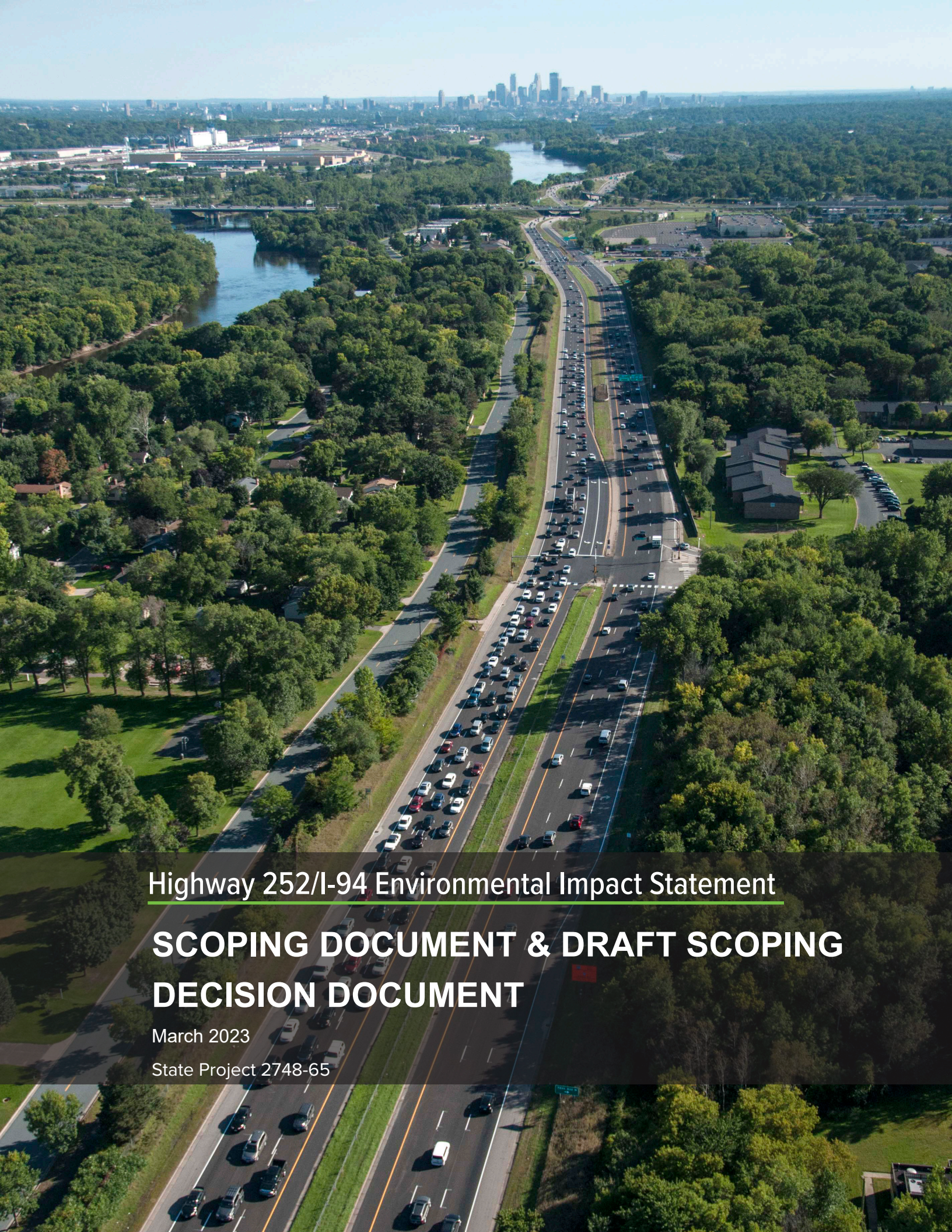

Highway 252/I-94 Environmental Impact Statement

SCOPING DOCUMENT & DRAFT SCOPING DECISION DOCUMENT

March 2023

State Project 2748-65

SCOPING DOCUMENT

HWY 252/I-94 PROJECT

MINNESOTA DEPARTMENT OF TRANSPORTATION

State Project Number: S.P. 2748-65

Trunk Highway Number: TH 252 and TH 94

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If you need this document in an alternative format (such as braille or large print), please email your request to Janet Miller at ADArequest.dot@state.mn.us or call 651-366-4720.

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Glossary

This glossary is intended to help readers understand certain terms used throughout the Hwy 252/ I-94 Scoping Document/Draft Scoping Decision Document. The definitions are provided in the order in which the terms appear in the Scoping Document.

Alternative: project option, or potential re-design of the Hwy 252/I-94 project area.

Logical termini: the geographic limits of the project, the project area.

Expressway: A roadway that is not grade-separated from intersecting local streets. Travelers may access a highway from the local streets without using on and off ramps. There may be bike or pedestrian paths at grade with an expressway. Note: Hwy 252 is currently an expressway and includes intersections with traffic signals.

At grade: Lanes of intersecting traffic, bikers, or pedestrians intersect one another at the same level.

Freeway: A high-speed roadway that is grade-separated from local streets. Only motorized vehicles may use a freeway. Access to a freeway is limited to on and off ramps and cannot be accessed via local streets. Note: I-94 is a freeway.

Grade separation: Vehicle travel lanes, bike lanes, crosswalks, or locations where travelers cross a road "at grade" or at the same level, are now separated, eliminating potential crash points.

Managed lanes: Managed lanes are a set of travel lanes where operations and use of the lanes are actively managed in response to changing conditions.

E-ZPass lanes: E-ZPass lanes are an example of managed lanes in Minnesota. Used by buses, high-occupancy vehicles, motorcycles and toll paying single-occupancy vehicles during peak travel times. Available for all drivers to use during off-peak travel times.

Mainline: Mainline refers to the primary travel lanes on Hwy 252 and I-94 in the project area.

Network: Network is the system of roads and highways within a given area.

Level of Service (LOS): A grading system using the letters A to F to measure how well an intersection is operating or the level of congestion on a freeway. The letter A represents the best operation or least amount of congestion and the letter F represents the worst operation or greatest amount of congestion.

Multimodal Level of Service (MMLOS): A grading system using the letters A to F to measure pedestrian and bicyclist perceptions of the overall travel experience. The letter A represents a generally acceptable condition, and the letter F represents conditions where a majority of users would feel uncomfortable.

List of Acronyms

AD = Adequacy Determination

ADA = Americans with Disabilities Act

APE = Area of Potential Effect

AUAR = Alternative Urban Areawide Review

BRT = Bus Rapid Transit

BWSR = Board of Water and Soil Resources

CAAA = Clean Air Act Amendments

CEQ = Council on Environmental Quality

CFR = Code of Federal Regulations

CP = Coordination Plan

CRU = Cultural Resources Unit

DDI = Diverging Diamond Interchange

DEIS = Draft Environmental Impact Statement

DMS = Dynamic Message Signing

DSDD = Draft Scoping Decision Document

DWMSA = Drinking Water Management Supply Area

EA = Environmental Assessment

EAW = Environmental Assessment Worksheet

EHA = Equity and Health Assessment

EIS = Environmental Impact Statement

EJ = Environmental Justice

EQB = Environmental Quality Board

FEIS = Final Environmental Impact Statement

FHWA = Federal Highway Administration

FPPA = Farmland Protection Policy Act

FTA = Federal Transit Administration

LEDPA = Least Environmentally Damaging and Practicable Alternative

LOS = Level of Service

MEPA = Minnesota Environmental Policy Act

MRCCA = Mississippi River Corridor Critical Area

MMLOS = Multi-Modal Level of Service

MnDOT = Minnesota Department of Transportation

MSAT = Mobile Source Air Toxics

NAC = Noise Advisory Committee

NEPA = National Environmental Policy Act

NRHP = National Register of Historic Places

PAC = Policy Advisory Committee

PEP = Public Engagement Plan

PMT = Project Management Team

RCI = Reduced Conflict Intersection

RGU = Responsible Governmental Unit

ROD = Record of Decision

SD = Scoping Document

SDD = Scoping Decision Document

SEE = Social, Economic, and Environmental

SPUI = Single Point Urban Interchange

STIP = State Transportation Improvement Program

TAC = Technical Advisory Committee

TFS = Transit Feasibility Study

TSMO = Transportation System Management and Operations

USACE = United States Army Corps of Engineers

USC = United States Code

WCA = Wetland Conservation Act

WHPA = Wellhead Protection Area

Executive Summary

The Minnesota Department of Transportation (MnDOT) is developing plans to improve safety and mobility for people walking, biking, using transit and driving on Highway (Hwy) 252 and Interstate 94 (I-94) in Brooklyn Park, Brooklyn Center and North Minneapolis. This Scoping Document (SD) describes the elements and alternatives evaluated as part of the scoping process for the Hwy 252/ I-94 Project. **Ten Hwy 252/I-94 corridor alternatives are identified for further study in the Draft Environmental Impact Statement (EIS), including three corridor elements on Hwy 252 and five corridor elements on I-94.** The Hwy 252 corridor elements are four-lane or six-lane freeways including bus shoulders or managed lanes. The I-94 corridor elements include adding managed lane(s) with a direct connection to downtown Minneapolis. Additional design features will be studied with the Hwy 252/I-94 corridor alternatives in the Draft EIS, including Hwy 252 access combinations, Hwy 252 interchange designs, pedestrian and bicycle crossings for Hwy 252 and I-94, other Hwy 252 and I-94 design options, and integration of local and express bus service improvements.

The following chapters in this SD describe in detail the public engagement, purpose and need, and scoping alternatives evaluation for the Hwy 252/I-94 Project.

Introduction

The Hwy 252/I-94 Project is in Hennepin County in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis. The Hwy 252/I-94 Project includes the Hwy 252 corridor from Hwy 610 to the Hwy 252/I-94/Interstate 694 (I-694) system interchange, and the I-94 corridor from the Hwy 252/I-94/I-694 system interchange to downtown Minneapolis. Figure 2.1 in Chapter 2 of this SD illustrates the project location.

The logical termini for the Hwy 252/I-94 Project include a northern terminus at Hwy 610 in Brooklyn Park and a southern terminus at the North 4th Street/North 3rd Street entrance and exit ramps in Minneapolis. The length of the Hwy 252/I-94 project corridor from Hwy 610 to the North 4th Street/North 3rd Street ramps is approximately 12 miles. Figure 2.2 in Chapter 2 of this SD illustrates the project termini.

The proposed action is being undertaken to address the transportation needs associated with the Hwy 252 and I-94 corridor. A summary of the purpose and need for the proposed action is presented below. When the scoping phase of the Hwy 252/I-94 Project is completed, a more detailed development and evaluation of the No Build Alternative and build alternatives will be documented in the Environmental Impact Statement (EIS).

Public Engagement

Public Engagement Plan

MnDOT and FHWA have prepared a *Public Engagement Plan* for the Hwy 252/I-94 Project. The *Public Engagement Plan* communicates the engagement strategy for the Hwy 252/I-94 Project and identifies the goals, strategies, messages, and action steps for engaging the public in each phase of the EIS process. Appendix C of this SD includes the *Public Engagement Plan*.

Public Meetings and Engagement Activities

A series of public meetings and engagement activities were completed during the scoping process. The purpose of this public outreach was two-fold:

- To provide background information regarding the scoping and EIS processes; share information regarding the project need and objectives; introduce the equity health assessment; present information regarding project elements and alternatives; and present information regarding the alternatives evaluation.
- To listen to comments and concerns regarding the project and to solicit public feedback.

Environmental Assessment Phase Engagement

Hennepin County, MnDOT, and project partners completed three rounds of public engagement in 2019 and 2020 as part of the previous Environmental Assessment (EA) phase. This engagement included community workshops, listening sessions, pop-up events, and online surveys. Public engagement activities during the EA phase were well attended, with nearly 3,000 people attending events across the three rounds of engagement. Public engagement materials were provided in multiple languages and interpreters were provided upon request. The following list summarizes some of the common themes gathered during the EA phase engagement.

- Safety along the project corridor.
- Walking and biking infrastructure and safety for walkers and bikers.
- Access to transit and transit services/impacts to transit/incorporating transit into the project.
- Overall traffic congestion.
- Concern for reconnecting West River Road.
- Air quality impacts/traffic noise impacts/traffic noise reduction.
- Concern for Mississippi River impacts.
- Efforts to minimize construction and project impacts on adjacent neighborhoods and residents.

The outcome of the EA phase was a determination by MnDOT and FHWA that the complexity and magnitude of the proposed action for Hwy 252 and I-94 requires the development of an EIS.

Scoping Phase Engagement

The following sections summarize public engagement activities completed to date as part of the scoping process for the Hwy 252/I-94 Project. This includes a summary of common public comment themes and a description of how the public was used to inform the scoping process.

Scoping Phase Engagement Activities

Public Meetings/Open Houses/Community Conversations

MnDOT hosted three rounds of public engagement during the scoping process from Spring 2021 through Spring 2022. Public engagement activities included listening sessions; pop-up events; virtual public meetings and community conversations; and in-person open house meetings. Meeting notices were published on the project webpage, distributed to local media, direct mailing of flyers to area residents and businesses, email notifications, and through social media platforms. Canvassing events included "door knocking" at residences along the Hwy 252/I-94 corridor to inform area residents of the project and opportunities for engagement. Public engagement materials were provided in multiple languages including Spanish, Somali, and Hmong. Interpreters were provided upon request. The following list summarizes attendance at engagement events.

- Approximately 300 people attended the listening sessions and virtual open houses in Spring and Summer 2021.
- Approximately 126 people attended the virtual open houses and community conversations in October 2021.
- Approximately 56 people attended the in-person open house meeting at Monroe Elementary School in Brooklyn Park in October 2021.
- Approximately 29 people attended the virtual public meeting in May 2022.
- Approximately 135 people attended the three in-person open house meetings in April/May 2022 (Brooklyn Center open house, 71 attendees; Minneapolis open house, 14 attendees; Brooklyn Park open house, 50 attendees).

Business Outreach

Engagement activities in scoping included targeted outreach to businesses in the project study area. The purpose of this targeted business engagement was to learn more about business needs along Hwy 252 and I-94; to notify businesses of the project and potential changes along the Hwy 252/I-94 corridor; and identify opportunities for improvements to the corridor. More than 110 businesses in the project study area were included as part of the targeted business engagement. Each of these

businesses were contacted by email. More than 30 businesses were reached by phone and engaged in one-on-one conversations with project staff.

Pop-Up Events

The purpose of pop-up engagement events was to inform potentially affected environmental justice (EJ) populations of the Hwy 252/I-94 Project and to gather feedback. More than 40 targeted engagement activities with EJ populations were held in Spring/Summer 2021 and Spring 2022 including pop-up events and direct door knocking. Pop-up events resulted in more than 1,200 conversations and more than 1,700 impressions.[1]

Partnerships with Community-Based Organizations

MnDOT partnered with community-based organizations, including the Stairstep Foundation, CAPI, and the Lao Assistance Center of Minnesota, to increase engagement with EJ populations and bring project information to the places where people are already gathering. These partnerships included support for pop-up events, support for public open house meetings, and assistance with project awareness. MnDOT's partnership with community-based organizations served as a critical connection and liaison to EJ populations.

Public Feedback Outside of Engagement Events

The public was encouraged to provide feedback outside of the public engagement periods summarized above. This included comments provided to MnDOT through the comment form on the project webpage, direct email correspondence with project staff, and phone conversations with project staff. Nearly 240 comments from 83 individuals were submitted outside of public engagement events. This accounts for approximately 30 percent of the public comments submitted during the scoping process.

Public Comment Themes (What We Heard)

More than 830 public comments were submitted during the scoping period. Nearly 600 comments, or approximately 70 percent of comments, were submitted over the course of the three rounds of engagement. Comments were reviewed by the project team and catalogued into general comment themes. Comments received reflected both sides of an issue/concern. For example, comments regarding freeway conversion included comments against conversion of Hwy 252 to a freeway facility as well as comments in support of freeway conversion. The following list identifies the top five comment themes.

- Opposition to or support for highway expansion.

[1] Environmental justice (EJ) populations include minority and low-income populations. See Section 9.2.9 in this SD.

- Concerns regarding social impacts or impacts to the surrounding natural environment. Social and environmental issues commonly cited at engagement events included air quality impacts, traffic noise impacts, impacts to the Mississippi River, and environmental justice concerns.
- Opposition to, support for, or general concerns for conversion of Hwy 252 to a freeway.
- Safety along the project corridor, including safety for people in vehicles on Hwy 252 and safety and mobility for people walking and biking.
- Community interest and support for transit improvements.

Other themes include property acquisition and impacts, access, construction, reconnecting West River Road, equity, managed lanes, engagement/outreach, health outcomes, traffic and traffic volumes, mobility, project process, and pedestrians/bicyclists.

How Public Comments Were Used in Scoping the Project

Public comments were used by the project team throughout the scoping process to help identify, develop, and evaluate alternatives. The following list summarizes how public feedback was incorporated into the scoping process for the Hwy 252/I-94 Project.

Public Feedback and EIS Process

- Public engagement during the EA phase was well attended and generated numerous comments regarding potential impacts associated with the Hwy 252/I-94 Project. The outcome of the EA phase was a determination by MnDOT and FHWA that the complexity and magnitude of the proposed action for Hwy 252 and I-94 requires the development of an EIS.

Public Feedback and Hwy 252 Interim Safety Improvements

- An issue frequently cited at engagement events in the EA phase and the scoping phase was that there are safety problems on Hwy 252 today. Public comments regarding Hwy 252 safety concerns led to the Hwy 252 interim improvements targeted for construction in 2023. The Hwy 252 Interim Safety Improvements responds to public feedback regarding Hwy 252 safety problems.

Public Feedback and Vehicle Safety

- Vehicle safety and interchange spacing on Hwy 252 were frequently cited as a concern in public comments, with particular emphasis on spacing between 66th Avenue and the Hwy 252/I-94/I-694 system interchange. An assessment of interchange spacing and crashes across the Twin Cities Metropolitan Area was prepared and considered when identifying and developing Hwy 252 access alternatives. Table 7.9 in Section 7.3.2 of this SD summarizes the interchange spacing and crash analysis results.

- Excessive speed and vehicle safety were frequently cited in public comments, specifically as it relates to travel on Hwy 252. A speed and vehicle safety presentation was developed and presented to the PAC on October 7, 2021. A copy of this presentation is available on the project webpage.

Public Feedback and Transit

- Public feedback received during the EA phase indicated community interest in transit improvements that could be implemented alongside highway alternatives. Public comments regarding transit led to the Hwy 252/I-94 Transit Feasibility Study and the integration of transit elements into the scoping alternatives (see Appendix J of this SD). Transit elements were evaluated in scoping with the recommendation to carry the local and express bus service improvements element forward for further study in the Draft EIS.

Public Feedback, Project Objectives, and Equity

- An issue frequently cited in the EA phase and the scoping phase included equitable impacts and benefits for people living and working along Hwy 252 and I-94; health concerns; and safety concerns. Project objectives were identified that are transportation and community related, reflecting feedback MnDOT received from participants in EA phase and scoping phase engagement activities (see Section 5.1 of this SD). The EHA addresses input from the public regarding equity, health, and safety (see Section 3.1.4 of this SD).

Public Feedback and Scoping Alternatives

- Additional elements were identified through public comments. This included the Hwy 252 four-lane low-speed arterial roadway and Hwy 252 conversion to local collector road with transitway. These two elements were included with the scoping evaluation.

- Pedestrian and bicycle safety and mobility were frequently cited as a concern in public comments, noting that Hwy 252 and I-94 are barriers to non-motorized travel. A range of elements designed to serve pedestrians and bicyclists were studied during the scoping process, including improved Hwy 252 at-grade crossings and grade separated crossings of Hwy 252 and I-94 (e.g., dedicated multi-use trail bridges, multi-modal overpass bridges).

- Public comments regarding alternatives ranged from support of various alternatives to requesting minimal changes to the existing highways. No single alternative was frequently cited over other alternatives. Several common themes from public comments included concerns regarding vehicle miles traveled, air quality, and traffic noise. The Hwy 252 four-lane freeway including bus shoulders is recommended for further study in the Draft EIS because it will improve safety, walkability/bikeability, and mobility and provides a transit advantage along the Hwy 252 corridor. Public feedback was also an important factor in the decision to retain the Hwy 252 four-lane freeway including bus shoulders for further study in the Draft EIS.

- Hwy 252 is classified as a principal arterial roadway which means that it operates as a "backbone" of the transportation system connecting all modes of travel to other principal arterial roadways and lower classification roadways. Alternatives considered in scoping include changing the functional classification of Hwy 252 to a lower classification roadway (e.g., minor arterial roadway, local collector roadway). A travel pattern and roadway classification presentation was developed and presented to the PAC on June 27, 2022. The "Hwy 252 and Functional Classification" discussion in Section 7.3.1 of this SD summarizes the results of the travel pattern and roadway classification presentation.

Public Feedback and Air Quality/Traffic Noise

- Air quality was frequently cited as a concern in public comments. An air quality analysis is prepared for the build alternatives in the Draft EIS phase of the project. The Hwy 252/I-94 Project does not meet all three criteria for requiring a quantitative mobile source air toxics (MSAT) analysis. However, because of public interest in this topic, a quantitative MSAT analysis will be prepared for the build alternatives in the Draft EIS.

- Traffic noise and traffic noise impacts were frequently cited as a concern in public comments. This feedback was a primary factor in recommending certain Hwy 252 interchange configurations for further study in the Draft EIS (i.e., Hwy 252 over versus under local intersecting roads).

Public Feedback and Traffic Analysis

- MnDOT completed a sensitivity analysis of Hwy 252 and I-94 traffic volumes in response to public comments regarding remote work and freeway traffic volumes. The COVID-19 sensitivity analysis evaluated increases in telecommuting rates to determine the effects on Hwy 252 elements recommended for further study in the EIS. The existing telecommuting rate would need to increase four-fold for the Hwy 252 four-lane freeway including bus shoulders to operate at acceptable levels of service compared to the Hwy 252 six-lane freeway including bus shoulders and the Hwy 252 six-lane freeway including managed lanes. A copy of the COVID-19 sensitivity analysis technical memorandum is available for review from the MnDOT Project Manager.

