



Appendix F

Supporting Technical Reports

F.3 Visual Quality Technical Report



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Visual Quality Technical Report

June 2016

Blue Line Extension Project Technical Report

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Executive Summary

This Visual Quality Technical Report has been prepared in support of the Final Environmental Impact Statement (Final EIS) for the proposed METRO Blue Line Light Rail Transit (BLRT) Extension project. The proposed BLRT Extension project is located in Hennepin County, Minnesota, extending approximately 13 miles from downtown Minneapolis to the northwest serving north Minneapolis and the suburbs of Golden Valley, Robbinsdale, Crystal, and Brooklyn Park. The light rail transit (LRT) is anticipated to serve a broader area to the northwest, including the communities of New Hope, Brooklyn Center, Maple Grove, Osseo, Champlin, and Dayton.

The purpose of the proposed BLRT Extension project is to provide transit service which will satisfy the long-term regional mobility and accessibility needs for businesses and the traveling public. The proposed BLRT Extension project is needed to effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports economic development goals and objectives of local, regional, and statewide plans.

The methodology used to evaluate aesthetics and visual quality impacts of the proposed BLRT Extension project is based on the federal guidelines provided in the Federal Highway Administration (FHWA) Guidelines for the Visual Impact Assessment of Highway Projects (FHWA, 2015), which outlines the four phases used to assess visual impacts: establishment; inventory; analysis; and mitigation.

For the purposes of this visual and aesthetics resource analysis, the proposed BLRT Extension project corridor was divided into four landscape units (Minneapolis, Golden Valley, Robbinsdale/Crystal, and Brooklyn Park). Potential aesthetic impacts resulting from implementation of the proposed BLRT Extension project were determined based on direct field observation from multiple vantage points; evaluation of existing visual character; and review of BLRT Extension project plans and features. Visual impact assessment was based on direct field observation from multiple vantage points, including from neighboring properties and roadways; evaluation of existing visual character; and review of proposed BLRT Extension project plans and features. Visual impact assessment was also based on photographic documentation of several key views of the proposed BLRT Extension project corridor.

This resulting aesthetics and visual resources analysis focuses on proposed BLRT Extension project features that would have direct impacts on the proposed BLRT Extension project corridor by changing the character of the existing visual quality of the landscape. The analysis concluded that the proposed BLRT Extension project would not result in a substantial change to the visual character of the corridor as a whole, and neutral effects on visual quality are anticipated to result from project implementation along most segments. However, adverse effects on visual quality would occur in some areas, such as where the existing vegetated center median of Olson Memorial Highway (Trunk Highway 55) would be modified or removed. Additionally, adverse effects on visual quality would occur in areas where recreational and residential uses are located along or in the vicinity of the proposed BLRT Extension project corridor. At locations where adverse visual effects are anticipated, transitway elements added to the rail corridor may be visually screened or softened using landscaping where adequate space permits, and in general, the loss of vegetation



would be replaced with vegetation of a similar type where feasible. Where new physical features of the transitway are introduced, strategies to screen or soften the view would be implemented.

Neutral impacts are anticipated as a result of station and traction power substation (TPSS) construction. Stations would be designed to be aesthetically attractive and to complement their surroundings. Additionally, TPSSs would be designed to be compatible with their surroundings, and may incorporate landscaping and/or other built features such as walls or fencing to minimize visual intrusion as appropriate. However, it is anticipated that station features would also include passenger information displays, lighting, and security systems, which could alter the visual quality and character of the view for sensitive view groups. Coordination with stakeholders would continue throughout the proposed BLRT Extension project design process for stations and also to address the siting of TPSSs to maintain neutral visual impacts. This process may include development of additional visual screening as required. To further minimize visual quality impacts of TPSS siting, the siting would be customized for each location based on the context of each facility in relation to adjacent properties and resources.



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1 Introduction

1.1 Project Background

This Visual Quality Technical Report has been prepared in support of the Final Environmental Impact Statement (Final EIS) for the proposed METRO Blue Line Light Rail Transit (BLRT) Extension project. The purpose of the proposed BLRT Extension project is to provide transit service which will satisfy the long-term regional mobility and accessibility needs for businesses and the traveling public. The proposed BLRT Extension project is needed to effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports economic development goals and objectives of local, regional, and statewide plans.

The Draft Environmental Impact Statement (Draft EIS) was completed in 2014 (March). In support of the Draft EIS, the *Bottineau Transitway Technical Report: Visual Quality* (September 2012) was prepared to analyze the project alternatives under consideration in the Draft EIS. The objective of this Final EIS Visual Quality Technical Report is to evaluate the proposed BLRT Extension project's potential effects on visual quality within the study area for the proposed BLRT Extension project, including:

- The effect of the proposed BLRT Extension project on the character of the natural visual features of the study area;
- The effect of the proposed BLRT Extension project on the character of the built visual features of the study area; and
- The effect of the proposed BLRT Extension project as visually perceived by the affected population in the study area.

1.2 Definition of Terms

1.2.1 Visual Features

The term *visual features* refers to the components of the natural, built, or project environments that are capable of being seen, as described in further detail below.

- **Natural Visual Features** include the land, water, vegetation, and animals that compose the natural environment. Although natural features may have been altered or imported by people, features which are primarily geological or biological in origin are considered natural.
- **Built Visual Features** include the buildings, structures, and artifacts that compose the surrounding built environment, also known as the cultural environment. These are features which were constructed by people.
- **Project Visual Features** include the geometrics, structures, and fixtures that compose the project environment. These are the constructed features which would be placed in the environment as part of the proposed BLRT Extension project.



1.2.2 Visual Quality

The term *visual quality* refers to what viewers like and dislike about the visual features that compose a particular scene. Visual quality is inherently subjective—different viewers may evaluate visual features differently. In general, people respond favorably to scenes that create a sense of perceived harmony, order, and coherence.

Based on the developed urban and suburban context of the proposed BLRT Extension project study area, specific features were identified as *higher-quality visual features* when they exemplified one of the following characteristics:

- A remnant natural feature exemplary of pre-settlement conditions;
- A visually distinct natural or built feature that stands out from the surroundings and which contributes physically and symbolically in a positive way to the overall community's visual quality; or
- A natural or built feature that is an integral component of the broader physical pattern of the community and is generally regarded positively.

1.2.3 Affected Population

The term *affected population* is defined as the viewers who occupy land adjacent to the proposed BLRT Extension project—in either the long or short terms. These people can be characterized by their association with a specific adjacent land-use, including residential, commercial, industrial, agricultural, recreational, and institutional parcels. An example of a long-term viewer would be a homeowner with property along the transitway. An example of a short-term viewer would be a runner using a trail in a park adjacent to the transitway.

1.2.4 General Visual Context

The term *general visual context* is the appearance of the nearby surroundings from the vantage point of a person from ground level; i.e., as one would perceive it from a car, train, bus, bicycle, or on foot. The proposed BLRT Extension project passes through developed urban and suburban areas with a wide range of development patterns. In **Section 4.2 – Landscape Units and Viewshed**, a brief description of the general visual context of each area is provided as a basis for understanding the identified effects on specific visual features.



2 Assessment Methodology

The methodology used to evaluate aesthetics and visual quality impacts is based on the Federal Highway Administration's (FHWA) *Guidelines for the Visual Impact Assessment of Highway Projects* (January 2015), which outlines the four phases used to assess visual impacts. The four phases are establishment, inventory, analysis, and mitigation, as described in detail below.

- **Establishment:** The primary purpose of the establishment phase is to define the study area. The establishment phase is documented in **Chapter 3 – Proposed BLRT Extension Project Location and Description**, which defines the proposed BLRT Extension project's visual character, and **Chapter 4 – Existing Conditions**, which defines the proposed BLRT Extension project's study area, including viewsheds and landscape units.
- **Inventory:** The purpose of the inventory phase is to examine visual quality, or the relationship between viewers and their environment. The inventory phase is documented in **Chapter 4 – Existing Conditions**, which describes the affected environment and visual quality of the study area.
- **Analysis:** The purpose of the analysis phase is to evaluate impacts on visual quality. The analysis phase is documented in **Chapter 5 – Visual Impact Assessment**, which assesses the changes to visual quality as a result of the proposed BLRT Extension project implementation, including a review of project features as seen from several key views.
- **Mitigation:** The purpose of the mitigation phase is to define the mitigation and enhancement efforts to be included in proposed BLRT Extension project design. The mitigation phase is documented in **Chapter 6 – Conclusions and Recommendations**, which outlines the mitigation measures to be implemented during proposed BLRT Extension project construction and operation.

2.1 Visual Character and Quality

The visual impacts of a proposed project are determined by assessing the visual resource changes that would occur as the result of the project and by predicting viewer response to those changes. Visual resource change is the sum of the change in visual character and the change in visual quality. This change can be determined by assessing the compatibility of the proposed project with the visual character of the existing landscape, and then comparing the visual quality of the existing resources with projected visual quality after implementation of the proposed project.

Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither good nor bad themselves. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change. Both natural and artificial landscape features contribute to the visual character of an area or view.



Visual quality is the value viewers place on the existing visual character of the affected environment based on their visual preferences. FHWA outlines the following three aspects of visual perception, which determine the visual quality of a particular scene.

- When viewing the components of a scene's natural environment, viewers inherently evaluate the natural harmony of the existing scene, determining if the composition is harmonious or inharmonious.
- When viewing the components of the cultural environment, viewers evaluate the scene's cultural order, determining if the composition is orderly or disorderly.
- When viewing the project environment, viewers evaluate the coherence of the project components, determining if the project's composition is coherent or incoherent.

According to FHWA guidelines, people typically perceive the landscape from or to a linear transportation feature as a composition, and the more the composition meets their visual preferences and expectations, the more they like it. The more they like it, the more memorable, or vivid, it becomes. Therefore, it is useful to evaluate whether the new composition will be as vivid as the existing one, and whether the improvements have enhanced or detracted from the original scene.

2.1.1 Viewer Groups

The population affected by the proposed project is referred to as viewers. Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how a viewer might react to visual changes brought about by a project. Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, the type of viewer activity, the duration of the view, the speed at which the viewer moves, and the position of the viewer.

Low viewer sensitivity results when there are few viewers who experience a defined view, or when they may be less focused on the view, such as a freeway commuter on the freeway. Low viewer sensitivity is also related to viewer expectations resulting from what viewers are used to seeing along the corridor. For example, because a portion of the proposed BLRT Extension project corridor has historically been a rail corridor, viewers are accustomed to seeing rail as a dominant visual feature in the landscape in those areas. High viewer sensitivity results when there are many viewers who have a view of frequent or long duration. High viewer sensitivity is also related to familiarity with a view, such as when viewing a resource from a residence, a recreational site, or a commute route. For example, recreational and residential viewers tend to have extended viewing periods and may be more concerned about changes in views.

The study area for the proposed BLRT Extension project includes several types of viewer groups, such as light rail transit (LRT) users, roadway users, pedestrians, residents, workers, and recreational users, as described in further detail below.



- **LRT users:** LRT users include both occasional and frequent (e.g., commuters) passengers on rail lines utilizing the proposed BLRT Extension project corridor. Single views for LRT users are typically of short duration. LRT users who frequently travel a route generally possess low to moderate visual sensitivity to their surroundings, as the passing landscape becomes familiar. Also, LRT users may be less focused on the passing views and more focused on activities such as reading or use of electronic devices.
- **Roadway Users:** Roadway users include both routine (e.g., commuters) and occasional (e.g., recreational) travelers through the proposed BLRT Extension project corridor. Roadway users travel at varying speeds due to differences in the mode of transportation used (vehicles, bicycles, etc.), topography of the route, the traveler’s familiarity with the route, and roadway and weather conditions. Single views for roadway users are typically of short duration. Roadway users are generally assumed to have moderate levels of sensitivity due to the typically short-term exposure to changes. Roadway users who frequently travel a route generally possess low to moderate visual sensitivity to their surroundings, as the passing landscape becomes familiar. Also, roadway users may be less focused on the passing views and more focused on roadway conditions.
- **Parkway Users:** The study area for the proposed BLRT Extension project also includes a unique category of roadway users: Grand Rounds Users, which are a combination of the routine (e.g., commuters) and occasional (e.g., recreational) travelers described above. The Grand Rounds National Scenic Byway, a linked series of park areas in Minneapolis, is part of the Federal Highway Administration’s National Scenic Byways Program,¹ According to the Minneapolis Park and Recreation Board, Grand Rounds users are not truly “roadway users” because the Grand Rounds was developed and is managed as a pleasure-driving loop with a focus on scenic attributes; speeds are slower and the intended experience is park-like, and not transportation-focused. Yet these users are also not just “recreational users” because they are not seeking the same natural experience.
- **Pedestrians:** Pedestrians include individuals who are traveling on foot along or in the vicinity of the proposed BLRT Extension project corridor. Pedestrians may include individuals traveling to and from residences, schools, places of employment, retail centers, transportation facilities, etc. Pedestrians are generally assumed to have higher levels of viewer sensitivity due to the typically long-term exposure to changes in the environment.
- **Residents:** Residents include individuals whose homes are located along or in the vicinity of the proposed BLRT Extension project corridor. Residential viewers are generally assumed to have higher levels of viewer sensitivity due to a concern for their home environment and typically long-term exposure to changes in that environment. Residents may have moderately high viewer sensitivity because they are likely to place a high value on their local visual resources and to be more sensitive to changes in views.

¹ The US Department of Transportation, Federal Highway Administration oversees the National Scenic Byways Program, which helps recognize, preserve and enhance selected roads throughout the US National Scenic Byways are recognized based on one or more archaeological, cultural, historic, natural, recreational, and/or scenic qualities. The Grand Rounds National Scenic Byway is eligible for the National Register of Historic Places.



- **Business Owners:** Business owners include individuals whose business and/or work activities are located along or in the vicinity of the proposed BLRT Extension project corridor. Business owners are generally assumed to have lower levels of viewer sensitivity to a work environment. Viewer sensitivity is moderate among business owners, as they are typically less focused on the visual resources surrounding their business, and therefore are less sensitive to changes in views. However, depending on the nature of the business, some business owners may place a higher value on the visual resources surrounding their business, especially if the business is focused on the use or enjoyment of a natural or peaceful setting.
- **Workers:** Workers include individuals whose place of employment or work activities are located along or in the vicinity of the proposed BLRT Extension project corridor. Workers are generally assumed to have lower levels of viewer sensitivity to a work environment, as they are typically less focused on the visual resources surrounding their workplace, and therefore are less sensitive to changes in views.
- **Recreational Users:** The proposed BLRT Extension project corridor passes through or near several park and trail areas, and recreational users in these areas may include walkers/joggers, bikers, and nature viewers. Recreational viewers are generally assumed to have higher levels of viewer sensitivity due to a particularly focused interest in scenic quality. Viewer sensitivity is moderately high among recreational users because they are more likely to place a high value on the natural environment and to be more sensitive to changes in views.

2.1.2 Levels of Visual Impact

According to FHWA guidelines, impacts are defined as either changes to the environment, measured by the compatibility of the impact, or changes to viewers, measured by sensitivity to the impact. Together, the compatibility and sensitivity determine the degree of the impact, which is defined as a beneficial, adverse, or neutral change to visual quality. For example, a project may benefit visual quality by enhancing visual resources and/or views and improving the experience of visual quality. Similarly, a project may adversely affect visual quality by degrading visual resources or obstructing or altering desired views.

2.1.3 Assessing Visual Change

The visual impacts of the proposed BLRT Extension project were determined by evaluating the changes to existing visual resources that would occur as a result of the proposed BLRT Extension project implementation, and assessing the anticipated viewer response to those changes. Aesthetic impacts resulting from the proposed BLRT Extension project implementation were determined based on direct field observation from multiple vantage points, including from neighboring properties and roadways; evaluation of existing visual character; and review of proposed BLRT Extension project plans and features. Visual impact assessment was also based on photographic documentation of several key views of the proposed BLRT Extension project corridor. Key views are described in future detail below in **Chapter 5 – Visual Impact Assessment**. Key views represent specific locations within a landscape unit from which the proposed BLRT Extension project would be visible. Within the landscape unit, key views are used to characterize the existing visual conditions and to represent examples of visual character and visual quality. They are also used to determine impacts by demonstrating how the proposed BLRT Extension project would change views within the landscape unit.



3 Proposed BLRT Extension Project Location and Description

3.1 Proposed BLRT Extension Project Location

The proposed BLRT Extension project is located in Hennepin County, Minnesota, extending approximately 13 miles from downtown Minneapolis to the northwest, serving north Minneapolis and the suburbs of Golden Valley, Robbinsdale, Crystal, and Brooklyn Park. **Figure 1** illustrates the proposed BLRT Extension project area. Key transportation facilities within the proposed BLRT Extension project area include Interstate Highway 94 (I-94), Olson Memorial Highway (Trunk Highway [TH] 55), TH 100, TH 610, Bottineau Boulevard (County Road 81), West Broadway Avenue (County State-Aid Highway [CSAH] 103), the BNSF Railway (BNSF) corridor, the Canadian Pacific Railway (CP) corridor, and Crystal Airport.

3.2 Proposed BLRT Extension Project Setting

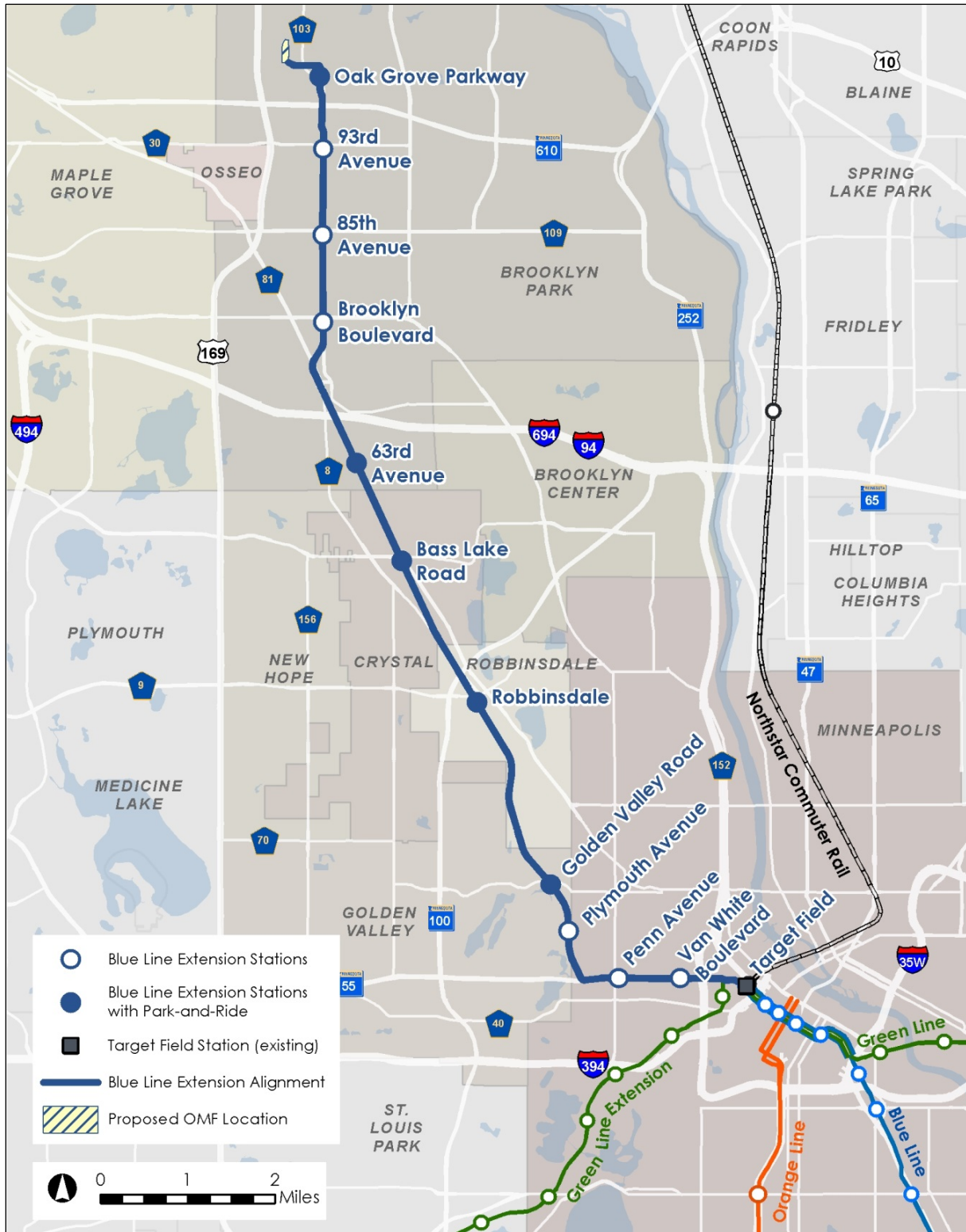
The character of the area surrounding the proposed BLRT Extension project transitions from downtown Minneapolis to a moderately dense urban setting in north Minneapolis and then to a less dense suburban setting starting in the cities of Golden Valley, Robbinsdale, and Crystal, and extending through the City of Brooklyn Park at the north end of the corridor. The proposed BLRT Extension project area includes a variety of land use patterns that have been influenced by the transportation-oriented history of the corridor. Low-density, auto-oriented land uses have heavily influenced existing development patterns in the corridor, which primarily reflect highway-oriented regulations and traditional suburban development forms. Additionally, the presence of the existing railway lines influenced the development patterns and settings in much of the proposed BLRT Extension project corridor (e.g., development set back from the railroad right-of-way).

