north/south of the new bridges. However, the overall unity of the view will be reduced slightly by the mass and curved lines of the bridge for the trail crossing.	5	4.7	From 5.1 to 4.8 Low
17. View from the Burnham Road Bridge looking southeast down the channel toward the Kenilworth Corridor crossing. The existing wood trestle bridge will be replaced by three concrete bridges. Construction of these bridges will require noticeable clearing of trees and other vegetation on the west side of the right of way	The vividness of this view is decreased somewhat by the removal of vegetation in the area along the channel at the right-of-way and the replacement of the rustic appearing wooden trestle bridge with a less distinctive structure.	4	The cleared areas along the right-of-way, and the heavy forms and light color of the new concrete bridges as well as the catenaries contrast substantially with the setting, reducing the level of visual intactness.	4	The visual unity of this view is reduced by the break created in the formerly continuous tree cover along the channel and addition of the three massive concrete bridges create a strong vertical form across the view and interfere with views down the channel.	4	4	From 5.6 to 4 High
18. View toward the Kenilworth Corridor crossing of West 21st Street Clearing of trees along the west side of 21 st street to create a widened sidewalk and bike parking area that will also slightly open up views toward the station area. LRT tracks will be visible adjacent to the freight rail tracks.	Removal of trees on left side of view will slightly decrease the vividness of the view, but the addition of the street trees depicted in the simulation, the widened sidewalk and the plantings in the area along the tracks will make a positive contribution so the overall level of vividness will remain the same.	4	The level of intactness of the view will be similar to existing conditions.	5	The LRT facilities will be consistent with the alignment of the existing trail and freight rail tracks and the removal of the utility pole and the addition of the sidewalks along the west side of 21 st Street will enhance the composition of the view, leading to a slight increase in visual unity.	5.0	4.7	From 4.4.5 to 4.7 Low

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

Viewpoint 13 – View from Chowen Avenue southwest of the West Lake Station (Exhibit J-18)

Overall Level of Impact: Low

Clearance of the trees and other vegetation along the left side of the street will open up the views into to the rail/trail/transit corridor. The corridor will have a more developed appearance, with the addition of the LRT,

its catenaries, and perimeter fences; the addition of the West Lake Station, its waiting platform, catenaries, fencing, and surrounding paved circulation area will also contribute to a more developed appearance. The existing pedestrian and bike trails will be shifted closer to the street, and will be more visible, especially where the existing street profile will be raised. With these changes, the overall visual effects of the Project will be low. The removal of the dense trees along South Chowen Avenue will make the view more expansive, and the West Lake Station will provide a visual focal point, making the view more interesting and memorable. The linear features in the rail/trail/transit corridor will be consistent with each other and with the lines of the street, contributing to the creation of a visually unified composition. This view has a high visually sensitivity because it is seen by the residents of the high-density buildings along South Chowen Avenue and Abbott Avenue. Because the Project's visual effects described above will be low, the overall level of visual impact will be low. However, even though the level of impact on this view will be low, careful design of the Project in this area will still be required based on the high level of visual sensitivity.

Viewpoint 14 - Kenilworth Trail North of West Lake Street, Looking North Toward the Site of the South Tunnel Portal (Exhibit J-19)

Overall Level of Impact: Substantial

The rail freight line will be shifted further to the west, requiring removal of trees that will partially open up views to the apartment buildings that border that side of the corridor. The transition of the LRT tracks from at-grade down into the south tunnel portal will require creation of a trench in the middle of the corridor, which with its retaining walls and fencing will dominate views from the trail. Widening the corridor to accommodate the LRT will also require removal of existing trees located along the corridor's eastern edge. Removal of these trees will open up views toward the tall apartment buildings that border the corridor to the east.

The Project will reduce the vividness of this view, particularly through the removal of existing thick vegetation that now characterizes this segment of the corridor. The intactness of this view will be reduced by reduction in the tree canopy, which will expose the apartment buildings located adjacent to the corridor, and by addition of a below grade LRT track defined by retaining walls, fencing and the catenary structures and wires. The visual unity of the view will be reduced by introduction of the highly contrasting features of the trenched section of the LRT and the exposure of the vertical and bulky forms of the apartment structures that will intrude on the views from the corridor. The overall degree of visual change will be high. This high degree of change, combined with the high level of visual sensitivity of the trail users will result in an overall level of impact that is substantial.

Viewpoint 15- Kenilworth Trail at the Southern Edge of the Channel Crossing (Exhibit J-20)

Overall Level of Impact: Moderate

The existing vegetation that is immediately adjacent to the trail in this area will be removed. The vegetation removal is necessary to accommodate the above ground segment of the light rail alignment as it approaches the lagoon crossing. The freight rail track will also be shifted to the north. Fencing will be installed on both sides of the bike/pedestrian trail corridor. Reduction in the tree masses, immediately adjacent to the trail and elimination of the existing split rail fencing along the trail will reduce the vividness of the view. There will be a slight reduction in visual intactness and a limited reduction in visual unity. The reduction in the visual quality of this view will be moderate, but the level of visual sensitivity is high. Therefore, the level of visual impact will be moderate.

Viewpoint 16 - View from the Channel Between Cedar Lake with Lake of the Isles – View from the East Toward the Kenilworth Corridor Bridges (Exhibit J-21)

Overall Level of Impact: Low

The Project will require demolition of the existing wood trestle bridge that carries the existing freight rail line and the trail across the channel and construction of three new concrete bridge structures for Freight, LRT and trails. The easternmost and most visible of these bridges will be a single arch bridge for the pedestrian and bike trail. The other two bridges will be hidden behind the pedestrian bridge, except for the

concrete supporting piers for the freight rail bridge that will be located in the middle of the channel. There will be little change to the vegetation, the primary element contributing to the vividness of the view. Although visually quite different from the existing bridge, the new bridges will be neutral in terms of their contribution to vividness. As a consequence, the level of vividness will remain about the same. The intactness of the view will be reduced somewhat by replacement of the wood trestle bridge with the concrete bridge whose mass, light color, and curving form will have a higher level of contrast with the setting. The increased clearance and openness under the bridge will create a visual connection between the segments of the lagoon north/south of the new bridges. However, the overall unity of the view will be reduced slightly by the mass and curved lines of the bridge for the trail crossing. The overall level of change to the visual quality of the view will be low. Because of the recreational activity in the channel, this view is visually sensitive. However, because the potential degree of change to visual quality will be low the potential visual impact will be low.