Public Feedback and Scoping Comment Period

- The Hwy 252/I-94 Project has generated a substantial amount of public interest and received a large volume of comments. Minnesota Rules 4410.2210 requires a 30-day scoping period. MnDOT will extend the scoping period to 60 days to provide additional time for public review and comment on the SD and Draft Scoping Decision Document (DSDD).

Scoping and EIS Meetings

The formal 60-day scoping public comment period lasts from **March 21 to May 19, 2023**. A public scoping meeting will be held during the comment period for the SD to present the findings of the

SD and DSDD. Comments received during the public comment period will be considered in preparing the Final SDD. The Federal NOI follows the State scoping process and includes a 30-day public comment period. A public meeting will be held during the NOI comment period. Informational meetings will also be held as the Draft EIS is developed, and a public hearing will be held following publication of the Draft EIS.

Equity Health Assessment

MnDOT's Sustainability and Public Health Office is working with MnDOT Metro District to conduct an Equity Health Assessment (EHA) of the Hwy 252/I-94 Project. MnDOT initiated the Hwy 252/I-94 EHA in 2021 as enhanced engagement to pilot a new method for including equity and health information in the environmental review process. The EHA draws from principles and practices of Health Impact Assessment and Community Impact Assessment tools used by public agencies across the country to understand and address equity and health impacts on transportation projects.

Section 3.1.4 of this SD includes a detailed description of the EHA.

EHA Working Group and Equity and Health Neighborhood Advisors

The EHA is supported by an interagency working group that convenes when necessary to support deliverables. Members are not involved in the day-to-day project environmental review activities and include staff from MnDOT's Livability Office, Hennepin County Health and Human Services, the Center for Urban and Regional Affairs at the University of Minnesota, Metro Transit, and FHWA. EHA working group members bring expertise on equity, health, engagement, and the environmental review process.

To ground this EHA in community, MnDOT convened an Equity and Health Neighborhood Advisors (EHNA) group. The EHNA consists of members who live, work, or own a business in the project area and have an interest in advancing equity and health in transportation. MnDOT's goal in selecting EHNA members was to ensure the group is balanced across project area communities and represents the region's demographic diversity. The EHNA group works with MnDOT staff to describe equity and health conditions in their communities; provide input on equity and health engagement activities; and provide input on potential transportation improvements to Hwy 252/I-94 elements and alternatives.

EHA Reports

Three reports will be prepared for the EHA as part of the scoping process. The first two reports were prepared alongside the scoping alternatives evaluation and are summarized below. The third report will be prepared concurrent with the scoping public comment period and delivered to MnDOT as public comment.

EHA Report #1: Baseline Conditions

The Hwy 252/I-94 Equity and Health Baseline Conditions Report documents 31 conditions that provide a holistic depiction of how transportation can impact physical, mental, social, environmental, and economic health in Hwy 252/I-94 communities. Where possible, baseline condition information is disaggregated by race, ethnicity, and/or income, and used to assess health disparities within the corridor and between the corridor and the region. The purpose of the EHA Baseline Conditions Report is to provide a data-driven foundation for the two subsequent EHA reports that will be considered by MnDOT as public input for the SD.

Appendix E of this SD includes the *EHA Report #1: Baseline Conditions*.

EHA Report #2: Priorities

The Equity and Health Community Priorities Report (EHA Report #2) is the second of three EHA reports. EHA Report #2 summarizes the community engagement process and results from engaging historically underserved and overburdened communities adjacent to Hwy 252/I-94 about their equity and health priorities. The health and equity priorities were identified from the analysis of existing conditions in *EHA Report #1: Baseline Conditions*.

Appendix F of this SD includes the *EHA Report #2: Priorities*.

Section 3.1.4 of this SD includes text and figures from EHA Report #2. EHA Report #2 uses the acronym BIPOC, which stands for Black people, Indigenous people, and People of Color. The acronym BIPOC does not correlate to federal and state definitions for environmental justice (EJ).

Equity Health Assessment Targeted Engagement and Focus Area Priorities

The EHA targeted engagement focused on listening to historically underserved and overburdened populations living in Minneapolis, Brooklyn Center, and Brooklyn Park, including Black people, Indigenous people, and People of Color (BIPOC); people with a low-income; the elderly; and people with a disability. The project team conducted an online survey and 15 targeted in-person activities between April 15 and May 6, 2022, including pop-up and canvassing events in the project study area.

Section 3.1.4 of this SD includes a demographic summary for people that participated in the EHA targeted engagement process and key takeaways from the EHA targeted engagement.

EHA Report #3: Assessment of Hwy 252/I-94 Scoping Document and Draft Scoping Decision Document

Equity and health assessment of the Hwy 252/I-94 SD and DSDD will include a community-driven health and equity review of the Hwy 252/I-94 project elements and alternatives and will apply the equity and health priorities identified in EHA Report #2. The purpose of this assessment is to elevate community perspective specific to equity and health for consideration in decision-making by MnDOT and/or other agencies.

Summary of Purpose and Need

The purpose and need explain why MnDOT is undertaking the proposed project. The "need" identifies the transportation problems that led to the initiation of the project. The "purpose" is a broad statement of the intended transportation results to be achieved by the project. Chapter 4 of this SD describes the purpose and need for the Hwy 252/I-94 Project.

Summary of Needs

MnDOT has identified several factors justifying the need for the Hwy 252/I-94 Project. The needs are the transportation problems that led to the initiation of the project. Three needs have been identified and include:

- **Vehicle safety.** The vehicle safety performance of Hwy 252 is considered deficient based on number of crashes, crash rates, and crash indices. Most of the Hwy 252 crashes occur at the 85th Avenue intersection in Brooklyn Park and the 66th Avenue intersection in Brooklyn Center. I-94 also experiences a high number of crashes. Most of the crashes on Hwy 252 and I-94 are rear-end crashes. Rear-end crashes are often associated with congestion.

- **Vehicle mobility including transit.** The vehicle mobility performance of Hwy 252 is considered deficient based on operations and travel time reliability during peak periods. This congestion on Hwy 252 is expected to get worse in the future with the No Build Alternative. Northbound I-94 experiences congestion during the afternoon peak period because of operations at the I-94/I-694/Hwy 252 system interchange and traffic queues spilling back from I-694. I-94 is one of the highest express bus ridership corridors in the Twin Cities Metropolitan Area (based on 2019 ridership data). As congestion increases under the No Build Alternative, it will be important to maintain bus on-time performance on Hwy 252 and I-94 and potentially mitigate future sources of bus delay along the corridor.

- **Walkability and bikeability**. Hwy 252 and I-94 are physical barriers to east-west travel for pedestrians and bicyclists in project area communities. Hwy 252 can be challenging to cross for some pedestrians and bicyclists due to the number of lanes, crossing distances, and vehicle speeds. Pedestrians and bicyclists also experience long wait times when crossing Hwy 252. I-94 overpass bridges experience varying degrees on pedestrian and bicycle levels of service.

Additional Considerations

Additional considerations are elements that are not central to the purpose and need of the project but are important criteria for evaluating build alternatives. The additional considerations identified for this project include:

- Coordination with transit planning
- Consistency with regional transportation plans
- Minnesota Corridors of Commerce Program

Purpose Statement

The purpose of the Hwy 252/I-94 Project is to improve the safe and reliable movement of people and goods across multiple modes on and across Hwy 252 and I-94 between Hwy 610 in Brooklyn Park and North 4th Street in Minneapolis.

Project Objectives

Project objectives have been identified for the Hwy 252/I-94 Project that are transportation and community related. The project objectives describe desired project outcomes beyond the identified transportation problem and were developed with the Policy Advisory Committee. The project objectives reflect feedback MnDOT received during public engagement activities.

Project objectives identified for the Hwy 252/I-94 Project include:

- Achieve equitable social, environmental, and economic outcomes (equity means fair and just, taking into consideration the conditions and needs of persons/communities impacted).
- Reduce injuries and fatalities associated with crashes along Hwy 252 and I-94.
- Promote public health by improving walkability/bikeability along and across Hwy 252 and I-94, and by supporting reliable transit service through operational improvements.
- Minimize the need to acquire additional property.
- Ensure solutions are consistent with local planning and compatible with the existing roadway network.

Alternatives Evaluation Process

Evaluation Process

The alternatives evaluation for Hwy 252/I-94 Project includes a four-step process. Step 1 through Step 3 occurs as part of the scoping phase. The process begins in Step 1 with identifying a range of corridor elements to address the project purpose and need along with public and stakeholder input. This process is designed to further refine the alternatives and elements in greater detail as the evaluation progresses from Step 2 to Step 3. Each step includes a progressively more detailed level of evaluation and analysis. The outcome of Step 3 is the identification of alternatives to be studied in the Draft EIS. Chapter 6 of this SD describes the alternatives evaluation process.

Evaluation Criteria

Evaluation criteria are the qualitative and quantitative measures to be used by MnDOT to assess the performance of alternatives. The evaluation criteria establish a comparative framework for identifying a reasonable range of alternatives for detailed study in the Draft EIS and to identify a preferred alternative in the Draft EIS. Section 6.1 of this SD summarizes the evaluation criteria used

in scoping. Section 6.3 of this SD describes updates to the evaluation criteria since *Evaluation Criteria Report* was released for public review in June 2021 (see Appendix I).

Alternatives to be Studied in the Draft EIS

No Build Alternative

The No Build Alternative would maintain the current roadway geometry, lane configuration, and other existing conditions within the logical termini with no additional improvements to address needs in the Hwy 252/I-94 corridor beyond ongoing preventative maintenance work. The No Build Alternative does not address the vehicle safety, vehicle mobility, and walkability/bikeability needs for the project. The No Build Alternative will be carried forward for evaluation in the Draft EIS as it serves as the baseline condition against which alternatives are compared. Section 7.1.1 of this SD includes a description of the No Build Alternative.

Hwy 252 and I-94 Corridor Alternatives

The following sections summarize the Hwy 252 and I-94 elements and alternatives recommended for further study in the Draft EIS. All these options will improve safety and mobility for people in cars and people walking and biking. These options also include transit advantages that will benefit people using transit services.

Hwy 252 Corridor Elements

The following Hwy 252 corridor elements are recommended for further evaluation in the Draft EIS.

- Element 5. Hwy 252 four-lane freeway including bus shoulders
- Element 6. Hwy 252 six-lane freeway including bus shoulders
- Element 7. Hwy 252 six-lane freeway including managed lanes

I-94 Corridor Elements

The following I-94 corridor elements are recommended for further evaluation in the Draft EIS.

- Element A. No change on I-94.
- Element B. Convert one southbound I-94 lane from I-694 to North 4th Street to a managed lane with a direct connection to downtown Minneapolis.
- Element D. Convert one southbound and one northbound I-94 Lane from I-694 to North 4th Street to managed lanes with a direct connection to downtown Minneapolis.
- Element G. Build one southbound I-94 Lane from I-694 to Dowling Avenue as a managed lane, convert one southbound I-94 Lane from Dowling Avenue to North 4th Street to a managed lane with a direct connection to downtown Minneapolis.

- Element J. Build one southbound and one northbound I-94 Lane from I-694 to Dowling Avenue as managed lanes, convert one southbound and one northbound I-94 Lane from Dowling Avenue to North 4th Street to a managed lane with a direct connection to downtown Minneapolis.

Hwy 252/I-94 Corridor Alternatives

The Hwy 252 and I-94 elements for corridor alternatives listed above were evaluated independently of one another in scoping. The next level of analysis in the Draft EIS will combine and evaluate the Hwy 252 and I-94 elements together as corridor alternatives. The individual Hwy 252 and I-94 elements recommended for further study in the Draft EIS are combined to create 10 Hwy 252/I-94 corridor alternatives. Table ES.1 identifies the 10 Hwy 252 and I-94 corridor alternatives identified for study in the Draft EIS.

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Table ES.1 List of Hwy 252 and I-94 Corridor Elements Combined to Develop Alternatives for Further Study in the Draft EIS

Hwy 252 and I-94 Corridor Elements (1)	A. No Change on I-94	B. Convert One Southbound I-94 Lane to Managed Lane from I-694 to North 4th Street With Direct Connect	D. Convert One Northbound I-94 Lane and One Southbound I-94 Lane to Managed Lanes from I-694 to North 4th Street With Direct Connect	G. Build One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lane Convert One Southbound I-94 Lane to Managed Lane from Dowling Avenue to North 4th Street With Direct Connect	J. Build One Additional Northbound I-94 Lane and One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lanes Convert One Northbound I-94 Lane and One Southbound I-94 Lane from Dowling Avenue to North 4th Street to Managed Lanes With Direct Connect
5. Hwy 252 Four-Lane Freeway Including Bus Shoulders	A.5 (1)	Not compatible	Not compatible	G.5 (5)	J.5 (8)
6. Hwy 252 Six Lane Freeway including Bus Shoulders	A.6 (2)	Not compatible	Not compatible	G.6 (6)	J.6 (9)
7. Hwy 252 Six-Lane Freeway including Managed Lanes	N/A	B.7 (3)	D.7 (4)	G.7 (7)	J.7 (10)

Not compatible = the Hwy 252 corridor element is not compatible with the I-94 corridor element. See assumptions listed in Section 7.3.1 of this SD.

The number in parentheses represents one of the 10 possible corridor alternatives when combining Hwy 252 and I-94 elements based on the assumptions listed in Section 7.3.1.

(1) The No Build Alternative will be carried forward to the Draft EIS as required under NEPA and MEPA. The No Build Alternative will be used as the basis for comparison of Hwy 252/I-94 corridor alternatives.

Hwy 252 Access Combinations and Interchange Configurations

Table ES.2 lists the five Hwy 252 access combinations to be studied further in the Draft EIS. Section 7.5.3 of this SD illustrates the Hwy 252 access combinations. The Hwy 252 interchange configurations to be studied further in the Draft EIS are identified in Table ES.2 with each Hwy 252 access combination. Section 7.4.4 of this SD illustrates the Hwy 252 interchange configurations. The Hwy 252 access combinations and interchange configurations are applicable to the Hwy 252 freeway facilities recommended for further study in the Draft EIS.

Table ES.2 Hwy 252 Access Combinations and Interchange Configurations to be Studied in the Draft EIS

Hwy 252 Access Combinations	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
85th Avenue	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under
Humboldt Avenue	Closed (1)	Closed (1)	Closed (1)	Closed (1)	Closed (1)
Brookdale Drive	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Split Diamond with 73rd Avenue (2)	Split Diamond with 73rd Avenue (2)	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Closed (1)
73rd Avenue	Closed (1)	Split Diamond with Brookdale Drive (3)	Split Diamond with Brookdale Drive (3)	Closed (1)	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under
70th Avenue	Closed (1)	Closed (1)	Closed (1)	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Closed (1)
66th Avenue	Folded Diamond with Hwy 252 Over Folded Diamond with Hwy 252 Under Braided CD Road (Full Access)	Folded Diamond with Hwy 252 Over Folded Diamond with Hwy 252 Under Braided CD Road (Full Access)	Closed (1)	Closed (1)	Closed (1)

(1) No access to/from Hwy 252 and intersecting local street. Could include local road over or under Hwy 252 using bridges for local connectivity across Hwy 252 or dedicated multi-use trail bridges for pedestrians and bicyclists.

(2) Includes interchange access between Hwy 252 and Brookdale Drive to and from the north. Connects to 73rd Avenue with north and south frontage roads parallel to Hwy 252.

(3) Includes interchange access between Hwy 252 and 73rd Avenue to and from the south. Connects to Brookdale Drive with north and south frontage roads parallel to Hwy 252.

Hwy 252 and I-94 Design Options

The following list summarizes Hwy 252 and I-94 design options to be studied further in the Draft EIS. These design options will be integrated into the 10 Hwy 252 and I-94 corridor alternatives described above.

- Hwy 252 grade separated overpasses at non-access locations. This could include dedicated pedestrian/bicycle overpass bridges or multi-modal grade separated crossings for vehicles and non-motorized uses (e.g., local road overpass bridge with trails and/or sidewalks for pedestrians and bicyclists).
- West River Road reconnection on the east side of Hwy 252 in Brooklyn Park.
- Southbound Hwy 252/I-94 lane configuration "flip" south of the Hwy 252/ I-94/I-694 system interchange.

Hwy 252 and I-94 Pedestrian and Bicycle Overpasses

Hwy 252 Pedestrian and Bicycle Overpasses

Pedestrian access is currently provided at all six at-grade intersections with Hwy 252. Minnesota Statute 160.264 obligates MnDOT to maintain pedestrian connections with any highway improvement project with a comparable facility or access. All build alternatives studied in the Draft EIS will include pedestrian accommodations at or adjacent to the existing Hwy 252 intersections. Dedicated multi-use trail bridges over Hwy 252 will be added where an existing intersection is closed and no vehicle access is provided to Hwy 252. Trails and sidewalks along local roads will be provided at Hwy 252 grade separations (i.e., interchanges, overpass bridges, underpasses).

I-94 Pedestrian and Bicycle Overpasses

The I-94 pedestrian and bicycle overpasses recommended for further study in the Draft EIS includes new dedicated pedestrian and bicycle bridges at 62nd Avenue and 61st Avenue in Brooklyn Center and 34th Avenue in Minneapolis.

Transit Service

The local and express bus service improvements transit element will be integrated with all alternatives studied in the Draft EIS. The Draft EIS will further refine local and express bus service priorities and will review transit ridership and demand due to COVID-era impacts. Final service plans for local and express routes in the Hwy 252/I-94 corridor will be developed and implemented by Metro Transit in accordance with regional policy and are subject to change based on future transit demand.

Project Phasing

It is possible that the Hwy 252/I-94 Project will be constructed in phases, depending on project cost and funding availability. The Draft and Final EIS will include a discussion of potential phasing options for implementing the Hwy 252/I-94 Project.

Alternatives Not to be Studied in the Draft EIS

Transportation Systems Management and Operations Alternative

The Transportation Systems Management and Operations (TSMO) Alternative includes maintaining the existing Hwy 252 and I-94 configurations, maintaining existing TSMO strategies (including existing bus-only shoulders), installing transit signal priority at Hwy 252 intersections, and installing dynamic message signing (DMS) along Hwy 252 and I-94 throughout the project study area.

The TSMO alternative is eliminated from further consideration and not studied in the Draft EIS. TSMO strategies are not precluded from being implemented in conjunction with other improvements and will be incorporated into Hwy 252 and I-94 corridor alternatives.

Transit-Only Alternative

The Transit-Only Alternative includes station-to-station bus rapid transit (BRT) along Hwy 252 and I-94, providing frequent, all-day service between Brooklyn Park and downtown Minneapolis. The Transit-Only Alternative is eliminated from further consideration and not studied in the Draft EIS. Transit elements will be assembled and combined with highway alternatives in the Draft EIS to identify potential synergies for the transportation system as a whole.

Facility, Access, and Transit Service Elements and Alternatives

Table ES.3 identifies the Hwy 252 and I-94 facility, access, and transit service elements and alternatives evaluated in this scoping review and not recommended study in the Draft EIS. The following list summarizes some of the reasons why these options are not recommended for further study in the Draft EIS. See Chapter 7 of this SD for additional information explaining why options were dismissed from further consideration in each step of the scoping process.

- Not addressing the vehicle safety, vehicle mobility, and walkability/bikeability needs for the project.
- Lower safety and mobility performance for pedestrians and bicyclists when compared to grade separated freeway options.
- Similar property impacts with no added advantage or additional benefits in terms of safety and mobility when compared to grade separated freeway options.
- Equivalent or lower transit benefits with higher capital cost investments.

Table ES.3 Hwy 252 and I-94 Corridor and Transit Service Elements Not to be Studied in the Draft EIS

Hwy 252 Corridor	I-94 Corridor	Transit Service Elements
Hwy 252 Facilities • Four-Lane Expressway • Six-Lane Expressway • Four-Lane Low Speed Arterial Roadway • Six-Lane Low Speed Arterial Roadway • Four-Lane Low Speed Freeway • Limited Access Super Two Expressway • Local Collector Road with Transitway **Hwy 252 Access Type for At-Grade Facilities** • Traffic Signals • Roundabouts • Median U-Turn • Continuous Green-T • Restricted Crossing U-Turns • Displaced Left Turns • Right-In/Right-Out • Echelon Partial Interchange • Improved Existing Intersections **Hwy 252 Interchange Configurations for Freeway Facilities** 85th Avenue Interchanges • Standard Diamond • Folded Diamond to North • Folded Diamond to South • Single Point Urban Interchange • Diverging Diamond Interchange Brookdale Drive Interchanges • Standard Diamond • Partial Cloverleaf • Single Point Urban Interchange • Diverging Diamond Interchange 73rd Avenue Interchanges • Standard Diamond • Folded Diamond to North • Single Point Urban Interchange 70th Avenue Interchanges • Standard Diamond • Folded Diamond to North • Single Point Urban Interchange	**I-94 Facilities without Direct Connection to Downtown Minneapolis** • Convert One Lane on Southbound I-94 to Managed Lane, Without Direct Connection • Convert One Lane on Northbound and Southbound I-94 to Managed Lanes, Without Direct Connection • Build One Lane on Southbound I-94 • Build One Managed Lane on Southbound I-94 from I-694 to Dowling Avenue, Convert One Lane to Managed Lane on Southbound I-94 from Dowling Avenue to North 4th Street, Without Direct Connection • Build One Lane on Northbound and Southbound I-94 • Build One Managed Lane on Northbound and Southbound I-94 from I-694 to Dowling Avenue, Convert One Lane to Managed Lane on Northbound and Southbound I-94 from Dowling Avenue to North 4th Street, Without Direct Connection **New Pedestrian and Bicycle Crossings along I-94** • 59th Avenue Crossing in Brooklyn Center • 51st Avenue Crossing in Minneapolis • 40th Avenue Crossing in Minneapolis • 39th Avenue Crossing in Minneapolis • 28th Avenue Crossing in Minneapolis • 23rd Avenue Crossing in Minneapolis	• Add Stations along I-94 & Maintain Existing Service • Add Bus Stations along I-94 & Improve Express Bus Service • Bus Rapid Transit

Hwy 252 Corridor	I-94 Corridor	Transit Service Elements
66th Avenue Interchanges • Right-On/Right-Off • Double Bridge • Northbound Flyover • Buttonhook • Tight Diamond • Offset to West		

Social, Economic, and Environmental Issues

The Draft EIS will include a study of social, economic, and environmental (SEE) issues and an assessment of impacts to SEE resources because of the proposed alternatives. Chapter 9 of this SD describes the level of analysis and methodologies proposed for the assessment of SEE issues in the Draft EIS. The Draft EIS will identify a preferred alternative and mitigation measures. The preferred alternative decision and mitigation measures will be finalized in the Final EIS/Record of Decision (ROD).