Much of the proposed BLRT Extension project area, in particular the Golden Valley area, includes substantial park setting along the proposed BLRT Extension project corridor. These areas are primarily located to the west of downtown Minneapolis, between the intersection of Olson Memorial Highway with Theodore Wirth Regional Park and continuing through Golden Valley.

Existing development in north Minneapolis and Robbinsdale reflects the history of West Broadway Avenue as a commercial streetcar corridor, with strips of auto-oriented commercial activity developed more recently. Residential neighborhoods are located along the proposed BLRT Extension project in the cities of Minneapolis, Golden Valley, Robbinsdale, Crystal, and Brooklyn Park. In Brooklyn Park south of 73rd Avenue and in northern Crystal, development adjacent to the proposed BLRT Extension project includes highway-oriented commercial activity and the Crystal Airport. In the City of Brooklyn Park north of 73rd Avenue, development adjacent to West Broadway Avenue includes mixed commercial and retail, commercial office/corporate campus (Target North Campus), residential, and institutional use (North Hennepin Community College and Hennepin County Library under construction). Several activity centers are located along the corridor, including downtown Minneapolis, Theodore Wirth Regional Park, downtown Robbinsdale, the Crystal Shopping Center, the City of Brooklyn Park commercial strip, and North Hennepin Community College. In addition, large commercial developments with substantial employment concentrations are anticipated by 2040 in the City of Brooklyn Park (surrounding the Target North Campus north of TH 610).



Figure 1. Proposed BLRT Extension Project





3.3 Proposed BLRT Extension Project Description

The proposed BLRT Extension project corridor begins at the Target Field Station in downtown Minneapolis and follows Olson Memorial Highway to just west of Thomas Avenue where it enters the BNSF rail corridor. Adjacent to the freight rail tracks, it continues in the rail corridor through the cities of Golden Valley, Robbinsdale, Crystal, and enters the City of Brooklyn Park. In portions of the Golden Valley area, the existing freight rail tracks would be relocated. As a result, in some areas, the new freight rail tracks would be closer to the corridor's parks. The corridor then crosses Bottineau Boulevard at 73rd Avenue to West Broadway Avenue and terminates just north of TH 610 near the Target North Campus.

The proposed BLRT Extension project includes seven new LRT bridges: a 350-foot-long crossing of the Hennepin Energy Recovery Center (HERC) driveway, a 700-foot-long crossing of the ponds immediately north of Golden Valley Road, a 1,250-foot-long crossing of Grimes Pond in Robbinsdale, a 375-foot-long bridge over TH 100, a 1,250-foot-long bridge over the CP rail tracks, a 925-foot-long bridge over the 73rd Avenue/Bottineau Boulevard intersection, and a 300-foot-long bridge over TH 610.

In addition, five roadway bridges would be reconstructed: a 375-foot-long Olson Memorial Highway bridge over the BNSF rail corridor, a 375-foot-long Plymouth Avenue bridge, a 120-foot-long Theodore Wirth Parkway bridge, a 215-foot-long Golden Valley Road bridge, and a 110-foot-long 36th Street bridge. Three additional bridges would require modifications to accommodate LRT: the Olson Memorial Highway bridge over I-94 in the City of Minneapolis, the eastbound Olson Memorial Highway bridge over the BNSF rail corridor, and the Interstate Highway 694 (I-694) bridge over the BNSF rail corridor in the City of Brooklyn Park.

The general elements of the proposed transitway system are the stations, the Operations and Maintenance Facility (OMF), the traction power substations (TPSSs), fare collection, trackway, vehicles, train control, operating frequencies, and noise walls proposed to mitigate noise impacts. These features are summarized below.

- **Stations** – The proposed BLRT Extension project includes 11 new stations at Van White Boulevard, Penn Avenue, Plymouth Avenue, Golden Valley Road, Robbinsdale Road, Bass Lake Road, 63rd Avenue, Brooklyn Boulevard, 85th Avenue, 93rd Avenue, and Oak Grove Parkway. The Golden Valley Road and Plymouth Avenue stations include vertical circulation (elevator) to allow passengers to access the station platforms. The 63rd Avenue Station includes a pedestrian overpass of the rail lines to provide better rider access between the parking ramp and the LRT platform. It is anticipated that station features would also include passenger information displays, lighting, and security systems.
- **Operations and Maintenance Facility** – The OMF site would be located at the north end of the proposed BLRT Extension project corridor in Brooklyn Park. The OMF site was selected based on its proximity to the end of the line, adequate space for the special trackwork required between the mainline track and the facility, and adequate property for the facility (about 10.8 acres). The OMF site would be occupied by a storage and maintenance building that is about 163,000 square feet (SF), surface parking for employees and visitors, trackwork, and



open space. The facility would include areas to store, service, and maintain up to 30 light rail vehicles (LRVs), vehicle washing and cleaning equipment, and office space to accommodate staff who would report for work at this facility. The facility would be equipped to perform daily cleaning and repair activities on the LRVs as they enter and leave revenue service. Scheduled service and maintenance inspections also would be performed in this facility. It is anticipated that OMF features would also include lighting and security systems.

- **Traction Power Substations** –A total of 17 potential TPSS locations have been identified along the proposed BLRT Extension project corridor. The TPSS locations are represented by areas with a 300-foot diameter. These areas would be refined through more-detailed engineering to minimize impacts to surrounding properties and resources and to balance safety, reliability, cost, and operational efficiencies. TPSS sites, once located, would be about 4,000 SF and able to accommodate a single-story building about 40 feet by 20 feet. Access to the building must also be accommodated. It is anticipated that most TPSS sites would be located within existing transportation right-of-way.
- **Fare-Collection System** – A self-service, proof-of-payment fare-collection system was assumed for the proposed BLRT Extension project, consistent with that used on the other regional transitways today. A proof-of-payment fare-collection system minimizes the right-of-way needed for each station.
- **Trackway** – LRVs would operate on standard-gauge rail. The proposed system would be double-tracked throughout to provide separate tracks for northbound and southbound trains. Crossovers to allow trains to cross from the northbound to the southbound tracks would be provided at regular intervals for special operations or emergencies. Typically, the trackway in the BNSF rail corridor would be ballasted track separate from the freight rail track. Alignments in streets would be either ballasted or embedded depending on the location and the context of the street.
- **Vehicles** – The conceptual engineering to support the Final EIS assumes the following LRV characteristics:
 - Articulated train cars could operate in either directional and could be operated as a single-unit or multi-unit train.
 - Cars would be designed for use with an overhead catenary system.
 - Each car would have 66 seats and capacity for 160 passengers (sitting and standing).
 - Two- to three-car trains would operate at speeds up to 55 miles per hour (mph).
 - Cars would be fully compatible with Americans with Disabilities Act (ADA) standards.
- **Train Control** – An operator would occupy each train and would have control over acceleration and braking as well as operating the passenger doors. Automated systems would inform the operator of various train and transitway operating conditions and would manage traffic signal priority, activation of crossing gates, and track switch operations.
- **Operating Frequencies** – The Final EIS assumes that trains would operate at 10-minute frequencies for weekday operations.



- **Noise Walls** – The proposed BLRT Extension project would also include the construction of noise walls in locations where such features have been determined feasible to mitigate for noise impacts. The proposed noise walls are located primarily in the more dense residential sections of the cities of Robbinsdale and Crystal. Noise wall design details would be refined during final project design activities, but it is anticipated that noise walls may be a maximum of 8 feet tall.

4 Existing Conditions

4.1 Study Area

The study area is defined as the right-of-way for the proposed BLRT Extension project corridor and the adjacent properties with a visual connection to the transitway, which include residential, commercial, and park properties. In select instances, the extent of analysis was expanded to account for specific features that were visible by field observation along the proposed transitway as a result of topography, physical scale, architectural distinction, or other considerations.

The study area includes a diverse array of development patterns, parks and natural areas, railroads, highways, and local roadways. A summary of the general visual context and a listing of identified higher-quality and unique visual features are provided below.

4.2 Landscape Units and Viewshed

A landscape unit is a portion of the regional landscape. These units are commonly used to divide long linear projects into logical geographic entities for assessment purposes. Landscape units generally are made up of areas with similar visual characteristics, although smaller locations within each landscape unit may differ from the overall unit's character. For the purposes of this visual quality analysis, the study area is divided into four landscape units: Minneapolis, Golden Valley, Robbinsdale/Crystal, and Brooklyn Park. The limits of the four landscape units are shown in **Figure 2**, and are described in detail below, in the discussion of each landscape unit.

A viewshed is a subset of a landscape unit; this subset is comprised of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views located from the proposed BLRT Extension project. The viewshed also includes the locations of viewers likely to be affected by visual changes resulting from the addition of proposed BLRT Extension project features. The study area for the proposed BLRT Extension project includes the areas that could potentially have views of the proposed BLRT Extension project features and the areas which LRT users could potentially view as they travel through the landscape.

4.2.1 Minneapolis Landscape Unit

The Minneapolis Landscape Unit is bound by Target Field to the east, and by the Minneapolis/Golden Valley city limits to the west (see **Figure 2**).



Figure 2. Landscape Units





4.2.1.1 General Visual Context

The Minneapolis Landscape Unit runs along Olson Memorial Highway between downtown Minneapolis and the Golden Valley city limits. In the vicinity of Target Field in downtown Minneapolis, 7th Street branches into one-way outbound 7th Street and one-way inbound 10th Street. Northeast of the Target Field Station at 5th Avenue, 6th Avenue realigns to the street grid of the North Loop section of downtown. The taller buildings of downtown Minneapolis are visible in the near distance. Between Target Field and I-94, industrial and civic buildings line the route, and there is little greenery. The intersection of Olson Memorial Highway, 6th Avenue, and 7th Street is a skewed configuration and a visually challenging area to navigate. Along Olson Memorial Highway between I-94 and the bridge over the BNSF rail corridor, homes in the adjacent residential neighborhoods generally face inward to the local streets and do not face Olson Memorial Highway directly. Some multi-family residential buildings ranging from two to six stories do have some units facing the highway. On the south side of Olson Memorial Highway, Harrison Park includes ball fields and a community center building. Additionally, several civic buildings and spaces have prominent locations.

As part of the *Minneapolis Near Northside Master Plan* (May 2000), Olson Memorial Highway was envisioned as a “gateway” corridor, in that it passes through the center of the Master Plan area and is being redesigned to create a formalized green gateway to downtown Minneapolis. The redesigned roadway would also contribute to a safer, enhanced pedestrian environment. The plan also acknowledged the redesign would permit future implementation of LRT within the median island. Since the plan’s adoption, a number of improvements have been implemented, including new boulevard and median tree plantings to complement the mature trees along the south frontage road.

4.2.1.2 Higher-Quality Visual Features

Section 1.1.1.2 – Visual Quality outlines the characteristics that a feature would exemplify in order to be considered a “higher-quality visual feature.” Based on the developed urban and suburban context of the study area, the following features of the Minneapolis Landscape Unit were identified as higher-quality visual features:

- Ford Building
 - Located at the northeast corner of the intersection of 5th Street and 5th Avenue, the recently redeveloped historic ten-story building has a brick façade with large window openings and a recently renovated primary entrance oriented towards the parking lot off 5th Avenue.
- HERC site landscaping
 - Located at the southeast corner of 6th Avenue and 7th Street, this landscaped area stands out because there is very little other vegetation in the vicinity.
- Metro Transit headquarters
 - Located at the corner of 6th Avenue and 7th Street, the five-story modern building has a brick, metal, and glass façade.



- Boulevard and median trees along Olson Memorial Highway west of I-94
 - Linear rows of trees frame the roadway corridor. They are a mixture of mature and newly planted trees, which reinforces the city’s desired “gateway” character for the roadway.
- Sumner Library
 - Located at the northwest corner of Olson Memorial Highway and Van White Memorial Boulevard, the historic two-story building, on the National Register of Historic Places, has prominent gabled roof peaks and a brick façade that faces Olson Memorial Highway.
- Seed Academy and Wayman African Methodist Episcopal (AME) Church
 - Located on the north side of Olson Memorial Highway east of Humboldt Avenue, the historic, multi-purpose building has a two-story brick façade with a mosaic appearance.
- Zion Baptist Church
 - Located on the north side of Olson Memorial Highway just west of Logan Avenue, the building is a modern three-story brick and glass structure.
- Floyd B. Olson Memorial Statue
 - Located on the south side of the Olson Memorial Highway just east of the Penn Avenue intersection, a small plaza surrounds an approximately 10-foot-tall historic figural stone sculpture of Floyd B. Olson, Minnesota’s 22nd Governor from 1931 to 1936.
- Harrison Neighborhood gateway sculptures
 - Located on the south side of Olson Memorial Highway at the Penn Avenue intersection, these artistic gateway features are approximately ten feet tall and are topped with figural sculptures of children and colorful symbols.

4.2.2 Golden Valley Landscape Unit

The Golden Valley Landscape Unit is generally bound by the Minneapolis/Golden Valley city limits to the east, and by the Golden Valley/Robbinsdale city limits to the north; however, this landscape unit also includes the southern portion of the City of Robbinsdale (see [Figure 2](#)).

4.2.2.1 General Visual Context

The Golden Valley Landscape Unit runs along the edge of the Minneapolis and Golden Valley city limits, in the eastern 50 feet of the total 100-foot-wide BNSF right-of-way alongside the BNSF tracks. At the Olson Memorial Highway bridges over the BNSF right-of-way, the transitway would shift away from the center median of Olson Memorial Highway and turn north under westbound Olson Memorial Highway and continue northward along the Golden Valley and Minneapolis city limits. Through 36th Avenue, the transitway would be depressed in relation to the surroundings with wooded embankments on both sides. Adjacent land uses primarily include residential neighborhoods and public parkland.

While some of the residential areas are secluded from the rail corridor by wider vegetative buffers, others are in closer proximity or have less vegetative buffer such as along the eastern edge on Indiana Avenue, Kewanee Way, parts of Xerxes Avenue, and the area near the transition to/from



Olson Memorial Highway. Along the western edge of the rail corridor, a linear natural area is comprised of a series of parks that are a natural retreat from the surrounding urban and suburban development including Sochacki Park,² South Halifax Park, Glenview Terrace/Valley View Park, and Theodore Wirth Regional Park and Golf Course. Each is described in more detail below. Within Theodore Wirth Regional Park, Bassett Creek meanders through a patchwork of forested areas at the edge of the golf course as it heads south toward Bassett Lake and Olson Memorial Highway.

The railroad right-of-way is also a primary utility corridor. A power substation is located adjacent to the BNSF right-of-way near 34th Avenue. Power lines run along the east or west, or in some areas both, sides of the railroad corridor along the entire length of this landscape unit. The presence of the railroad and utilities through this generally green area environment indicates the natural area has been previously disturbed. However, much of the green area is an intentionally designed landscape by Theodore Wirth, as referenced in the Theodore Wirth Regional Park Cultural Landscape Study prepared by The 106 Group in 2015.

4.2.2.2 Higher-Quality Visual Features

Based on the developed urban and suburban context of the study area, the following features of the Golden Valley Landscape Unit were identified as higher-quality visual features:

- Plymouth Avenue bridge over Bassett Creek and the BNSF rail corridor
 - This bridge was designed with tall slender arching piers, an architectural railing, and decorative lighting. It serves as a gateway feature approaching Theodore Wirth Regional Park on Plymouth Avenue from the east and affords a good vantage point down to the creek from the sidewalk.
- Theodore Wirth Regional Park and Golf Course
 - At 759 acres, Theodore Wirth Regional Park is the largest park in the City of Minneapolis parks system and provides a diverse assortment of recreational opportunities. The park includes two golf courses, Wirth Lake, Birch Pond, and other amenities. Wirth Lake, located in a portion of the park to the south of Olson Memorial Highway, includes a beach area, a boardwalk across the northern portion of the lake, and also offers a variety of water recreation activities. The golf course comprises most of the park area adjacent to the proposed transitway. It is a mixture of open spaces for the tees, fairways, and greens bordered by densely wooded areas. The terrain is varied, ranging from flat in some areas to steeply sloped in others. The wooded area between the BNSF rail corridor and Theodore Wirth Parkway between Golden Valley Road and Plymouth Avenue forms a visual buffer from the active use areas of the park.

² In this technical report, the term *Sochacki Park* refers to the park resource managed jointly by the cities of Golden Valley and Robbinsdale, and the Three Rivers Park District. Sochacki Park consists of the former Sochacki Park located in the City of Robbinsdale, and the former Rice Lake Park and former Mary Hills Nature Area located in the City of Golden Valley.



- Bassett Creek and Bassett Lake
 - Bassett Creek flows along the eastern edge of Theodore Wirth Regional Park within the park boundaries, and is partially set within a vegetated area with a mixture of open spaces for the trees. It follows a meandering route that borders several golf holes. In some locations, views of the creek from the course are wide open, and in others the creek is secluded in dense vegetation. Connected with the creek, Bassett Lake is a wider body of water located within Theodore Wirth Regional Park on the north side of Olson Memorial Highway.
- Theodore Wirth Parkway
 - Theodore Wirth Parkway passes through Theodore Wirth Regional Park and crosses over the BNSF right-of-way near Golden Valley Road. It is part of the Grand Rounds National Scenic Byway, which was created for the purpose of scenic pleasure driving. The Grand Rounds was, and is envisioned, designed, and maintained as a facility with high visual quality. This feature is also described in the Theodore Wirth Regional Park Cultural Landscape Study noted above.
- Sochacki Park and South Halifax Park
 - These parks, although under different municipal jurisdictions, are adjacent to each other along the west side of the BNSF right-of-way. They are all densely wooded with a network of paved and unpaved trails.
- Glenview Terrace/Valley View Park
 - Glenview Terrace/Valley View Park is located east of the BNSF rail corridor north of Theodore Wirth Parkway. Near the railroad, it is densely wooded. Moving further east, it transitions to mowed lawn and has tennis courts and a playground.

4.2.3 Robbinsdale/Crystal Landscape Unit

The Robbinsdale/Crystal Landscape Unit is bound by the Golden Valley/Robbinsdale city limits to the south, and by the Crystal/Brooklyn Park city limits to the north (see [Figure 2](#)).

4.2.3.1 General Visual Context

In the Robbinsdale/Crystal Landscape Unit, the transitway would generally follow the BNSF rail corridor. In some locations, the route would parallel a primary roadway. In other locations, it would be more secluded, running behind commercial and residential areas. South of 36th Avenue, the transitway would pass by Walter Sochacki Park, park situated outside the west embankment of the BNSF right-of-way. Near 36th Avenue, the railroad right-of-way is depressed with steep side slopes to allow clearance under the 36th Avenue bridge. In the segment between 36th Avenue and Noble Avenue, the transitway would be aligned at a skew from the neighborhood street grid, so vantage points would vary. At the edges of the railroad right-of-way, continuous chain link fencing restricts access.