Viewpoint 17 – View from the Burnham Road Bridge Looking Southeast toward the Kenilworth Corridor Bridges (Exhibit J-22)

Overall Level of Impact: Substantial

The existing wood trestle bridge will be replaced by three concrete bridges. Construction of these bridges will require noticeable clearing of trees and other vegetation on the west side of the right of way. The vividness of this view is decreased somewhat by the removal of vegetation in the area along the channel at the right-of-way and the replacement of the rustic appearing wooden trestle bridge with a less distinctive structure. The cleared areas along the right-of-way, and the heavy forms and light color of the new concrete bridges as well as the catenaries contrast substantially with the setting, reducing the level of visual intactness. The visual unity of this view is reduced by the break created in the formerly continuous tree cover along the channel and addition of the three massive concrete bridges create a strong vertical form across the view and interfere with views down the channel. The overall degree of visual change will be high. This high degree of change, combined with the high level of visual sensitivity of the inhabitants of the surrounding residential area who use the bridge will result in an overall level of impact that is substantial.

Viewpoint 18– View toward the Kenilworth Corridor Crossing of West 21st Street (Exhibit J-23)

Overall Level of Impact: Low

Development of the LRT and the 21st Street Station will have a limited effect on this view. The associated station and support facilities will be hidden behind the thick band of trees between the Kenilworth corridor and West 22nd Street visible at the left side of the view. The LRT tracks will be at grade and from this vantage point where they can be seen crossing 21st Street, they will appear to be generally similar to the existing freight trail. Some limited removal and thinning of the vegetation on the left side of the view will partially expand the view.

Removal of trees on left side of view will slightly decrease the vividness of the view, but the addition of the street trees, the widened sidewalk and the plantings depicted in the simulation in the area along the tracks will make a positive contribution so the overall level of vividness will remain the same. The level of intactness of the view will remain about the same. There will be a slight increase in visual unity since the LRT facilities will be consistent with the alignment of the existing trail and freight rail tracks and the removal of the utility pole and the addition of the sidewalks along the west side of 21st Street will enhance the composition of the view. The overall effect of the Project will be to create a slight improvement in the visual quality of the view. Because this view is seen by the occupants of homes in the nearby residential areas and those traveling to the recreational facilities on Cedar Lake, the level of visual sensitivity is high. Although the sensitivity of the viewers in this area is high, because the change to the level of visual quality will be low, the overall level of visual impact will be low.

5.7 Minneapolis Downtown Fringe

5.7.1 Long-Term Direct and Indirect Visual Quality and Aesthetic Impacts

In the Minneapolis Downtown Fringe VAU (Exhibit J-24), LRT tracks and catenaries will be installed in an at-grade alignment in the portion of the existing depressed rail corridor extending eastward from I-394 to a

point just east of where it passes under I-94. East of I-94, retaining walls and bridge structures will be used to create a gradually up-sloping roadbed that will enable the tracks to transition up to the level of the surrounding city, where the LRT will continue at grade on Royalston Avenue North to the proposed Royalston Station. North of the Royalston Station, the LRT will slope up onto an elevated structure that will carry it over North 7th Street, where the alignment will curve eastward and then near the bend on 6th Avenue North, the tracks will slope downward, and will continue at-grade to a point approximately 800 feet north of the existing Target Field Station. There will be two new stations, the Van White Station and the Royalston Station, neither of which will have either surface parking lots or parking ramps. In the area near the proposed Van White Station, the existing Luce Line Regional Trail bridge that extends from Bryn Mawr Meadows Park southeastward across the rail corridor will be removed. It will be replaced with a new pedestrian structure that will start at approximately the same location as the existing pedestrian bridge, but it will first travel in an northeastern direction along the boundary between the park and rail corridor and will then make a turn and will head in a southeasterly direction, crossing the rail corridor and terminating at a point on the south side of the rail corridor and adjacent to the western edge of Van White Memorial Boulevard. The overall visual effects of this change will be positive because trees will screen the portion of the structure located along the park’s edge from viewers in the park’s primary use areas, because the new structure will have a design that is more attractive than the design of the structure it will replace, and because it will offer its users a more visually interesting experience as they cross the rail corridor. Because the LRT improvements will be located in an existing below-grade freight rail corridor, the visual impacts of the LRT segment that extends from I-394 to Royalston Avenue north will be low. From Royalston Avenue North to the end of the route, the visual impacts of the light rail alignment will be low as well because of their visual consistency with the industrial character of the cityscape in the area along North Royalston Avenue and to the north and east of Target Field.

Exhibit J-25 shows the location of Viewpoint 19 on Royalston Avenue North, which illustrate the impacts of the LRT on the visual quality of this VAU. Table J-13 summarizes the anticipated visual changes that will occur in the views seen Viewpoint 19 and evaluates the changes to visual quality through application of the FHWA visual impact assessment system to assess the view as it will appear with the Project in place. A brief narrative following the table summarizes the visual changes and the nature and degree of visual impact to the view.

TABLE J-13
 Anticipated Direct Change and Impact in Visual Quality (Viewpoint 19)
 [Rating Range 1 (very low) to 7 (very high)]

Viewpoint Number, Viewpoint Description, and Identification of New Visual Elements	Vividness		Intactness		Unity		Overall Rating ^a	Visual Quality Change ^a -
	Description of Change	Rating ^a	Description of Change	Rating ^a	Description of Change	Rating ^a		
19. Royalston Avenue at Holden St North looking North toward the site of the Royalston Station Development of the LRT will remove the current northbound street lanes and the street median and the large trees within it. The LRT tracks, perimeter fencing and catenaries will be visually prominent in the foreground of the view and the station will also be readily visible.	There will be little change in the overall vividness of this view. The street median and trees that provide moderately vivid elements of the existing view will be removed, but this loss will be compensated for by the station, which will become the focal point of the view.	2.6	The overall level of visual intactness of this view will be similar to existing conditions. The tall utility poles now seen in the view will be removed, but the catenaries will appear as new intrusive elements in the view	2.0	The development of the LRT will add a system of visually connected components to the view that will lead to an increase in the overall level of visual unity.	3.5	2.7	From 2.4 to 2.7 Low

^a Scale is from Visual Impact Assessment for Highway Projects (FHWA, 1988).