Issues Requiring Analysis in the EIS

Some of the SEE issues are expected to influence the identification of a preferred alternative for the Hwy 252/I-94 Project. These issues will receive greater levels of attention and coordination with the public, local units of government, and regulatory agencies as part of the Draft EIS development. Other SEE issues are of moderate concern for the Hwy 252/I-94 Project. Major substantive differences among alternatives that would affect the decision regarding a preferred alternative are not anticipated. The Draft EIS will identify impacts, including analysis in accordance with federal and state requirements where appropriate, for each of the SEE issues. Chapter 9 of this SD includes a detailed description of the SEE issues to be studied in the EIS.

Issues Not Addressed in the EIS

The following SEE issues were determined not relevant to the Hwy 252/I-94 project study area and will not be studied in the EIS. Refer to Section 9.3 of this SD for additional information regarding these issues.

- Coastal Zones and Coastal Barriers
- Farmlands
- Geology and Soils
- Section 6(f)/Land and Water Conservation Fund (LWCF) Resources
- Stream and Water Body Modification
- Wild and Scenic Rivers

Chapter 1 Report Purpose

This Scoping Document (SD) provides initial documentation of the proposed action and need for the Highway 252 (Hwy 252)/Interstate 94 (I-94) Project in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis, Minnesota. The SD has been prepared to document the studies completed to date and early decisions made in accordance with the Minnesota Environmental Policy Act (MEPA) and Minnesota Rules 4410. The scoping process is used before the preparation of an Environmental Impact Statement (EIS) to reduce the scope and bulk of the EIS by:

- Identifying a reasonable range of alternatives for detailed study.
- Identifying the appropriate level of detail for studying issues and impacts.
- Identifying significant issues and eliminating from further study non-significant issues.

This SD provides a discussion of:

- The purpose and need for the proposed action.
- The alternatives evaluation process and alternatives considered.
- Potential social, economic, and environmental (SEE) impacts and discussion regarding to what extent each issue will need to be addressed in the EIS.
- Permits and approvals likely to be needed prior to construction of the proposed action.
- Agencies and other stakeholders consulted during the scoping process and to be consulted during the remaining stages of project development and environmental review.

Table 1.1 summarizes the various documents that complete the Hwy 252/I-94 scoping process.

Table 1.1 Hwy 252/I-94 Scoping Process Documents

Document Name	Purpose	Distribution
Scoping Document (SD)	Provides complete details regarding the scoping process and scoping alternatives evaluation, including public engagement and agency involvement.	Distributed to agencies and the public for review and comment on alternatives and issues to be studied in the Draft EIS.
Scoping Environmental Assessment Worksheet (EAW)[2]	Prepared in accordance with Minnesota Rules 4410.2100 Includes similar information as presented in this SD.	Included in Appendix A of this SD.

[2] The Scoping EAW in Appendix A includes similar information as presented in this SD, as well as addressing specific EAW form questions not included in this SD. The Scoping EAW was prepared in accordance with Minnesota Rules 4410.2100 Subp. 2 which states that "all projects requiring an EIS must have an EAW filed with the RGU."

Document Name	Purpose	Distribution
Draft Scoping Decision Document (DSDD)	Summarizes the SD findings. Identifies alternatives and issues to be studied in the Draft EIS.	Included in Appendix B of this SD.
Final Scoping Decision Document (SDD)	Prepared following the public scoping comment period. Summarizes any additional or new information since publication of the SD/DSDD. Identifies alternatives and issues to be studied in the Draft EIS. Addresses comments received during the public scoping comment period. Concludes the MEPA scoping process.	To be distributed to agencies and the public following the public scoping comment period.

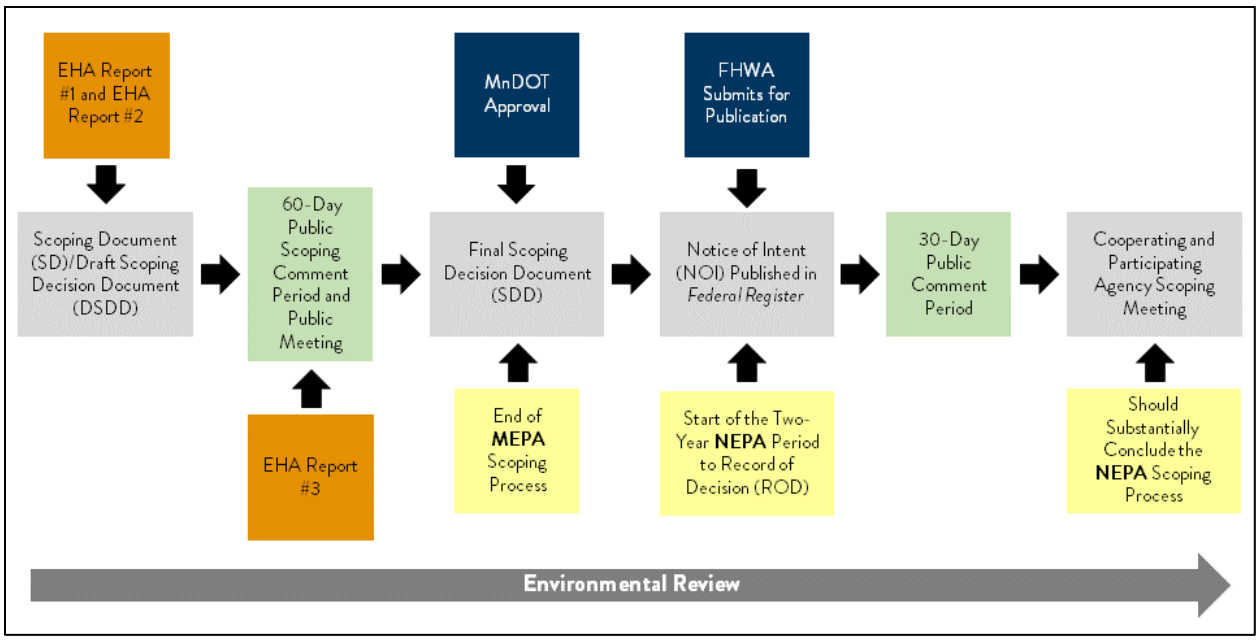
The SD and DSDD are distributed to federal, state, and local agencies and the public to provide an opportunity for review of the proposed project and comment on project issues and alternatives. A public scoping comment period will begin when the availability notice for this SD is published in the Minnesota Environmental Quality Board (EQB) *Monitor*. A public open house meeting will be held during the public scoping comment period. A final Scoping Decision Document (SDD) will be prepared after the public scoping comment period, concluding the MEPA scoping process.

The National Environmental Policy Act (NEPA) requires that social, economic, and environmental (SEE) considerations be included in the planning of all projects that receive federal-aid funding. This SD has been prepared to document the studies completed to date and early decisions made in accordance with Federal regulations (42 USC 4321 et seq.) and scoping activities conducted to date prior to the notice of intent (NOI) in the *Federal Register* (40 CFR 1501.9). The Federal Highway Administration (FHWA) will publish a notice of intent in the *Federal Register* for the Hwy 252/I-94 Project. The NOI is the milestone that starts the two-year period (ending with the release of the ROD) by which the CEQ regulations expects an EIS to be completed. These CEQ regulations indicate the scoping efforts performed in preparing this SD may be considered to be a part of the NEPA process. This NOI is anticipated in Fall 2023.

The NOI will summarize much of the information in this SD and will include a request for comments on the identification of potential alternatives, information, and analyses relevant to this project, for a period of 30 days. A scoping meeting will be scheduled with Cooperating and Participating Agencies after the 30-day public comment period, and written concurrence will be requested from Cooperating Agencies regarding purpose and need and alternatives to be carried forward for evaluation in the Draft EIS. This should substantially conclude the NEPA scoping process.

Figure 1.1 illustrates the State MEPA scoping and Federal NEPA scoping processes.

Figure 1.1 State MEPA and Federal NEPA Scoping Processes



1.1 Responsible Governmental Unit

The Minnesota Department of Transportation (MnDOT) is the Responsible Governmental Unit (RGU) for the proposed action under the State of Minnesota environmental review process (Minnesota Environmental Policy Act, MEPA). MnDOT will issue a final SDD after the Scoping Public Meetings and at the end of the SD comment period.

The MnDOT Project Manager is:

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1.2 Level of Action

1.2.1 National Environmental Policy Act

The FHWA is the Federal Lead Agency for the Hwy 252/I-94 Project under NEPA. MnDOT is the State Lead Agency for the Hwy 252/I-94 Project. As "Joint Lead Agencies," their responsibilities include managing the environmental review and documentation process, preparing the EIS, and providing opportunities for public and Cooperating and Participating Agency involvement. The

Coordination Plan in Appendix F includes additional information regarding Lead Agency roles and responsibilities.

This SD has been prepared in accordance with NEPA (40 CFR 1501.9), which requires scoping to be completed for Class I EIS actions. The environmental review for Hwy 252 and I-94 was initiated by Hennepin County in 2018. Based on coordination and review by MnDOT and FHWA, the two agencies have determined that the significance of effects and complexity and magnitude of the proposed action for Hwy 252 and I-94 requires the development of an EIS.

CEQ Regulations

The Council on Environmental Quality (CEQ) updated its NEPA implementing regulations in 40 CFR Parts 1500-1508 in 2020. The Highway 252/I-94 Project will be developed following the new CEQ regulations, effective September 14, 2020.

The CEQ issued a final rule on April 20, 2022 to amend certain provisions for implementing NEPA. This rule finalizes a set of changes to generally restore provisions that were in effect prior to modifications in 2020 and include addressing the purpose and need of a proposed action, agency NEPA procedures for implementing CEQ's NEPA regulations, and the definition of "effects."[3]

FHWA implementing regulations reflecting the September 2020 and April 2022 CEQ regulation updates were not available at the time this SD was prepared. Process decisions will consider both the updated CEQ regulations at 40 CFR 1500-1508 and FHWA's existing environmental regulations under 23 CFR 771.

1.2.2 Minnesota Environmental Policy Act

From the perspective of the MEPA, none of the mandatory EIS impact thresholds identified in Minnesota Rules 4410.4400 (Mandatory EIS Categories) are anticipated to be met or exceeded by the Hwy 252/I-94 Project. Due to the social, economic, and environmental resources along the corridor, MnDOT has agreed to complete a discretionary EIS under the MEPA process (Minnesota Rules 4410.2000, Subp. 3 Discretionary EIS).

[3] Council on Environmental Quality. CEQ NEPA Regulations accessed on 16 August 2022 and available at https://ceq.doe.gov/laws-regulations/regulations.html.

Chapter 2 Project Description

2.1 Project Location

The Hwy 252/I-94 Project is in Hennepin County in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis. The Hwy 252/I-94 Project includes the Hwy 252 corridor from Highway 610 (Hwy 610) to the Hwy 252/I-94/Interstate 694 (I-694) interchange, and the I-94 corridor from the Hwy 252/I-94/I-694 interchange to downtown Minneapolis. Hwy 252 is a four to six-lane north-south, principal arterial expressway connecting local traffic in Brooklyn Center and Brooklyn Park to the regional transportation network, providing access to local businesses, and serving local trips between Brooklyn Center and Brooklyn Park. Hwy 252 also connects the northwest suburbs of the Twin Cities Metropolitan area to Minneapolis. The I-94 corridor is an eight to ten-lane major freeway corridor connecting greater Minnesota and the northwest suburbs to Minneapolis and beyond.

Figure 2.1 (State Location Map) illustrates the project location.

2.2 Project Termini

Proposed termini for the Hwy 252/I-94 Project include a northern terminus at Hwy 610 in Brooklyn Park and a southern terminus at the North 4th Street/North 3rd Street entrance and exit ramps in Minneapolis. These termini establish the general limits for build alternatives that will be considered as part of the environmental review process. The length of the Hwy 252/I-94 project corridor from Hwy 610 to the North 4th Street/North 3rd Street ramps is approximately 12 miles.

To encompass potential improvements along Hwy 252 and I-94, an approximately 1,000-foot to ⅔-mile buffer is proposed as part of the logical termini for areas east and west of Hwy 252 and an approximately 1,000-foot buffer is proposed as part of the logical termini for areas east and west of I-94. Figure 2.2 illustrates the logical termini and anticipated study area for the Hwy 252/I-94 Project.

A logical termini report has been prepared for the Hwy 252/I-94 Project. The purpose of this logical termini report is to document the rationale behind the termini for the Hwy 252/I-94 Project. The *Highway 252/I-94 Logical Termini Report* is available for review on the MnDOT project webpage at https://www.dot.state.mn.us/metro/projects/hwy252study/index.html.

Figure 2.1 State Location Map

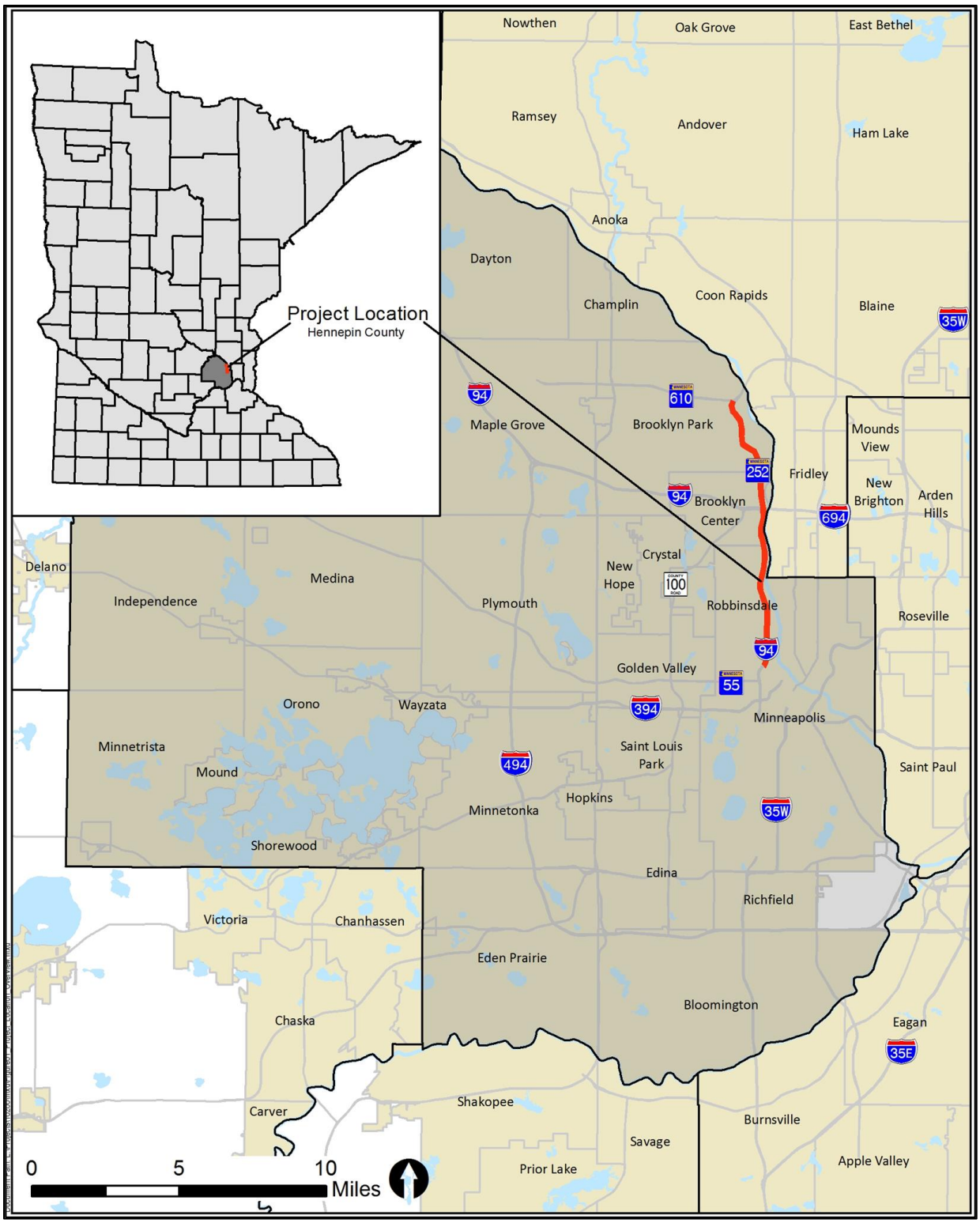
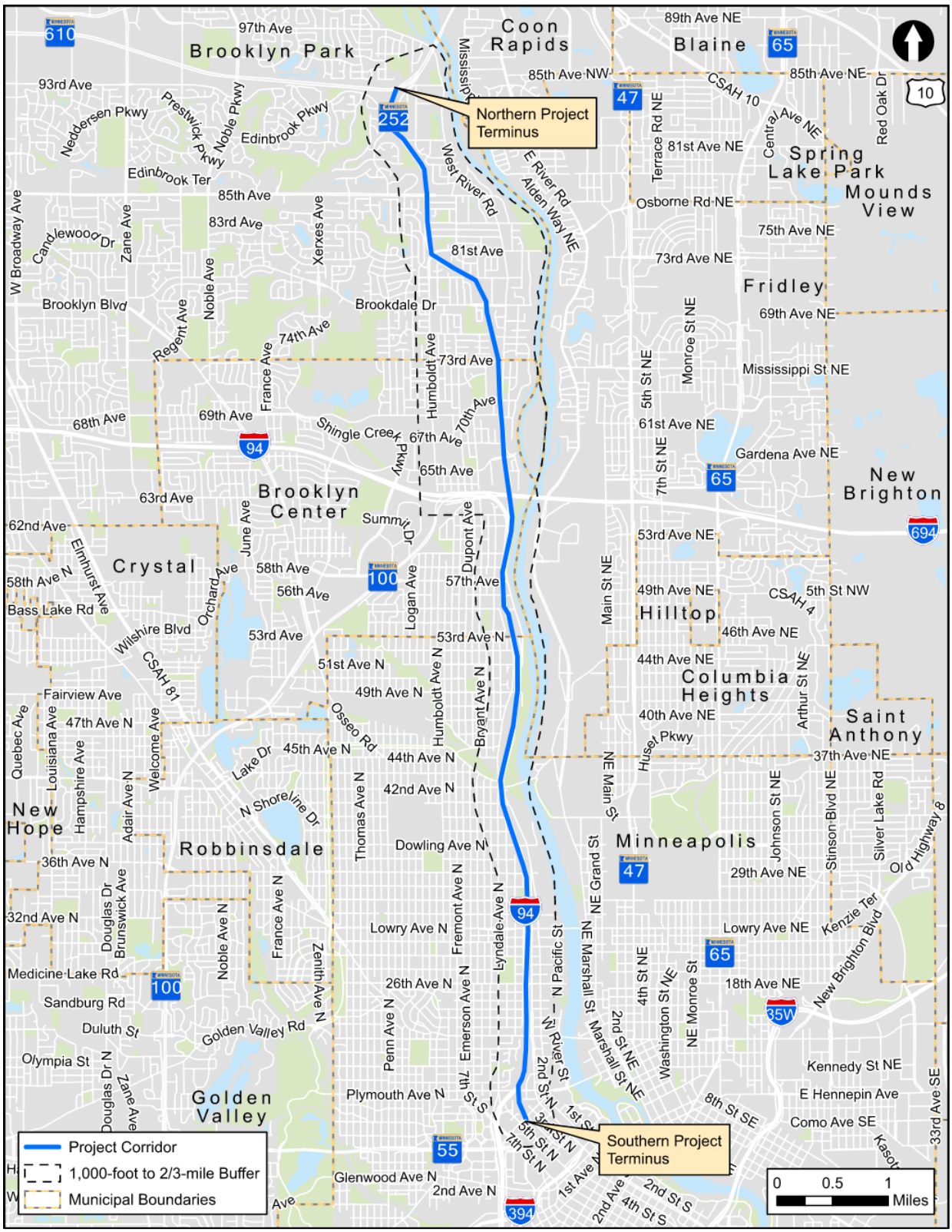


Figure 2.2 Hwy 252/I-94 Logical Termini and Anticipated Study Area



2.3 Project Setting

2.3.1 Hwy 252/I-94 Project Corridor

Hwy 252 is a north-south, principal arterial expressway connecting the northwest suburbs of the Twin Cities Metropolitan area to the City of Minneapolis. The I-94 corridor is a major freeway corridor connecting greater Minnesota and the northwest suburbs to Minneapolis and beyond. The Hwy 252/I-94 corridor carries commuter-oriented traffic from the north and northwest Twin Cities suburbs to employment centers in Minneapolis and surrounding communities. The Hwy 252/I-94 corridor also provides connections to other regional and interregional corridors such as Highway 100 (Hwy 100), Interstate 394 (I-394), and Interstate 35W (I-35W). Section 2.1 of the *Purpose and Need Statement Report* in Appendix H describes the existing physical and traffic characteristics of the Hwy 252/I-94 corridor.

2.3.2 Transit Service

Metro Transit and Maple Grove Transit operate express bus service and suburban local bus routes on Hwy 252 and I-94.[4] The I-94 corridor south of Hwy 252 is one of the most highly utilized corridors for express bus commuter services in Twin Cities Metropolitan Area. Metro Transit also operates local bus service and arterial bus rapid transit (BRT) on surface streets adjacent to Hwy 252 and I-94 throughout Brooklyn Park, Brooklyn Center, and Minneapolis. Section 2.1.5 of the *Purpose and Need Statement Report* in Appendix H describes existing transit service in the project study area.

2.3.3 Project Study Area Demographics

Neighborhoods along Hwy 252 and I-94 are more diverse and of lower income than Hennepin County overall. There are concentrations of affordable housing, areas of low automobile ownership, areas of concentrated poverty, and minority populations along the Hwy 252 and I-94 corridors. Section 2.2 of the *Purpose and Need Statement Report* in Appendix H summarizes corridor demographics. Section 9.2.9 of this SD includes information regarding Environmental Justice (EJ) populations in the project study area.