Between Noble/41st Avenue and 42nd Avenue, the transitway would pass along the west edge of downtown Robbinsdale's commercial area. Downtown Robbinsdale is an area primarily comprised of single-story storefront buildings and an enhanced streetscape with brick pavers, decorative



lighting, and other features. Along the edges of the railroad right-of-way, rows of tree cover provide some visual buffer for adjacent residential properties and continuous chain link fencing restricts access. Several neighborhood-scale parks are located adjacent to the transitway in this landscape unit, including Becker Park, Triangle Park, and Lee Park. These parks are characterized by mowed lawn with some tree cover at the edges. Moving north, the transitway would cross over TH 100 and run adjacent to West Broadway Avenue, a lower speed two-lane county roadway. Between TH 100 and 47th Avenue, a handful of mature trees are in a grass median between the railroad and West Broadway Avenue.

The development pattern in this area is comprised of single-story commercial buildings oriented towards Bottineau Boulevard. The transitway would parallel Bottineau Boulevard, a multi-lane divided-median county highway. Along the edges of the railroad right-of-way, rows of tree cover provide some visual buffer for adjacent residential properties. The railroad right-of-way is also a primary utility corridor and includes overhead utility lines and poles.

4.2.3.2 Higher-Quality Visual Features

Based on the developed urban and suburban context of the study area, the following features of the Robbinsdale/Crystal Landscape Unit were identified as higher-quality visual features:

- Sacred Heart Catholic Church
 - Located at the intersection of Hubbard Avenue and 40th Avenue, the prominent church spire rises vertically above all other buildings in the vicinity. Constructed of limestone, the building conveys a strong presence that visually anchors the southern end of downtown Robbinsdale.
- Historic Robbinsdale Public Library
 - Located south of 42nd Avenue and west of the BNSF right-of-way, a single-story library building, on the National Register of Historic Places, houses the Robbinsdale Historical Society and is residential in scale.
- West Broadway Avenue and BNSF railroad bridges over TH 100
 - The West Broadway Avenue and BNSF railroad bridges over TH 100 were designed and constructed in accordance with the Minnesota Department of Transportation's (MnDOT) TH 100 aesthetic design guidelines developed for bridges and other features throughout the corridor.
- Green boulevard on west side of West Broadway Avenue between 47th Avenue and TH 100
 - Mature trees in informal groupings are dispersed throughout a lawn area separating the roadway and railroad.
- Bottineau Boulevard Bridge over CP rail corridor
 - As part of the Bottineau Boulevard Roadway Reconstruction, a new bridge with aesthetic treatments and long approaches supported by retaining walls was constructed.



- City of Crystal gateway area
 - As part of the Bottineau Boulevard Roadway Reconstruction, an architectural gateway monument, landscaping, and decorative lighting were installed at the southwest corner of Bottineau Boulevard and Bass Lake Road to call attention to the entrance to the City of Crystal's primary commercial area to the west. Street trees, landscaping, and decorative lighting extend in both directions along both Bass Lake Road and Bottineau Boulevard.

4.2.4 Brooklyn Park Landscape Unit

The Brooklyn Park Landscape Unit: The landscape unit is bound by the Crystal/Brooklyn Park city limits to the south, and by the OMF to the north (see [Figure 2](#)).

4.2.4.1 General Visual Context

At the southern end of the Brooklyn Park Landscape Unit, the route would pass under I-94; the development pattern in that vicinity is comprised of single-story commercial buildings oriented towards Bottineau Boulevard.

South of TH 610, the adjacent land use transitions from agricultural to a mix of single-story commercial and light-industrial buildings and single-family residential neighborhoods. The commercial areas have front yards characterized by mowed lawn, trees, and stormwater treatment ponds. The homes face away from West Broadway Avenue, and fences and landscaping visually separate backyards from the roadway. North Hennepin Community College, located in the southeast corner of the West Broadway Avenue and 85th Avenue intersection is comprised of one and two-story buildings organized around a central green space. The perimeter of the campus is dominated by surface parking lots, with two ball fields and a mowed lawn located south of the college.

North of TH 610 up to 101st Avenue, open field agricultural land is the predominant land use with some remnant woodland and grassland areas. The recently constructed Target North Campus with its multi-story buildings is located along Oak Grove Parkway east of West Broadway Avenue and has landscaped grounds characterized by mowed lawn and trees. Future redevelopment with higher-intensity land use is envisioned for the area, which would likely bring a more suburban development pattern with new streets, buildings, parking, and landscaping.



4.2.4.2 Higher-Quality Visual Features

Based on the developed urban and suburban context of the study area, the following features of the Brooklyn Park Landscape Unit were identified as higher-quality visual features:

- I-94 bridge over the BNSF rail corridor and Bottineau Boulevard
 - The I-94 bridge was designed and constructed with aesthetic enhancements that are unique to this bridge and not a consistent theme throughout the I-94 corridor.
- Shingle Creek
 - Views of Shingle Creek where it crosses West Broadway Avenue north of Candlewood Drive soften the predominantly built appearance of the area. East of West Broadway Avenue, the creek is located in a residential area, and has a natural meandering shape edged by tree cover. To the west, the creek is located in a commercial area, has been straightened and there is little tree cover.
- West Broadway Avenue Bridge over TH 610
 - The West Broadway Avenue bridge over TH 610 was designed and constructed in accordance with MnDOT's TH 610 aesthetic design guidelines developed for bridges and other features throughout the corridor.
- Rush Creek Regional Trail
 - The Rush Creek Regional Trail is approximately 10 miles of paved trail linking Elm Creek Park Reserve to Coon Rapids Dam Regional Park. The trail is popular for its wider-than-average trail corridor, which allows the trail alignment to weave gradually, incorporating significant variety in the landscape. The trail is located adjacent to large mowed turf in some areas, and wooded and dense vegetation in other areas.



5 Visual Impact Assessment

5.1 Introduction

As described in [Section 2.1.3 – Assessing Visual Change](#), the visual impacts of the proposed BLRT Extension project were determined by evaluating the changes to existing visual resources that would occur as a result of the proposed BLRT Extension project implementation, and assessing the anticipated viewer response to those changes. Visual impact assessment was based on direct field observation from multiple vantage points, including from neighboring properties and roadways; evaluation of existing visual character; and review of proposed BLRT Extension project plans and features. Visual impact assessment was also based on photographic documentation of several key views of the proposed BLRT Extension project corridor.

5.2 Key Views

Visual impact assessment included an evaluation of photographic documentation of several key views of the proposed BLRT Extension project corridor. Key views were selected at critical viewpoints, along commonly traveled routes, or at other likely observation points to document the existing conditions of the study area. For some locations, both an existing condition photograph and a simulated condition drawing are provided. Simulation vantage points were selected to provide representative public views from which the proposed BLRT Extension project components that would be most visible to the various types of sensitive receptors that are anticipated to be located within the landscape units identified for the proposed BLRT Extension project. These locations are noted as key view point (KVP) followed by a figure number.

Analysis of aesthetic impacts resulting from the proposed BLRT Extension project implementation included an evaluation of both the photographic documentation of key views of the proposed BLRT Extension project, as well as the simulation condition drawings which illustrate the proposed BLRT Extension project components from 23 KVP locations. For some KVP locations, more than one view was provided (for example, KVP-7 and KVP-7a), resulting in a total of 27 simulations. KVP locations were selected based on the sensitivity of the resource (e.g., to support the historic resources Section 106 consultation process) or locations of key vertical features of the proposed BLRT Extension project that could potentially change the visual character or views of an affected area.

Each of the 20 KVPs is included on a location map, which consists of a series of aerial photographs depicting the location and direction of each KVP. Each KVP is then represented with a “before the proposed BLRT Extension project” existing condition photograph and a computer-generated sketch-up simulation of the conceptual “after the proposed BLRT Extension project” condition. The computer-generated sketch-up simulations were prepared using digital photographs and computer modeling procedures to represent the visual changes that would result from implementation of the proposed BLRT Extension project. The KVP location maps and photographs are provided in [Appendix A](#) of this report.

Additional key views were evaluated at three of the locations proposed for noise walls. These locations are noted as noise wall (NW) followed by a figure number. Each of the three NWs is



included on a location map, which consists of an aerial photograph depicting the location and direction of each NW. The NW location map and photographs are provided in [Appendix A](#) of this report.

5.3 Visual Impact Assessment

The following sections describe the anticipated changes in visual quality and character, within each landscape unit and for each KVP or NW where applicable, as a result of the proposed BLRT Extension project implementation. As described above in [Section 4.2 – Landscape Units and Viewshed](#), the proposed BLRT Extension project would pass through four landscape units, for which 23 KVPs were analyzed. It is important to note when assessing KVPs, that seasonal changes and weather patterns typical of the proposed BLRT Extension project area would produce variations to vegetation and ground cover. In order to represent an accurate long-term view of the proposed BLRT Extension project area, in addition to representation of new proposed BLRT Extension project features, visual simulations for the proposed BLRT Extension project represented a simulation of established vegetation. Thus, in the short term, proposed BLRT Extension project features may be more visible when vegetation is young, and, in the long term, proposed BLRT Extension project features may be less visible when vegetation is mature. Therefore, depending upon the timeframe of the view, both seasonal and vegetation variations could result in altered views than those represented in each existing condition and simulated photograph.

5.3.1 No-Build Alternative

The No-Build Alternative reflects existing and committed improvements to the regional transit network for the horizon year of 2040, not including the proposed BLRT Extension project. The No-Build Alternative is based on the Metropolitan Council's (Council) *Thrive MSP 2040 Transportation Policy Plan (2040 TPP)*. Under the No-Build Alternative, there would be no alteration of the visual quality and character of the proposed BLRT Extension project corridor. Therefore, there would be no visual effects and no mitigation would be required.

5.3.2 BLRT Extension Project Operational Impacts

Overview

Anticipated visual effects during operation of the proposed BLRT Extension project would generally be consistent with existing, similar features, and the proposed BLRT Extension project would not substantially obstruct proposed BLRT Extension project area views or substantially alter the existing visual character of the proposed BLRT Extension project corridor. Additional discussion of operational impacts on the higher-quality visual features identified in [Section 4.2](#) and other prominent visual features of each of the four landscape units is provided below. A summary of KVP and NW analysis (photographic and simulation analysis) by landscape unit is provided below in [Table 5-1](#). A summary of impacts resulting from the addition of primary proposed BLRT Extension project features, as well as impacts on existing higher-quality visual features is provided below in [Table 5-2](#).



Table 1. Summary of Photographic Documentation

Landscape Unit	Designation and Description of View	Degree of Visual Change in Quality and Character	Level of Visual Sensitivity
Minneapolis	OMH 1 (view to the west toward Penn Avenue, from center Olson Memorial Highway median)	Altered	Moderate
	KVP 1 (view to the east toward the Olson Memorial Highway bridge over the BNSF rail corridor, from the Wirth Lake Boardwalk)	Not substantially altered	High
	KVP 2 (view to the east-southeast toward the Olson Memorial Highway bridge over the BNSF rail corridor, from the Wirth Park Trail)	Altered	High
Golden Valley	KVP 3 (view to the northwest toward the existing BNSF tracks and proposed LRT tracks, from Farwell Avenue and Xerxes Avenue North)	Not substantially altered	Moderately high
	KVP 4a (view to the west toward the proposed Plymouth Avenue Station and bridge, from Plymouth Avenue North and Washburn Avenue North)	Altered	Moderately high
	KVP 4b (view to the south toward the existing BNSF tracks and proposed LRT tracks, from the Plymouth Avenue North bridge)	Altered	Moderate
	KVP 4c (view to the north toward the proposed Plymouth Avenue Station, from the Plymouth Avenue bridge)	Substantially altered	Moderate
	KVP 5 (view to the southeast toward the proposed Plymouth Avenue Station and bridge, from the Theodore Wirth Regional Park Chalet)	Altered	High
	KVP 6a (view to the north toward the proposed Golden Valley Road Station, from the Theodore Wirth Regional Park Golf Course)	Not substantially altered	High
	KVP 6b (view to the northeast toward Bassett Creek and the proposed Golden Valley Road Station, from the Theodore Wirth Regional Park Golf Course)	Altered	High
	KVP 7 (view to the west toward the proposed Golden Valley Road Station, from Theodore Wirth Parkway near the intersection of Zenith Avenue)	Not substantially altered	Moderately high
	KVP 8 (view to the west toward the proposed Golden Valley Road Station, from Golden Valley Road and Theodore Wirth Parkway)	Altered	High
	KVP 8a (view to the west toward the proposed Golden Valley Road Station, from Theodore Wirth Parkway at Golden Valley Road)	Altered	Moderately high



Table 1. Summary of Photographic Documentation

Landscape Unit	Designation and Description of View	Degree of Visual Change in Quality and Character	Level of Visual Sensitivity
Robbinsdale/ Crystal	KVP 9 (view to the northwest toward downtown Robbinsdale, from 41st Avenue and Hubbard Avenue)	Not substantially altered	Moderate
	KVP 10 (view to the north toward the proposed Robbinsdale Station, from 41st Avenue)	Not substantially altered	Moderate
	KVP 11 (view to the east toward the proposed Robbinsdale Station, from 42nd Avenue)	Not substantially altered	Moderate
	KVP 12 (view to the southeast toward the proposed wall and fence, from the adjacent residential alley)	Altered	Moderately high
	KVP 21 (view to the southeast toward the proposed Bass Lake Road station and pedestrian bridge, from Bottineau Boulevard)	Altered for visual quality; not substantially altered for visual character	Moderate
	KVP 22 (view to the northwest toward the proposed Bass Lake Road station and pedestrian bridge, from the southeast quadrant of the Bass Lake Road/Bottineau Boulevard intersection)	Altered for visual quality; not substantially altered for visual character	Moderate
	KVP 23 (view to the northeast toward the proposed Bass Lake Road pedestrian bridge, from the southwest quadrant of the Bass Lake Road/Bottineau Boulevard intersection)	Altered for visual quality; not substantially altered for visual character	Moderate
Brooklyn Park	KVP 13 (view to the south toward the proposed 63rd Avenue Station, from the trail adjacent to Bottineau Boulevard)	Altered for visual quality; not substantially altered for visual character	Moderate
	KVP 14 (view to the southeast toward the proposed 63rd Avenue Station, from the adjacent neighborhood west of 63rd Avenue)	Altered	Moderately high
	KVP 15 (view to the north toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from Bottineau Boulevard 81 at 71st Avenue)	Altered for visual quality; not substantially altered for visual character	Moderate
	KVP 16 (view to the northeast toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from 71st Avenue)	Not substantially altered	Moderate
	KVP 17 (view to the north toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from the southeast corner of Bottineau Boulevard and 71st Avenue)	Altered for visual quality; not substantially altered for visual character	Moderate



Table 1. Summary of Photographic Documentation

Landscape Unit	Designation and Description of View	Degree of Visual Change in Quality and Character	Level of Visual Sensitivity
	KVP 18 (view to the south toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from Bottineau Boulevard at 73rd Avenue)	Altered for visual quality; not substantially altered for visual character	Moderate
	KVP 19 (view to the east toward the proposed OMF, from 101st Avenue)	Substantially altered	Moderate
	KVP 20 (view to the southwest toward the proposed OMF, from Rush Creek Regional Trail)	Substantially altered	Moderately high

For each view described in the table, [Appendix A](#) includes a “before BLRT Extension project” existing condition photograph and a computer-generated sketch-up simulation of the conceptual “after BLRT Extension project” condition.



Table 2. Summary of Impacts from Primary Project Visual Features and to Higher-Quality Visual Features

Landscape Unit	Description of View, Higher-Quality Visual Feature, or Primary Project Visual Feature	Photographic Documentation ¹	Level of Impact
Minneapolis	OMH 1 (view to the west toward Penn Avenue, from center Olson Memorial Highway median)	OMH 1	Adverse
	KVP 1 (view to the east toward the Olson Memorial Highway bridge over the BNSF rail corridor, from the Wirth Lake Boardwalk)	KVP 1	Neutral
	KVP 2 (view to the east-southeast toward the Olson Memorial Highway bridge over the BNSF rail corridor, from the Wirth Park Trail)	KVP 2	Adverse
	Ford Building	Not applicable	Neutral
	HERC Landscaping	Not applicable	Neutral
	Metro Transit Headquarters	Not applicable	Neutral
	Boulevard and median trees along Olson Memorial Highway west of I-94	See photographic documentation of OMH 1 above	Adverse
	Sumner Library	Not applicable	Neutral
	Seed Academy and Wayman AME Church	Not applicable	Neutral
	Zion Baptist Church	Not applicable	Neutral
	Floyd B. Olson Memorial	Not applicable	Neutral
Harrison Neighborhood gateway sculptures	Not applicable	Neutral	
Golden Valley	KVP 3 (view to the northwest toward the existing BNSF tracks and proposed LRT tracks, from Farwell Avenue and Xerxes Avenue North)	KVP 3	Neutral
	KVP 4a (view to the west toward the proposed Plymouth Avenue Station and bridge, from Plymouth Avenue North and Washburn Avenue North)	KVP 4a	Adverse
	KVP 4b (view to the south toward the existing BNSF tracks and proposed LRT tracks, from the Plymouth Avenue North bridge)	KVP 4b	Adverse
	KVP 4c (view to the north toward the proposed Plymouth Avenue Station, from the Plymouth Avenue bridge)	KVP 4c	Adverse
	KVP 5 (view to the southeast toward the proposed Plymouth Avenue Station and bridge, from the Theodore Wirth Regional Park Chalet)	KVP 5	Adverse
	KVP 6a (view to the north toward the proposed Golden Valley Road Station, from the Theodore Wirth Regional Park Golf Course)	KVP 6a	Neutral



Table 2. Summary of Impacts from Primary Project Visual Features and to Higher-Quality Visual Features

Landscape Unit	Description of View, Higher-Quality Visual Feature, or Primary Project Visual Feature	Photographic Documentation ¹	Level of Impact
	KVP 6b (view to the northeast toward Bassett Creek and the proposed Golden Valley Road Station, from the Theodore Wirth Regional Park Golf Course)	KVP 6b	Adverse
	KVP 7 (view to the west toward the proposed Golden Valley Road Station, from Theodore Wirth Parkway near the intersection of Zenith Avenue)	KVP 7	Neutral
	KVP 8 (view to the west toward the proposed Golden Valley Road Station, from Golden Valley Road and Theodore Wirth Parkway)	KVP 8	Adverse
	KVP 8a (view to the west toward the proposed Golden Valley Road Station, from Theodore Wirth Parkway at Golden Valley Road)	KVP 8a	Adverse
	NW 1a (view to the northwest toward the proposed noise barrier on the east side of the alignment roughly across from the extent of Sochacki Park (the former Mary Hills Nature Area portion))	NW 1a	Potentially adverse
	NW 1b (view to the southeast toward the proposed noise barrier on the east side of the alignment roughly across from the extent of Sochacki Park (the former Mary Hills Nature Area portion))	NW 1b	Potentially adverse
	Plymouth Avenue bridge over Bassett Creek and BNSF rail corridor	See photographic documentation of KVPs 4a, 4b, 4c, and 5 above.	Neutral
	Theodore Wirth Regional Park and Golf Course	See photographic documentation of KVPs 5, 6a, and 6b above.	Adverse
	Bassett Creek and Bassett Creek Lagoons	Not applicable	Adverse
	Theodore Wirth Parkway	See photographic documentation of KVPs 7, 8, and 8a above.	Neutral
	Glenview Terrace/Valley View Park	Not applicable	Neutral
	Sochacki Park and South Halifax Park	Not applicable	Adverse



Table 2. Summary of Impacts from Primary Project Visual Features and to Higher-Quality Visual Features