Viewpoint 19– Royalston Avenue North at Holden Street North, View Looking North Toward the Site of the Royalston Station (Exhibit J-25)

Overall Level of Impact: Low

Development of the LRT will remove the current northbound street lanes, the street median and the large trees within it. The LRT tracks, perimeter fencing and catenaries will be visually prominent in the foreground of the view and the station will also be readily visible. There will be little change in overall vividness. The street median and trees that provide moderately vivid elements of the existing view will be removed, but this loss will be compensated for by the station, which will become the focal point of the view. The overall level of visual intactness will be similar to existing conditions. The tall utility poles currently within the view will be removed, but the catenaries will appear as new intrusive elements. The overall visual unity of the view will be increased because the development of the LRT will add a system of visually connected components to the view that will lead to an increase in the overall level of visual unity. In this view, development of the LRT will create a small positive improvement in the view's overall level of visual quality. Because the change to the level of visual quality will be low, the overall level of visual impact will be low.

6 Long-term Indirect Visual Quality and Aesthetics Impacts

6.1 No Build Alternative

There will be no long-term indirect impacts from the No Build Alternative.

6.2 Project

Some indirect visual impacts are possible in the long-term, because the improved accessibility of the areas around the stations will create a potential for new development that will introduce higher residential densities, and in some cases, new or expanded commercial activities. The effect of this development will be to replace existing, lower intensity land uses with buildings and other facilities that are larger in scale than what exists at present. In areas where this occurs, the built environment is likely to appear more intensively developed and possibly more urban in character than what exists at present. Whether and the extent to which the intensified development which may occur in station areas will have adverse effects will depend upon the effectiveness of planning, development control, and urban design policies and regulations of the communities in which the development takes place. With implementation of well-considered local planning and urban design policies, the indirect visual impacts of the project could be positive. In the absence of careful planning and urban design direction, the indirect project impacts related to intensified development could be adverse.

7 Short-term Visual Quality and Aesthetics Impacts

7.1 No Build Alternative

There will be no long-term indirect impacts from the No Build Alternative.

7.2 Project

In each of the VAUs, the potential short-term impacts that will occur on the viewpoints evaluated while constructing the Project will be consistent with those described in Section 3.6.4 of the Draft EIS. Such impacts will be associated with construction staging areas; concrete and form installation; removal of some of the existing vegetation along the trail; lights and glare from construction areas; and dust, and debris.

8 Mitigation Measures

The Project's evolution from Draft EIS to Supplemental EIS and into this Final EIS has included a range of visual impact assessments, determinations, and recommended measures to address those impacts.

Draft EIS

The Draft EIS evaluated a range of alternatives for which detailed design information was not available. This required a broad brush assessment of Project visual effects, and as a consequence, the mitigation measures proposed consisted for the most part of general principles, with an indication that more detailed mitigation measures will be worked out during Project Development and Engineering. The key provisions of the mitigation measures the Draft EIS Visual Quality and Aesthetics analysis specified for a build alternative are:

- Methods for avoidance, minimization, or mitigation of impacts to historic properties are addressed during the Section 106 consultation process. Use of public park property and recreation areas, and the mitigation of long-term effects to these properties, will be evaluated in accordance with the Section 4(f) process and the Metropolitan Council's *2030 Regional Parks Policy Plan*.
- The need for additional landscaping to mitigate potential visual intrusion/privacy impacts following clearing and grubbing activities during construction will be addressed in the Final EIS. Station design and aesthetics will be addressed during Project Development and Engineering. Mitigation treatments for visual impacts would be developed during the Engineering process through discussion with affected communities, resource agencies, and stakeholders. Measures would be taken to help ensure the design and construction of the Build Alternative considers the context of the corridor and that sensitive receptors receive adequate mitigation. Possible mitigation measures could include:
 - Landscaping vegetation such as shrubs and bushes to supplement existing vegetation buffers
 - Evergreen vegetation screening to supplement deciduous vegetation buffers in leaf-off conditions
 - Fencing
 - Tunneling
- To mitigate visual intrusion and privacy impacts where the LRT is located on structure, a parapet could be included to block some LRT features from the view of adjacent receptors and to shield adjacent receptors from view by riders, maintaining privacy. Vegetation screening could also be employed to mitigate visual intrusion and privacy impacts where existing screening is inadequate.

Traction Power Substations

TPSS locations, which are subject to change during Engineering, would be selected to minimize impacts to residential areas and other sensitive receptors. Efforts would be made to select sites that are on underutilized land, such as surface parking lots. Where TPSS placement would affect sensitive receptors, such as residential neighborhoods suitable screening or other mitigation measures will be developed.

Operation and Maintenance Facility

To minimize visual/aesthetic impacts of the, mitigation measures, such as façade treatments and landscaping, will be addressed during Project Development and Engineering.

Freight Rail Relocation

The rail improvements would not obstruct views of any designated scenic areas, and rail use is compatible with the surrounding commercial and industrial land uses. New track and associated retaining walls would be the property of the railroad, and subject to its requirements or preferences for mitigation. Coordination with the community and the railroad will continue through Engineering to investigate ways to minimize the visual impact to the surrounding area. Mitigation to be further evaluated includes decorative wall treatments

and landscaping at selected locations. Specific landscaping measures will require close coordination with the owner.