Section 3.1.4 of this SD describes the Hwy 252/I-94 Equity Health Assessment (EHA). The Hwy 252/I-94 Equity and Health Baseline Conditions Report includes a description of Hwy 252/I-94 corridor communities, noting that "[t]he Hwy 252/I-94 corridor runs through some of the most racially and ethnically diverse areas/of the state. Nearly 60 percent of the corridor identifies as Black or African American, Asian, or Hispanic/Latino. The proportion of people of color is highest in North Minneapolis and in Brooklyn Center north of I-94 and west of Hwy 252." *EHA Report #1: Baseline Conditions* in Appendix E includes detailed information regarding corridor demographics and transportation conditions along the Hwy 252/I-94 corridor.

[4] Maple Grove Transit plans express bus routes to and from Maple Grove and downtown Minneapolis. These routes are operated by Metro Transit.

2.3.4 Existing Land Uses

The project area includes the cities of Brooklyn Park, Brooklyn Center, and Minneapolis. Existing land use characteristics in the project area include residential (single family and multi-family); commercial developments; industrial uses; institutional uses (schools, religious institutions); and parks and open space. Neighborhoods along the Hwy 252/I-94 corridor include greater percentages of minority and low-income populations when compared to Hennepin County as a whole (i.e., environmental justice populations).

The Mississippi River is east of and runs parallel to the Hwy 252/I-94 corridor. The Mississippi National River and Recreation Area is a 72-mile river park that extends through the Twin Cities Metropolitan Area. The Hwy 252 corridor follows the western boundary of the Mississippi National River and Recreation Area from the Brooklyn Center/Brooklyn Park municipal boundary to the Hwy 252/I-94/I-694 interchange. The I-94 corridor follows the western boundary of the Mississippi National River and Recreation Area from the Hwy 252/I-94/I-694 interchange in Brooklyn Center to Plymouth Avenue in Minneapolis.

2.4 Project Background

Three transportation studies have been prepared since 2016 that included the Hwy 252 and I-94 corridors. The *Purpose and Need Statement Report* in Appendix H of this SD includes more information regarding these previous studies. Links to these previous studies are on the MnDOT Hwy 252/I-94 Project webpage.[5]

- The *TH 252 Corridor Study* was completed by the City of Brooklyn Center in 2016. The purpose of the study was to establish a long-term vision for Hwy 252 that would address existing safety, congestion, and neighborhood connectivity issues. While this study included the Hwy 252 segment in Brooklyn Park, the primary focus of the study was on the Hwy 252 segment in Brooklyn Center. This study identified a long-term vision for Hwy 252 as a freeway facility with interchange access at 66th Avenue and a split diamond interchange configuration at 73rd Avenue and Brookdale Drive.

- The *Principal Arterial Intersection Conversion Study* was completed by the Metropolitan Council and MnDOT in 2017. The purpose of the *Principal Arterial Intersection Conversion Study* was to analyze intersections on the non-freeway principal arterial system to identify and prioritize intersections that may be good candidates for conversion to grade-separated facilities, such as overpasses, interchanges, or other improvements, to improve safety and mobility. The Hwy 252 corridor was identified in the *Principal Arterial Intersection Conversion Study* as a high-priority corridor. The Hwy 252/66th Avenue intersection in Brooklyn Center was ranked as one of the top-10 intersections in the *Principal Arterial Intersection Conversion Study* regarding safety needs.

[5] Minnesota Department of Transportation. Highway 252/I-94 Environmental Review. Brooklyn Center, Brooklyn Park and Minneapolis available at https://www.dot.state.mn.us/metro/projects/hwy252study/background.html

- The *MnPASS System Study Phase 3* was completed by MnDOT in 2018. The purpose of the *MnPASS System Study Phase 3* was to update the MnPASS system vision and develop a prioritized list of MnPASS corridors. The *MnDOT System Study Phase 3* identified the Hwy 252 corridor from Hwy 610 to I-94/I-694 and the I-94 corridor from Hwy 252 to Highway 55 (Hwy 55) as "Scenario 3 MnPass Corridors".

Hennepin County led an environmental assessment (EA) process for the Hwy 252/I-94 corridor in 2018 and 2019. This was the precursor to the current scoping process for the Hwy 252/I-94 Project. Based on the magnitude and complexity of the project, as well as the amount of public input received during the EA phase, FHWA and MnDOT made the decision in 2020 to prepare an EIS for Hwy 252/I-94 (see Section 1.2 above). Input received during the EA phase led to Metro Transit involvement in the EIS, the Hwy 252/I-94 Transit Feasibility Study and studying transit as part of the EIS process.

FHWA and MnDOT made the decision in 2020 that MnDOT will be the Lead State Agency for the Hwy 252/I-94 Project. Hwy 252 and I-94 are state trunk highways and fall under State jurisdiction. MnDOT is the RGU for projects involving the state trunk highway system under the State of Minnesota environmental review process.

2.5 Proposed Action

The proposed action is being undertaken to address the transportation needs associated with the Hwy 252 and I-94 corridor. Chapter 4 of this SD summarizes the need for the proposed action. Chapter 7 of this SD discusses the range of alternatives considered during the scoping process. When the scoping phase of the Hwy 252/I-94 Project is completed, a more detailed development and evaluation of the No Build Alternative and build alternatives will be documented in the EIS.

2.6 Project Schedule

Table 2.1 identifies the anticipated Hwy 252/I-94 project schedule.

Table 2.1 Hwy 252/I-94 Project Schedule

Milestone Tasks	Anticipated Dates [1]
Scoping Document/Draft Scoping Decision Document (SD/DSDD)	Q1/Q2 2023
Public Scoping Meeting (State)	Q2 2023
Final Scoping Decision Document (SDD)	Q2/Q3 2023
Permitting Timetable [2]	Q4 2023
Notice of Intent (NOI)	Q4 2023
Public Scoping Comment Period (Federal)	Q4 2023
Cooperating and Participating Agency Scoping Meeting	Q4 2023
Substantial Conclusion of Federal Scoping Process	Q4 2023

Milestone Tasks	Anticipated Dates (1)
Draft EIS (including identification of a Preferred Alternative)	Q1 2025
Draft EIS Public Hearing	Q1/Q2 2025
Final EIS/Record of Decision (ROD)	Q1 2026
Adequacy Determination	Q1 2026
Notice of Statute of Limitations on Claims	Q1 2026
Permitting Timetable (3)	Q1 2026
Detail Design	2026 – 2027
Right of Way Acquisition	2026 – 2027
Start Construction (4)	2028

(1) Anticipated schedule, subject to change.

(2) Provide Permitting Timetable to Cooperating Agencies for review and comment. See Section 4.1.8 in the *Agency Coordination Plan* in Appendix G of this SD.

(3) Permitting Timetable to Federal Permitting Dashboard. Acquire all necessary state and federal permits for construction post-ROD. See Section 4.1.13 in the *Agency Coordination Plan* in Appendix G of this SD.

(4) Timing for detail design and start of construction subject to change depending on project delivery method (e.g., design-bid-build vs. design-build).

Q1 = January to March, Q2 = April to June, Q3 = July to September, Q4 = October to December.

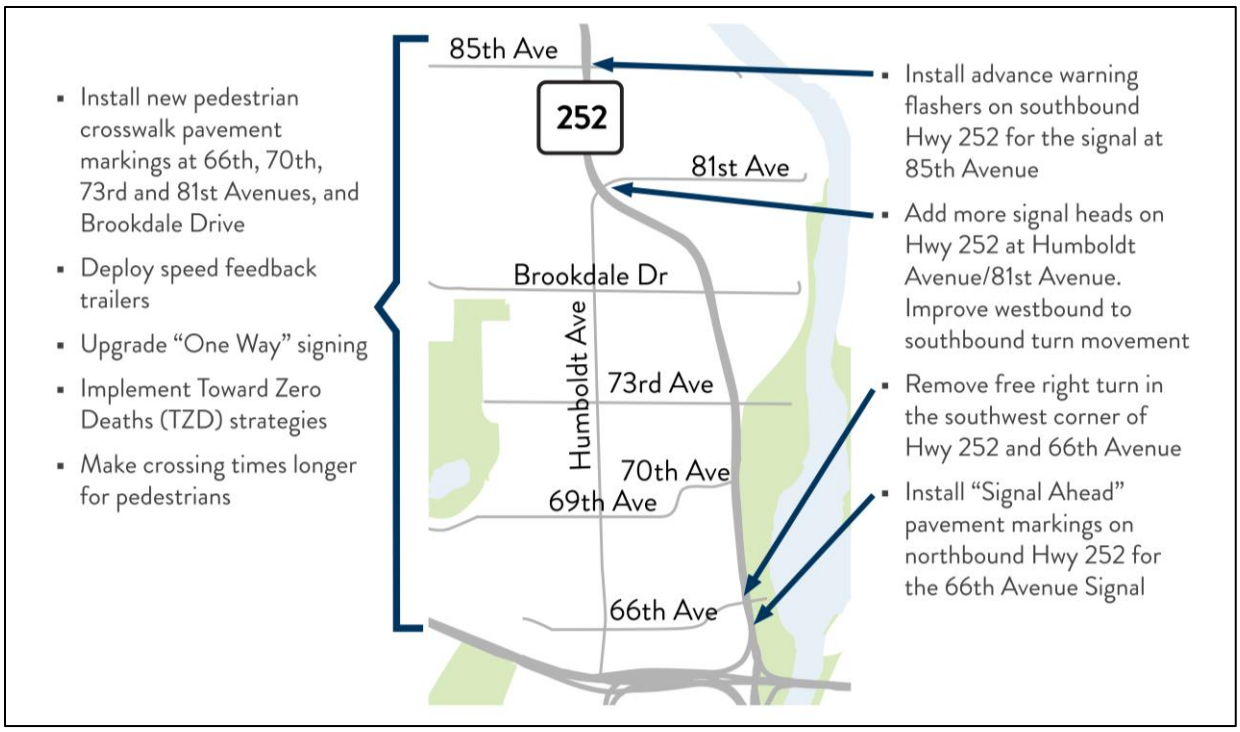
2.7 Hwy 252 Interim Safety Improvements

Chapter 4 of this SD describes the vehicle safety and non-motorized safety needs for the Hwy 252/I-94 Project. During engagement and outreach activities, MnDOT received public comments that there are safety problems on Hwy 252 today. These public comments include requests to improve Hwy 252 safety as much as possible in the near-term until the Hwy 252/I-94 Project can be constructed.

In response to this input, MnDOT identified a total of 26 potential interim safety improvements for the Hwy 252 corridor. MnDOT determined that nine of these interim safety improvements can be implemented on the Hwy 252 corridor in the near-term. Figure 2.3 summarizes Hwy 252 interim safety improvements. The *Hwy 252 Interim Safety Measures Memorandum* describes these improvements in greater detail and is available for review from the MnDOT project manager (see contact information under Section 1.1 of this SD).

The Hwy 252 interim safety improvements represent stand-alone actions from the Hwy 252/I-94 Project and have independent utility. The Hwy 252 interim safety improvements will provide near-term safety benefits for motorized and non-motorized travelers and do not depend on the Hwy 252/I-94 Project for their justification. The Hwy 252/I-94 interim safety improvements will be developed and delivered under any applicable environmental laws in a standalone environmental process. MnDOT expects to construct these interim safety measures in 2023.

Figure 2.3 Hwy 252 Interim Safety Improvements



2.8 Other Potential Projects in the Hwy 252/I-94 Vicinity

The Hwy 252/I-94 EIS will include an assessment of cumulative potential effects. The consideration of cumulative potential effects in the EIS for the Hwy 252/I-94 Project is a State of Minnesota MEPA requirement. Minnesota Rules 4410.0200, Subp. 11(a) defines cumulative potential effects:

> *"Cumulative potential effects" means the effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources, including future projects actually planned or for which a basis of expectation has been laid, regardless of what person undertakes the other projects or what jurisdictions have authority over the projects.*

At the Federal level, CEQ regulations at 40 CFR 1508.1(g)(3), effective September 14, 2020, repealed cumulative impacts as previously defined in 40 CFR 1508.7 (1978). In Fall 2021, CEQ initiated the rulemaking process to modify the NEPA implementing regulations to generally restore regulatory provisions that were in effect prior to the 2020 rule changes. The CEQ issued the Phase 1 Final Rule on April 20, 2022. The Phase 1 Final Rule restores the definition of cumulative impacts from the 1978 NEPA regulations. 40 CFR 1508.1(g)(3) defines cumulative effects:

> *Cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably*

foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

The following summarizes reasonably foreseeable transportation projects and other foreseeable non-transportation actions in the Hwy 252/I-94 study area.

2.8.1 Other Transportation Projects

Other Transportation Projects

The proposed action described in this Scoping Document addresses the Hwy 252 and I-94 corridor in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis. Additional transportation projects scheduled for completion in the foreseeable future along Hwy 252 and I-94 and in the vicinity of the proposed action include replacing lighting on the Hwy 610 bridge over the Mississippi River, signal improvements and bike lane construction at the I-94 and Dowling Avenue ramps; reconstruction of Dowling Avenue from Lyndale Avenue to Washington Avenue; and re-decking the Plymouth Avenue bridge over I-94. Each of these projects are identified in the *2023-2026 State Transportation Improvement Program* (STIP) for construction in state fiscal years 2023 through 2026.

The transportation projects identified above include federal funding and will be assessed in their own environmental documents under NEPA. These projects address transportation needs separate from the Hwy 252/I-94 Project and are not considered connected actions to Hwy 252/I-94. Construction of these projects is anticipated prior to the Hwy 252/I-94 Project and will be included in the cumulative potential effects section of the Draft EIS.

METRO Blue Line Extension

The METRO Blue Line Light Rail Transit (LRT) Extension would extend the existing Blue Line LRT from downtown Minneapolis to Brooklyn Park. The southern end of the Blue Line LRT extension crosses the Hwy 252/I-94 project study area along I-94 between West Broadway Avenue and North 4th Street. The Metropolitan Council and Hennepin County adopted a route recommendation for the proposed Blue Line LRT Extension in June 2022. Two route options were considered in North Minneapolis and the West Broadway Avenue route was recommended for further evaluation. In the next project phase, the Metropolitan Council will study several possible routes between Downtown Minneapolis and West Broadway Avenue along or near I-94.[6]

Metropolitan Council is preparing a supplemental EIS for the Blue Line LRT Extension. Environmental, design, and other related activities are being prepared in advance of a full funding grant application to Federal Transit Administration (FTA). The supplemental EIS is anticipated to

[6] Metropolitan Council. Metro Blue Line Extension accessed 10 August 2022 and available at https://metrocouncil.org/Transportation/Projects/Light-Rail-Projects/METRO-Blue-Line-Extension.aspx.

be complete in 2023. The Blue Line LRT Extension construction is estimated to start in 2025. The Blue Line LRT Extension is identified in the 2023-2026 STIP.

The Blue Line LRT Extension will be addressed in its own environmental document as noted above. The Blue Line LRT Extension is not considered a connected action to Hwy 252/I-94. Construction of the Blue Line LRT Extension is anticipated to overlap with the Hwy 252/I-94 Project and will be included in the cumulative potential effects section of the Draft EIS.

2.8.2 Other Foreseeable Actions

Non-transportation related foreseeable actions occurring in the vicinity of the Hwy 252/I-94 Project include the Minneapolis Upper Harbor Terminal Development Project. The Upper Harbor Terminal site is located between the I-94 corridor and the Mississippi River and extends from north of Dowling Avenue to north of Lowry Avenue. The Upper Harbor Terminal site totals more than 50 acres and includes redevelopment of former industrial and barge shipping terminal properties.[7]

The City of Minneapolis prepared an Alternative Urban Areawide Review (AUAR) for the Upper Harbor Terminal Project under State of Minnesota environmental review rules. This AUAR includes a review of the potential environmental effects of anticipated development scenarios. The final AUAR order for the Upper Harbor Terminal project was issued in April 2021. The Draft AUAR was completed in May 2021, and the Final AUAR and mitigation plan was completed in July 2021.[8]

Potential future changes in land uses at the Upper Harbor Terminal site are not connected to decisions that must be made for the Hwy 252/I-94 Project in this Scoping process. However, because anticipated development scenarios could impact some of the same resources that would be affected by the Hwy 252/I-94 Project (e.g., stormwater management), the Upper Harbor Terminal Development Project will be assessed in the cumulative potential effects section of the Draft EIS.

[7] Planned land uses with the Upper Harbor Terminal Development Project were accounted for in the year 2040 travel demand forecasts for the Hwy 252/I-94 Project.

[8] City of Minneapolis. Environmental Review – Upper Harbor Terminal Minneapolis accessed March 10, 2022 and available at https://upperharbormpls.com/environmental-review/.

Chapter 3 Public and Agency Involvement

MnDOT is committed to public engagement, outreach, and agency coordination at all key decision points of the Hwy 252/I-94 Project. MnDOT will continue to engage local communities and organizations, property and business owners, neighborhoods, residents, and public agencies in the development of the Hwy 252/I-94 Project. Public engagement and agency coordination efforts undertaken for this project will be carried forward into the Draft EIS.

3.1 Public Engagement

3.1.1 Public Engagement Plan

MnDOT and FHWA have prepared a *Public Engagement Plan* for the Hwy 252/I-94 Project. The purpose of the *Public Engagement Plan* is to communicate the engagement strategy during the four phases of the Hwy 252/I-94 Project (e.g., Purpose and Need Statement, Scoping, Draft EIS, and Final EIS). The *Public Engagement Plan* identifies the priorities, goals, strategies, messages, and action steps for engaging the public in each phase of the EIS process. The *Public Engagement Plan* notes the NEPA- and MEPA-required milestones and integrates them into the overall engagement strategy. As engagement occurred during scoping, the project team responded to the needs and requests of the communities. Any changes in public engagement strategies were guided by the *Public Engagement Plan* and informed by what the project team was hearing from the public. The *Public Engagement Plan* is a living document that is anticipated to evolve over the lifetime of the environmental review process. The public engagement vision for the Hwy 252/I-94 Project is listed below:

MnDOT, FHWA, and their partners will anticipate and respond to public, stakeholder, and agency engagement needs to facilitate two-way communications that effectively and efficiently navigates the environmental review process, building broad project understanding along the way.

Appendix C of this SD includes the *Public Engagement Plan*.

3.1.2 Public Meetings and Engagement Activities

A series of public meetings and engagement activities were completed during the preparation of this SD. The purpose of this public outreach was two-fold:

- To provide background information regarding the scoping and EIS processes; share information regarding the project need and objectives; introduce the Equity Health Assessment; present information regarding project elements and alternatives; and present information regarding the alternatives evaluation.
- To listen to comments and concerns regarding the project and to solicit public feedback.

The following sections summarize the previous EA phase and scoping phase public engagement activities.

Environmental Assessment Phase Engagement

Hennepin County, MnDOT, and project partners completed three rounds of public engagement in Summer 2018, Winter 2018, and Summer 2019 as part of the previous EA phase. This engagement included community workshops, listening sessions, pop-up events, and online surveys. Public engagement activities during the EA phase were well attended, with nearly 3,000 people attending events across the three rounds of engagement. Public engagement materials were provided in multiple languages and interpreters were provided upon request. The *Public Engagement Plan* in Appendix C of this SD includes a summary EA phase engagement. The following list summarizes some of the common themes gathered during the EA phase engagement.[9]

- Safety along the project corridor.
- Providing walking and biking infrastructure and safety concerns for walkers and bikers.
- Access to transit and transit services/impacts to transit/incorporating transit into the project.
- Overall traffic congestion.
- Concern for reconnecting West River Road.
- Air quality impacts/traffic noise impacts/traffic noise reduction.
- Concern for Mississippi River impacts.
- Efforts to minimize construction and project impacts on adjacent neighborhoods and residents.

The outcome of the EA phase was a determination by MnDOT and FHWA that the complexity and magnitude of the proposed action for Hwy 252 and I-94 requires the development of an EIS.

Scoping Phase Engagement

Scoping Phase Engagement Activities

Public Meetings/Open Houses/Community Conversations

MnDOT hosted three rounds of public engagement during the scoping process from Spring 2021 through Spring 2022. Public engagement activities included listening sessions; pop-up events; virtual public meetings and community conversations; and in-person open house meetings. Meeting notices were published on the project webpage, distributed to local media, direct mailing of flyers to area

[9] Summary reports from the EA phase engagement are available upon request from the MnDOT Project Manager. See contact information in Section 1.1 of this SD.

residents and businesses, email notifications, and through social media platforms. Canvassing events included "door knocking" at residences along the Hwy 252/I-94 corridor to inform area residents of the project and opportunities for engagement. Public engagement materials were provided in multiple languages including Spanish, Somali, and Hmong. Interpreters were provided upon request. Open house materials were posted to the project webpage following each open house event.

The following list summarizes attendance and information presented at engagement activities. Appendix D in this SD includes summary sheets for the three rounds of public engagement during scoping. These summary sheets provide additional information regarding the number of attendees and demographics.

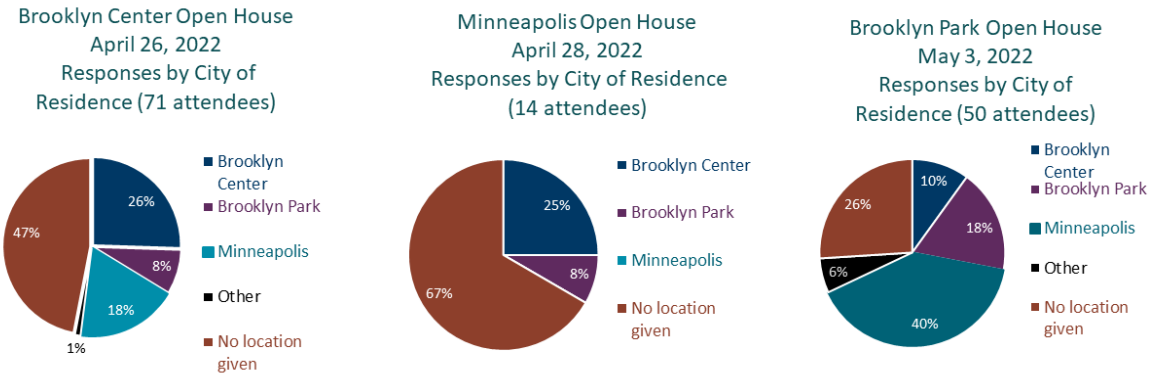
- A series of EIS "101" video presentations were prepared in Spring 2021. The EIS "101" video presentations provided background information regarding the environmental review process, project alternatives, and other topics (e.g., traffic, transit, environmental issues). These video presentations were included with the listening sessions and virtual open houses in Spring 2021. The video presentations are available on the project webpage at https://www.dot.state.mn.us/metro/projects/hwy252study/committeeprocess.html.