Landscape Unit	Description of View, Higher-Quality Visual Feature, or Primary Project Visual Feature	Photographic Documentation ¹	Level of Impact
Robbinsdale/ Crystal	KVP 9 (view to the northwest toward downtown Robbinsdale, from 41st Avenue and Hubbard Avenue)	KVP 9	Neutral
	KVP 10 (view to the north toward the proposed Robbinsdale Station, from 41st Avenue)	KVP 10	Neutral
	KVP 11 (view to the east toward the proposed Robbinsdale Station, from 42nd Avenue)	KVP 11	Adverse
	KVP 12 (view to the southeast toward the proposed wall and fence, from the adjacent residential alley)	KVP 12	Adverse
	KVP 21 (view to the southeast toward the proposed Bass Lake Road Station and pedestrian bridge, from Bottineau Boulevard)	KVP 21	Adverse
	KVP 22 (view to the northwest toward the proposed Bass Lake Road Station and pedestrian bridge, from the southeast quadrant of the Bass Lake Road/Bottineau Boulevard intersection)	KVP 22	Adverse
	KVP 23 (view to the northeast toward the proposed Bass Lake Road pedestrian bridge, from the southwest quadrant of the Bass Lake Road/Bottineau Boulevard intersection)	KVP 23	Adverse
	NW 2a (view to the northwest toward the proposed noise barrier from 36th Avenue to 41st Avenue on the east side, and from 36th Avenue to the southern border of Lee Park on the west side)	NW 2a	Neutral (east) or potentially adverse (west)
	NW 2b (view to the southeast toward the proposed noise barrier from 36th Avenue to 41st Avenue on the east side)	NW 2b	Neutral
	NW 3a (view to the northwest toward the proposed noise barrier from West Broadway Avenue to Corvallis Avenue on the east side)	NW 3a	Neutral
	NW 3b (view to the southeast toward the proposed noise barrier toward from West Broadway Avenue to Corvallis Avenue on the east side)	NW 3b	Neutral
	Bass Lake Road pedestrian overpass	See photographic documentation of KVPs 21, 22, and 23 above.	Adverse
	Sacred Heart Catholic Church	Not applicable	Neutral
Historic Robbinsdale Public Library	Not applicable	Neutral	



Table 2. Summary of Impacts from Primary Project Visual Features and to Higher-Quality Visual Features

Landscape Unit	Description of View, Higher-Quality Visual Feature, or Primary Project Visual Feature	Photographic Documentation ¹	Level of Impact
	West Broadway Avenue and BNSF rail bridges over TH 100	Not applicable	Neutral
	Green boulevard on west side of West Broadway Avenue between 47th Avenue and TH 100	Not applicable	Adverse
	Bottineau Boulevard bridge over CP rail corridor	Not applicable	Neutral
	City of Crystal gateway area	Not applicable	Neutral
	Residential neighborhood between Bass Lake Road and 63rd Avenue	See Appendix A	Adverse
Brooklyn Park	KVP 13 (view to the south toward the proposed 63rd Avenue Station, from the trail adjacent to Bottineau Boulevard)	KVP 13	Adverse
	KVP 14 (view to the southeast toward the proposed 63rd Avenue Station, from the adjacent neighborhood west of 63rd Avenue)	KVP 14	Adverse
	KVP 15 (view to the north toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from Bottineau Boulevard 81 at 71st Avenue)	KVP 15	Adverse
	KVP 16 (view to the northeast toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from 71st Avenue)	KVP 16	Neutral
	KVP 17 (view to the north toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from the southeast corner of Bottineau Boulevard and 71st Avenue)	KVP 17	Adverse
	KVP 18 (view to the south toward the proposed 73rd Avenue/Bottineau Boulevard bridge, from Bottineau Boulevard at 73rd Avenue)	KVP 18	Adverse
	KVP 19 (view to the east toward the proposed OMF, from 101st Avenue)	KVP 19	Adverse
	KVP 20 (view to the southwest toward the proposed OMF, from Rush Creek Regional Trail)	KVP 20	Adverse
	63rd Avenue park-and-ride	See photographic documentation of KVPs 13 and 14 above.	Adverse
	73rd Avenue/Bottineau Boulevard bridge	See photographic documentation of KVPs 15, 16, 17, and 18 above.	Adverse
	OMF	See photographic documentation of KVPs 19 and 20 above.	Adverse



Table 2. Summary of Impacts from Primary Project Visual Features and to Higher-Quality Visual Features

Landscape Unit	Description of View, Higher-Quality Visual Feature, or Primary Project Visual Feature	Photographic Documentation ¹	Level of Impact
	I-694 bridge over BNSF rail corridor and Bottineau Boulevard	Not applicable	Neutral
	Shingle Creek	Not applicable	Neutral
	West Broadway Avenue bridge over TH 610	Not applicable	Neutral
	Rush Creek Regional Trail	Not applicable	Adverse

¹ A summary of photographic documentation locations is presented in **Table 4.5-1** of the Final EIS for locations where a current condition photograph and a simulation exist. These photographs, simulations, and other photographic documentation can be found in **Appendix F – Visual Quality Technical Report** of the Final EIS. “Not applicable” indicates that photographic documentation was not developed for that particular feature.



Minneapolis Landscape Unit

Primary Proposed BLRT Extension Project Visual Features

Stations

The following proposed BLRT Extension project stations are proposed within the Minneapolis Landscape Unit.

- Van White Boulevard
- Penn Avenue

Bridges and Structures

The following proposed BLRT Extension project bridges and structures are proposed within the Minneapolis Landscape Unit.

- New bridge crossing HERC driveway
- Modified Olson Memorial Highway bridge over I-94
- Reconstructed Olson Memorial Highway bridge over the BNSF rail corridor (see description of KVPs 1 and 2 below)

Photographic Documentation

The Minneapolis Landscape Unit includes KVPs 1 and 2, as described in detail below. KVP location maps and photographs are provided in [Appendix A](#) of this report. A separate location map is provided in [Appendix A](#) for the Olson Memorial Highway photograph and sketch-up, designated as OMH 1.

- **OMH 1** (view to the west toward Penn Avenue, from center Olson Memorial Highway median) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on its status as a heavily traveled corridor. In the simulated view from OMH 1, median trees have been removed for the transitway alignment. However, though these trees would be removed from the corridor, some would be relocated to other park properties. Tree relocation would depend on the condition and age of the tree, and other factors. The proposed BLRT Extension project would alter the visual quality and character at this location; however, trees at the highway edges remain and continue to support the “gateway” appearance of the corridor.
- **KVP 1** (view to the east toward the Olson Memorial Highway bridge over the BNSF rail corridor, from the Wirth Lake Boardwalk) represents the changes to the viewshed as seen by recreational users. Views at this location would typically be of long duration, and viewers would have a high sensitivity based on the recreational nature of land uses at this location. In the simulated view from KVP 1, the new proposed BLRT Extension project features that would be most visible are the reconstructed Olson Memorial Highway bridge over the BNSF rail corridor, the overhead catenary system, and passing LRVs. However, these features could be difficult for viewers to see based on the distance and the surrounding vegetation. The proposed BLRT



Extension project would not substantially alter the visual quality or character at this location and would not obstruct views. The proposed BLRT Extension project would not preclude continued recreational use at this location.

- **KVP 2** (view to the east-southeast toward the Olson Memorial Highway bridge over the BNSF rail corridor, from the Wirth Park Trail) represents the changes to the viewshed as seen by recreational users. Views at this location would typically be of long duration, and viewers would have a high sensitivity based on the recreational nature of land uses at this location. In the simulated view from KVP 2, the new proposed BLRT Extension project features that would be most visible are the new track, the overhead catenary system, and passing LRVs. These new features would be of similar elevation to the existing BNSF rail corridor and may be difficult for viewers to see based on the surrounding vegetation, though it is important to note that seasonal changes in vegetation may result in increased visibility of the new features. These new features would be noticeable but would appear as a consistent linear feature alongside the existing BNSF tracks. However, existing Xcel Energy transmission poles are proposed to be relocated from the east, behind existing screening, to the west, closer to the adjacent park. Therefore, based on the increased frequency in passing vehicles, the additional overhead wires, and the relocation of the existing Xcel Energy power lines, the proposed BLRT Extension project would alter the visual quality and character at this location, but would not preclude continued recreational use.

Summary of Visual Impacts

In the Minneapolis Landscape Unit, the transitway would run along Olson Memorial Highway, a highway that currently accommodates a relatively high amount of traffic. Although Olson Memorial Highway is envisioned as a “gateway” corridor to downtown Minneapolis, the *Minneapolis Near Northside Master Plan* envisioned that LRT could be accommodated within the median without sacrificing the overall desired character of the corridor. The construction of the transitway within the existing median would alter its existing green character, which is considered a “higher-quality visual feature,” resulting in adverse impacts on visual quality in that location. Impacts on “higher-quality visual features” are described in further detail below. Considering the existing industrial character of the visual context east of I-94 approaching downtown, it is anticipated that neutral visual effects would occur in that area.

Neutral impacts are anticipated as a result of station and TPSS construction, as these features would be designed to complement their surroundings, with variations in design that are consistent with the context of each station and TPSS location. TPSS features are introduced in **Section 3.3 – Proposed BLRT Extension Project Description**, which includes the size and siting considerations. Coordination with stakeholders, including the Minneapolis Park and Recreation Board, would continue throughout the proposed BLRT Extension project design process to address the siting of TPSSs and to maintain neutral visual impacts, including additional visual screening as required. However, it is anticipated that station features would also include passenger information displays, lighting, and security systems, which could alter the visual quality and character of the view for sensitive viewer groups.

Impacts on the resources identified in **Section 4 – Existing Conditions** as “higher-quality visual features” are described in detail below. Visual impacts to these resources as a result of the



proposed BLRT Extension project implementation would generally be neutral. However, where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of proposed BLRT Extension project Facilities), outlined below in **Section 6.2**, would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

- **Ford Building:** Visual impacts to the Ford Building would be neutral because the Hiawatha LRT alignment already passes the building along 5th Street.
- **HERC site landscaping:** Visual impacts to the HERC site landscaping would be neutral. The transitway would run parallel to 6th Avenue in a widened right-of-way which would require partial removal of planter wall, trees, and the lawn area at the southeast corner of 6th Avenue and 7th Street.
- **Metro Transit headquarters:** Visual impacts to the Metro Transit’s building would be neutral since it is already located along a busy highway and serves as a transit vehicle service and storage site.
- **Boulevard and median trees along Olson Memorial Highway west of I-94:** Visual impacts to the Olson Memorial Highway center median would be adverse, as trees would need to be removed for the transitway alignment. After the transitway is constructed in the center median, there would not be adequate space for new trees alongside it. However, as noted above, trees at the highway edges would remain and continue to support the “gateway” appearance of the corridor. Additionally, some trees would be relocated to other park properties, depending on the condition and age of the tree, and other factors.
- **Sumner Library:** Visual impacts to the library would be neutral since it is already located along a highly used roadway.
- **Seed Academy and Wayman AME Church:** Visual impacts to the school and church would be neutral since the use of church sanctuaries is typically inward-focused and because the site is already located along a highly used roadway.
- **Zion Baptist Church:** Visual impacts to church would be neutral since it is visually buffered by the north frontage road along Olson Memorial Highway. Use of church sanctuaries is typically inward-focused, and it is already located along a highly used roadway.
- **Floyd B. Olson Memorial Statue:** Visual impacts to the memorial would be neutral since the transitway turns onto Olson Memorial Highway and does not conflict with its siting.
- **Harrison Neighborhood gateway sculptures:** Visual impacts to the sculptures would be neutral since the transitway turns onto Olson Memorial Highway and does not conflict with their siting.



Golden Valley Landscape Unit

Primary Proposed BLRT Extension Project Visual Features

Stations

The following proposed BLRT Extension project stations are proposed within the Golden Valley Landscape Unit.

- Plymouth Avenue (see description of KVP 4a and 5 below)
- Golden Valley Road (includes park-and-ride; see description of KVPs 6a, 6b, 8, and 8a below)

Bridges and Structures

The following proposed BLRT Extension project bridges and structures are proposed within the Golden Valley Landscape Unit.

- Reconstructed Plymouth Avenue bridge (see description of KVPs 4a and 4b below)
- Reconstructed Theodore Wirth Parkway bridge (see description of KVPs 7 and 8a below)
- Reconstructed Golden Valley Road bridge (see description of KVPs 7 and 8a below)
- New bridge crossing Golden Valley Road ponds
- New bridge crossing Grimes Pond
- Reconstructed 36th Avenue bridge
- Noise walls on the east side of the Plymouth Avenue Station, the east side of the alignment roughly across from the southern extent of Sohacki Park (the former Mary Hills Nature Area – see description of NW 1a and NW 1b below), and the east side of the alignment from just north of South Halifax Park to 36th Avenue North, with a gap at the Xcel Energy substation. Photographs of proposed noise wall locations are provided in [Appendix A](#).

Photographic Documentation

The Golden Valley Landscape Unit includes KVPs 3 through 8a, as described in detail below. KVP location maps and photographs are provided in [Appendix A](#) of this report. The Golden Valley Landscape Unit also includes NW 1a, and NW 1b. Photographs of proposed noise wall locations are provided in [Appendix A](#) of this report.

- **KVP 3** (view to the northwest toward the existing BNSF tracks and proposed LRT tracks, from Farwell Avenue and Xerxes Avenue North) represents the changes to the viewshed as seen by roadway users, pedestrians, and residents. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderately high sensitivity based on the residential nature of land uses at this location. In the simulated view from KVP 3, the new proposed BLRT Extension project features that would be most visible are the overhead catenary system. These new features would also be of similar elevation to the existing BNSF rail corridor, and may be difficult for viewers to see based on the surrounding vegetation. Additionally, the overhead catenary system would be a consistent feature alongside existing overhead power lines. The proposed BLRT Extension project would not substantially alter the visual quality or character at this location.



- **KVP 4a** (view to the west toward the proposed Plymouth Avenue Station and bridge, from Plymouth Avenue North and Washburn Avenue North) represents the changes to the viewshed as seen by roadway users, pedestrians, and residents. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderately high sensitivity based on the residential nature of land uses at this location. In the simulated view from KVP 4a, the vertical circulation structure adjacent to the Plymouth Avenue Station would be highly visible. These new features would be noticeable, but would be partially shielded by the existing bridge structure and vegetation. The proposed BLRT Extension project would alter the visual quality and character at this location.
- **KVP 4b** (view to the south toward the existing BNSF tracks and proposed LRT tracks, from the Plymouth Avenue North bridge) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 4b, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. Although the new features would be noticeable, they would appear as a consistent linear feature alongside the existing BNSF tracks. However, with the addition of multiple overhead lines to the corridor, and the relocation of existing power lines from the east to the west, adjacent to the park, the view toward the green space of the park would be altered. Further, as stated above, the Plymouth Avenue Bridge has an important role in setting the visual character for the park itself. Although the altered viewshed would be at a lower elevation than the viewer, the proposed BLRT Extension project would alter the visual quality and character at this location.
- **KVP 4c** (view to the north toward the proposed Plymouth Avenue Station, from the Plymouth Avenue bridge) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 4c, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. Although the new features would be noticeable, they would appear as a consistent linear feature alongside the existing BNSF tracks. In addition, the station and the vertical circulation structure adjacent to the station would be highly visible, substantially altering the visual quality and character at this location.
- **KVP 5** (view to the southeast toward the proposed Plymouth Avenue Station and bridge, from the Theodore Wirth Regional Park Chalet) represents the changes to the viewshed as seen by recreational users. Views at this location would typically be of long duration, and viewers would have a high sensitivity based on the recreational nature of land uses at this location. In the simulated view from KVP 5, the new proposed BLRT Extension project features that would be most visible would be the overhead catenary system and portions of the new Plymouth Avenue Station. These new features would be noticeable, but may be difficult for viewers to see based on the surrounding vegetation. However, as described above, seasonal changes and weather patterns typical of the proposed BLRT Extension project area would produce variations to



vegetation and ground cover. The proposed BLRT Extension project would alter the visual quality and character at this location, but would not preclude continued recreational use.

- **KVP 6a** (view to the north toward the proposed Golden Valley Road Station, from the Theodore Wirth Regional Park Golf Course) represents the changes to the viewshed as seen by recreational users. Views at this location would typically be of long duration, and viewers would have a high sensitivity based on the recreational nature of land uses at this location. In the simulated view from KVP 6a, the new proposed BLRT Extension project features may be noticeable, but may be difficult for viewers to see based on the surrounding vegetation. The proposed BLRT Extension project would not substantially alter the visual quality or character at this location. The proposed BLRT Extension project would not preclude continued recreational use at this location.
- **KVP 6b** (view to the northeast toward Bassett Creek and the proposed Golden Valley Road Station, from the Theodore Wirth Regional Park Golf Course) represents the changes to the viewshed as seen by recreational users. Views at this location would typically be of long duration, and viewers would have a high sensitivity based on the recreational nature of land uses at this location. In the simulated view from KVP 6b, the new proposed BLRT Extension project features that would be most visible would be the overhead catenary system and passing LRVs. These new features would be noticeable, but may be difficult for viewers to see based on the surrounding vegetation. However, as described above, seasonal changes and weather patterns typical of the proposed BLRT Extension project area would produce variations to vegetation and ground cover. The proposed BLRT Extension project would alter the visual quality and character at this location, but would not preclude continued recreational use.
- **KVP 7** (view to the west toward the proposed Golden Valley Road Station, from Theodore Wirth Parkway near the intersection of Zenith Avenue) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderately high sensitivity based on the presence of sensitive land uses (residential, church, etc.) at this location. Additionally, viewer sensitivity at this location would also be due to the presence of the Grand Rounds, which offers opportunities for scenic pleasure driving, as described above. In the simulated view from KVP 7, the new Golden Valley Road Station and park-and-ride would generally not be visible based on the lower elevation of the station, the terraced design of the parking lot, and the existing vegetation. The proposed BLRT Extension project would not substantially alter the visual quality or character at this location.
- **KVP 8** (view to the west toward the proposed Golden Valley Road Station, from Golden Valley Road and Theodore Wirth Parkway) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a high sensitivity based on the presence of sensitive land uses (residential, church, etc.) at this location, as well as the presence of the Grand Rounds. In the simulated view from KVP 8, the pedestrian access and upper levels of the terraced parking lot would be visible. The proposed BLRT Extension project would alter the visual quality and character at this location.



- **KVP 8a** (view to the west toward the proposed Golden Valley Road Station, from Theodore Wirth Parkway at Golden Valley Road) represents the changes to the viewshed as seen by roadway users, pedestrians, and recreational users, which at this location would include bicyclists on the Grand Rounds trail and nature enthusiasts accessing the existing park triangle. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderately high sensitivity based on the presence of sensitive land uses (residential, church, etc.) at this location. In the simulated view from KVP 8a, the pedestrian access and upper levels of the terraced parking lot would be visible. The proposed BLRT Extension project would alter the visual quality and character at this location.
- **NW 1a** (view to the northwest toward the proposed noise wall on the east side of the alignment roughly across from the southern extent of Sochacki Park) represents the location of a proposed noise wall, which would be located adjacent to the Kewanee Way residences. For this segment of the proposed noise wall, existing residences are located on both the west and east sides of Kewanee Way. While the addition of the noise wall would mainly be for the purpose of sound insulation, a noise wall at this location would also provide visual screening and privacy from the existing rail and proposed LRT alignment for the existing residences. However, the addition of the noise wall at this location would result in a potentially adverse visual effect by precluding views across the alignment toward the southern extent of Sochacki Park. The proposed BLRT Extension project would alter the visual quality and character at this location, especially for residents, pedestrians, and roadway users.
- **NW 1b** (view to the southeast toward the proposed noise wall on the east side of the alignment roughly across from the southern extent of Sochacki Park) represents the location of a proposed noise wall, which would be located adjacent to the Kewanee Way residences. For this segment of the proposed noise wall, existing residences are located along the east side of Kewanee Way. While the addition of the noise wall would mainly be for the purpose of sound insulation, a noise wall at this location would also provide visual screening and privacy from the existing rail and proposed LRT alignment for the existing residences. However, the addition of the noise wall at this location would result in a potentially adverse visual effect by precluding views across the alignment toward the southern extent of Sochacki Park. The proposed BLRT Extension project would alter the visual quality and character at this location, especially for residents, pedestrians, and roadway users.

Summary of Visual Impacts

In the Golden Valley Landscape Unit, the corridor utilizes the existing BNSF right-of-way between 34th Avenue and Olson Memorial Highway. The transitway would closely parallel the existing railway and, as such, would be an addition to an existing transportation corridor. Thus the addition of LRT to this corridor would be compatible with the existing land use. The implementation of LRT would bring an increased frequency of vehicles passing through the area. Impacts on visual quality would range from neutral to adverse because in some locations, the tracks would be in a depressed cut section and shielded by the topography and vegetation. However, in other instances, residential and park areas on both the east and west sides of the corridor, which are considered “higher-quality visual features” as described below, have an increased visual connection based on close



proximity and varying degrees of openness of existing vegetation. Both temporary and permanent impacts on the vegetation along the BNSF right-of-way may alter the views and amount of screening of adjacent neighborhoods and parks. At locations where adverse visual effects are anticipated, transitway elements added to the rail corridor may be visually screened or softened using landscaping where adequate space permits.