Supplemental Draft EIS

The Supplemental Draft EIS evaluation focused on the Eden Prairie and St. Louis Park/Minneapolis segments of the Locally Preferred Alternative. The mitigation measures recommended in the Supplemental Draft EIS analysis recognized that it will be most appropriate to specify detailed mitigation measures at the time the Project's Engineering takes place. The strategy the Supplemental Draft EIS recommends is development of guidelines that incorporate input from the communities that the Project will affect:

- Based on FHWA guidelines the Council will employ mitigation measures for visual quality impacts that are deemed substantial and will identify in the Final EIS the mitigation measures to be incorporated into the Project. The Council will develop aesthetic guidelines for the design of the project. These guidelines will address mitigation measures for visual impacts identified in the Final EIS and will address input from the affected communities. Mitigation measures for substantial adverse impacts resulting from the light rail elements will be identified during Engineering and could include measure such as landscaping, visual treatments and continuity with the elevated light rail structure design, lighting, and signage. As also indicated in the Cultural Resources analysis, for the Kenilworth Lagoon, the visual impacts caused by the project's design and the measures appropriate to mitigate them will be detailed in the 106 agreement.
- Where appropriate, construction related mitigation measures will include elements such as locating staging areas in places not viewable by trail users or by otherwise incorporating visually screening, preservation of existing vegetation to the extent possible, implementation of dust suppression efforts, shielding of nighttime construction lights, continuous cleanup of trash and debris, and timely restoration of areas disturbed during construction.

Final EIS

This Final EIS analysis evaluated the effects of the LRT Project on the visual quality of the views in each of the landscape analysis units along its route, and identifies the Project elements that are responsible for the visual changes in each view. This analysis was based on Project designs, which are more detailed than those available at the time the Draft EIS and Supplemental Draft EIS were prepared. In addition, they are based on review of photo simulations of the views as they will appear with the proposed Project in place. The simulations provide a very concrete understanding of what the visual changes and visual issues will be and provide a good point of departure for identifying measures with the potential to attenuate the Project's visual effects. This analysis determined that of the 19 views evaluated, substantial impacts will occur in six of the views, moderate impacts in six views, and low impacts in seven views. To reduce the substantial and moderate impacts to levels that are clearly less than substantial, mitigation measures are required. In the views where the Project impacts would be less than substantial, design measures are recommended to optimize the appearance of the Project facilities and to integrate them into their visual settings.

The mitigation approach recommended is development of a detailed set of design guidelines. These guidelines will direct the work of advancing the design efforts and that will provide a measurable level of certainty that the final, detailed design plans for the Project include a full suite of measures focused on minimizing adverse visual effects, and improving the appearance of the Project and its relationship with its visual setting.

8.1 Long-term Mitigation Measures (Substantial and Moderate Impacts)

Impact. Introduction of light rail structures including overhead features, retaining walls, tunnel portals, noise walls, and increased level of development.

Mitigation. Council has prepared design guidelines for key structures throughout the proposed light rail alignment, focusing on bridges and retaining walls. Those guidelines are included within the *Visual Quality Guidelines for Key Structures* (Council, 2015 – refer to Appendix C to access the Guidelines). These guidelines were developed by the Council, reflecting various coordinating efforts

with affected local jurisdictions. The guidelines have been used by the Council in the advancement of the Project's design and development of final design plans. The guidelines have and will help to ensure a consistent aesthetic element for key structures throughout the proposed light rail alignment, while allowing for some flexibility in wall treatments. The guidelines include the following design elements for key structures:

- Universal parameters for structures aesthetic elements
- Utilization of special treatments/aesthetic finishes
- Uniform pier and abutment pilaster forms
- Open concept pedestrian underpasses

Some structures that are a part of other relatively large facilities have been designed to reflect the context of these other large facilities to allow for continuity of design with these facilities. These exceptions to the guidelines where context sensitive designs have and will be prepared include the proposed light rail structures over Highway 212, I-394 and Highway 100, as well as individual retaining wall and bridge designs at 5th Avenue South and 7th Avenue South, Hopkins.

Impact. Removal of existing vegetation and introduction of built features

Mitigation. Design and implement landscaping into the Project design at appropriate locations to address identified visual impacts, within available landscape budget and balancing other priorities for landscaping (e.g., surface water quality, habitat preservation, species of concern), which could include the following:

- Retain as much of existing vegetation as appropriate to provide shielding for sensitive viewpoints, including techniques such as chaining and mowing without removal of the root systems, and/or tying back large shrubs and trees to provide adequate areas for construction activities.
- Restore and replant cleared areas in a timely manner, where appropriate, considering such factors as species type, seasonal growing conditions, and other construction-related activities.
- Place new and replacement trees based on such factors as helping to provide the maximum screening of views to and from sensitive viewpoints (e.g., adjacent residential areas) or providing street ornamentation, where appropriate.
- Develop landscape plans for areas adjacent to elevated structures, retaining walls, noise walls, and TPSS sites¹ to achieve such effects as providing partial screening from sensitive viewpoints.
- Incorporate visual mitigation measures for Section 106-protected resources and Section 4(f)-protected properties as specified in the Section 106 Memorandum of Agreement and the Final Section 4(f) Evaluation, respectively (see Appendix H and I, respectively).

8.2 Short-term Mitigation Measures

Impact. Temporary introduction of construction activities, including staging and storage areas, and temporary removal of vegetation and trees.

Mitigation. The design guidelines prepared by the Council also include provisions for mitigation of the short-term impacts associated with the Project's construction phase. Measures to address short-term construction impacts may include the following, if practical:

- Locate staging areas in places where their visibility will be minimal and, to the extent required, provide temporary visual screening to limit views into them from nearby residential areas, trails, streets, or other places from which they will be seen by visually sensitive viewers.

¹ A traction power substation (TPSS) is an electrical substation that converts electric power from the form provided by the electrical power industry for public utility service to an appropriate voltage, current type, and frequency to supply railways, trams (streetcars), or trolleybuses with traction current.

- Use construction methods that minimize the need to remove vegetation to accommodate construction activities.
- Minimize and shield lighting needed for staging areas or for nighttime construction activities.
- Restore areas disturbed during construction.