- Approximately 300 people attended the listening sessions and virtual open houses in Spring and Summer of 2021. These meetings discussed purpose and need, corridor context, and the initial project elements under consideration for walking, biking, transit, and vehicles.

- Approximately 126 people attended the virtual open houses and community conversations in October 2021. Approximately 56 people attended the in-person open house meeting at Monroe Elementary School in Brooklyn Park in October 2021. These meetings discussed what was heard at public meetings in Spring and Summer 2021. Open house display boards and the community conversation presentation included answers to three questions: which project elements are moving forward for additional analysis; why are these project elements moving forward; and what initial alternatives are up for consideration.

- Approximately 29 people attended the virtual public meeting in May 2022. The three in-person open house meetings were held at Lutheran Church of the Master in Brooklyn Center on April 26, 2022; at Shiloh Temple in Minneapolis on April 28, 2022; and at Ebenezer Community Church in Brooklyn Park on May 3, 2022. Approximately 135 people attended the three in-person open house meetings in April/May 2022. Figure 3.1 provides a summary of who attended each of the open houses held in Brooklyn Center, Minneapolis, and Brooklyn Park. These meetings provided a full explanation of all the potential alternatives that were under consideration. Included were detailed materials showing how the different alternatives would perform against the purpose and need and detailed explanations of the trade-offs in impacts among different alternatives.

Figure 3.1 Spring 2022 Open House Meeting Attendance



Business Outreach

Engagement activities in scoping included targeted outreach to businesses in the project study area. Businesses were contacted by email (including a survey questionnaire), phone calls, and in-person visits to businesses. The purpose of this targeted business engagement was to learn more about business needs along Hwy 252 and I-94; to notify businesses of the project and potential changes along the Hwy 252/I-94 corridor; and identify opportunities for improvements to the corridor. More than 110 businesses in the project study area were included as part of the targeted business engagement. Each of these businesses were contacted by email. More than 30 businesses were reached by phone and engaged in one-on-one conversations with project staff. Additional business outreach and follow-up will be completed during the scoping public comment period.

Pop-Up Events

Public outreach with a special effort for engagement with potentially affected environmental justice (EJ) populations was completed during scoping.[10] Outreach to potentially affected EJ populations is one of the steps in the EJ analysis process. The purpose of this outreach was to inform potentially affected EJ populations of the Hwy 252/I-94 Project and to gather feedback. This outreach focused on pop-up events and direct canvassing – bringing project information and engagement questions to the places where people are already gathering.

More than 40 targeted engagement activities with EJ populations were held in Spring/Summer 2021 and Spring 2022 including pop-up events and direct door knocking. Attendance at pop-up events was identified based on the number of individual conversations with attendees as well as the number of people that stopped by to view presentation boards (i.e., "impressions"). Pop-up events resulted in more than 1,200 conversations and more than 1,700 impressions. Table 3.1 summarizes EJ public engagement activities in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis.

[10] Environmental justice (EJ) populations include minority and low-income populations. See Section 9.2.9 in this SD.

in more than 1,200 conversations and more than 1,700 impressions. Table 3.1 summarizes EJ public engagement activities in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis.

Table 3.1 Summary of Public Engagement with EJ Populations

Event Number	Date	Location/Event	Type of Engagement	Number of Attendees
City of Brooklyn Park EJ Engagement				
1	June 19, 2021	Juneteenth	Pop Up	100
2	June 26, 2021	Dragon Foods	Pop Up	10
3	July 9, 2021	Zanewood Summer Splash	Pop Up	14
4	July 13, 2021	Concert in the Park	Pop Up	30
5	July 20, 2021	Music on the Lawn	Pop Up	3
6	July 31, 2021	River Park Grand Opening	Pop Up	20
7	August 3, 2021	Riverview National Night Out	Pop Up	23
8	August 4, 2021	Farmers Market	Pop Up	8
9	August 14, 2021	Tater Daze	Pop Up	15
10	September 10, 2021	CAPI	Pop Up	12
11	September 29, 2021	Farmers Market	Pop Up	21
12	October 9, 2021	Dragon Foods	Pop Up	41
13	October 10, 2021	Festival Foods	Pop Up	56
14	October 30, 2021	Spooktacular	Pop Up	250
15	April 23, 2022	Festival Foods	Pop Up	70
16	May 12, 2022	Zanebrook Shopping Center	Pop Up	7
City of Brooklyn Cener EJ Engagement				
17	July 1, 2021	Farmers Market	Pop Up	15
18	July 31, 2021	Hmong Celebrate Your Parks Day	Pop Up	35
19	August 3, 2021	Melrose National Night Out	Pop Up	10
20	August 14, 2021	BC Health Fair	Pop Up	30
21	September 11, 2021	Unity Block Party	Pop Up	11
22	September 12, 2021	Lutheran Church Fall Festival	Pop Up	11
23	September 15, 2021	NorthPort Park	Pop Up	26
24	September 25, 2021	Arts in Autumn	Pop Up	23
25	November 6, 2021	Mujeres Latinas Expo	Pop Up	14
26	May 1, 2022	St. Alphonsus	Pop Up	49
27	May 3, 2022	MN Action Now	Pop Up	4

Event Number	Date	Location/Event	Type of Engagement	Number of Attendees
City of Minneapolis EJ Engagement				
28	June 15, 2021	Juneteenth Event	Pop Up	5
29	June 25, 2021	Northside Market	Pop Up	25
30	June 26, 2021	Cub Foods	Pop Up	4
31	August 6, 2021	North Market	Pop Up	16
32	August 6, 2021	Cub Foods	Pop Up	23
33	September 1, 2021	North Commons Park	Pop Up	20
34	September 2, 2021	Heritage Park	Pop Up	16
35	September 11, 2021	Open Streets Broadway	Pop Up	42
36	September 18, 2021	Northside Cub Foods	Pop Up	47
37	October 7, 2021	North Market	Pop Up	15
38	October 29, 2021	Trunk or Treat	Pop Up	N/A
39	April 30, 2022	Cub Foods	Pop Up	31
40	May 9, 2022	Folwell Park	Pop Up	7
41	May 11, 2022	North Commons Park and Neighborhood	Door Knocking	11
42	May 12, 2022	Folwell Park	Pop Up	4
43	May 14, 2022	YMCA	Pop Up	14
44	May 18, 2022	Bethune Park	Pop Up	17

N/A = not applicable. Attendance not collected at this pop-up event.

Partnerships with Community Based Organizations

MnDOT partnered with outside community based organizations, including the Stairstep Foundation, CAPI, and the Lao Assistance Center of Minnesota, to increase engagement with EJ populations and bring project information to the places where people are already gathering. MnDOT's partnership with community-based organizations served as a critical connection and liaison to EJ populations. The following list summarizes engagement work MnDOT and the partner organizations completed during the EA and scoping phases.

- Stairstep Foundation supported two pop-up engagement events during Juneteenth. Stairstep Foundation representatives distributed open house and virtual engagement materials to their Leadership Council and participated with MnDOT in public engagement strategy meetings. Stairstep Leadership Council is made up of church leaders in Minneapolis, Brooklyn Park, and Brooklyn Center. MnDOT staff participated in four town hall conversation events hosted by Stairstep Foundation to present project information and hear from individuals affected by the project (available on radio and by livestream). Stairstep Foundation also participated with Equity and Health Neighborhood Advisor recruitment. See Section 3.1.4 of this SD for the Equity Health Assessment.

- CAPI provided support for 10 pop ups engagement events and one public open house meeting. CAPI also helped bring community awareness of the project, distributing promotional materials and emails to its constituencies.
- Lao Assistance Center of Minnesota conducted six presentations to the Lao and Cambodian communities in North Minneapolis, Brooklyn Center, and Brooklyn Park regarding the Hwy 252/I-94 Project. Lao Assistance Center also helped bring community awareness of the project, distributing promotional materials and emails to its constituencies.

Public Feedback Outside of Engagement Events

The public was encouraged to provide feedback outside of the public engagement periods summarized above. This included comments provided to MnDOT through the comment form on the project webpage, direct email correspondence with project staff, and phone conversations with project staff. Nearly 240 comments from 83 individuals were submitted outside of public engagement events. This accounts for approximately 30 percent of the public comments submitted during the scoping process.

Public Comment Themes (What We Heard)

More than 830 public comments were submitted during the scoping period. Nearly 600 comments, or approximately 70 percent of comments, were submitted over the course of the three rounds of engagement. Additional comments were submitted outside of the three engagement periods (see "Public Feedback Outside of Engagement Events" above). Comments were reviewed by the project team and catalogued into general comment themes. Comments received reflected both sides of an issue/concern. For example, comments regarding freeway conversion included comments against conversion of Hwy 252 to a freeway facility as well as comments in support of freeway conversion. The following list identifies the top five comment themes.

- Opposition to or support for highway expansion.
- Concerns regarding social impacts or impacts to the surrounding natural environment. Social and environmental issues commonly cited at engagement events included air quality impacts, traffic noise impacts, impacts to the Mississippi River, and environmental justice concerns.
- Opposition to, support for, or general concerns for conversion of Hwy 252 to a freeway.
- Safety along the project corridor, including safety for people in vehicles on Hwy 252 and safety and mobility for people walking and biking.
- Community interest and support for transit improvements.

Other themes include property acquisition and impacts, access, construction impacts, impacts with reconnecting West River Road, equity, managed lanes, engagement/outreach, health outcomes, traffic and traffic volumes, mobility, and project process.

A series of three questions was presented to attendees at the April 2022 open house meetings. These questions were presented as a dot exercise where attendees could indicate their response on meeting boards. The questions asked attendees about the range of alternatives, the amount of information presented, and how well the open house information was understood. The dot exercise was performed and the Brooklyn Center and Brooklyn Park open houses. Figure 3.2 illustrates responses from the Brooklyn Center and Brooklyn Park open house meetings.

- Attendees at the Brooklyn Park meeting had a higher-than-average response indicating that the alternatives presented met the purpose and need for the project compared to attendees at the Brooklyn Center meeting.
- Attendees at the Brooklyn Center and Brooklyn Park open house meetings felt that the amount of information presented at the open house meetings was about right.
- In general, attendees at the Brooklyn Park open house meeting understood the information presented, whereas some attendees at the Brooklyn Center open house meeting indicated that they still had questions.

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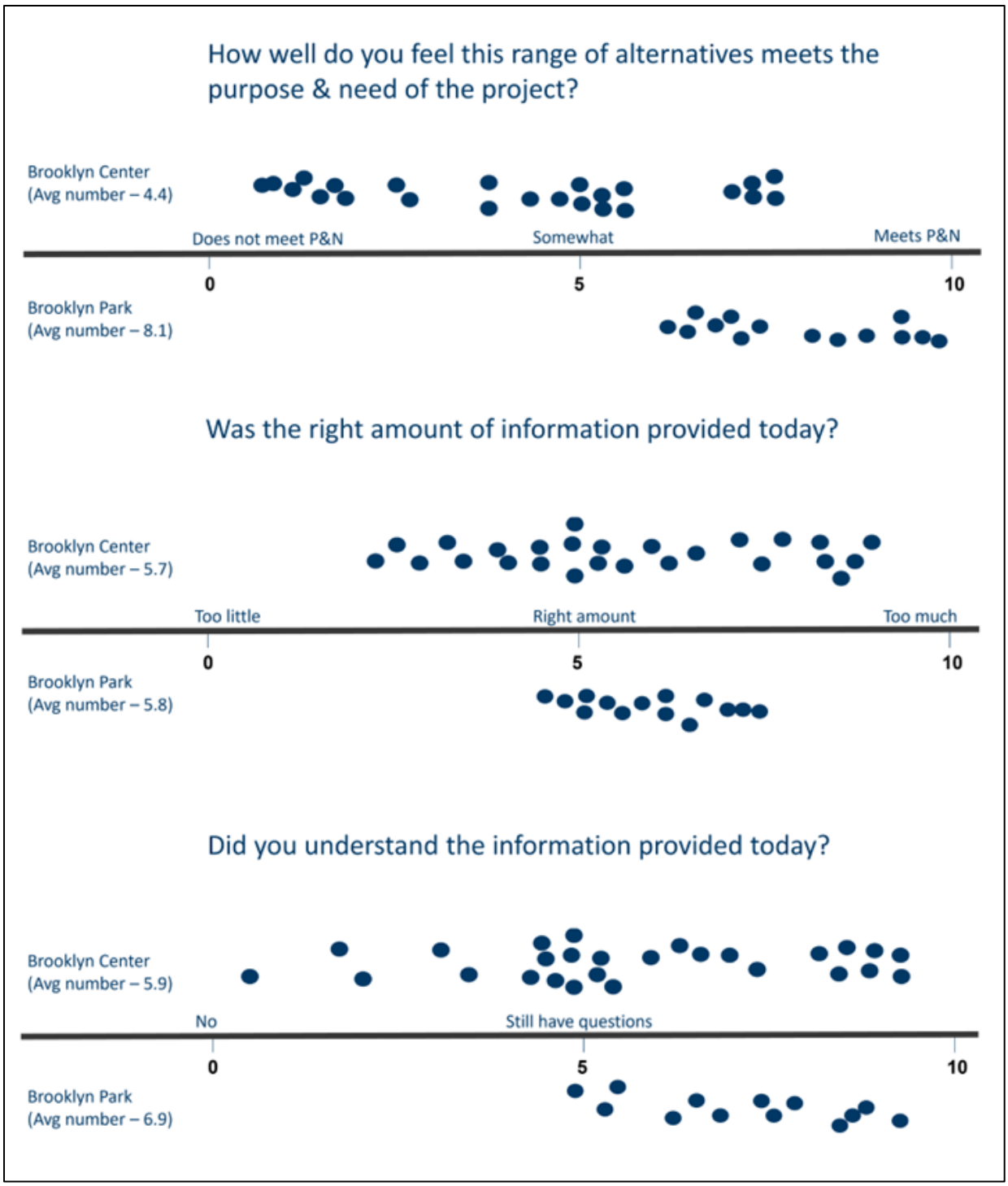
Figure 3.2 Key Takeaways from April 2022 Open House Meetings



How Public Comments Were Used in Scoping the Project

Public comments were used by the project team throughout the scoping process to help identify, develop, and evaluate alternatives. The following list summarizes how public feedback was incorporated into the scoping process for the Hwy 252/I-94 Project.

Public Feeback and EIS Process

- Public engagement during the EA phase was well attended and generated numerous comments regarding potential impacts associated with the Hwy 252/I-94 Project. The outcome of the EA phase was a determination by MnDOT and FHWA that the complexity and magnitude of the proposed action for Hwy 252 and I-94 requires the development of an EIS.

Public Feedback and Hwy 252 Interim Safety Improvements

- An issue frequently cited by participants at engagement events in the EA phase and scoping phase was that there are safety problems on Hwy 252 today. This included requests to improve Hwy 252 safety as much as possible in the near-term until the Hwy 252/I-94 Project can be constructed. MnDOT identified nine interim safety improvements that can be implemented on the Hwy 252 corridor in the near-term. Section 2.7 of this SD describes the Hwy 252 interim improvements. MnDOT expects to construct these interim safety measures in 2023. The Hwy 252 Interim Safety Improvements responds to public feedback regarding Hwy 252 safety problems.

Public Feedback and Vehicle Safety

- Vehicle safety and interchange spacing on Hwy 252 were frequently cited as a concern in public comments, with particular emphasis on spacing between 66th Avenue and the Hwy 252/I-94/ I-694 system interchange. An assessment of interchange spacing and crashes across the Twin Cities Metropolitan Area was prepared and considered when identifying and developing Hwy 252 access combinations. Section 7.3.2 of this SD summarizes the interchange spacing and crash analysis results.

- Excessive speed and vehicle safety were frequently cited in public comments, specifically as it relates to travel on Hwy 252. A speed and vehicle safety presentation was developed and presented to the PAC on October 7, 2021. A copy of this presentation is available on the project webpage.

Public Feedback and Transit

- Public feedback received during the EA phase indicated community interest in transit improvements that could be implemented alongside highway alternatives. This feedback is reflected in the "Additional Considerations" section of the purpose and need statement (see Appendix H of this SD) and in the project objectives (see Chapter 5 of this SD). MnDOT and Metro Transit conducted the Hwy 252/I-94 Transit Feasibility Study (TFS) concurrent with the

Hwy 252/I-94 scoping process. The TFS was used to inform the highway and transit elements evaluation in scoping (see Appendix K of this SD). The TFS responds to public feedback regarding transit improvements that could be implemented alongside highway alternatives.

In addition to completing the TFS, elements that provide a benefit to transit were incorporated into the Hwy 252 and I-94 corridor alternatives, including managed lanes and bus-only shoulders. Evaluation criteria were used in scoping to assess the performance of Hwy 252 access combinations and interchange designs. Transit elements were evaluated in scoping with the recommendation to carry the local and express bus service improvements element forward for further study in the Draft EIS.

Public Feedback, Project Objectives, and Equity

- An issue frequently cited in the EA phase and the scoping phase included equitable impacts and benefits for people living and working along Hwy 252 and I-94; health concerns; and safety concerns. Project objectives were identified that are transportation and community related, reflecting feedback MnDOT received from participants in EA phase and scoping phase engagement activities (see Section 5.1 of this SD). The EHA addresses input from the public regarding equity, health, and safety (see Section 3.1.4 of this SD).

Public Feedback and Scoping Alternatives

- Additional elements were identified through public comments. This included the Hwy 252 four-lane low-speed arterial roadway element and the Hwy 252 conversion to local collector road with transitway element (see Section 7.1.1 of this SD). These two elements were included in the scoping evaluation.
- Pedestrian and bicycle safety and mobility were frequently cited as a concern in public comments, noting that Hwy 252 and I-94 are barriers to non-motorized travel. A range of elements designed to serve pedestrians and bicyclists were studied during the scoping process, including improved Hwy 252 at-grade crossings and grade separated crossings of Hwy 252 and I-94 (e.g., dedicated multi-use trail bridges, multi-modal overpass bridges).
- Public comments regarding alternatives ranged from support of various alternatives to requesting minimal changes to the existing highways. No single alternative was frequently cited over other alternatives. Several common themes included concerns regarding vehicle miles traveled, air quality, and traffic noise. The Hwy 252 four-lane freeway including bus shoulders element is recommended for further study in the Draft EIS because it will improve safety, walkability/bikeability, and mobility and provides a transit advantage along the Hwy 252 corridor. Public feedback was also an important factor in the decision to retain the Hwy 252 four-lane freeway including bus shoulders for further study in the Draft EIS.
- Hwy 252 is currently classified as a principal arterial roadway which means that it operates as a "backbone" of the transportation system connecting all modes of travel to other principal arterial roadways and lower classification roadways. Alternatives considered in scoping include

changing the functional classification of Hwy 252 to a lower classification roadway (e.g., minor arterial roadway, local collector roadway). A travel pattern and roadway classification presentation was developed and presented to the PAC on June 27, 2022. A copy of this presentation is available on the project webpage. Section 7.3.1 of this SD summarizes the results of the travel pattern and roadway classification presentation.

Public Feedback and Air Quality/Traffic Noise

- Air quality was frequently cited as a concern in public comments. An air quality analysis will be prepared for the build alternatives in the Draft EIS phase of the project. The Hwy 252/I-94 Project does not meet all three criteria for requiring a quantitative MSAT analysis. However, because of public interest in this topic, a quantitative MSAT analysis will be prepared for the build alternatives in the Draft EIS (see Section 9.2.3 of this SD).

- Traffic noise and traffic noise impacts were frequently cited as a concern in public comments. This feedback was a primary factor in recommending certain Hwy 252 interchange configurations for further study in the Draft EIS (i.e., Hwy 252 over versus under local intersecting roads). Section 7.4.4 of this SD describes Hwy 252 interchange configurations for further study in the Draft EIS.

Public Feedback and Traffic Analysis

- Traffic levels on freeway facilities in the Twin Cities experienced a sharp decline in March 2020 due to COVID-19 related shutdowns. Many workers shifted from in-office work to remote work during the COVID-19 shutdowns, contributing to this decline in traffic levels. A 30 to 35 percent telecommuting rate was observed during the height of the COVID-19 related shutdowns.[11] Total traffic counts on Twin Cities freeways returned to near typical levels by mid-2021. In general, traffic counts during the midday and afternoon peak hours have returned to pre-COVID traffic levels.[12]

  MnDOT completed a sensitivity analysis of Hwy 252 and I-94 traffic volumes in response to public comments regarding remote work and freeway traffic volumes. The regional travel demand model for the Twin Cities currently assumes a five percent telecommuting rate (i.e., percent of work trips that do not commute to work by car or transit). The COVID-19 sensitivity analysis evaluated telecommuting rates of 10 percent, 20 percent, and 30 percent to determine the effects on Hwy 252 elements recommended for further study in the EIS (see Section 7.5.2 of this Scoping Document). The existing telecommuting rate would need to increase four-fold to 20 percent for the Hwy 252 four-lane freeway including bus shoulders to operate at acceptable

[11] Metropolitan Council and Minnesota Department of Transportation. October 2021. *Twin Cities Highway Mobility Needs Analysis* available at https://metrocouncil.org/Transportation/System/Highways/Congestion/Mobility-Needs-Analysis.aspx.

[12] Metropolitan Council. Twin Cities Freeway Traffic Trends. Last updated January 6, 2022 and available at https://metrotransitmn.shinyapps.io/freeway-traffic-trends/.

levels of service compared to the Hwy 252 six-lane freeway including bus shoulders and the Hwy 252 six-lane freeway including managed lanes. A copy of the COVID-19 sensitivity analysis technical memorandum is available for review from the MnDOT Project Manager.

Public Feedback and Scoping Comment Period

- The Hwy 252/I-94 Project has generated a substantial amount of public interest and received a large volume of comments. Minnesota Rules 4410.2210 requires a 30-day scoping period. MnDOT will extend the scoping period to 60 days to provide additional time for public review and comment on the SD and DSDD.