Neutral impacts are anticipated as a result of station and TPSS construction, as these features would be designed to complement their surroundings, with variations in design that are consistent with the context of each station and TPSS location. TPSS features are introduced in **Section 3.3 – Proposed BLRT Extension Project Description**, which includes the size and siting considerations. However, it is anticipated that station features would also include passenger information displays, lighting, and security systems, which could alter the visual quality and character of the view for sensitive view groups. Coordination with stakeholders, including the Minneapolis Park and Recreation Board, would continue throughout the proposed BLRT Extension project design process to address the siting of TPSSs and to maintain neutral visual impacts, including additional visual screening as required.

Impacts on the resources identified above in **Section 4 – Existing Conditions** as “higher-quality visual features” are described in detail below. Visual impacts to these resources as a result of proposed BLRT Extension project implementation would generally be neutral. However, where visual impact would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of proposed BLRT Extension project Facilities), outlined below in **Section 6.2**, would help to reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

- **Plymouth Avenue bridge over Bassett Creek and BNSF rail corridor:** The bridge would be reconstructed to make space for the transitway. Reconstructed features would include a new deck and piers. However, the bridge would be reconstructed in a manner such that the key visual elements would remain essentially the same as the existing elements, with the exception of the pier spacing. In order to accommodate the new LRT tracks, an area below the bridge would be altered from a paved slope to a clear opening with infill walls added to two of the existing arched piers for crash protection and to retain grade. This modification would only be visible from the pedestrian trail west of the BNSF track and would be unnoticeable from Plymouth Avenue above. Therefore, visual impacts to the bridge would be neutral.
- **Theodore Wirth Regional Park and Golf Course:** Visual impacts to Theodore Wirth Regional Park and Golf Course would be adverse, since views to the BNSF right-of-way may be opened up by grading and vegetation thinning for the transitway. The additional features, including the catenary wires, support poles, tracks, TPSS, and light rail vehicles, would add visual intrusions to the perceived “natural” character of the park, beyond the existing railroad and overhead utilities.
- **Bassett Creek and Bassett Lake:** Visual impacts to Bassett Creek and Bassett Lake would be adverse. The additional features of the transitway, as listed above in the description of impacts



on Theodore Wirth Regional Park, would add visual intrusions to the perceived “natural” character of the parks beyond the existing railroad and overhead utilities.

- **Theodore Wirth Parkway:** Visual impacts to Theodore Wirth Parkway would be neutral since it passes over the transitway on a bridge for only a short distance. Some views to the BNSF right-of-way may be opened up in the approaches by grading and vegetation thinning for the transitway, but would be peripheral to the immediate scenery adjacent to the Parkway.
- **Glenview Terrace/Valley View Park:** Visual impacts to Glenview Terrace/Valley View Park would be neutral. As noted above, a new bridge would cross the Golden Valley Road Ponds at the western border of the park. The presence of wetlands in the BNSF right-of-way adjacent to the park would prevent cutting into side slopes and minimize removal of trees. The active uses of the park are well-buffered by a wooded area.
- **Sochacki Park and South Halifax Park:** Visual impacts to these parks would be adverse. The additional features of the transitway, as listed above in the description of impacts on Theodore Wirth Regional Park, would add visual intrusions to the perceived “natural” character of these parks beyond the existing railroad and overhead utilities. Also, as noted above, a new bridge would cross Grimes Pond adjacent to the existing BNSF embankment, which would remain as is and continue to be utilized for freight. Refer to **Chapter 8 – Amended Draft Section 4(f) and 6(f) Evaluation** for further discussion of impacts to Sochacki Park, along with associated mitigation commitments to reduce impacts on these parks.

Robbinsdale/Crystal Landscape Unit

Primary Proposed BLRT Extension Project Visual Features

Stations

The following proposed BLRT Extension project stations are proposed within the Robbinsdale/Crystal Landscape Unit.

- Robbinsdale (includes park-and-ride; see description of KVPs 10, and 11 below)
- Bass Lake Road (includes park-and-ride)

Bridges and Structures

The following proposed BLRT Extension project bridges and structures are proposed within the Robbinsdale/Crystal Landscape Unit.

- New bridge over TH 100
- New bridge over the CP rail corridor
- New pedestrian bridge at Bass Lake Road (see description of KVPs 21, 22, and 23 below)
- Noise walls from 36th Avenue to 41st Avenue, from 45½ Avenue to West Broadway Avenue, and from West Broadway Avenue to Corvallis Avenue on the east side (see description of NW 2a, NW 2b, NW 3a, and NW 3b below). Noise walls from 36th Avenue to the southern border of Lee Park, from the northern border of Lee Park to near 41st/Noble Avenue, and along



the Robbinsdale Station area on the west side (see description of NW 2a and NW 2b below). Photographs of proposed noise wall locations are provided in [Appendix A](#) of this report.

Photographic Documentation

The Robbinsdale/Crystal Landscape Unit includes KVPs 9 through 12 and KVP 21 through 23, as described below. KVP location maps and photographs are provided in [Appendix A](#) of this report. The Robbinsdale/Crystal Landscape Unit also includes NW 2a, NW 2b, NW 3a, and NW 3b. Photographs of proposed noise wall locations are provided in [Appendix A](#) of this report.

- **KVP 9** (view to the northwest toward downtown Robbinsdale, from 41st Avenue and Hubbard Avenue) represents the changes to the viewshed as seen by roadway users, pedestrians, business owners, and workers. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the varied land uses (residential, church, retail, commercial, transportation, etc.) at this location. In the simulated view from KVP 9, the new proposed BLRT Extension project features that would be most visible would be the overhead catenary system and passing LRVs. These new features would be noticeable, but may be partially shielded by existing structures. The proposed BLRT Extension project would not substantially alter the visual quality or character at this location.
- **KVP 10** (view to the north toward the proposed Robbinsdale Station, from 41st Avenue) represents the changes to the viewshed as seen by roadway users, pedestrians, business owners, and workers. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the varied land uses (residential, church, retail, commercial, transportation, etc.) at this location. In the simulated view from KVP 10, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. These new features would also be of similar elevation to the existing BNSF rail corridor, and although the new features would be noticeable, they would appear as a consistent linear feature alongside the existing BNSF tracks. Additionally, the new Robbinsdale Station and park-and-ride structure would be highly visible; however, based on the presence of other prominent visual features, would not substantially alter the visual quality or character at this location.
- **KVP 11** (view to the east toward the proposed Robbinsdale Station, from 42nd Avenue) represents the changes to the viewshed as seen by roadway users, pedestrians, business owners, and workers. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the varied land uses (residential, retail, commercial, transportation, etc.) at this location. In the simulated view from KVP 11, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. These new features would also be of similar elevation to the existing BNSF rail corridor, and although the new features would be noticeable, they would appear as a consistent linear feature alongside the existing BNSF tracks. Additionally, the new Robbinsdale Station and park-and-ride structure would be highly visible; however, based on the presence of other prominent visual features, would not substantially alter the visual quality or character at this location.



- **KVP 12** (view to the southeast toward the proposed wall and fence, from the adjacent residential alley) represents the changes to the viewshed as seen by roadway users, pedestrians, and residents. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderately high sensitivity based on the residential nature of land uses at this location. In the simulated view from KVP 12, the new proposed BLRT Extension project features that would be most visible would be the new wall and fence, which would be associated with the new bridge over TH 100. These new features would be highly visible; however, an existing BNSF bridge is located adjacent to the proposed bridge. Viewer groups at this location are partially shielded from views of BNSF operations by existing vegetation, which would be replaced by the proposed wall and fence. The new proposed BLRT Extension project features would alter the visual quality and character at this location.
- **KVP 21** (view to the southeast toward the proposed Bass Lake Road station and pedestrian bridge, from Bottineau Boulevard) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 21, the new proposed BLRT Extension project features that would be most visible would be the new station and pedestrian bridge, which would be highly visible and would alter the visual quality at this location. However, the new station and pedestrian overpass would not substantially alter the visual character based on its location adjacent to an existing and highly used roadway.
- **KVP 22** (view to the northwest toward the proposed Bass Lake Road station and pedestrian bridge, from the southeast quadrant of the Bass Lake Road/Bottineau Boulevard intersection) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 22, the new proposed BLRT Extension project features that would be most visible would be the new station and pedestrian bridge, which would be highly visible and would alter the visual quality at this location. However, the new station and pedestrian overpass would not substantially alter the visual character based on its location adjacent to an existing and highly used roadway.
- **KVP 23** (view to the northeast toward the proposed Bass Lake Road pedestrian bridge, from the southwest quadrant of the Bass Lake Road/Bottineau Boulevard intersection) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 23, the new proposed BLRT Extension project features that would be most visible would be the new pedestrian bridge, which would be highly visible and would alter the visual quality at this location. However, the new pedestrian overpass would not substantially alter the visual character based on its location adjacent to an existing and highly used roadway.



- **NW 2a** (view to the northwest toward the proposed noise walls from 36th Avenue to 41st Avenue on the east side, and from 36th Avenue to the southern border of Lee Park on the west side) represents the location of a proposed noise wall, which would be located adjacent to the June Avenue North residences on the west side and the Indiana Avenue North residences on the east side. While the addition of the noise wall would mainly be for the purpose of sound insulation, a noise wall at this location would also provide visual screening and privacy from the existing rail and proposed LRT alignment for the existing residences, especially those on June Avenue North, which have less of a vegetation buffer than those on Indiana Avenue North. The addition of the noise wall at this location would result in a potentially adverse visual effect for June Avenue North residences by precluding views across the alignment toward the existing vegetation buffer, but would result in a neutral visual effect for Indiana Avenue North residences due to the presence of the existing vegetation buffer. The proposed BLRT Extension project would alter the visual quality and character at this location, especially for residents and pedestrians.
- **NW 2b** (view to the southeast toward the proposed noise walls from 36th Avenue to 41st Avenue on the east side) represents the location of a proposed noise wall, which would be located adjacent to the Indiana Avenue North residences. While the addition of the noise wall would mainly be for the purpose of sound insulation, a noise wall at this location would also provide visual screening and privacy from the existing rail and proposed LRT alignment for the existing residences. The addition of the noise wall at this location would result in a neutral visual effect for Indiana Avenue North residences due to the presence of an existing vegetation buffer. The proposed BLRT Extension project would alter the visual quality and character at this location, especially for residents and pedestrians.
- **NW 3a** (view to the northwest toward the proposed noise wall from West Broadway Avenue to Corvallis Avenue on the east side) represents the location of a proposed noise wall, which would be located adjacent to the Welcome Avenue North and Fairview Avenue North residences. While the addition of the noise wall would mainly be for the purpose of sound insulation, a noise wall at this location would also provide visual screening and privacy from the existing rail and proposed LRT alignment for the existing residences. The addition of the noise wall at this location would result in a neutral visual effect for Welcome Avenue North and Fairview Avenue North residences due to the presence of an existing vegetation buffer. The proposed BLRT Extension project would alter the visual quality and character at this location, especially for residents and pedestrians.
- **NW 3b** (view to the southeast toward the proposed noise wall toward from West Broadway Avenue to Corvallis Avenue on the east side) represents the location of a proposed noise wall, which would be located adjacent to West Broadway Avenue. While the addition of the noise wall would mainly be for the purpose of sound insulation for the residential area to the east of West Broadway Avenue, a noise wall at this location would also provide visual screening and privacy from the existing rail and proposed LRT alignment for the existing residences. The addition of the noise wall at this location would result in a neutral visual effect due to the presence of West Broadway Avenue, which provides a buffer between the residential area and the existing rail and proposed LRT alignment. The proposed BLRT Extension project would



alter the visual quality and character at this location, especially for residents, pedestrians, and roadway users.

Summary of Visual Impacts

In the Robbinsdale/Crystal Landscape Unit, the corridor utilizes the existing BNSF right-of-way. Impacts on visual quality would generally be neutral because the transitway would closely parallel the existing railroad and, as such, would be a modification to an existing dedicated rail corridor rather than the introduction of a new rail corridor. The implementation of LRT would bring an increased frequency of vehicles passing through the area, and the effects to visual quality would generally be neutral. At locations where adverse visual effects are anticipated, including where sensitive receptors are located adjacent to the corridor, as described in further detail below, transitway elements added to the rail corridor may be visually screened or softened using landscaping where adequate space permits.

Where sensitive receptors are located adjacent to the corridor, visual intrusions would result from the increased frequency of vehicles passing through the area, the introduction of new sources of light from LRT vehicles and stations, and the altered viewshed for residents viewing the LRT corridor and vehicles. In addition, the ability for LRT users to view the residential land uses from passing LRT vehicles could also constitute a visual intrusion. For example, in the City of Crystal between the proposed Bass Lake Road Station and the proposed 63rd Avenue Station, many existing residences already have a partial or full view of the existing rail corridor. Existing vegetation provides visual screening of the existing BNSF rail corridor, and would also provide visual screening of the proposed LRT vehicles. However, in order to construct the proposed LRT alignment, vegetation removal, such as tree clearing, is proposed for portions of the BNSF right-of-way. Therefore, visual intrusions for sensitive receptors at these locations would also result from the removal of vegetation, and impacts on visual quality would be adverse.

To help visualize the proposed changes, especially in areas of thick vegetation and thin (or no) vegetation, [Appendix A](#) includes “before BLRT Extension project” existing condition photographs and computer-generated sketch-up simulation of the conceptual “after BLRT Extension project” conditions. For those areas located outside of the BNSF right-of-way, coordination with the city of Crystal has been initiated, and would continue throughout the proposed BLRT Extension project design process, to address the need for revegetation and/or landscaping and other aesthetic treatments to soften or offset the visual effects of tree clearing. Further, where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of Proposed BLRT Extension Project Facilities), outlined below in [Section 6.2](#), would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

For the majority of the LRT alignment, the trackway would generally be level with adjacent land uses. However, at some locations, such as the new bridges over the CP rail corridor and TPH 100, the trackway would be elevated and would result in similar visual intrusions to adjacent sensitive receptors (residential land uses) as described above. However, where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and



Mitigation Measure 2 (Visual Screening of Proposed BLRT Extension Project Facilities), outlined below in [Section 6.2](#), would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

Neutral impacts are anticipated as a result of station and TPSS construction, as these features would be designed to complement their surroundings, with variations in design that are consistent with the context of each station and TPSS location. TPSS features are introduced in [Section 3.3 – Proposed BLRT Extension Project Description](#), which includes the size and siting considerations. Coordination with stakeholders would continue throughout the proposed BLRT Extension project design process to address the siting of TPSSs and to maintain neutral visual impacts, including additional visual screening as required. However, it is anticipated that station features would also include passenger information displays, lighting, and security systems, which could alter the visual quality and character of the view for sensitive viewer groups.

Some proposed BLRT Extension project features within the Robbinsdale/Crystal landscape unit would result in adverse effects to visual quality, as described below. Where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of Proposed BLRT Extension Project Facilities), outlined below in [Section 6.2](#), would help to further reduce the impacts of operation of the BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

- **Bass Lake Road pedestrian overpass:** The new grade separated pedestrian crossing at Bass Lake Road would be a prominent visual feature, altering the viewshed at this location and resulting in adverse effects to visual quality. However, the new structure would not be out of character with the varied land uses (retail, commercial, transportation, etc.) at this location.

Impacts on the resources identified above in [Section 4 – Existing Conditions](#) as “higher-quality visual features” are described in detail below. Visual impacts to these resources as a result of the proposed BLRT Extension project implementation would generally be neutral. However, where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of Proposed BLRT Extension Project Facilities), outlined below in [Section 6.2](#), would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

- **Sacred Heart Catholic Church:** Visual impacts on the church would be neutral since the transitway infrastructure would run within the existing BNSF right-of-way and would not alter views of the building.
- **Historic Robbinsdale Public Library:** Visual impacts on the library would be neutral since the transitway infrastructure would run within the existing BNSF right-of-way and would not alter views of the building.
- **West Broadway Avenue and BNSF Railroad bridges over TH 100:** The reconstructed BNSF railroad bridge would be in the same location but widened to accommodate the transitway, and it would be designed to be consistent with the TH 100 aesthetic guidelines. Visual effects would be neutral.



- **Green boulevard on west side of West Broadway Avenue between 47th Avenue and TH 100:** The construction of the transitway would require the removal of some mature trees and reduce the width of the green space separating the roadway and railroad. Visual effects would be adverse.
- **Bottineau Boulevard Bridge over CP rail corridor:** Visual impacts on the bridge would be neutral. It would not be physically impacted, and since the new bridge for the transitway over the railroad would be separated visually by commercial development, there would be minimal visual influence between them.
- **City of Crystal gateway area:** Visual impacts on the gateway area would be neutral. The gateway sign and landscaping are near the intersection corner and would not be in conflict with the station location.

Brooklyn Park Landscape Unit

Primary Proposed BLRT Extension Project Visual Features

Stations

The following proposed BLRT Extension project stations are proposed within the Brooklyn Park Landscape Unit.

- 63rd Avenue (includes park-and-ride; see description of KVPs 13 and 14 below)
- Brooklyn Boulevard
- 85th Avenue
- 93rd Avenue
- Oak Grove Parkway (includes park-and-ride)

Bridges and Structures

The following proposed BLRT Extension project bridges and structures are proposed within the Brooklyn Park Landscape Unit.

- New pedestrian overpass at 63rd Avenue Station connected to parking garage (see description of KVPs 13 and 14 below)
- New bridge over 73rd Avenue/Bottineau Boulevard intersection (see description of KVPs 15, 16, 17, and 18 below)
- Modified I-694 bridge over the BNSF rail corridor
- New bridge over TH 610
- New OMF (see description of KVPs 19 and 20 below)



Photographic Documentation

Photographic Documentation

The Brooklyn Park Landscape Unit includes KVPs 13 through 20, as described below. KVP location maps and photographs are provided in [Appendix A](#) of this report.

- **KVP 13** (view to the south toward the proposed 63rd Avenue Station, from the trail adjacent to Bottineau Boulevard) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 13, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. These new features would also be of similar elevation to the existing BNSF rail corridor, and although the new features would be noticeable, they would appear as a consistent linear feature alongside the existing BNSF tracks. Additionally, the new 63rd Avenue Station and park-and-ride with pedestrian overpass structure would be highly visible and would alter the visual quality at this location. However, the new station and park-and-ride would not substantially alter the visual character based on its location adjacent to an existing and highly used roadway.
- **KVP 14** (view to the southeast toward the proposed 63rd Avenue Station, from the adjacent neighborhood west of 63rd Avenue) represents the changes to the viewshed as seen by roadway users, pedestrians, and residents. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderately high sensitivity based on the residential nature of land uses at this location. In the simulated view from KVP 14, the new proposed BLRT Extension project feature that would be most visible would be the 63rd Avenue park-and-ride structure. Although partially shielded by existing residential structures and vegetation, this new feature would be highly visible, and would alter the visual quality and character at this location.
- **KVP 15** (view to the north toward the proposed 73rd Avenue/Bottineau Boulevard Bridge, from Bottineau Boulevard at 71st Avenue) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 15, the new proposed BLRT Extension project features that would be most visible would be the new 73rd Avenue/Bottineau Boulevard bridge. This new feature would be highly visible and would alter the visual quality at this location. However, the new bridge would not substantially alter the visual character based on its location over an existing and highly used roadway.
- **KVP 16** (view to the northeast toward the proposed 73rd Avenue/Bottineau Boulevard Bridge, from 71st Avenue) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 16,



the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. Although the new features would be noticeable, they would appear as a consistent linear feature alongside the existing BNSF tracks. The new proposed BLRT Extension project features would not substantially alter the visual quality and character at this location.