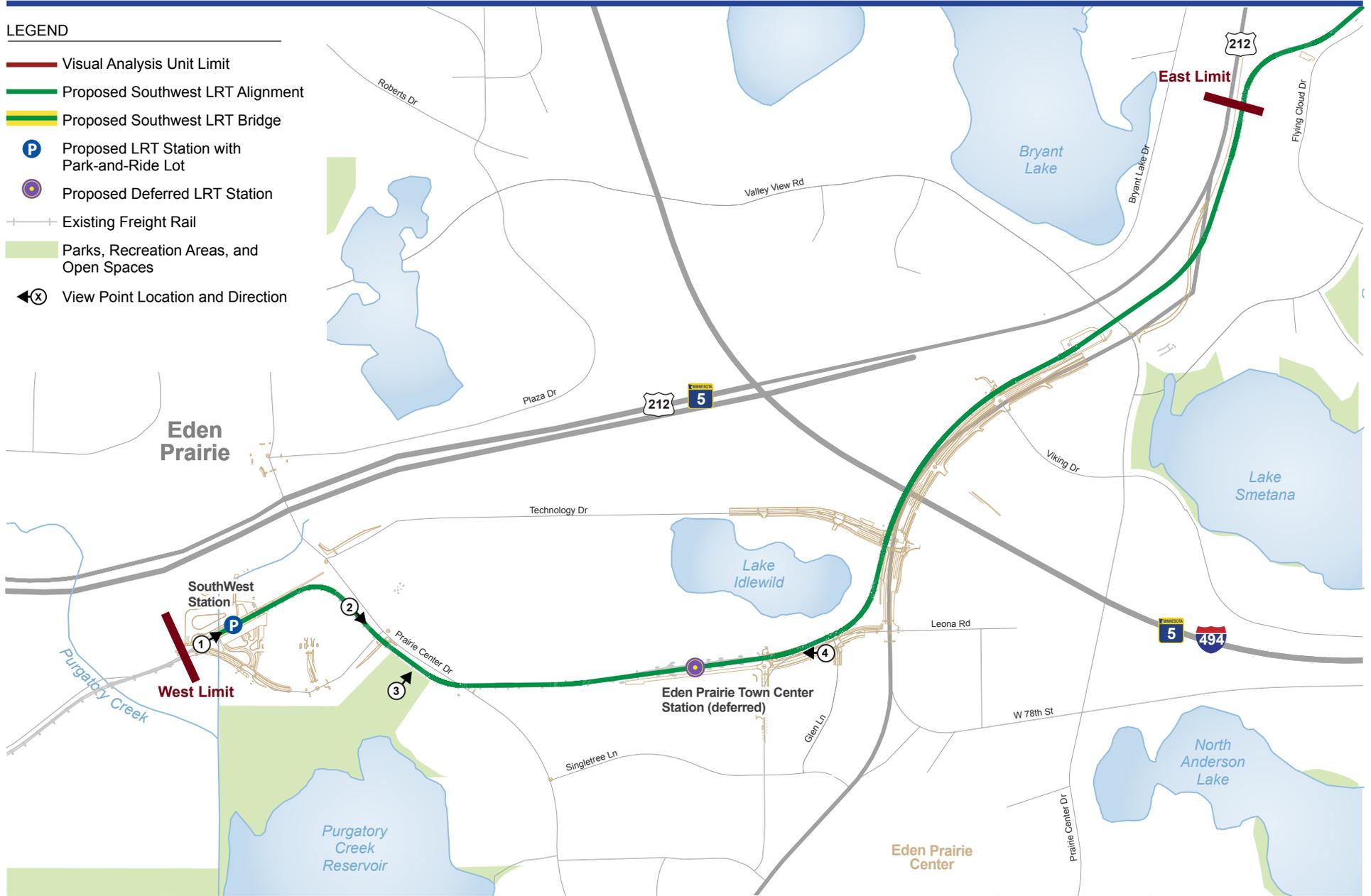
9 References

U.S. Department of Transportation, Federal Highway Administration (FHWA). 1988. *Visual Impact Assessment for Highway Projects* (FHWA-HI-88-054).

Metropolitan Council (Council). 2015. *Visual Quality Guidelines for Key Structures*.

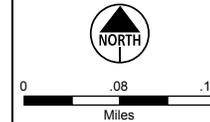
Attachment J-1
Visual Resources Exhibits

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Southwest LRT FINAL EIS
Key Viewpoint Locations
Eden Prairie Visual Analysis Unit

Exhibit J-1





a. Existing view from Technology Drive looking east toward Southwest Station.



b. View Looking East from Technology Drive Toward the SouthWest Transit Center.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 1 View Looking East from Technology Drive Toward the SouthWest Transit Center Eden Prairie Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-2</p>	
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a. Existing view from Prairie Center Drive looking southeast toward Purgatory Creek Park.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 2 View Looking South Along Prairie Center Drive at Technology Drive Toward Purgatory Creek Park Eden Prairie Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-3</p>	
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a. Existing view from in front of the picnic pavilion in Purgatory Creek Park, looking northeast toward Prairie Center Drive.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 3 View From the Parking Area in Front of the Picnic Pavilion in Purgatory Creek Park, Looking East Toward Prairie Center Drive Eden Prairie Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-4</p>	
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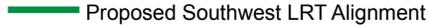
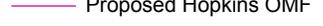
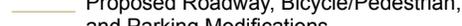
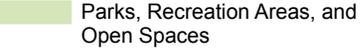
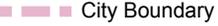
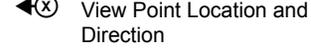
a. Existing view from Eden Road looking west toward the proposed site of the Eden Prairie Town Center Station.