Scoping and EIS Meetings

The formal 60-day scoping public comment period lasts from **March 21 to May 19, 2023**. A public scoping meeting will be held during the comment period for the SD to present the findings of the SD and DSDD. The scoping meeting will provide information regarding the scoping alternatives evaluation; alternatives identified for study in the Draft EIS; and social, economic, and environmental issues to be studied in the Draft EIS. Comments received during the public comment period will be considered in preparing the Final SDD. The Federal notice of intent (NOI) follows the State scoping process and includes a 30-day public comment period. A public meeting will be held during the NOI comment period. Informational meetings will also be held as the Draft EIS is developed, and a public hearing will be held following publication of the Draft EIS.

3.1.3 Project Website

MnDOT has developed a project webpage for the Hwy 252/I-94 Project. The project webpage provides an additional means for distributing information about the project and providing notices for public engagement opportunities. Interested individuals can sign up for email notifications regarding the Hwy 252/I-94 Project through the project webpage. The project webpage also includes a contact form where comments and questions can be submitted to MnDOT. The project webpage is at the following address: https://www.dot.state.mn.us/metro/projects/hwy252study/committeeprocess.html.

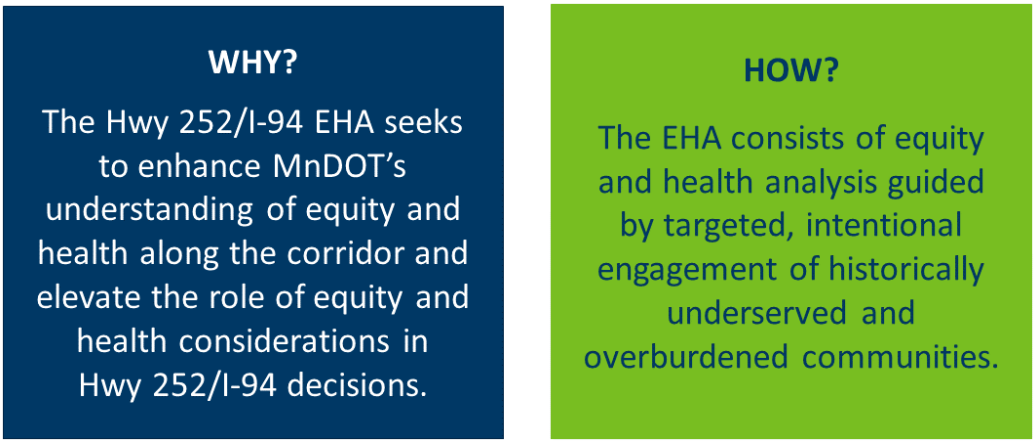
3.1.4 Equity Health Assessment

MnDOT's Sustainability and Public Health Office is working with MnDOT Metro District to conduct an Equity Health Assessment (EHA) of the Hwy 252/I-94 Project. MnDOT initiated the Hwy 252/I-94 EHA in 2021 as enhanced engagement to pilot a new method for including equity and health information in the environmental review process. The EHA draws from principles and practices of Health Impact Assessment and Community Impact Assessment tools used by public

agencies across the country to understand and address equity and health impacts on transportation projects.[13]

The purpose of the Hwy 252/I-94 EHA is to engage historically underserved and overburdened populations on issues of equity and health and enhance the use of equity and health information in the development and consideration of Hwy 252/I-94 project elements and alternatives, as well as learn about other community priorities outside of transportation where MnDOT can be a partner or facilitator. The EHA includes targeted engagement focused on listening to historically underserved and overburdened populations living in Brooklyn Park, Brooklyn Center, and Minneapolis. The EHA is parallel to and separate from the NEPA and MEPA processes. This separation is important to allow the EHA to fully reflect community input. Figure 3.3 summarizes the "why" and "how" for the Hwy 252/I-94 EHA.

Figure 3.3 Hwy 252/I-94 Equity Health Assessment



As a form of enhanced engagement, the EHA is connected to the environmental review process through public involvement. MnDOT is facilitating the EHA process to help organize and bring forward the equity and health priorities of underserved and overburdened populations. The EHA input falls into the NEPA and MEPA processes the same as other public comment or feedback provided on the Hwy 252/I-94 Project. The Hwy 252/I-94 EHA combines health data and enhanced, targeted engagement of historically underserved and overburdened populations to explore the following questions:

[13] U.S. Department of Transportation. Federal Highway Administration. 2018 Update. *Community Impact Assessment: A Quick Reference for Transportation* available at https://trid.trb.org/view/1516021.

National Research Council. 2011. *Improving Health in the United States. The Role of Health Impact Assessment* available at https://nap.nationalacademies.org/catalog/13229/improving-health-in-the-united-states-the-role-of-health.

- How does transportation affect the health of communities along Hwy 252/I-94?
- How does transportation contribute to health disparities in communities along Hwy 252/I-94 and the broader region?
- How do Hwy 252/I-94 project alternatives impact equity and health?
- What changes or additional project alternatives are suggested to help promote equity and health in the Hwy 252/I-94 environmental review?

EHA Working Group and Equity and Health Neighborhood Advisors

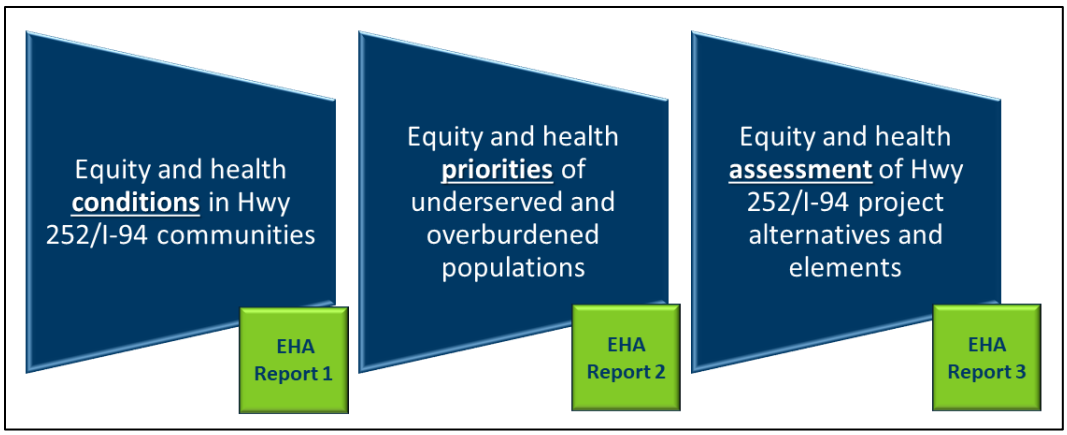
The EHA is supported by an interagency working group that convenes when necessary to support deliverables. Members are not involved in the day-to-day project environmental review activities and include staff from MnDOT's Livability Office, Hennepin County Health and Human Services, the Center for Urban and Regional Affairs at the University of Minnesota, Metro Transit, and FHWA. EHA working group members bring expertise on equity, health, engagement, and the environmental review process.

To ground the EHA in community, MnDOT convened an Equity and Health Neighborhood Advisors (EHNA) group. The EHNA consists of members who live, work, or own a business in the project area and have an interest in advancing equity and health in transportation. MnDOT's goal in selecting EHNA members is to ensure membership is balanced across project area communities and reflects the region's demographic diversity. MnDOT facilitates the EHNA and provides members with opportunities to describe equity and health conditions in their communities, provide input on equity and health engagement activities of the EHA, and provide input on potential transportation improvements to project elements and alternatives.

EHA Reports

Three reports will be prepared for the EHA as part of the scoping process. The first two reports were prepared alongside the scoping alternatives evaluation and are summarized below. The third report will be prepared concurrent with the scoping public comment period and delivered to MnDOT as public comment. Figure 3.4 illustrates the EHA reports during the scoping process.

Figure 3.4 Hwy 252/I-94 Equity Health Assessment Reports



EHA Report #1: Baseline Conditions

The Hwy 252/I-94 Equity and Health Baseline Conditions Report documents 31 conditions that provide a holistic depiction of how transportation can impact physical, mental, social, environmental, and economic health in Hwy 252/I-94 communities. Where possible, baseline condition information is disaggregated by race, ethnicity, and/or income, and used to assess health disparities within the corridor and between the corridor and the region. The purpose of the EHA Baseline Conditions Report is to provide a data-driven foundation for the two subsequent EHA reports that will be considered by MnDOT as public input for the SD.

EHA Report #1 identifies the following key findings related to health conditions of communities along Hwy 252/I-94.

1. People living in North Minneapolis report more negative health outcomes than people living in Hennepin County.
2. Public health models indicate higher rates of chronic disease in majority non-white areas along the corridor than in majority white areas along the corridor.
3. The typical person living along the Hwy 252/I-94 corridor has less income than the typical Hennepin County resident.
4. There are significant income disparities by race and ethnicity along the Hwy 252/I-94 corridor.
5. Compared to the typical Minnesotan, people living along the Hwy 252/I-94 corridor are at greater risk of disease, hospitalization, and death due to poor air quality.
6. People living along the Hwy 252/I-94 corridor are concentrated in high traffic areas.

EHA Report #1 also identifies key findings for the community related to health, equity, and transportation.

1. Most people living along Hwy 252/I-94 corridor commute outside the corridor for work.
2. People living along the Hwy 252/I-94 corridor face challenges to accessing jobs by modes other than personal motor vehicle.
3. Among people living along the Hwy 252/I-94 corridor, White workers are more likely to drive alone to work and have shorter commutes than Black and Hispanic/Latino workers.
4. The Hwy 252/I-94 corridor has a high concentration of households without a personal motor vehicle.
5. People living along the Hwy 252/I-94 corridor face challenges accessing healthy food options and greenspace by modes other than personal motor vehicle.
6. Hwy 252 and I-94 presents a barrier to people walking, biking and rolling to destinations throughout the corridor.
7. There are differences in the built environment of areas with majority White and majority non-White populations.
8. There are more vehicle crashes on Hwy 252 than on similar highways across the region.

These equity and health baseline conditions were prioritized and consolidated into six equity and health focus areas as illustrated in Table 3.2.

Table 3.2 Equity and Health Focus Areas

Focus Area	Focus Area Description
Environment and Human Health	The quality of the natural and built environment is highly correlated with community health and well-being. As the natural and human built environment degrades, people are exposed to higher concentrations of toxins, lower property values, higher stress levels, and fewer opportunities to connect with nature.
Sense of Community	The design and operation of public roadways contributes to a community's cohesion and sense of place. A well-connected street network, with quality sidewalks, tree cover, gathering places, art, and other forms of streetscaping brings people together, spurs commerce, and increases quality of life.
Property Impacts	Transportation construction can have significant impacts on property, up to and including the acquisition and demolition of homes and businesses. Traffic and roadway design can also impact property values by increasing or decreasing the livability and/or accessibility of nearby properties.
Transportation Safety	Being and feeling safe on public roadways is another way transportation contributes to health and well-being. Transportation safety prevents vehicle crashes and promotes the safety and security of pedestrians, bicyclists, transit riders, and people in motor vehicles.
Transportation Choice	Transportation options support health and well-being by increasing opportunities for people to reach destinations by walking, rolling, bicycling, taking public transit, and a combination of modes involving more physical activity and social connection than driving alone.

Focus Area	Focus Area Description
Access to Destinations	Access is a measure of the opportunity people have to work, play, and obtain goods and services essential to health and well-being. Transportation supports access by connecting people to destinations. Transportation also helps neighborhoods attract and retain jobs, grocery stores, health care, schools, and other amenities that promote vibrant communities.

Appendix E of this SD includes the *EHA Report #1: Baseline Conditions*.

EHA Report #2: Priorities

The Equity and Health Community Priorities Report (EHA Report #2) is the second of three EHA reports. EHA Report #2 summarizes the community engagement process and results from engaging historically underserved and overburdened communities adjacent to Hwy 252/I-94 about their equity and health priorities. The health and equity priorities were identified from the analysis of existing conditions in *EHA Report #1: Baseline Conditions*.

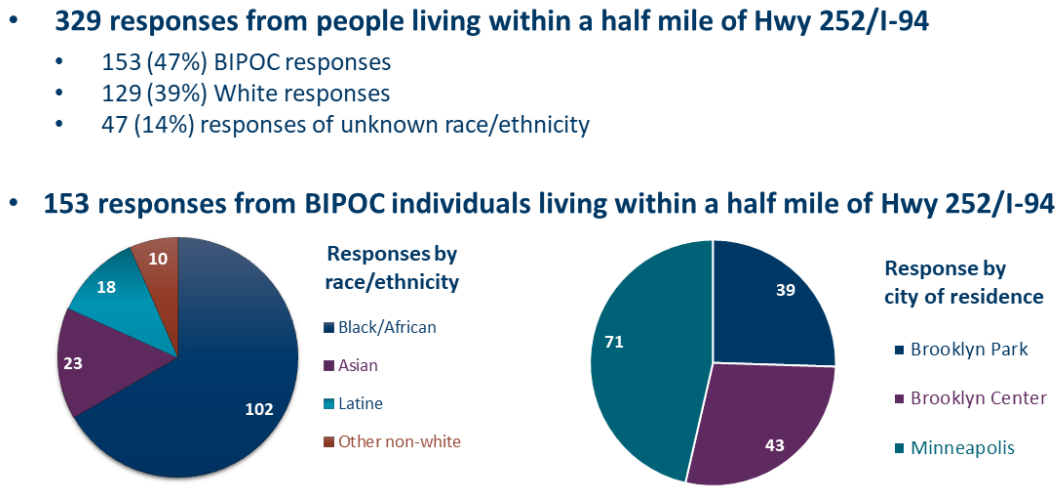
Appendix F of this SD includes the *EHA Report #2: Priorities*.

The following section regarding EHA targeted engagement and focus area priorities includes text and figures from EHA Report #2. EHA Report #2 uses the acronym BIPOC, which stands for Black people, Indigenous people, and People of Color. The acronym BIPOC does not correlate to federal and state definitions for environmental justice (EJ).

Equity Health Assessment Targeted Engagement and Focus Area Priorities

The EHA targeted engagement focused on listening to historically underserved and overburdened populations living in Minneapolis, Brooklyn Center, and Brooklyn Park, including Black people, Indigenous people, and People of Color (BIPOC); people with a low-income; the elderly; and people with a disability. The project team conducted an online survey and 15 targeted in-person activities between April 15 and May 6, 2022, including pop-up and canvassing events in the project study area. Figure 3.5 includes a demographic summary for people that participated in the EHA targeted engagement process.

Figure 3.5 EHA Targeted Engagement Demographic Summary



Online survey participants ranked the focus areas from one to six, and the in-person activity asked participants to select their top three priorities. Across all survey results for participants in the project study area, the project team analyzed how often the focus area was selected within participants' top three priorities. Access to jobs, healthy food, and greenspace was most often selected as a top priority for BIPOC participants, followed by safety, environment and human health, property impacts, sense of community, and transportation options. Notably, BIPOC participants were more likely to rank access to jobs, healthy food, and greenspace higher than White participants in the project study area. Figure 3.6 illustrates the focus area priorities for EHA targeted engagement participants.

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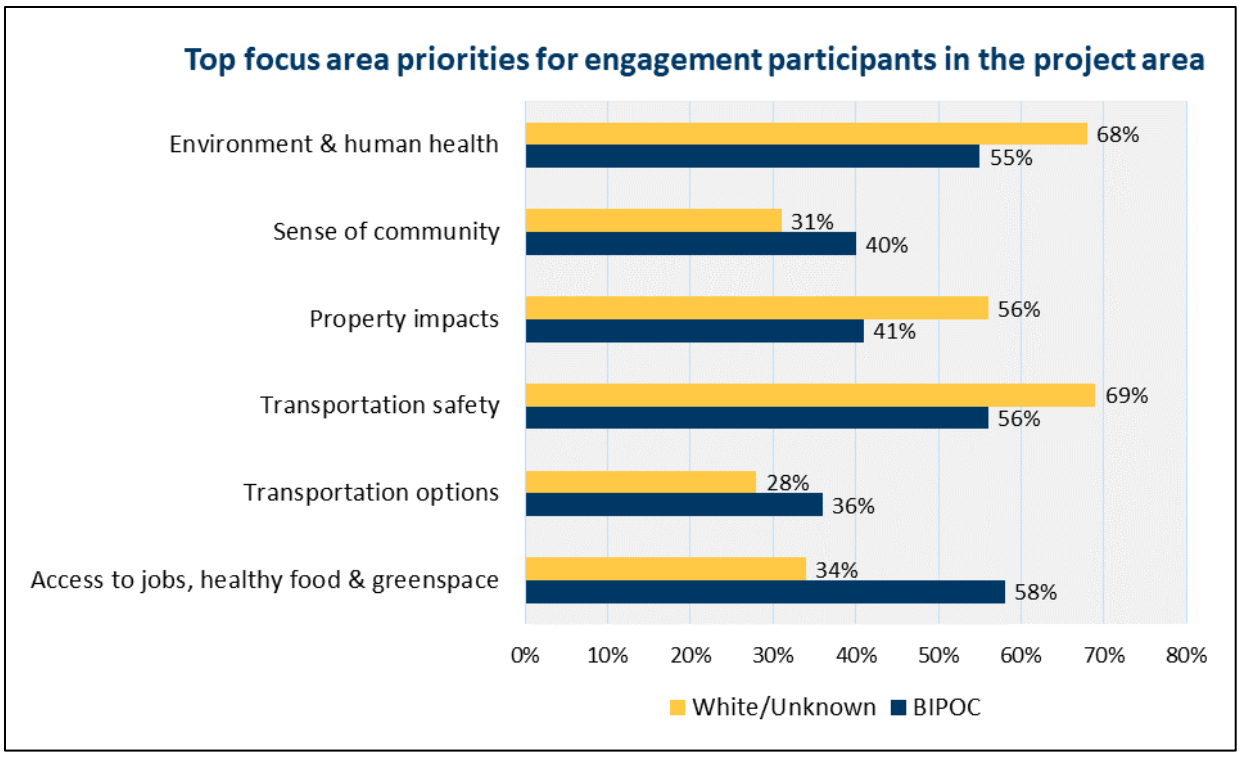
Figure 3.6 Top Focus Area Priorities for Participants in the Project Study Area



Key takeaways from the BIPOC community members include:

- Many BIPOC respondents are concerned that expanding Hwy 252/I-94 will **increase traffic, air pollution and increased respiratory issues** in Hwy 252/I-94 communities.
- A majority of BIPOC respondents identified **safety** as an equity and health priority, with particular attention given to vulnerable users.
- BIPOC respondents highlighted the importance of **job access, food options, and green space** to healthy lives and equitable communities.
- BIPOC respondents stressed the importance of **ensuring local communities are not unfairly burdened** by Hwy 252/I-94 decisions that primarily benefit pass-through traffic.

EHA Report #3: Assessment of Hwy 252/I-94 Scoping Document and Draft Scoping Decision Document

Equity and health assessment of the Hwy 252/I-94 SD and DSDD will include a community-driven health and equity review of the Hwy 252/I-94 project elements and alternatives and will apply the equity and health priorities identified in EHA Report #2. The purpose of this assessment is to elevate community perspective specific to equity and health for consideration in decision-making by MnDOT and/or other agencies. EHA Report #3 is connected to the environmental review process

through public involvement and will be considered public comment on the Hwy 252/I-94 SD and DSDD. EHA Report #3 will be available after submission to MnDOT during the scoping comment period and included with the Final SDD.

Visit the EHA website at https://www.dot.state.mn.us/metro/projects/hwy252study/eha.html for additional detail on the EHA.

3.2 Agency Involvement

3.2.1 Project Management Team

The Project Management Team (PMT) includes staff from MnDOT, FHWA, Metro Transit, Hennepin County, and the consultant team. The role of the PMT is to direct the project development process and advance the project through key milestones in Scoping and the EIS.[14] The PMT also reviews recommendations prior to distribution to the Technical Advisory Committee (TAC) and Policy Advisory Committee (PAC).

3.2.2 Local Agency Coordination

MnDOT and FHWA are the primary decision makers in the MEPA and NEPA processes for the Hwy 252/I-94 EIS. MnDOT and FHWA will seek input and collaborate with partner agencies throughout the EIS process. Local agency coordination includes involvement with the Technical Advisory Committee and Engagement Committee.

Technical Advisory Committee

The Technical Advisory Committee (TAC) includes staff from Hennepin County, City of Brooklyn Park, City of Brooklyn Center, City of Minneapolis, MnDOT, FHWA, Metropolitan Council, Metro Transit, and Project Consultants. The TAC meets approximately monthly. The role of the TAC includes:

- Provide leadership and guidance for resolution of technical issues related to project options (e.g., design features on local roadways) and refinements considered as part of the project development process;
- Provide input on public engagement activities and materials; and
- Provide recommendations to the Policy Advisory Committee.

[14] Section 4.1 of the Agency Coordination Plan identifies the steps and milestones in the state and federal environmental review processes. Examples of milestones in the environmental review process include the Final SDD, identification of a preferred alternative and publication of the Draft EIS, and publication of the Final EIS/ROD. The Agency Coordination Plan is included in Appendix G of this SD.

Engagement Committee

The Engagement Committee is comprised of public engagement staff from MnDOT and partnering agencies. The Engagement Committee advises MnDOT and the project consultants on engagement strategy, techniques, and key audiences. It reviews engagement materials and furthers the project's messages across their platforms. The Engagement Committee meets approximately monthly and more often when preparing for and conducting engagement activities.

3.2.3 Policy Advisory Committee

The Policy Advisory Committee (PAC) includes elected and appointed officials from MnDOT, State of Minnesota, FHWA, Hennepin County, City of Brooklyn Park, City of Brooklyn Center, City of Minneapolis, and Metropolitan Council. The PAC meets approximately quarterly and meetings are open to the public. The PAC is not a decision-making body. The roles of the PAC include:

- Guide policy and funding decisions pertaining to the Hwy 252/I-94 Project;
- Review recommendations from the TAC and provide input on public engagement materials;
- Provide help in identifying important community issues;
- Provide help in communicating with neighboring constituents on project decision points/major milestones and encourage public participation; and
- Provide input as requested by MnDOT.

Beyond their role on the PAC, elected leaders from the cities of Brooklyn Park, Brooklyn Center, and Minneapolis; Hennepin County; and the State will be included in public engagement communications and events.