- **KVP 17** (view to the north toward the proposed 73rd Avenue/Bottineau Boulevard Bridge, from the southeast corner of Bottineau Boulevard and 71st Avenue) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 17, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. Additionally, the new 73rd Avenue/Bottineau Boulevard bridge would be a prominent visual feature at this location. These new features would be highly visible and would alter the visual quality at this location. However, the new bridge would not substantially alter the visual character based on its location over an existing and highly used roadway.
- **KVP 18** (view to the south toward the proposed 73rd Avenue/Bottineau Boulevard Bridge, from Bottineau Boulevard at 73rd Avenue) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the transportation-related nature of land uses at this location. In the simulated view from KVP 18, the new proposed BLRT Extension project features that would be most visible would be the new track, overhead catenary system, and passing LRVs. Additionally, the new 73rd Avenue/Bottineau Boulevard bridge would be a prominent visual feature at this location. These new features would be highly visible, and would alter the visual quality at this location. However, the new bridge would not substantially alter the visual character based on its location over an existing and highly used roadway.
- **KVP 19** (view to the east toward the proposed OMF, from 101st Avenue) represents the changes to the viewshed as seen by roadway users and pedestrians. Views at this location would typically be of both short and long duration, depending on the viewer group, and viewers would have a moderate sensitivity based on the rural and transportation-related nature of land uses at this location. In the simulated view from KVP 19, the new proposed BLRT Extension project features that would be most visible would be the new OMF, which would be a prominent visual feature altering the viewshed at this location. The new facility would introduce a large structure to an otherwise minimally developed area, resulting in a substantial alteration of the visual quality and character, as well as a partial obstruction of long distance views.
- **KVP 20** (view to the southwest toward the proposed OMF, from Rush Creek Regional Trail) represents the changes to the viewshed as seen by recreational users. Views at this location would typically be of long duration, and viewers would have a moderately high sensitivity based on the recreational nature of land uses at this location. In the simulated view from KVP 20, which would be a prominent visual feature altering the viewshed at this location. The new



facility would introduce a large structure to an otherwise minimally developed area, resulting in a substantial alteration of the visual quality and character, as well as a partial obstruction of views. However, the proposed BLRT Extension project would not preclude continued recreational use at this location.

Summary of Visual Impacts

In the Brooklyn Park Landscape Unit, the corridor utilizes the existing right-of-way of West Broadway Avenue. For much of the corridor, the transitway would be located in the center of the roadway and would have neutral effects to visual quality.

For the majority of the LRT alignment, the trackway would generally be level with adjacent land uses. However, at some locations, such as the new bridge over 73rd Avenue/Bottineau Boulevard intersection, the trackway would be elevated resulting in potential visual intrusions to adjacent sensitive receptors (residential land uses). Visual intrusions for sensitive receptors at these locations would result from both the altered viewshed for residents viewing the LRT corridor and vehicles, and the ability for LRT users to view the residential land uses from passing LRT vehicles. However, where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of Proposed BLRT Extension Project Facilities), outlined below in [Section 6.2](#), would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

Neutral impacts are anticipated as a result of station and TPSS construction, as these features would be designed to complement their surroundings, with variations in design that are consistent with the context of each station and TPSS location. TPSS features are introduced in [Section 3.3 – Proposed BLRT Extension Project Description](#), which includes the size and siting considerations. However, it is anticipated that station features would also include passenger information displays, lighting, and security systems, which could alter the visual quality and character of the view for sensitive viewer groups. Coordination with stakeholders would continue throughout the proposed BLRT Extension project design process for proposed stations and also to address the siting of TPSSs to maintain neutral visual impacts. This process may include the development of additional visual screening as required.

Some proposed BLRT Extension project features within the Brooklyn Park landscape unit would result in adverse effects to visual quality, as described below. Where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of Proposed BLRT Extension Project Facilities), outlined below in [Section 6.2](#), would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

- **63rd Avenue Park-and-ride/Pedestrian Bridge and Overpass:** The new 63rd Avenue park-and-ride and overpass would be prominent visual features, altering the viewshed at this location and resulting in adverse effects to visual quality. However, the new structure would not be out of character with the varied land uses (retail, commercial, transportation, etc.) at this location.



- **73rd Avenue/Bottineau Bridge:** While the proposed BLRT Extension project was designed to minimize impacts on land uses/private property, the new 73rd Avenue/Bottineau bridge would result in the acquisition of commercial property to the south of the Brooklyn Boulevard Station. The new bridge would be a prominent visual feature, altering the viewshed at this location and resulting in adverse effects to visual quality. However, the new bridge would not be out of character with the varied land uses (retail, commercial, transportation, etc.) at this location.
- **OMF:** The new OMF would be a prominent visual feature, altering the viewshed at this location. The new facility would introduce a large structure to an otherwise minimally developed area. Further, the new OMF would alter views for recreational users, and would result in adverse effects to visual quality. However, the new OMF and related proposed BLRT Extension project elements, including landscaping and visual screening, would be designed in coordination with the city of Brooklyn Park and the Three Rivers Park District, and in accordance with local zoning ordinances.

Impacts on the resources identified above in **Section 4 – Existing Conditions** as “higher-quality visual features” are described in detail below. Visual impacts to these resources as a result of proposed BLRT Extension project implementation would generally be neutral. Where visual impacts would be adverse, implementation of Mitigation Measure 1 (Minimize Operational Night Lighting) and Mitigation Measure 2 (Visual Screening of proposed BLRT Extension project Facilities), outlined below in **Section 6.2**, would help to further reduce the impacts of operation of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

- **I-694 bridge over the BNSF rail corridor and Bottineau Boulevard:** Since only minor modifications to the piers of the I-694 bridge are required, visual impacts on this resource would be neutral.
- **Shingle Creek:** Visual impacts on Shingle Creek would be neutral. The only transitway features in the vicinity would be the tracks and catenary in the center median of the roadway, and they would not visually interrupt clear views to the creek.
- **West Broadway Avenue Bridge over TH 610:** Visual effects on the bridge would be neutral. The new transitway bridge that would parallel the West Broadway Avenue Bridge over TH 610 would block views of the West Broadway Avenue bridge, and the transitway bridge would be designed to be consistent with the TH 610 aesthetic guidelines.
- **Rush Creek Regional Trail:** Visual effects on the trail would be adverse. As described above, the new OMF would be a prominent visual feature, introducing a large structure to an otherwise minimally developed area. The presence of the OMF would alter views for recreational users of this existing trail.



5.3.2.2 Construction Impacts

Anticipated visual effects during construction of the proposed BLRT Extension project would be similar to the appearance of typical roadway projects including the temporary presence of heavy equipment, traffic control measures, and construction activities. Areas where construction activities for proposed BLRT Extension project features would be particularly noticeable to sensitive viewer groups include:

- The reconstruction of the Olson Memorial Highway Bridge over I-94 to create adequate width for the transitway would be highly visible to travelers along I-94 and Olson Memorial Highway.
- Users of Theodore Wirth Regional Park, Sochacki Park and South Halifax Park would likely perceive construction activity as undesirable and not consistent with their anticipated recreational experience. The reconstruction of the westbound Olson Memorial Highway bridge over the BNSF rail corridor and depressed transitway with retaining walls curving onto Olson Memorial Highway would be highly visible to travelers along Olson Memorial Highway. Additionally, there may be temporary grading for the construction of retaining walls or other features that would affect slopes and vegetation.
- The reconstruction of the BNSF bridge over TH 100 to create adequate width for the transitway would be highly visible to travelers along northbound TH 100. Where the transitway passes along residential neighborhoods, the construction activity would likely be perceived as more visually disruptive to these typically peaceful residential settings.
- The construction of the new bridge for the transitway over TH 610 would be highly visible to travelers along eastbound TH 610.

In general, the potential short-term impacts that would occur during proposed BLRT Extension project construction would be associated with construction staging areas; concrete and form installation; removal of some of the existing vegetation; lights and glare from construction areas; and generation of dust and debris in the proposed BLRT Extension project area, as described in further detail below.

Temporary construction activities are anticipated to include partial or complete road and lane closures, vehicle and pedestrian detours, construction material deliveries, and transport of construction equipment. In general, construction staging areas would be located adjacent to the existing BNSF rail corridor and proposed BLRT Extension project corridor, where the presence of construction equipment and earthmoving activities are not anticipated to be visually intrusive and would be compatible with the surrounding landscape. Where the transitway passes along recreation areas and residential neighborhoods, construction activities, such as grading, vegetation removal, and lighting of work areas, would likely be perceived as visually disruptive to those typically more peaceful residential settings.

Construction impacts would be temporary, and construction staging areas would be restored to pre-project conditions after construction is completed. At locations where higher visual effects are anticipated, the loss of existing vegetation on side slopes for grading or access purposes would be replaced to the extent feasible. Implementation of Mitigation Measure 3 (Minimize Visual Disruption from Construction Activities), outlined below in [Section 6.2](#), would help to further



reduce the impacts of construction of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

6 Conclusions and Recommendations

6.1 Overview of Evaluation Results

The proposed BLRT Extension project implementation would not result in a substantial change to the visual character of the corridor as a whole. Neutral visual effects are anticipated to result from the proposed BLRT Extension project implementation along most segments. However, adverse visual effects would occur in some areas, such as where partial residential acquisitions would be required and where the existing vegetated center median of Olson Memorial Highway would be modified or removed. Additionally, adverse visual effects to visual quality would occur in areas where recreational and residential uses are located along or in the vicinity of the proposed BLRT Extension project corridor.

At locations where adverse visual effects are anticipated, transitway elements added to the rail corridor may be visually screened or softened using landscaping where adequate space permits, and the loss of existing vegetation on side slopes for grading or access purposes would be replaced to the extent feasible. Several local plans address aesthetic and visual resources in the proposed BLRT Extension project area, and applicable policies include the establishment of design and landscape guidelines. The Minneapolis Park and Recreation Board, the Three Rivers Park District, the Sochacki Park Joint Powers Board, and the affected communities would be involved in the selection of landscape treatments that would be consistent with applicable local policies and that would be compatible with the character of the parks and surrounding neighborhoods. In general, lost vegetation for disturbed areas outside of the BNSF right-of-way would be replaced with vegetation of a similar type where feasible, and where new physical features of the transitway are introduced, efforts would be made to screen or soften the view.

Neutral impacts are anticipated as a result of station and TPSS construction. Stations would be designed to be aesthetically attractive and to complement their surroundings. However, it is anticipated that station features would also include passenger information displays, lighting, and security systems. Coordination with stakeholders would continue throughout the proposed BLRT Extension project design process for proposed stations. Additionally, TPSS facilities would be designed to complement their surroundings, and would incorporate landscaping features to minimize visual intrusion as appropriate. To further minimize visual quality impacts of TPSS siting, the siting would be customized for each location based on the context of each facility in relation to adjacent properties and resources. Coordination with stakeholders would continue throughout the proposed BLRT Extension project design process for proposed TPSSs.



6.2 Mitigation Measures

Implementation of Mitigation Measures 1 through 3, outlined below, would help to further reduce the impacts of operation and construction of the proposed BLRT Extension project on sensitive viewer groups in the proposed BLRT Extension project area.

6.2.1 Operational Mitigation Measures

Mitigation Measure 1: Minimize Operational Night Lighting

To minimize impacts on sensitive receptors resulting from nighttime operational lighting, to the extent feasible and consistent with safety and security, all permanent exterior lighting would be designed and installed so that (a) the lighting does not cause excessive reflected glare and (b) illumination of the proposed BLRT Extension project and its immediate vicinity is minimized.

Mitigation Measure 2: Visual Screening of Proposed BLRT Extension Project Facilities

To the extent feasible, proposed BLRT Extension project facilities have been sited to avoid locations in proximity to residences, parks, or other sensitive visual receptors. Where avoidance is not feasible, or where higher visual or privacy effects are anticipated to result from the introduction of new physical features of the transitway, such as where the vertical distance of the LRT alignment is higher than adjacent residences, efforts would be made to screen or soften the view using landscaping or walls where adequate space permits. Landscape treatments would be selected for consistency with applicable local policies, consideration for agency maintenance budgets and manpower, and for compatibility with the character of the parks and surrounding neighborhoods.

The 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). 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 proposed BLRT Extension project's design and development. The guidelines have and will help to ensure a consistent aesthetic element for key structures throughout the proposed BLRT Extension project alignment, while allowing for some flexibility in wall treatments.



6.2.2 Construction Period Mitigation Measures

Mitigation Measure 3: Minimize Visual Disruption from Construction Activities

Follow the Council's design guidelines to address construction impacts where appropriate and practical; these include:

- Locate staging areas in places where their visibility will be minimal and provide temporary construction screens or barriers to limit views into them from nearby residential areas, community facilities, recreational areas and trails, or other public open spaces from which they will be seen by visually sensitive viewers
- Use construction methods that minimize the need to remove vegetation to accommodate construction activities
- Shield light sources used in nighttime construction to reduce lighting impacts for residential areas
- Restore areas disturbed during construction



7 References

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2012 (September). Bottineau Transitway Technical Report Visual Quality.



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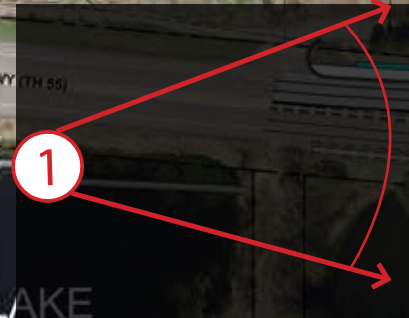
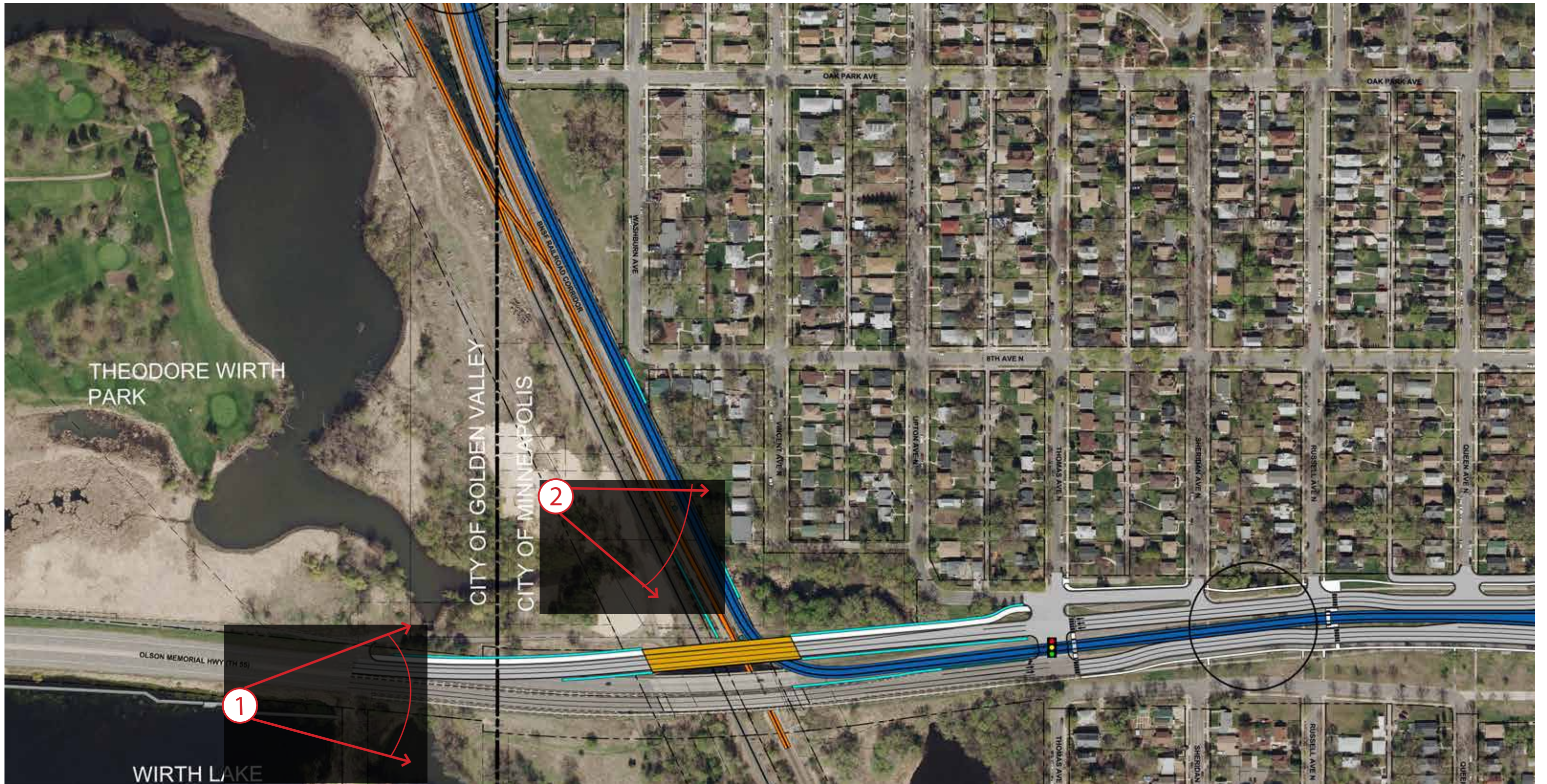
Appendix A Key View Location Maps and Photographs

Appendix A Key View Location Maps and Photographs

- **FEIS DESIGN DOCUMENTS: SKETCHUP VIEWS**
- **OLSON MEMORIAL HIGHWAY MEDIAN: SKETCHUP VIEW**
- **PROPOSED NOISE WALL LOCATION PHOTOGRAPHS**
- **VEGETATION REVIEW**

FEIS Design Documents - Sketchup Views

(starting on next page)



LEGEND		
LEFT TRACK AREA	SIDEWALK	EXISTING RIGHT OF WAY
FREIGHT TRACK AREA	TRAIL	PROPERTY LINE
STATION PLATFORM	ROADWAY	APPROX. LOCATION OF TRACTION POWER SUBSTATION (TPS)
RETAINING WALL	FREIGHT ACCESS ROAD	APPROX. SIZE OF TPS
BRIDGE		FINAL LOCATION TPO

DRAFT-WORK IN PROCESS

O-FEIS-Sketchup/Views/Plans



BLUE LINE LRT EXTENSION

FEIS DESIGN DOCUMENTS
SKETCHUP VIEWS
CITY OF MINNEAPOLIS
VIEW LOCATION PLANS

11/20/2015
SHEET 1 OF 53





LEGEND			
	LET TRACK AREA		EXISTING RIGHT OF WAY
	FUTURE TRACK AREA		TRAIL
	STATION PLATFORM		ROADWAY
	RETAINING WALL		FUTURE ALIGNMENT
	WEDGE		APPROX. LOCATION OF TRACTION POWER SUBSTATION (TPS)
			APPROX. SITE OF TPSE FINAL LOCATION (FD)

DRAFT-WORK IN PROCESS

O-FEIS-Sketchup/Views/Plans



BLUE LINE LRT EXTENSION

FEIS DESIGN DOCUMENTS
 SKETCHUP VIEWS
 CITY OF GOLDEN VALLEY
 VIEW LOCATION PLANS

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 SHEET 2 OF 53





BLUE LINE LRT EXTENSION

FEIS DESIGN DOCUMENTS
SKETCHUP VIEWS
CITY OF ROBBINSDALE
VIEW LOCATION PLANS

11/20/2015

3





ROBBINSDALE
STATION

12

LEGEND			
	LEFT TRACK AREA		EXISTING RIGHT OF WAY
	FREIGHT TRACK AREA		PROPERTY LINE
	STATION PLATFORM		APPROX. LOCATION OF TRACTION POWER SUBSTATION (TPSS)
	RETAINING WALL		APPROX. SIZE OF TPSS
	BRIDGE		FINAL LOCATION TIED
	SIDEWALK		
	TRAIL		
	ROADWAY		
	FREIGHT ACCESS ROAD		

DRAFT-WORK IN PROCESS

O-FEIS-Sketchup/Views/Plans



CITY OF ROBBINSDALE
VIEW LOCATION PLANS





LEGEND		
LEFT TRACK AREA	SIDEWALK	EXISTING RIGHT OF WAY
FREIGHT TRACK AREA	TRAIL	PROPERTY LINE
STATION PLATFORM	ROADWAY	APPROX. LOCATION OF TRACTION POWER SUBSTATION (TPS)
RETAINING WALL	FREIGHT ACCESS ROAD	APPROX. SIZE OF TPS FINAL LOCATION TSD
BRIDGE		

DRAFT-WORK IN PROCESS

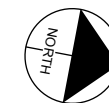
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BLUE LINE LRT EXTENSION