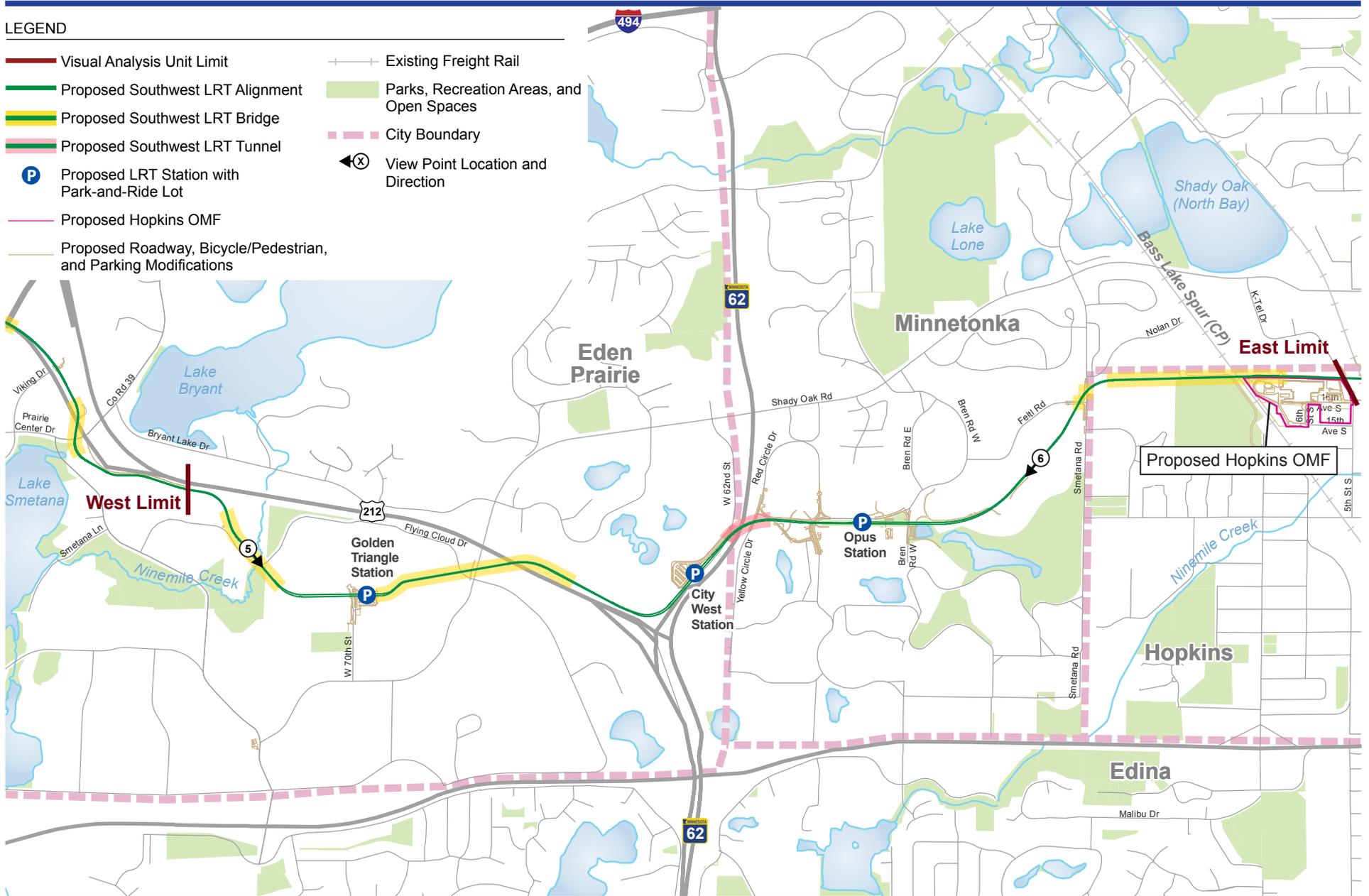


b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 4 Eden Road at Glen Lane Looking West Eden Prairie Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-5</p>	
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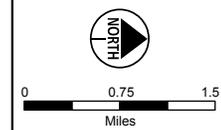
LEGEND

-  Visual Analysis Unit Limit
-  Proposed Southwest LRT Alignment
-  Proposed Southwest LRT Bridge
-  Proposed Southwest LRT Tunnel
-  Proposed LRT Station with Park-and-Ride Lot
-  Proposed Hopkins OMF
-  Proposed Roadway, Bicycle/Pedestrian, and Parking Modifications
-  Existing Freight Rail
-  Parks, Recreation Areas, and Open Spaces
-  City Boundary
-  View Point Location and Direction



Southwest LRT FINAL EIS
Key Viewpoint Locations
 North Eden Prairie/Minnetonka/South Hopkins
 Visual Analysis Unit

Exhibit J-6





a. Existing view from Flying Cloud Road looking northeast toward Nine Mile Creek.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 5 Flying Cloud Road, View Looking Northeast Toward Nine Mile Creek North Eden Prairie/Minnetonka/South Hopkins Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-7</p>	
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a. Existing view from the trail on West Side of the Claremont Apartments looking southeast along the proposed LRT ROW.



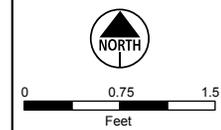
b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 6 Trail on the West Side of the Claremont Apartments, View Looking Southeast North Eden Prairie/Minnetonka/South Hopkins Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-8</p>	
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Southwest LRT FINAL EIS
Key Viewpoint Locations
Hopkins Visual Analysis Unit