3.2.4 Cooperating and Participating Agencies

MnDOT and FHWA have prepared an *Agency Coordination Plan* for the Hwy 252/I-94 Project. The purpose of the *Agency Coordination Plan* is to guide FHWA's and MnDOT's interactions with Cooperating and Participating Agencies for the Hwy 252/I-94 Project. The *Agency Coordination Plan* describes agency roles and responsibilities, agency expectations, concurrence points, and project milestones. The *Agency Coordination Plan* is a living document that is anticipated to evolve over the lifetime of the Hwy 252/I-94 environmental review process. Cooperating and Participating Agency roles are summarized below. Appendix G of this Scoping Document includes the *Agency Coordination Plan*.

Table 3.3 lists the agencies and Federally Recognized Tribes that were invited by FHWA and MnDOT and accepted the invitation to be Cooperating and Participating Agencies for the Hwy 252/I-94 Project.

Table 3.3 List of Cooperating and Participating Agencies

Hwy 252/I-94 Cooperating Agencies	Hwy 252/I-94 Participating Agencies
• Federal Transit Administration (FTA) • U.S. Army Corps of Engineers (USACE) • U.S. Environmental Protection Agency (EPA)	• Federal Railroad Administration (FRA) • National Park Service (NPS) • U.S. Fish and Wildlife Service (USFWS) • Board of Water and Soil Resources (BWSR) • Minnesota Department of Health (MDH) • Minnesota Department of Natural Resources (DNR) • Minnesota Pollution Control Agency (MPCA) • Metropolitan Council • Metro Transit • Mississippi Watershed Management Organization • Shingle Creek/West Mississippi Watershed Management Commission • Hennepin County • Three Rivers Park District • City of Brooklyn Park • City of Brooklyn Center • City of Minneapolis • Minneapolis Park and Recreation Board • Shakopee Mdewakanton Sioux Community • White Earth Nation

Eight Cooperating and Participating Agency meetings were held during the scoping process. The focus of these meetings was to provide project updates, review project deliverables, and to collect input from agency representatives. Cooperating and Participating Agency meetings will be on-going through development of the Draft EIS and Final EIS/ROD.

Cooperating Agencies

A Cooperating Agency is any federal agency that has jurisdiction by law or special expertise to assist with the environmental process. Three Federal agencies accepted the invitation to be Cooperating Agencies for the Hwy 252/I-94 Project (see Table 3.3).[15]

Cooperating Agencies provide input related to relevant areas of expertise during the scoping process and development of the Draft EIS. Cooperating Agencies will assist MnDOT and FHWA in identifying issues of concern regarding the project's potential impacts and provide meaningful and timely input throughout the environmental review process. MnDOT and FHWA will request formal written agreement from Cooperating Agencies at four milestone points in the project development

[15] Federally Recognized Tribes may also be Cooperating Agencies when project effects are on lands of tribal interest. There are no Federally Recognized Tribes involved with the Hwy 252/I-94 Project as Cooperating Agencies.

process for the Hwy 252/I-94 Project. These four milestones are referred to as "Concurrence Points". Table 3.4 lists the Hwy 252/I-94 concurrence points and status.

Table 3.4 Hwy 252/I-94 Project Concurrence Points and Status

Timing	Concurrence Point	Description	Status
State Scoping and Federal Pre-NOI	• Concurrence Point #1A • Concurrence Point #2A	• Initial concurrence on purpose and need statement • Initial concurrence on alternatives for detailed study in Draft EIS	• Concurrence Point #1A complete • Concurrence Point #2A to be completed with Final SDD
Post-NOI	• Concurrence Point #1B • Concurrence Point #2B	• Final concurrence on purpose and need statement • Final concurrence on alternatives for detailed study in Draft EIS	Concurrence Points #1B and #2B to be completed following NOI public comment period.
Draft EIS	Concurrence Point #3	Identification of a preferred alternative	To be completed following identification of preferred alternative and agency review of Draft EIS.
Final EIS/ROD	Concurrence Point #4	Mitigation measures	To be completed following agency review of draft Final EIS/ROD.

(1) Concurrence Point #1A was completed in September 2021. Three Federal Cooperating Agencies provided initial concurrence.

Concurrence Point #1 and Concurrence Point #2 are split into two phases to accommodate the State of Minnesota and Federal scoping processes. The first phase combines the State scoping process and the Federal pre-notice of intent (NOI) scoping activities and includes two initial requests for written agreement from Cooperating Agencies. The FHWA will publish a NOI following completion of the State scoping process. The second phase is referred to as the post-NOI phase. The post-NOI phase concludes the Federal scoping process and includes two final requests for written agreement from Cooperating Agencies.

Participating Agencies

Participating Agencies include federal, state, or local agencies or Federally Recognized Tribes that have an interest in the Hwy 252/I-94 Project. Fifteen federal, state, and local agencies and Federally Recognized tribes accepted the invitation to be Participating Agencies for the Hwy 252/I-94 Project (see Table 3.2). Participating Agencies agree to identify issues of concern regarding the project's potential impacts and provide meaningful and timely input on purpose and need, range of alternatives, and impact analysis methodologies.

Chapter 4 Purpose and Need Statement

The purpose and need statement explains why MnDOT is undertaking the proposed action. Appendix H of this SD includes the detailed *Purpose and Need Statement Report* for the Hwy 252/I-94 Project. The following sections of this SD represent a summary of the purpose and need statement. See Appendix H for additional details, including figures, maps, and tables.

4.1 Background Information

The *Purpose and Need Statement Report* in Appendix H of this SD includes a detailed description of exiting conditions in the project study area. Topics addressed include corridor history; existing traffic and physical characteristics; existing transit service (bus routes, park and ride facilities, existing transit advantages); corridor demographics; pedestrian and bicycle infrastructure; and previous studies. Please refer to Chapter 2 in the *Purpose and Need Statement Report* for background information on the Hwy 252 and I-94 corridors.

4.2 Project Needs

Project needs are the transportation deficiencies to be addressed by the proposed action and are the main problems that led to the initiation of the project. The transportation needs for the Hwy 252/ I-94 Project include vehicle safety, vehicle mobility, and walkability/bikeability.

4.2.1 Vehicle Safety

MnDOT's *Traffic Engineering Manual* describes the measures used in a crash analysis.[16] A comparison of the crash rate and the critical crash rate is used to determine if there is a potential safety issue at an intersection or along a roadway segment. The critical crash rate is a statistical comparison based on similar intersections or segments statewide. An observed crash rate greater than the critical crash rate indicates that the intersection operates outside of the expected, normal range. The critical index reports the magnitude of the difference between observed crash rates and critical rates. A critical index of less than one indicates that a segment or intersection is operating within expectations. A critical index greater than one indicates there may be vehicle safety concerns along a segment or at an intersection.

Hwy 252 Vehicle Safety

A crash analysis was prepared for the Hwy 252 corridor for the four-year period from 2016 to 2019 using the MnDOT's Minnesota Crash Mapping Application Tool (MnCMAT2). MnCMAT2 is an interactive mapping tool that includes crash data as reported to the Minnesota Department of Public

[16] Minnesota Department of Transportation. September 2015. *Traffic Engineering Manual*. Chapter 11: Traffic Safety available at https://www.dot.state.mn.us/trafficeng/publ/tem/2015/chapter11.pdf.

Safety. The four-year period from 2016 to 2019 was analyzed because this represents the most recent period that law enforcement officers began entering crash reports into the MnCrash reporting system.

The following sections summarize Hwy 252 intersection and segment crashes.

Hwy 252 Intersection Crashes

- There were 654 reported intersection crashes on Hwy 252 between 2016 and 2019, including one fatal crash and four serious injury crashes.
- Nearly three-quarters of the crashes were property damage only crashes. More than half of the Hwy 252 intersection crashes occurred at 85th Avenue in Brooklyn Park and 66th Avenue in Brooklyn Center.
- Rear-end crashes accounted for approximately 67 percent of the Hwy 252 intersection crashes. A rear-end crash is the most common type of crash across Minnesota and is the most common type of intersection-related crash.
- The critical index exceeds 1.00 at all six Hwy 252 intersections, indicating that there are vehicle safety concerns at these locations.[17]

Hwy 252 Segment Crashes

- There were 858 recorded segment crashes on Hwy 252 between 2016 and 2019, including two crashes involving fatalities and four severe injury crashes.
- Most of the segment crashes (75 percent) were property damage only crashes. Rear-end crashes accounted for approximately 65 percent of the segment crashes on Hwy 252.
- The observed segment crash rate was above the critical crash rate, and the critical index was greater than 1.00, indicating that there is a vehicle safety concern along the Hwy 252 segment between Hwy 610 and south of I-694.

I-94 Vehicle Safety

Four-year crash data for the period from 2016 to 2019 were reviewed for I-94 from south of I-694 near 53rd Avenue North to Highway 55 (Hwy 55) using MnCMAT2. This review included I-94 roadway segment crash data only (i.e., non-junction crashes).

- There were 914 reported crashes on I-94 between 2016 to 2019 including five fatal crashes and five serious injury crashes.

[17] Critical index reports the magnitude of the difference between observed crash rates and critical rates. A critical index of less than one indicates that a roadway segment or intersection is operating within expectations. A critical index greater than one indicates there may be a vehicle safety concerns along a roadway segment or at an intersection.

- More than 60 percent of the crashes were rear end and same direction side-swipe crashes. These types of crashes are often associated with traffic congestion.
- Crash rates for this segment of I-94 exceed the critical crash rate of 0.99 crashes per million vehicle miles traveled, and the critical index is greater than 1.00, indicating that the crash rate is statistically higher than the average crash rate for urban freeways.

4.2.2 Vehicle Mobility

Existing and Forecast Traffic Volumes

Existing (2018 traffic count data prior to the COVID-19 pandemic) traffic volumes on Hwy 252 vary from 57,000 vehicles per day north of 85th Avenue to 66,000 vehicles per day south of 66th Avenue. Daily traffic volumes on I-94 in the project study area vary from 89,000 vehicles per day to 111,000 vehicles per day. Daily traffic volumes on Hwy 252 and I-94 are projected to increase by 4,000 to 11,000 vehicles per day from existing conditions to the 2040 No Build Alternative.

Figure 4.1 illustrates existing (2018) and year 2040 No Build Alternative daily traffic volumes for Hwy 252, I-94, and intersecting roads in the project study area.

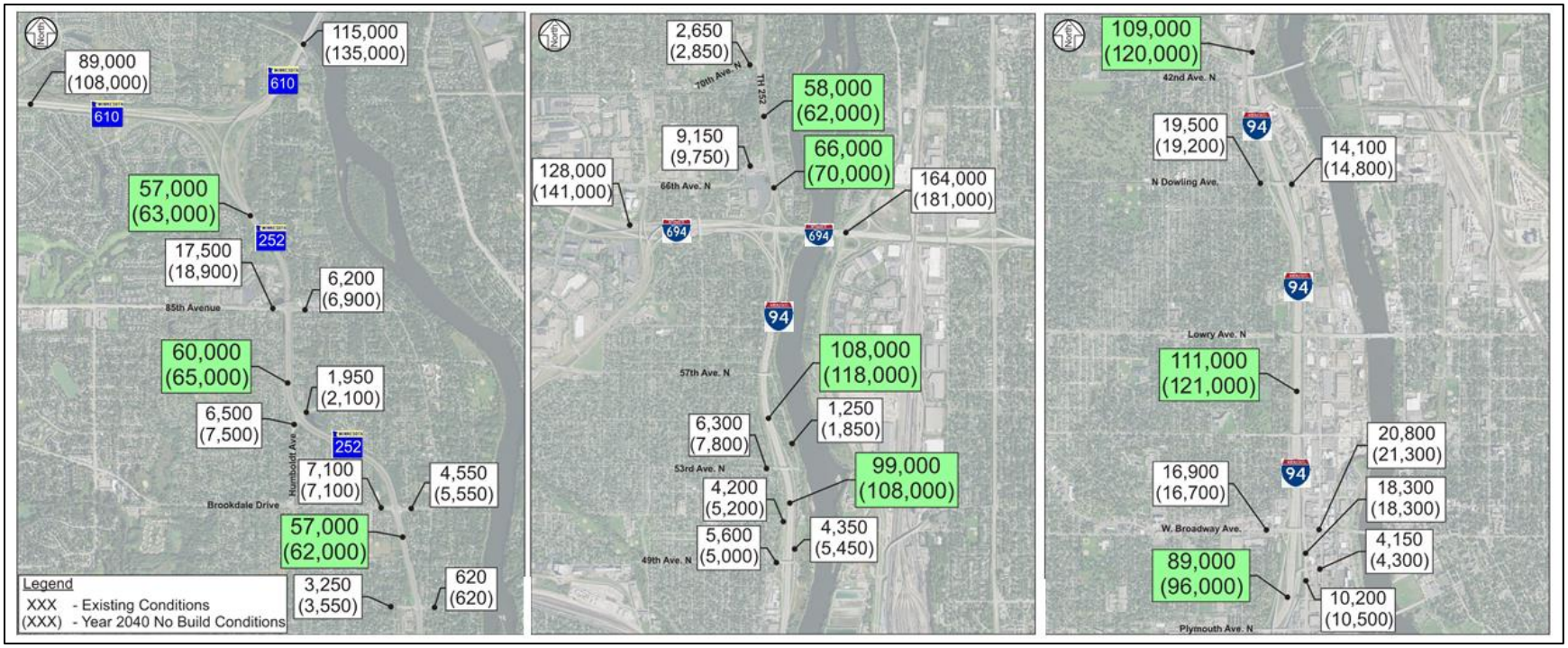
Traffic Operations

MnDOT completed a traffic operations analysis for Hwy 252 and I-94 as part of the Hwy 252/I-94 Project. A PTV VISSIM (10.00-05) traffic model was developed to model existing conditions traffic operations. A future year 2040 model also was developed incorporating programmed highway improvements and 2040 No Build Alternative traffic volumes.[18] An intersection capacity and arterial analysis was completed for Hwy 252. A freeway analysis was completed for I-94. The Hwy 252 intersection capacity analysis was for the morning peak hour (7:00 a.m. to 8:00 a.m.) and the afternoon peak hour (4:30 p.m. to 5:30 p.m.). Arterial and freeway operations were modeled for a five-hour morning period (6:00 a.m. to 11:00 a.m.) and a five-hour afternoon period (2:00 p.m. to 7:00 p.m.).

The *Purpose and Need Statement Report* in Appendix H of this SD includes detailed tables and figures illustrating the traffic operations analysis results for Hwy 252 and I-94. The following sections summarize results of the traffic operations analysis for existing conditions and the 2040 No Build Alternative.

[18] PTV VISSIM is a computer simulation model used by traffic engineers to evaluate traffic patterns and operations.

Figure 4.1 Existing and 2040 No Build Alternative Traffic Volumes



The green boxes in Figure 4.1 include existing and year 2040 No Build Alternative traffic volumes for Hwy 252 and I-94. The white boxes in Figure 4.1 include existing and year 2040 No Build Alternative traffic volumes for adjacent local roads and I-94/I-694.

Hwy 252 Traffic Operations

Hwy 252 Intersection Operations

MnDOT performed an intersection operations analysis for the six at-grade, signalized intersections on Hwy 252 between Hwy 610 and I-694. A grading system, expressed as Level of Service (LOS), indicates the average delay per vehicle in seconds, or the additional time experienced by a vehicle to travel through an intersection. LOS A through LOS D is considered acceptable by most motorists as the intersection is operating under capacity. LOS F denotes an intersection where demand exceeds capacity, or a breakdown in traffic flow.

The following summarizes Hwy 252 intersection operations during the morning and afternoon peak hours for existing conditions and the 2040 No Build Alternative.

- Hwy 252 intersections operate at an overall LOS D or better during the morning and afternoon peak hours under existing conditions, except for 85th Avenue. The Hwy 252 and 85th Avenue intersection operates at LOS F during the morning peak hour.
- Side-street approaches to Hwy 252 experience extensive delays because most of the "green time" at the traffic signals is allocated to Hwy 252 through traffic. Side-street delays approach two minutes under existing conditions.
- Queues occur on southbound Hwy 252 during the morning peak hour when traffic encounters the first signal at 85th Avenue. These traffic queues can extend back to Hwy 610 under existing conditions.
- Queues occur on northbound Hwy 252 during the afternoon peak hour when traffic encounters the first signal at 66th Avenue. These traffic queues can extend back through the Hwy 252/ I-94/I-694 interchange under existing conditions. Queues also occur on northbound Hwy 252 north of Brookdale Drive and can extend to 73rd Avenue under existing conditions.
- Delays and congestion at Hwy 252 intersections are projected to increase under the 2040 No Build Alternative compared to existing conditions. Eastbound and westbound side street approaches are projected to experience extensive delays under the 2040 No Build Alternative, with delays at the 85th Avenue eastbound approach projected to exceed 15 minutes during the morning peak hour.

Hwy 252 Arterial Operations

Overall intersection LOS does not fully capture what users experience on Hwy 252. Therefore, an arterial analysis was conducted for Hwy 252. The arterial analysis uses morning and afternoon peak period vehicle speeds as a measure of congestion. The following summarizes Hwy 252 arterial operations during the morning and afternoon peak hours for existing conditions and the 2040 No Build Alternative.

- The traffic signal at 85th Avenue is a bottleneck for southbound Hwy 252 traffic heading towards I-94. Queues from the 85th Avenue traffic signal cause congestion during the morning and afternoon peak periods that extend to Hwy 610.
- Congestion occurs on southbound Hwy 252 at the Brookdale Drive intersection during the morning peak period, spilling back to Humboldt Avenue.
- Southbound Hwy 252 experiences congestion from north of 66th Avenue to I-694 during the morning and afternoon peak periods. This congestion is caused by lane changing as traffic approaches the Hwy 252/I-94/I-694 interchange.
- Morning and afternoon peak period congestion on Hwy 252 is projected to increase under the 2040 No Build Alternative. Southbound Hwy 252 is projected to be considerably congested during the morning peak period north of 85th Avenue under the 2040 No Build Alternative.
- Northbound Hwy 252 is projected to be congested at the lane drop north of Brookdale Drive during the afternoon peak period under the 2040 No Build Alternative. This congestion causes queues to spill back through 70th Avenue.

I-94 Operations Analysis Results

The I-94 corridor generally carries commuter-oriented traffic from the north and northwest suburbs to employment centers in Minneapolis and beyond. This results in peak period travel patterns that are predominately to the south during the morning and predominately north during the afternoon. The following summarizes I-94 operations under existing conditions and the 2040 No Build Alternative.

- Eastbound I-94 north of West Broadway Avenue experiences minimal congestion during the morning peak period. Congestion (level of service, LOS F) occurs on eastbound I-94 south of Plymouth Avenue. This congestion is the result of traffic queues spilling back from the Lowry Tunnel and the Interstate 394 (I-394) merge with I-94.
- Westbound I-94 experiences poor operations and congestion (LOS E and F) for one to two hours during the afternoon peak period south of I-694. This congestion is caused by poor operations at the Hwy 252/I-94/I-694 interchange and traffic queues spilling back from eastbound I-694 and the exit ramp from westbound I-94 to eastbound I-694.
- Eastbound I-94 is projected to experience minimal congestion from I-694 to West Broadway Avenue during the morning peak period under the 2040 No Build Alternative. Eastbound I-94 south of Plymouth Avenue is projected to experience congestion (LOS E and F) for two to three hours during the morning peak period under the 2040 No Build Alternative. This congestion is the result of traffic queues spilling back from I-394 and the Lowry Tunnel.
- Westbound I-94 is projected to be congested (LOS E and F) during the afternoon peak period from Dowling Avenue to the Hwy 252/I-94/I-694 interchange under the 2040 No Build

Alternative. This congestion is the result of poor operations on I-694 and traffic queues that spill back from I-694 onto westbound I-94.

Hwy 252 and I-94 Travel Times

One of the consequences of increases in congestion on Hwy 252 and I-94 from existing conditions to the 2040 No Build Alternative is an increase in travel times. Average travel times on Hwy 252 and I-94 are projected to increase by approximately four minutes from existing conditions to the 2040 No Build Alternative during the morning peak period, and by approximately nine minutes during the afternoon peak period.

Travel Time Reliability

Travel times and congestion can vary from day-to-day; however, travelers will typically remember the worst travel times. Variability in congestion combined with non-recurring events ultimately results in poor travel time reliability and requires travelers to increase their "planning time" to account for potential travel time delays.

A travel time reliability analysis was conducted for the Hwy 252/I-94 Project. The outcome of the travel time reliability analysis was an estimate of the typical variability in travel times experienced by the average traveler on the Hwy 252 and I-94 corridors. The estimates represent a range of travel times, from travel times with free-flow conditions (i.e., travel at and above posted speed limits) up to the worst travel time that could be expected to occur approximately once per month. The travel time reliability analysis results represent one month (i.e., 20 commuting days) of travel times averaged across all lanes in one direction during the morning peak period (6:00 a.m. to 9:00 a.m.) and afternoon peak period (3:00 p.m. to 6:00 p.m.) for the Hwy 252 and I-94 corridors.

Hwy 252 Travel Time Variability

The average traveler experiences congestion but relatively reliable travel times on Hwy 252 during the morning and afternoon peak periods under existing conditions. Variability in peak period travel time is projected to increase on Hwy 252 under the 2040 No Build Alternative. Existing transit advantages (bus-only shoulders) allow for faster travel times for express buses compared to general purpose lane traffic. Table 4.1 summarizes the range in travel times on southbound and northbound Hwy 252 under existing conditions and the 2040 No Build Alternative.

Table 4.1 Hwy 252 Travel Time Variability

Hwy 252 Corridor	Existing Conditions, Range in Travel Times	2040 No Build Alternative, Range in Travel Times
SB Hwy 252 (Morning Peak Period)	3.1 to 8.2 minutes	3.2 to 9.9 minutes
NB Hwy 252 (Afternoon Peak Period)	3.1 to 10.6 minutes	3.1 to 13.3 minutes

I-94 Travel Time Variability

In general, morning and afternoon peak period travel on eastbound and westbound I-94 is mostly uncongested and reliable under existing conditions. Travelers are projected to experience an increase in travel time variability on I-94 under the 2040 No Build Alternative. The travel time variability on westbound I-94 during the afternoon peak period under the 2040 No Build Alternative is influenced by congestion on eastbound I-694 spilling back onto I-94. Table 4.2 summarizes the range in travel times on eastbound and westbound I-94 under existing conditions and the 2040 No Build Alternative.