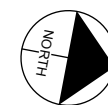
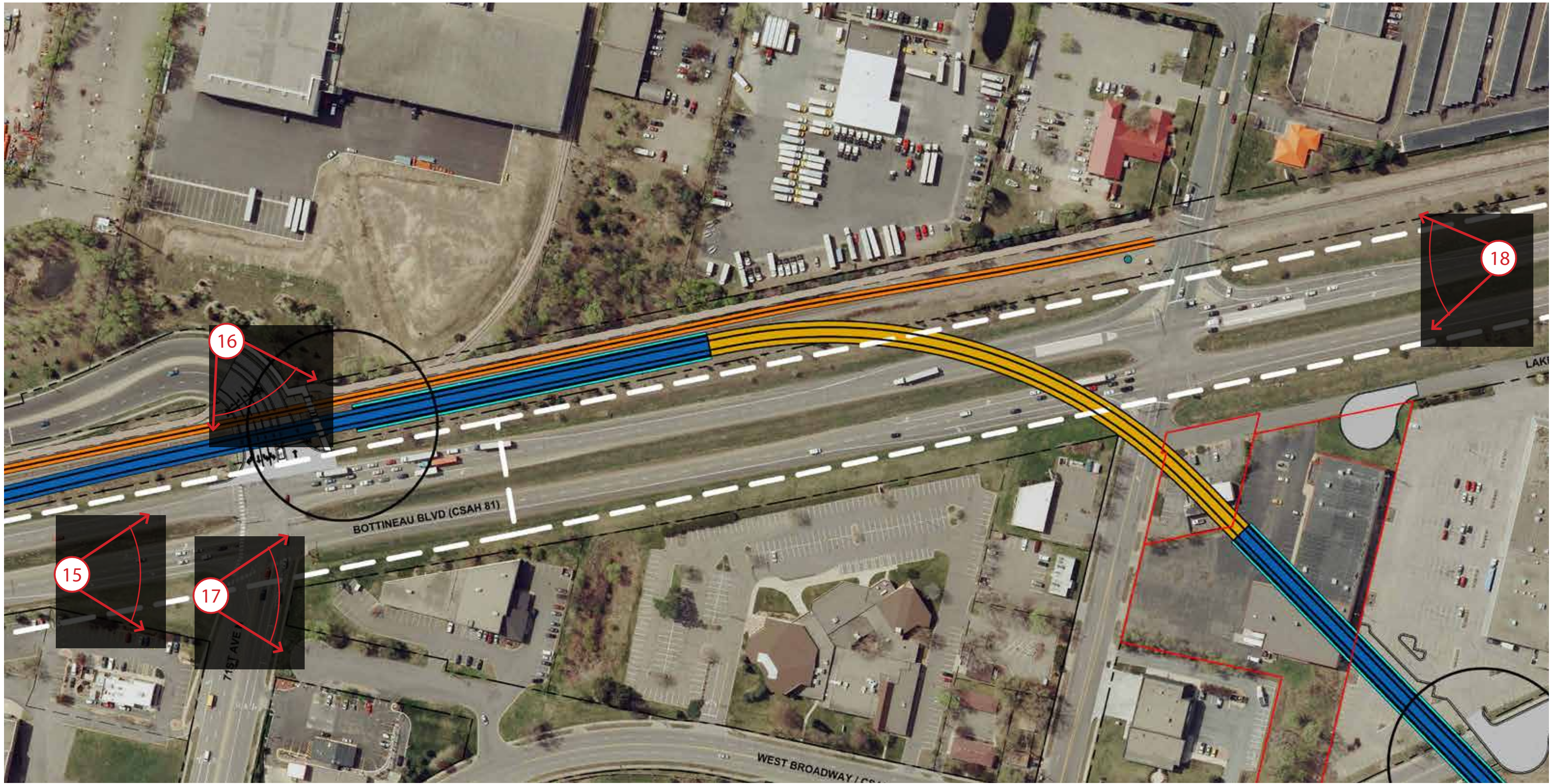
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 CITY OF BROOKLYN PARK
 VIEW LOCATION PLANS

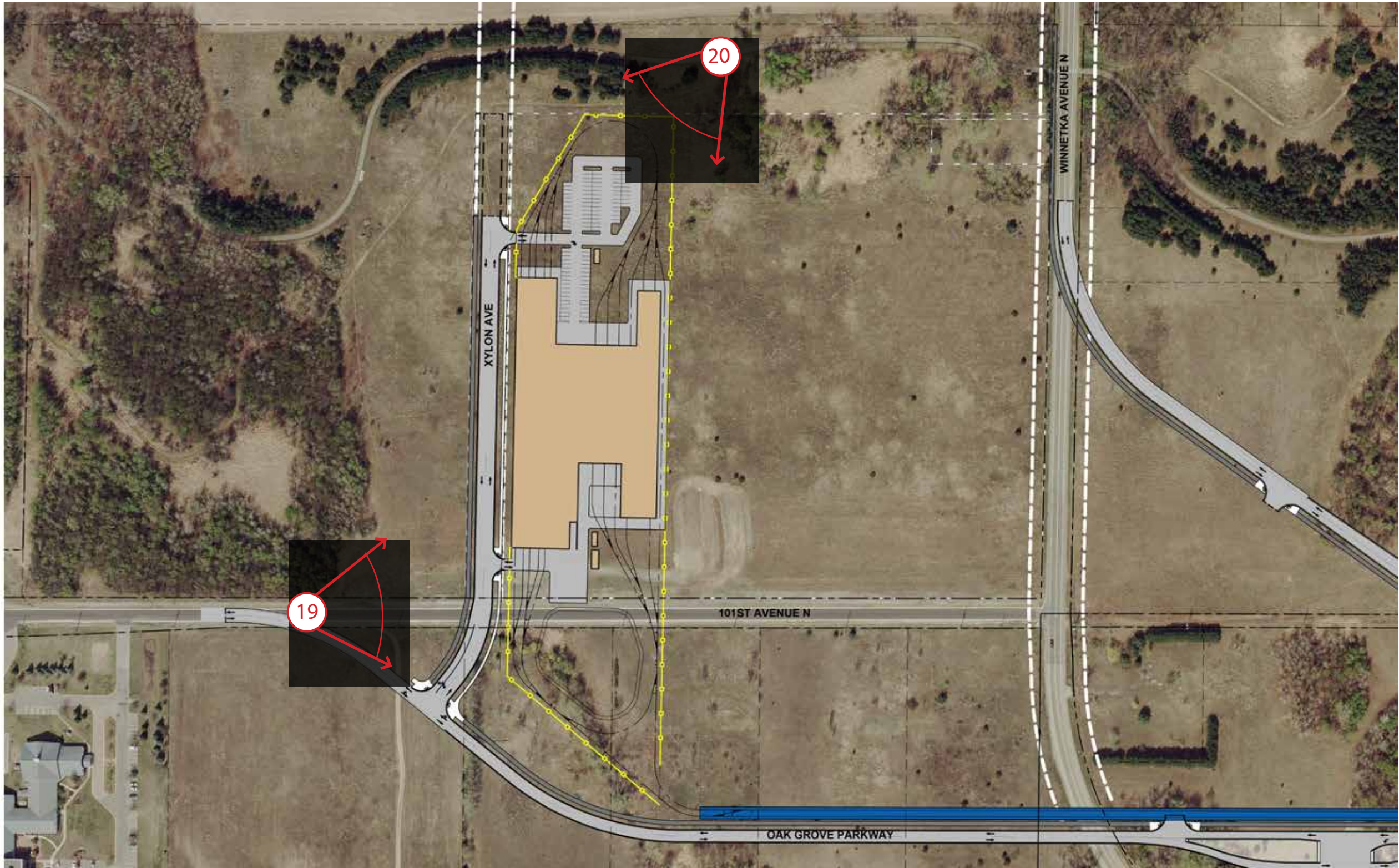
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 Consulting Group, Inc. ARCHITECTURE







BLUE LINE LRT EXTENSION
FEIS DESIGN DOCUMENTS
SKETCHUP VIEWS
CITY OF GOLDEN VALLEY
VIEW FROM WIRTH LAKE BOARDWALK

11/20/2015
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1
EXISTING



DRAFT-WORK IN PROCESS



BLUE LINE LRT EXTENSION
FEIS DESIGN DOCUMENTS
SKETCHUP VIEWS
CITY OF GOLDEN VALLEY
VIEW FROM WIRTH LAKE BOARDWALK

11/20/2015

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PROPOSED

Kimley»Horn







CITY OF GOLDEN VALLEY
VIEW OF WIRTH PARK TRAIL











CITY OF GOLDEN VALLEY
VIEW SOUTH FROM PLYMOUTH AVENUE BRIDGE



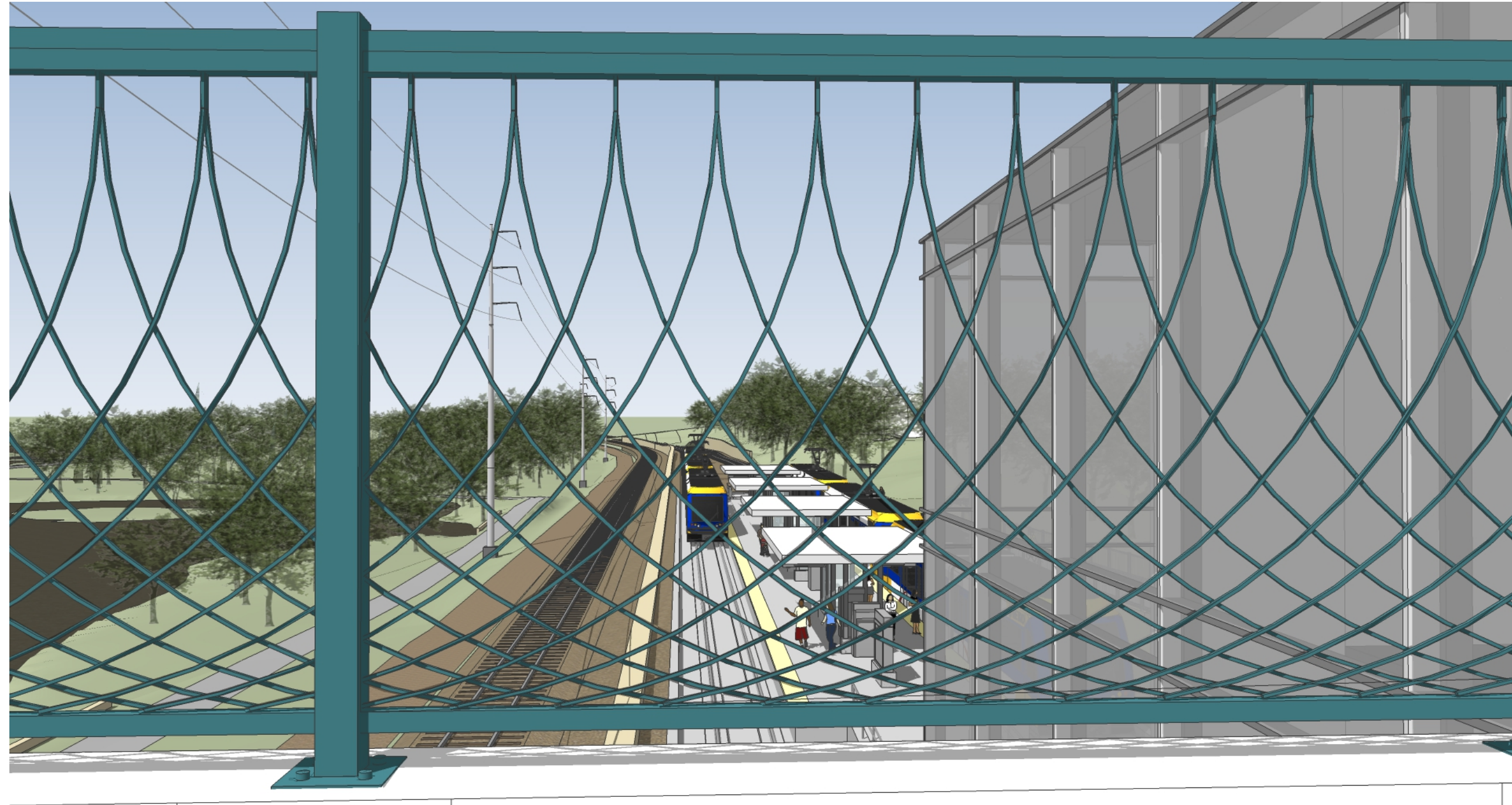


BLUE LINE LRT EXTENSION
FEIS DESIGN DOCUMENTS
SKETCHUP VIEWS
CITY OF GOLDEN VALLEY
VIEW NORTH FROM PLYMOUTH AVENUE BRIDGE

02/10/2015



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BLUE LINE LRT EXTENSION
FEIS DESIGN DOCUMENTS
SKETCHUP VIEWS
CITY OF GOLDEN VALLEY
VIEW NORTH FROM PLYMOUTH AVENUE BRIDGE

02/10/2015



PROPOSED













CITY OF GOLDEN VALLEY
VIEW NORTH FROM THEODORE WIRTH PARK GOLF COURSE















CITY OF ROBBINSDALE
VIEW FROM 41ST AVENUE AND HUBBARD AVENUE













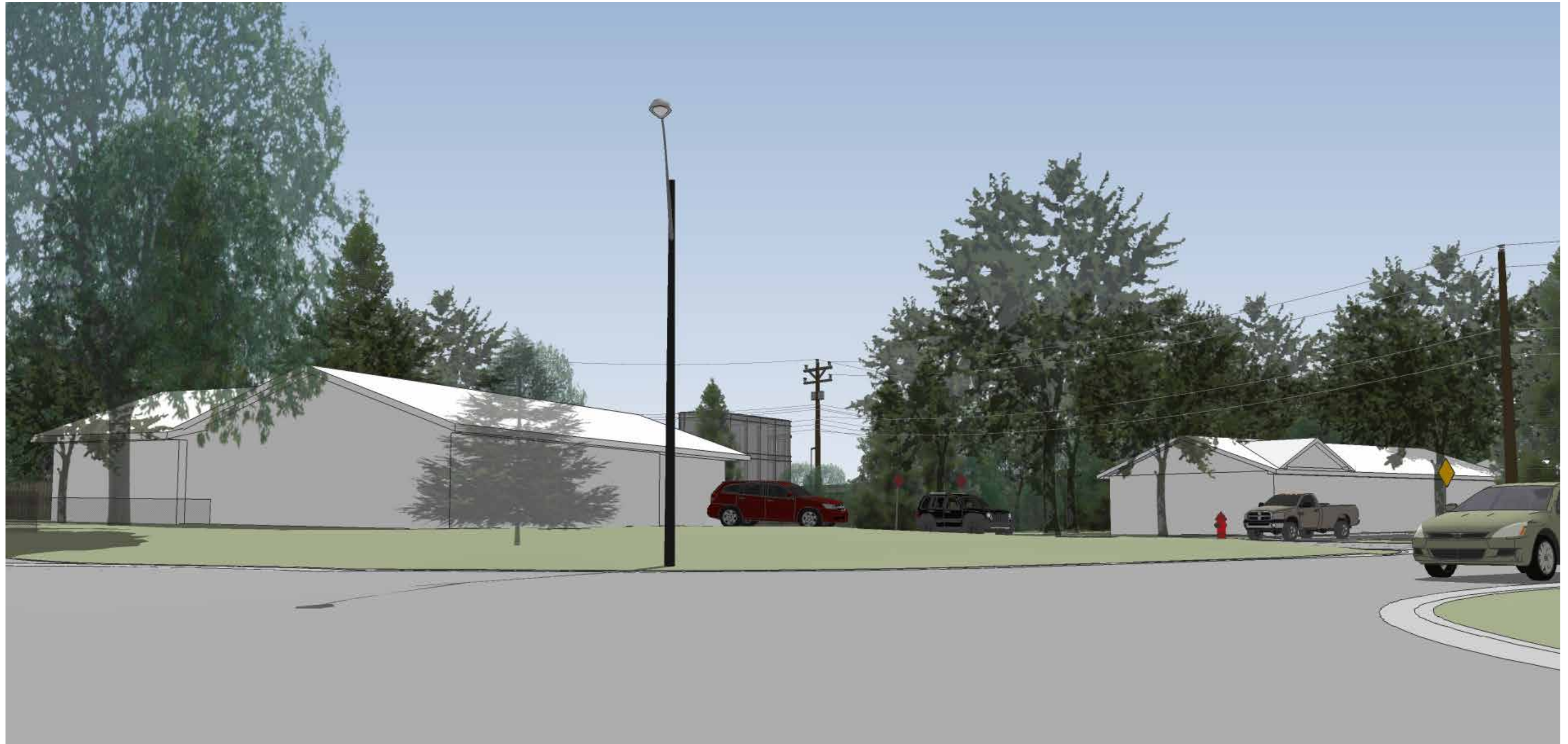






CITY OF BROOKLYN PARK
VIEW FROM TRAIL LOOKING SOUTH TOWARDS 63RD AVENUE





CITY OF BROOKLYN PARK
VIEW FROM NEIGHBORHOOD WEST OF 63RD AVENUE STATION



CITY OF BROOKLYN PARK
VIEW FROM BOTTINEAU BLVD / CR-81 AT 71ST AVENUE LOOKING NORTH



CITY OF BROOKLYN PARK
VIEW FROM BOTTINEAU BLVD / CR-81 AT 71ST AVENUE LOOKING NORTH





CITY OF BROOKLYN PARK
VIEW FROM 71ST AVENUE LOOKING EAST



CITY OF BROOKLYN PARK
VIEW FROM SOUTHEAST CORNER OF BOTTINEAU BLVD / CR-81 AND 71ST AVENUE



CITY OF BROOKLYN PARK
VIEW FROM SOUTHEAST CORNER OF BOTTINEAU BLVD / CR-81 AND 71ST AVENUE



CITY OF BROOKLYN PARK
VIEW FROM BOTTINEAU BLVD / CR-81 AT 73RD AVENUE LOOKING SOUTH



CITY OF BROOKLYN PARK
VIEW FROM BOTTINEAU BLVD / CR-81 AT 73RD AVENUE LOOKING SOUTH





CITY OF BROOKLYN PARK
VIEW FROM 101ST AVENUE N LOOKING EAST







DRAFT-WORK IN PROCESS



BLUE LINE LRT EXTENSION
CITY OF CRYSTAL
PEDESTRIAN OVERPASS AT BASS LAKE ROAD
DUAL VERTICAL CIRCULATION OPTION

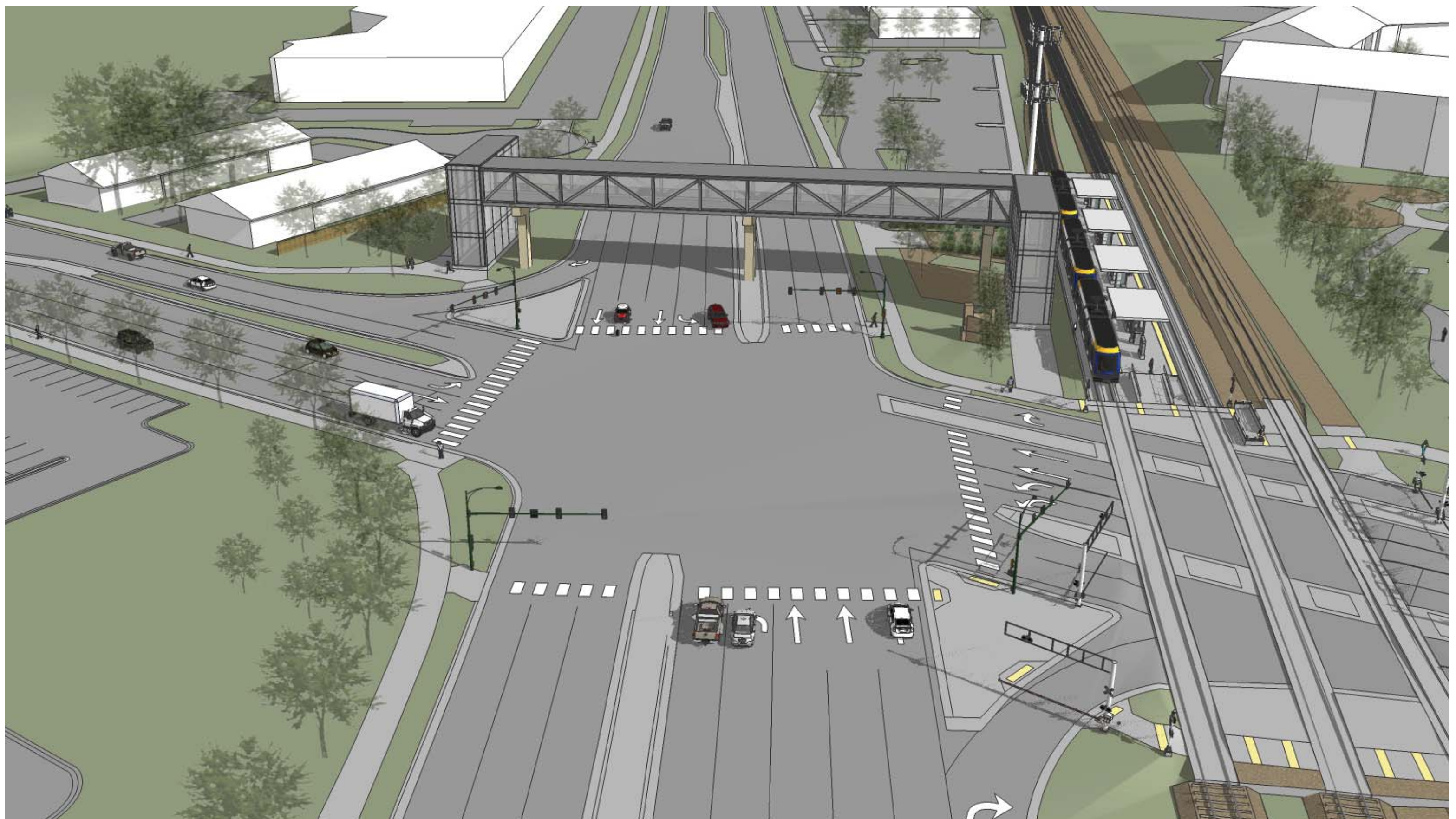
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Consulting Group, Inc. ARCHITECTURE