Exhibit J-9





a. Existing view from the Minnesota River Bluffs LRT Regional Trail looking east toward the proposed site of Shady Oak Station.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 7 Minnesota River Bluffs LRT Regional Trail Looking East Toward the Proposed Site of the Shady Oak Station Hopkins Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-10</p>	
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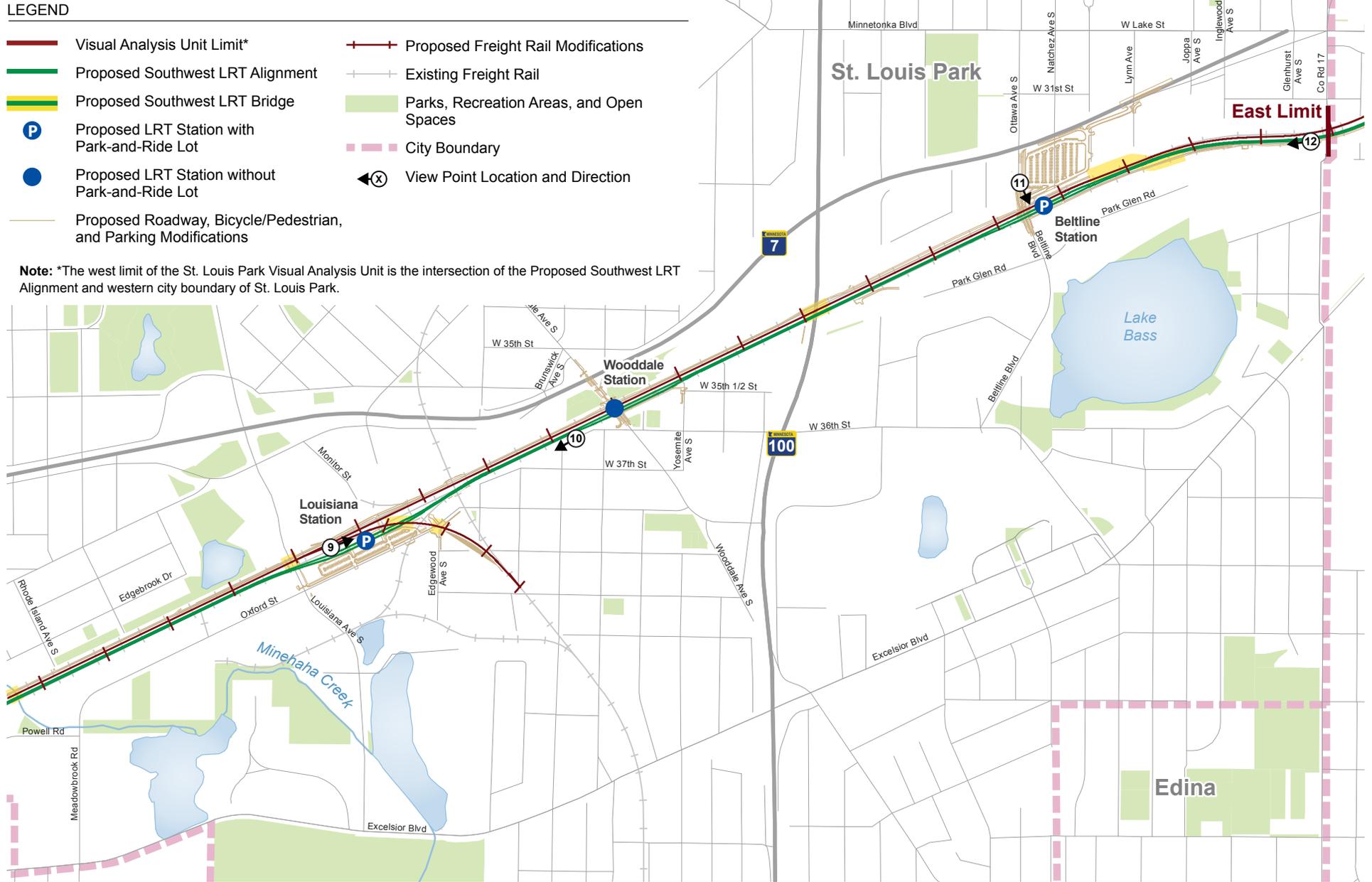


a. Existing view from the area south of Excelsior Boulevard looking east toward The Depot.



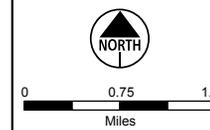
b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 8 View From the Area South of Excelsior Boulevard Looking East Toward The Depot Hopkins Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-11</p>	
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Southwest LRT FINAL EIS
 Key Viewpoint Locations
 St. Louis Park Visual Analysis Unit

Exhibit J-12





a. Existing view from the Cedar Lake LRT Regional Trail looking east toward the proposed site of the Louisiana Station.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 9 Cedar Lake LRT Regional Trail, View Looking East toward the Site of the Proposed Louisiana Station St. Louis Park Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-13</p>	
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a. Existing view from Brunswick Boulevard looking west toward the proposed LRT ROW and Jorvig Park.



b. Simulation of the view as it would appear after development of the project.

	<p>Southwest LRT FINAL EIS Viewpoint 10 View From 36th Street at Brunswick Avenue, Looking West toward Jorvig Park St. Louis Park Visual Analysis Unit</p>	<p>Exhibit J-14</p>	
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a. Existing view from Beltline Blvd near Minnesota Hwy 7 looking South-Southeast toward the site of the Beltline Station.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 11 Beltline Boulevard at Minnesota Highway 7, Looking South-Southeast Toward the Site of the Beltline Station St. Louis Park Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-15</p>	
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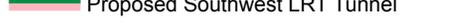
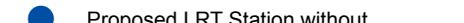
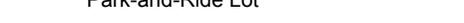
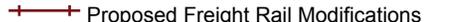
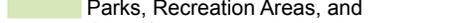
a. Existing view from Cedar Lake LRT Regional Trail looking west along proposed LRT ROW.



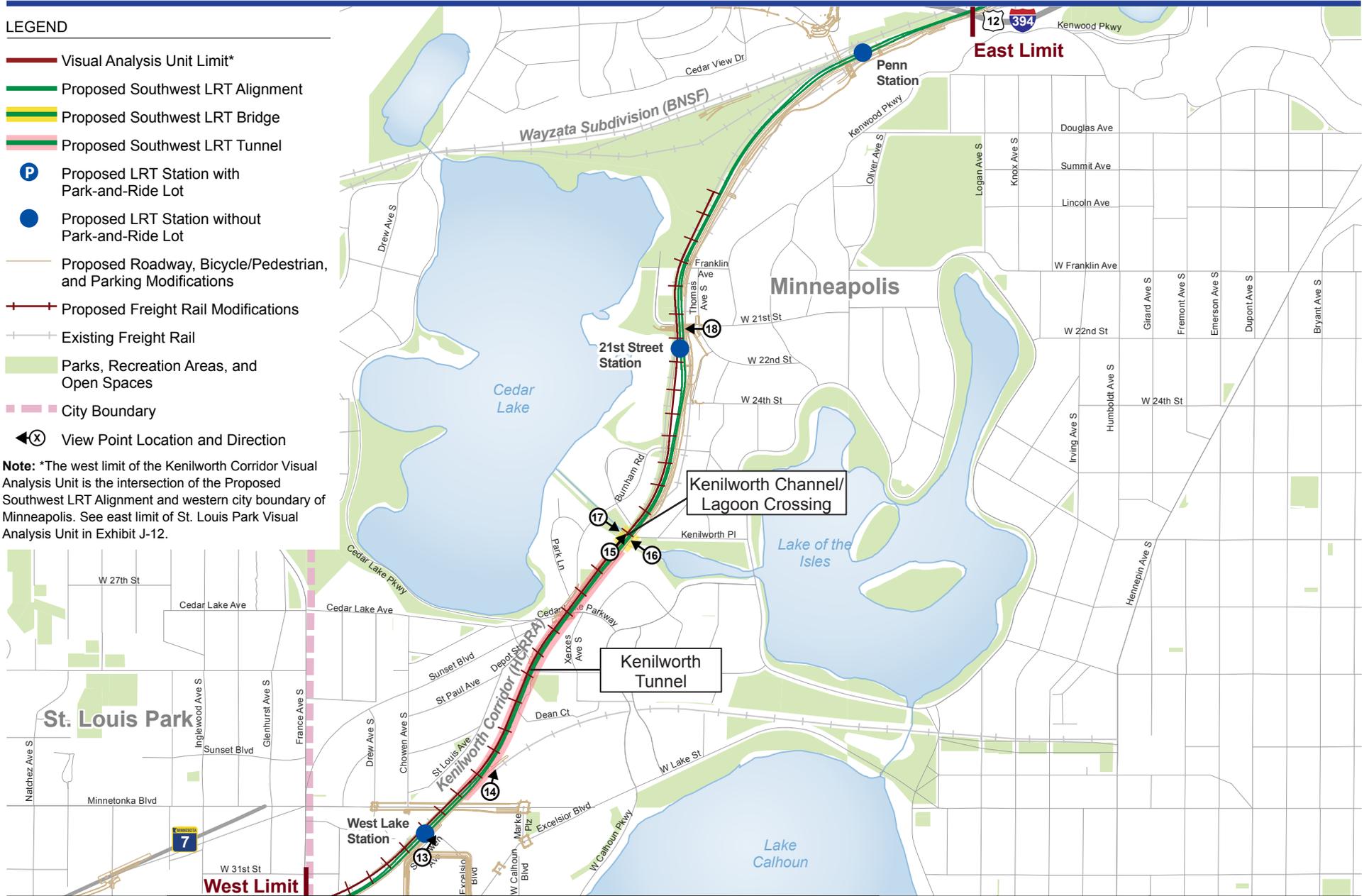
b. Simulation of the view as it would appear after development of the project.

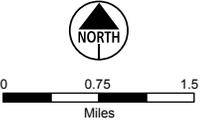
	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 12 Cedar Lake LRT Regional Trail, View Looking West St. Louis Park Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-16</p>	
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LEGEND

-  Visual Analysis Unit Limit*
-  Proposed Southwest LRT Alignment
-  Proposed Southwest LRT Bridge
-  Proposed Southwest LRT Tunnel
-  Proposed LRT Station with Park-and-Ride Lot
-  Proposed LRT Station without Park-and-Ride Lot
-  Proposed Roadway, Bicycle/Pedestrian, and Parking Modifications
-  Proposed Freight Rail Modifications
-  Existing Freight Rail
-  Parks, Recreation Areas, and Open Spaces
-  City Boundary
-  View Point Location and Direction

Note: *The west limit of the Kenilworth Corridor Visual Analysis Unit is the intersection of the Proposed Southwest LRT Alignment and western city boundary of Minneapolis. See east limit of St. Louis Park Visual Analysis Unit in Exhibit J-12.



	<p>Southwest LRT FINAL EIS Key Viewpoint Locations Kenilworth Corridor Visual Analysis Unit</p>	<p>Exhibit J-17</p>		
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a. Existing view from South Chowen Avenue looking northeast toward the rail corridor and the proposed site of the West Lake Station.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 13 View from Chowen Avenue South Southwest of the West Lake Station Kenilworth Corridor Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-18</p>	
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a. Existing view from the Kenilworth Trail North of West Lake Street looking north toward the site of the south tunnel portal.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 14 Kenilworth Trail North of West Lake Street, Looking North toward the Site of the South Tunnel Portal Kenilworth Corridor Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-19</p>	
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a. Existing view from the Kenilworth Trail at the southern edge of the channel crossing.



b. Simulation of the view as it would appear after development of the project.

	<p>Southwest LRT FINAL EIS Viewpoint 15 Kenilworth Trail at the Southern Edge of the Kenilworth Lagoon Crossing Kenilworth Corridor Visual Analysis Unit</p>	<p>Exhibit J-20</p>	
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a. Existing view from Kenilworth Lagoon between Cedar Lake and Lake of the Isles toward the Kenilworth Corridor bridges.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 16 View from the Channel Between Cedar Lake and Lake of the Isles, View from the East toward the Kenilworth Corridor Bridges Kenilworth Corridor Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-21</p>	
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a. Existing view from the Burnham Road Bridge looking Southeast down the channel toward the Kenilworth Corridor bridges.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 17 View from the Burnham Road Bridge Looking Southeast down the Channel toward the Kenilworth Corridor Bridges Kenilworth Corridor Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-22</p>	
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a. Existing view from West 21st Street at Thomas Street looking west toward the existing rail and trail corridor and the site of the proposed 21st Street Station.



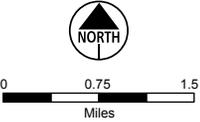
b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 18 View Toward the Kenilworth Corridor Crossing of West 21st Street Kenilworth Corridor Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-23</p>	
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LEGEND

-  Visual Analysis Unit Limit
-  Proposed Southwest LRT Alignment
-  Proposed Southwest LRT Bridge
-  Proposed LRT Station without Park-and-Ride Lot
-  Existing LRT Station
-  Proposed Roadway, Bicycle/Pedestrian, and Parking Modifications
-  Proposed Freight Rail Modifications
-  Existing Freight Rail
-  Parks, Recreation Areas, and Open Spaces
-  View Point Location and Direction



	<p>Southwest LRT FINAL EIS Key Viewpoint Locations Minneapolis Downtown Fringe Visual Analysis Unit</p>	<p>Exhibit J-24</p>		
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a. Existing view from Royalston Avenue North looking north toward the site of the proposed Royalston Station.



b. Simulation of the view as it would appear after development of the project.

	<p style="text-align: center;">Southwest LRT FINAL EIS Viewpoint 19 Royalston Avenue North at Holden Street North, View Looking North Toward the Site of the Proposed Royalston Station Minneapolis Downtown Fringe Visual Analysis Unit</p>	<p style="text-align: center;">Exhibit J-25</p>	
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