DRAFT-WORK IN PROCESS



BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 PEDESTRIAN OVERPASS AT BASS LAKE ROAD
 DUAL VERTICAL CIRCULATION OPTION

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PROPOSED



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56th Ave N

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BLUE LINE LRT EXTENSION
CITY OF CRYSTAL
PEDESTRIAN OVERPASS AT BASS LAKE ROAD
DUAL VERTICAL CIRCULATION OPTION

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BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 PEDESTRIAN OVERPASS AT BASS LAKE ROAD
 DUAL VERTICAL CIRCULATION OPTION

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BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 PEDESTRIAN OVERPASS AT BASS LAKE ROAD
 DUAL VERTICAL CIRCULATION OPTION

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BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 PEDESTRIAN OVERPASS AT BASS LAKE ROAD
 DUAL VERTICAL CIRCULATION OPTION

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PROPOSED

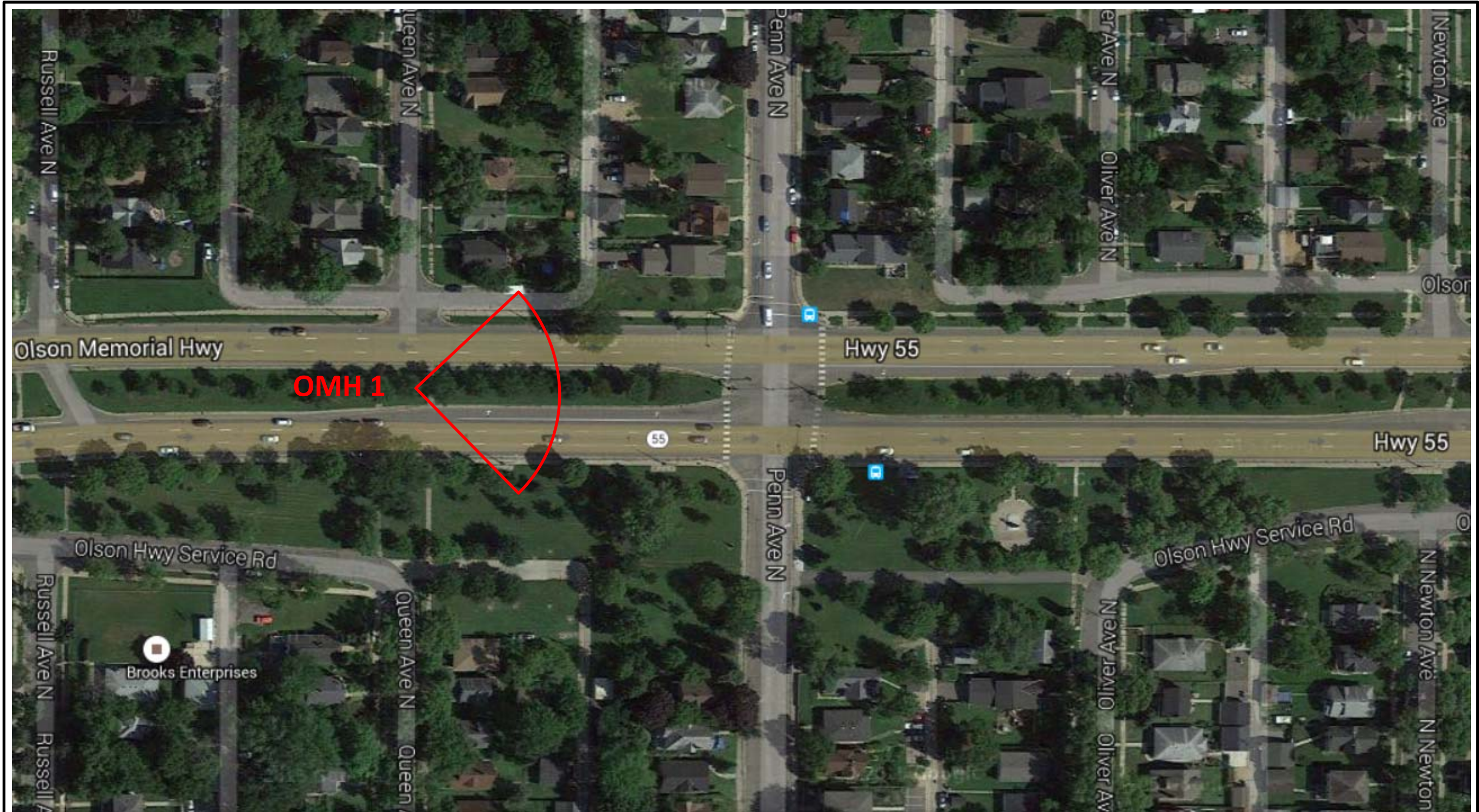


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 ARCHITECTURE

Olson Memorial Highway Median: Sketchup View



Olson Memorial Highway (OMH) Median View Location Map

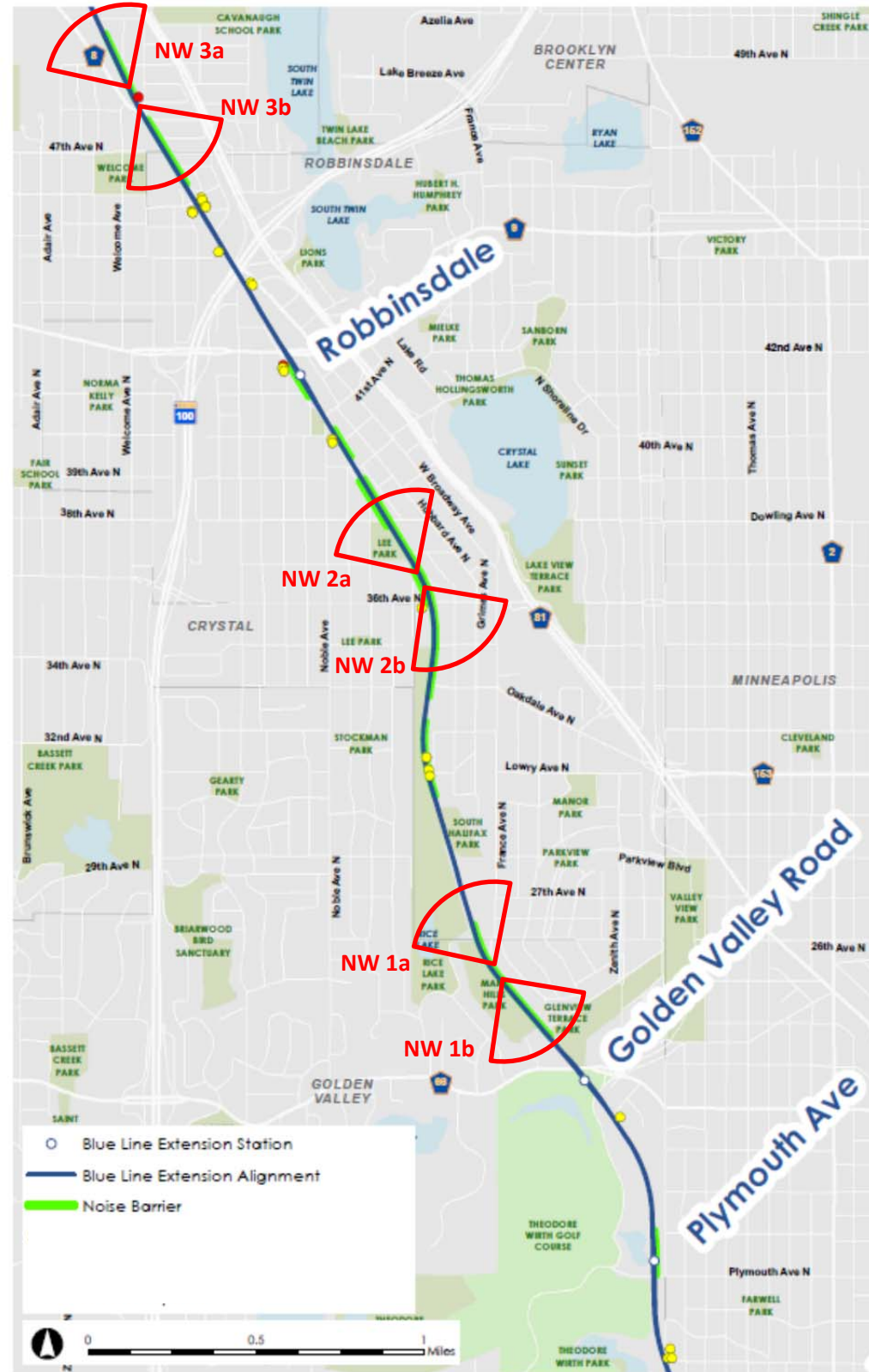


OMH 1a: Existing view of Olson Memorial Highway median; View to the east toward Penn Avenue



OMH 1b: Sketchup view of Olson Memorial Highway median with project

Proposed Noise Wall Location Photographs



NW 1a: View to the northwest - noise wall would be on the east side of the corridor (right in the photo)



NW 1b: View to the southeast - noise wall would be on the east side in the background (left of the corridor in the photo)



NW 2a: View to the northwest - noise walls would be on the east and west sides of the corridor



NW 3a: View to the northwest - noise wall would be on the east side of the corridor (right in the photo)



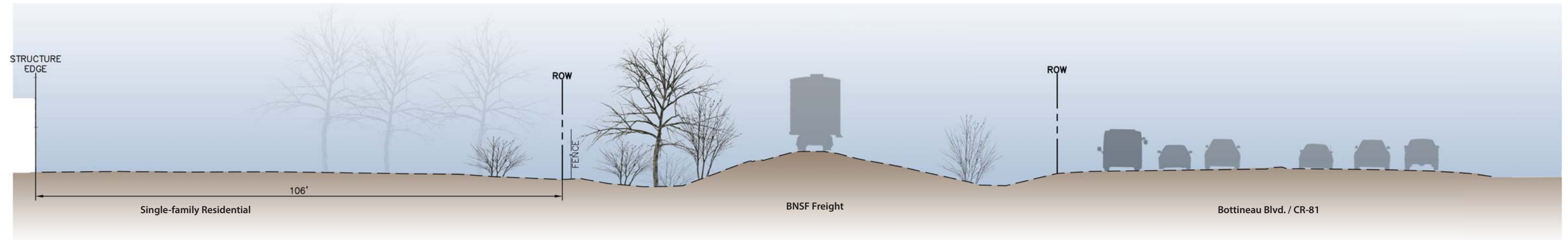
NW 2b: View to the southeast - noise wall would be on the east side of the corridor (left in the photo)



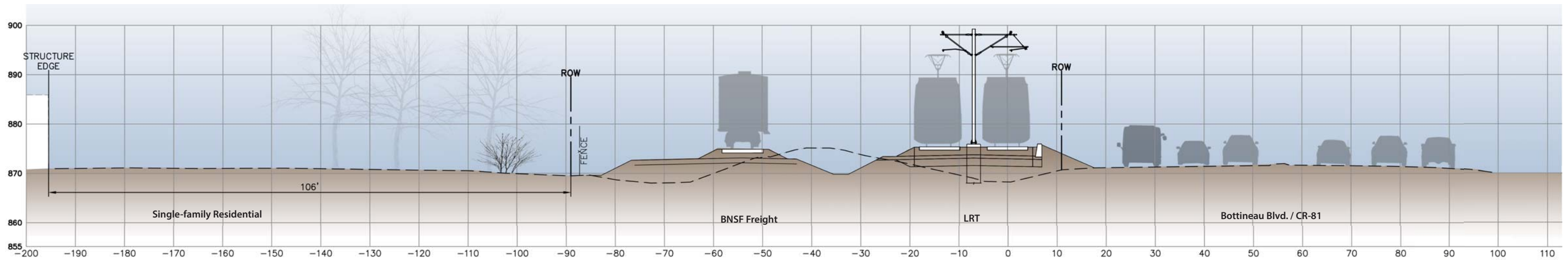
NW 3b: View to the southeast - noise wall would be on the east side of the corridor (left of the rails in the photo)



Light Vegetation - Existing Condition



Freight Corridor - Existing Condition



Freight & Light Rail Corridor

DRAFT-WORK IN PROCESS



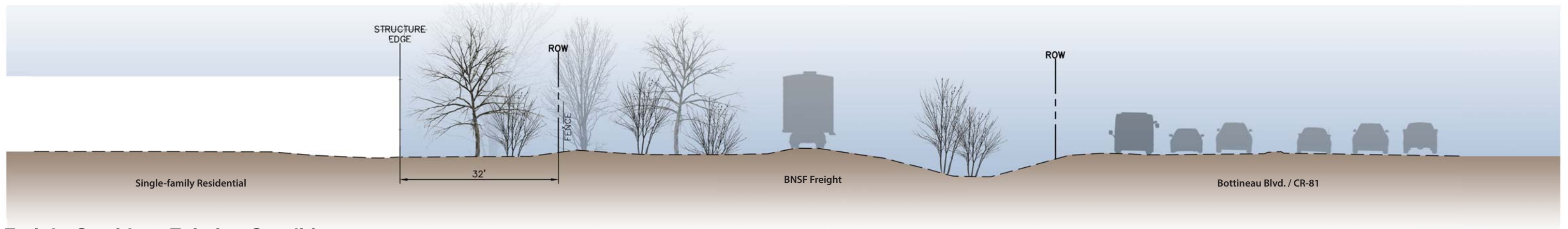
BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 BNSF RAILWAY CORRIDOR - TYPICAL SECTIONS
 VEGETATION REVIEW - LIGHT CONDITION

SHEET 1 OF 3
 Rev 0 02/10/2016

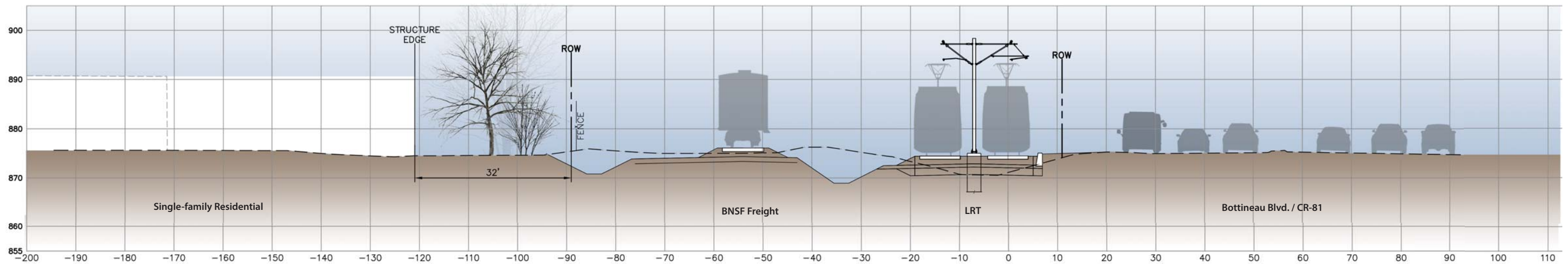




Moderate Vegetation - Existing Condition



Freight Corridor - Existing Condition



Freight & Light Rail Corridor

DRAFT-WORK IN PROCESS



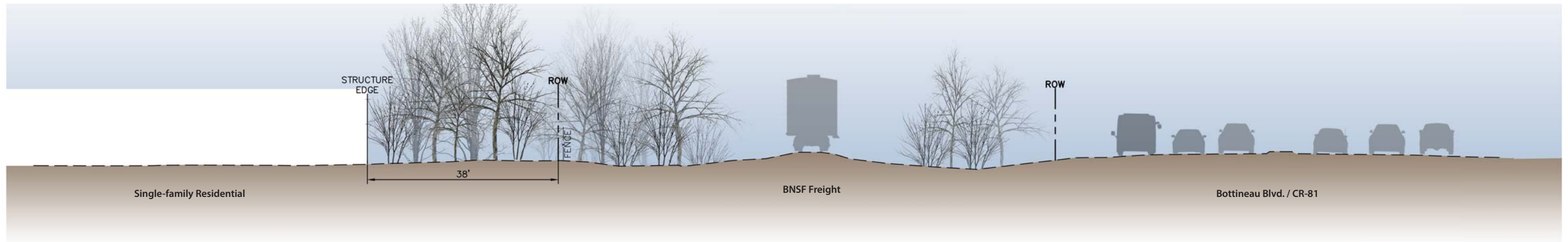
BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 BNSF RAILWAY CORRIDOR - TYPICAL SECTIONS
 VEGETATION REVIEW - MODERATE CONDITION

SHEET 2 OF 3
 Rev 0
 02/10/2016

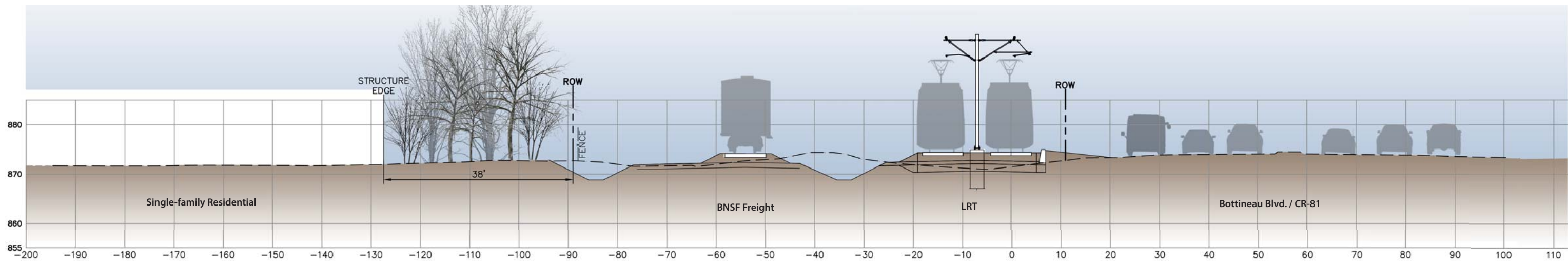




Dense Vegetation - Existing Condition



Freight Corridor - Existing Condition



Freight & Light Rail Corridor

DRAFT-WORK IN PROCESS



BLUE LINE LRT EXTENSION
 CITY OF CRYSTAL
 BNSF RAILWAY CORRIDOR - TYPICAL SECTIONS
 VEGETATION REVIEW - DENSE CONDITION

SHEET 3 OF 3
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