Table 4.2 I-94 Travel Time Variability

I-94 Corridor	Existing Conditions, Range in Travel Times	2040 No Build Alternative, Range in Travel Times
EB I-94 (Morning Peak Period)	5.0 to 10.0 minutes	5.1 to 10.7 minutes
WB I-94 (Afternoon Peak Period)	5.0 to 8.6 minutes	5.0 to 10.9 minutes

Hwy 252 and I-94 Transit

Six Metro Transit express bus routes used Hwy 252 in 2019. Metro Transit and suburban transit providers (i.e., Maple Grove Transit) operate 20 express and suburban local bus routes on I-94 to downtown Minneapolis. The I-94 corridor south of Hwy 252 is one of the most highly utilized corridors for express bus commuter service in the Twin Cities Metropolitan Area.[19] The following sections summarize transit demand, on-time performance, and bus travel times.

Transit Demand

Transit ridership forecasts were developed for Hwy 252 and I-94 under the 2040 No Build Alternative using the travel demand model and Federal Transit Administration's (FTA) STOPS model. Transit ridership forecasts were based on the 2019 bus routes that used the Hwy 252 and I-94 corridors. Table 4.3 tabulates existing and year 2040 No Build Alternative transit ridership for Hwy 252 and I-94 in the project study area.

[19] See Section 2.1.5 in the *Purpose and Need Statement Report* in Appendix H of this SD for a detailed description of existing transit service, park and ride facilities, and transit advantages in the project study area.

Table 4.3 Hwy 252 and I-94 Transit Ridership (Rides Per Day)

Transit Ridership	Existing Conditions (1)	2040 No Build Alternative	Increase in Transit Ridership (2040 No Build – Existing)
Hwy 252 Transit Ridership (Hwy 610 to I-694)	5,800	6,500	700
I-94 Transit Ridership (I-694 to Downtown Minneapolis) (2)	15,600	16,300	700

(1) Existing ridership assumes year 2016 ridership and is based on the Metro Transit 2016 on-board rider survey. Metro Transit experienced a decline in ridership from 2016 to 2019.

(2) Includes ridership for bus routes from north and northwest suburbs that use I-94 to downtown Minneapolis.

On-Time Performance

On-time performance was evaluated for Hwy 252 and I-94 bus routes for the three-month period from August 19, 2019 to December 6, 2019. As congestion increases under the 2040 No Build Alternative, it will be important to maintain bus on-time performance on Hwy 252 and I-94 and potentially mitigate future sources of bus delay along the corridor.

- Approximately 96 percent of bus trips on Hwy 252 and I-94 were on routes with on-time performance above the systemwide average during the morning peak period. Approximately 40 percent of bus trips on Hwy 252 and I-94 were on routes with on-time performance above the systemwide average during the afternoon peak period.
- Nearly 80 percent of afternoon peak period transit riders experienced on-time performance during the August to September 2019 reporting period. This is because the on-time bus routes carried most of the transit riders on the Hwy 252 and I-94 corridor.
- As congestion increases under the 2040 No Build Alternative, it will be important to maintain bus on-time performance on Hwy 252 and I-94 and potentially mitigate future sources of bus delay along the corridor.

Bus Travel Times

A PTV VISSIM traffic model was used to simulate bus travel times on Hwy 252 and I-94 during the morning and afternoon peak hours for existing conditions and the 2040 No Build Alternative. These travel times assume that express buses would operate on the bus-only shoulders in congested conditions during the morning and afternoon peak periods.

- One-way bus travel times on southbound Hwy 252 and eastbound I-94 are projected to increase by less than one minute under the 2040 No Build Alternative during the morning peak period.
- One-way bus travel times on westbound I-94 and northbound Hwy 252 are projected to increase by 1.5 minutes under the 2040 No Build Alternative during the afternoon peak period.

4.2.3 Walkability/Bikeability

The *Purpose and Need Statement Report* in Appendix H of this SD includes detailed tables and figures illustrating the walkability/bikeability assessment for Hwy 252 and I-94. The mobility performance of existing pedestrian and bicycle facilities along Hwy 252 and I-94 were evaluated utilizing the pedestrian and bicycle multi-modal level of service (MMLOS) for signalized intersections, unsignalized intersections, and segments as developed by Oregon Department of Transportation (ODOT).[20] The following sections summarize existing conditions along Hwy 252 and I-94 for non-motorized users.

Hwy 252 Walkability/Bikeability

The Hwy 252 corridor bisects southeast Brooklyn Park and northeast Brooklyn Center limiting non-motorized connections between neighborhoods, schools, parks, and trails east and west of Hwy 252. The corridor has one multi-use trail bridge crossing over Hwy 252 north of the 85th Avenue intersection in Brooklyn Park. Crosswalks are at the other five at-grade intersections south of 85th Avenue. There are no other crossing locations along the Hwy 252 corridor.

The following summarizes pedestrian and bicycle challenges, safety, mobility along the Hwy 252 corridor.

- Hwy 252 can be challenging to cross for some pedestrians and bicyclists due to the number of lanes, crossing distances, and vehicle speeds.
- Hwy 252 pedestrian crossing issues also affect express bus riders. Residents on the east side of Hwy 252 must cross Hwy 252 to access stops on the west side of the highway during the morning period. Express bus riders must cross Hwy 252 from bus stops on the east side of the highway to access park and ride facilities on the west side of the highway during the afternoon period.
- Five pedestrian/bicycle crashes with vehicles were reported for Hwy 252 for the four-year period from 2016 to 2019, including two incapacitating injuries and one fatality. Prior to this, four pedestrian/bicycle crashes with vehicles were reported for the five-year period from 2011 to 2015, including one incapacitating injury and one fatality.
- A MMLOS analysis was prepared for Hwy 252 intersections. The Hwy 252 intersections operate at an overall LOS E and F for pedestrians and an overall LOS F for bicyclists. These poor MMLOS values indicate that issues exist at the Hwy 252 intersections, resulting in most non-motorized users feeling uncomfortable at the crossing locations.
- Most of the segments along Hwy 252, from one block west to one block east of Hwy 252, perform at LOS C or better for pedestrians. 85th Avenue and Humboldt Avenue perform at

[20] Sections 3.3.1 and 3.3.2 in the *Purpose and Need Report* in Appendix H of this SD presents an overview of the pedestrian and bicycle MMLOS methodology developed by ODOT for signalized intersections, unsignalized intersections, and segments.

LOS E for pedestrians because of number of lanes and unsignalized/driveway conflicts. All segments perform at LOS D or better for bicycles.

I-94 Walkability/Bikeability

There are 10 vehicular overpass bridges on I-94 from 57th Avenue North in Brooklyn Center to Plymouth Avenue in Minneapolis. These bridges include non-motorized accommodations such as sidewalks, multi-use trails, and on-street bikeways. There also are two trail underpasses under I-94 between 49th Avenue North and 42nd Avenue North connecting to North Mississippi Park on the east side of I-94. In general, the distance between I-94 crossings is approximately ½-mile.

The following summarizes pedestrian and bicycle challenges, safety, and mobility along I-94 in the project study area.

- The I-94 corridor acts as a barrier to east-west non-motorized travel in Brooklyn Center and Minneapolis, separating residential neighborhoods west of the freeway from the Mississippi River and its amenities east of the freeway, such as the North Mississippi Regional Park and North Mississippi Park.
- Eleven pedestrian/bicycle crashes with vehicles were reported for the four-year period from 2016 to 2019 along parallel frontage roads and I-94 overpass bridges. Crashes included minor injuries, possible injuries, and property damage only. No fatal or incapacitating injury crashes involving pedestrians and bicyclists were recorded for the project segment of I-94 during this period.
- A MMLOS analysis was prepared for signalized and unsignalized intersections along I-94 (i.e., interchange ramp terminal intersections and intersections on either side of I-94 overpass crossings). Intersection approaches operate at a pedestrian LOS A to LOS E, with signalized intersections operating at an overall pedestrian LOS C to LOS D. Intersections along I-94 operate at an overall LOS D to LOS F for bicycles.
- A MMLOS analysis also was prepared for I-94 crossings in the project study area. Segments were defined as being between signalized/unsignalized intersections at I-94 crossings. All I-94 segments perform at LOS C or better for pedestrians and bicycles.
- The *Minneapolis Pedestrian Master Plan* identifies challenges vehicular bridges can present for providing a safe and comfortable environment for non-motorized users. Identified challenges on I-94 crossings include less than desirable sidewalk width and lack of pedestrian-oriented lighting.

Accessibility

New standards for sidewalks have been developed for the Americans with Disabilities Act (ADA). ADA-related deficiencies (e.g., curb ramps, sidewalk cross slopes and conditions, accessible pedestrian signals) have been documented at several locations in the I-94 portion of the project study area.

4.3 Additional Considerations

Additional considerations are other desirable project elements or effects that are not central to the purpose and need but are nonetheless important considerations to the identification of a preferred alternative. Strategies from the Metropolitan Council's *2040 Transportation Policy Plan (2020 Update)* and the Minnesota Corridors of Commerce program will be considered during the Hwy 252/I-94 alternatives evaluation process. The "Additional Considerations" section of the *Purpose and Need Statement Report* in Appendix H describes strategies from *2040 Transportation Policy Plan (2020 Update)* applicable to the Hwy 252/I-94 Project.

Metro Transit and MnDOT initiated a transit feasibility study for the Hwy 252/I-94 corridor in spring 2020. The purpose of this study was to further evaluate the feasibility of transit service along the Hwy 252/I-94 corridor. This study was completed concurrent with the Hwy 252/I-94 scoping process. Appendix J of this SD includes the *Transit Feasibility Study Final Report*. This transit feasibility study provides an opportunity to integrate potential transit improvements with highway planning, design, and environmental studies for Hwy 252 and I-94 to maximize community benefit and minimize construction impacts to surrounding neighborhoods.

4.4 Project Purpose

The purpose of the Hwy 252/I-94 Project is to improve the safe and reliable movement of people and goods across multiple modes on and across Hwy 252 and I-94 between Hwy 610 in Brooklyn Park and North 4th Street in Minneapolis.

Chapter 5 Project Objectives

5.1 Project Objectives

Project objectives have been identified for the Hwy 252/I-94 Project that are transportation and community related. The project objectives are not part of, and are independent from, the purpose and need statement summarized in Chapter 4 of this SD. The project objectives describe desired project outcomes beyond the identified transportation problem. Project objectives influence the development, evaluation, and refinement of alternatives through specific evaluation criteria; transit and other studies; and engagement, including the EHA.

The project objectives were developed with the Policy Advisory Committee and reflect feedback MnDOT received during the EA phase and scoping phase public engagement activities.[21] The project objectives reflect issues that are important to study area communities and provide context as the Hwy 252/I-94 Project progresses.

Project objectives identified for the Hwy 252/I-94 Project include:

- Achieve equitable social, environmental, and economic outcomes (equity means fair and just, taking into consideration the conditions and needs of persons/communities impacted).
- Reduce injuries and fatalities associated with crashes along Hwy 252 and I-94.
- Promote public health by improving walkability/bikeability along and across Hwy 252 and I-94, and by supporting reliable transit service through operational improvements.
- Minimize the need to acquire additional property.
- Ensure solutions are consistent with local planning and compatible with the existing roadway network.

5.2 Project Objectives in EIS Process

5.2.1 Project Objectives in Scoping

Project objectives were considered during scoping for the development, evaluation, and refinement of alternatives to identify a range of alternatives for further study in the Draft EIS. Some of the project objectives are related to specific criteria used in the scoping alternatives development and evaluation. Other project objectives are related to engagement and studies prepared during the

[21] The Policy Advisory Committee is made up of elected and appointed officials from MnDOT, FHWA, Metropolitan Council, Hennepin County, Brooklyn Center, Brooklyn Park, and Minneapolis. The Policy Advisory Committee guides policy and funding decisions, reviews recommendations from technical staff, provides input on public engagement, and identifies important community issues (see Section 3.2.3 of this SD).

scoping process. Table 5.1 summarizes the project objectives and related criteria considered in scoping.

Table 5.1 Hwy 252 and I-94 Project Objectives in Scoping

Project Objectives	Scoping Studies and/or Evaluation Criteria
Achieve equitable social, environmental, and economic outcomes (equity means fair and just, taking into consideration the conditions and needs of persons/communities impacted)	EHA Report #3: Assessment of Hwy 252/I-94 Scoping Document and Draft Scoping Decision Document Hwy 252/I-94 Transit Feasibility Study Community Cohesion Environmental Justice
Reduce injuries and fatalities associated with crashes along Hwy 252 and I-94	Vehicle safety (mainline crash costs, intersection crash costs) Number of conflict points Pedestrian/bicycle safety (intersection crash costs) Multi-modal level of service (MMLOS)
Promote public health by improving walkability/bikeability along and across Hwy 252 and I-94, and by supporting reliable transit service through operational improvements	Hwy 252 pedestrian connectivity evaluation I-94 pedestrian and bicycle overpasses Multi-modal level of service (MMLOS) Hwy 252/I-94 Transit Feasibility Study Transit service elements (bus rapid transit, bus stations along I-94 & improve express service, improve local and express service) Transit advantages Transit compatibility (Hwy 252 access alternatives, Hwy 252 grade separated interchanges)
Minimize the need to acquire additional property	Right of way impacts (number of properties affected, residential and commercial relocations)
Ensure solutions are consistent with local planning and compatible with the existing roadway network	Consistency with Metropolitan Council TPP strategies and investment direction and plan Hwy 252 and functional classification evaluation Consistency with local comprehensive plans

5.2.2 Project Objectives in Draft and Final EIS

Project objectives will be used in the Draft EIS for the development, evaluation, and refinement of alternatives. The project objectives are related to the social, economic, and environmental (SEE) issues to be studied in the Draft EIS that will be used to identify a preferred alternative and mitigation measures in the Draft EIS. Chapter 9 of this SD describes the SEE issues to be addressed in the Draft EIS. The Final EIS/ROD will identify the performance of the preferred alternative relative to the project objectives.

Chapter 6 Alternatives Evaluation Process

This chapter of the SD summarizes the alternatives development and evaluation process and criteria used for evaluating alternatives during project scoping. The *Evaluation Criteria Report* in Appendix I of this SD includes a detailed listing of the evaluation process and criteria used for evaluating and screening alternatives.

The alternatives evaluation for the Hwy 252/I-94 Project uses a four-step process as summarized below. The process begins in Step 1 with identifying a range of corridor elements to address the project purpose and need along with public and stakeholder input. This process is designed to refine the elements and alternatives in greater detail as the evaluation progresses from Step 2 through Step 4. Each step includes a progressively more detailed level of evaluation and analysis. Step 1 through Step 3 of the evaluation occurs as part of the Scoping phase. Step 4 occurs as part of the Draft EIS.

Scoping Phase

- Step 1: Identify corridor elements and determine if these address the problems that led to the initiation of the Hwy 252/I-94 Project.
- Step 2: Develop corridor alternatives and evaluate the transportation performance of these alternatives (qualitative and quantitative assessment). Conduct initial qualitative assessment of social, economic, and environmental (SEE) impacts.
- Step 3: Refine and evaluate the transportation performance of corridor alternatives, including location and type of access on Hwy 252. Refine and evaluate any prudent additional connections across I-94 and the number of lanes on I-94. Qualitative and quantitative evaluation of SEE impacts. The outcome of Step 3 is the identification of alternatives for further study in the Draft EIS.

Draft EIS Phase

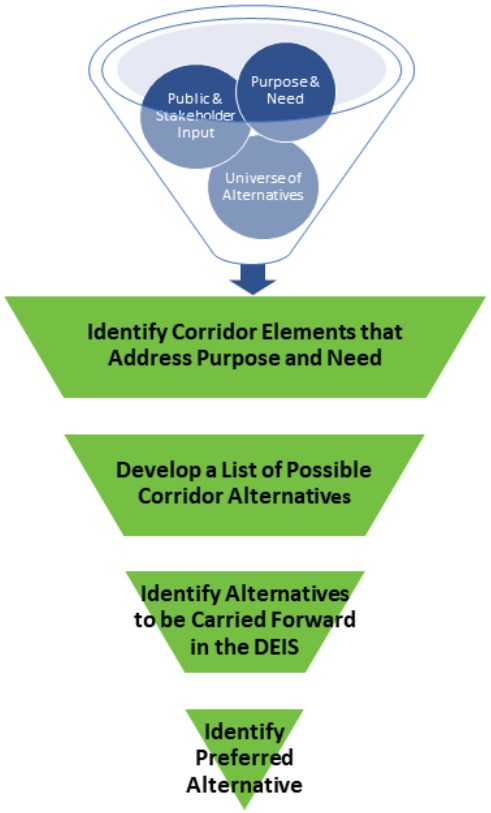
- Step 4: Develop Draft EIS alternatives and assess how well the Draft EIS alternatives address the transportation problems that led to the initiation of the project. Assess the social, economic, and environmental impacts of the Draft EIS alternatives.

Figure 6.1 illustrates the alternatives evaluation process for the Hwy 252/I-94 Project.[22]

[22] Figure 6.1 has been updated since the *Evaluation Criteria Report* was published in June 2021. The version of this figure included with the *Evaluation Criteria Report* identified technical memoranda under the deliverables column with Step 1 and Step 2. The results for Step 1 and Step 2 are included in Chapter 7 of this SD and the *Transportation Evaluation Report* in Appendix L of this SD. The SD/DSDD is included in the deliverable column with Step 3.

Figure 6.1 Hwy 252/I-94 Alternatives Evaluation Process

Step	Goal	Tasks	Threshold	Deliverables
Scoping Phase				
1	Identify corridor elements that address **purpose and need**	Evaluate and compare arterials, superstreets, freeways, transit service, and managed lanes	Corridor elements need to address purpose and need or are recommended for additional consideration based on public & stakeholder input	• Evaluation matrix • Matrix of corridor improvements/elements to be considered in scoping
2	Develop a list of **possible corridor alternatives**	Combine corridor improvements/elements into corridor alternatives, including locations of access along the corridor	Corridor alternatives will be evaluated based on performance and carried forward accordingly with public & stakeholder input	• Evaluation matrix • Stick figures or "cartoon" drawings of corridor alternatives
3	**Identify alternatives** to be carried forward for further study in Draft Environmental Impact Statement (DEIS)	Further refine and evaluate corridor alternatives, including where and how access will be configured, relative to performance and impacts	Corridor alternatives will be evaluated based on performance and impacts (determined by Concept Station and impacts within influence area), and include public & stakeholder input, for recommendation for inclusion in the DEIS	• Evaluation matrix • Cartoon drawings and Concept Station • Scoping Document (SD)/Draft Scoping Decision Document (SDD) • Final Scoping Decision Document (SDD)
Draft EIS Phase				
4	Identify DEIS **preferred alternative**	Two-part process. Part 1: Further refine and evaluate access configuration. Part 2: Evaluate and compare DEIS alternatives, and identify preferred alternative	Assess safety, mobility, environmental impacts, cost, & implementation issues	• Alternative layouts • Technical memo(s) • DEIS



6.1 Criteria Used for Evaluation of Alternatives

Evaluation criteria are the qualitative and quantitative performance measures to be used by MnDOT to assess the how well alternatives address the purpose and need for the project and how well alternatives avoid or minimize social, economic, and environmental impacts. The evaluation criteria establish a comparative framework for identifying a reasonable range of alternatives for detailed study in the Draft EIS.

MnDOT obtained input from the public and stakeholders on the evaluation criteria to be used for evaluating and screening alternatives for detailed analysis in the EIS. An evaluation criteria report was posted to the MnDOT project webpage for public review and virtual public open house meetings were held in June 2021. The evaluation criteria also reflected public input received during the environmental assessment process led by Hennepin County in 2018 and 2019.

- Pedestrian and bicycle considerations were used in assessing the performance of Hwy 252 elements, at-grade intersection concepts, and grade separated interchanges.
- Transit considerations were identified as evaluation criteria in scoping and used in assessing the performance of Hwy 252 access combinations and access configurations.
- Mississippi River Corridor Critical Area, bluff impact zone, and shore impact zone impacts were identified as evaluation criteria and used in assessing the performance of Hwy 252 access alternatives and grade separated interchanges.

Table 2.2 in the *Evaluation Criteria Report* in Appendix I of this SD includes a detailed listing of the evaluation criteria used for evaluating and screening alternatives as part of the scoping process. The following sections summarize Step 1 through Step 3 evaluation criteria.

6.1.1 Step 1 Evaluation Criteria

The transportation needs for the Hwy 252/I-94 Project are described in Chapter 4 of this SD. These transportation needs are fundamental in defining the evaluation criteria for Step 1. The goal of Step 1 is to determine which facility, access, and transit elements address the purpose and need of the project.

The Step 1 evaluation criteria include both quantitative and qualitative performance measures of the project needs: vehicle safety, vehicle mobility, and walkability/bikeability. Facility, access, and transit elements will be compared to the performance of the No Build Alternative. Evaluation criteria will be categorized based on a "yes or no" threshold. Elements that improve performance relative to the No Build Alternative address the needs of the project (i.e., "yes" response). Elements that do not improve performance relative to the No Build Alternative do not address the needs of the project (i.e., "no" response) and may be dismissed from further consideration.

Step 1 also includes an initial assessment of corridor elements for fatal flaws (see Section 7.1.3 of this SD for additional information). A fatal flaw is when a corridor element would result in an un-

mitigable environmental impact (e.g., the complete loss of a high-quality, significant environmental resource that cannot be replaced), is not fiscally attainable, or is not constructable.

6.1.2 Step 2 Evaluation Criteria

The Step 2 evaluation criteria include both quantitative and qualitative performance measures for the project needs and other considerations, including transit considerations, and SEE impact criteria. Step 2 evaluation criteria are categorized into Good/Fair/Poor ratings based on performance relative to the No Build Alternative. Transportation-related evaluation criteria will be graded based on whether the corridor alternative substantially improves the condition (Good rating), moderately improves the condition (Fair rating), or results in minimal to no improvement in the condition compared to the No Build Alternative (Poor rating). For impact-related evaluation criteria, the categories include whether a corridor alternative does not impact/avoids a resource (Good rating), may impact a resource (Fair rating), or does impact a resource (Poor rating). Section 7.1.2 of this SD lists the detailed definitions for the Good/Fair/Poor ratings associated with Step 2 evaluation criteria.

6.1.3 Step 3 Evaluation Criteria

The Step 3 evaluation criteria are like the evaluation criteria used in Step 2 but includes a more detailed level of analysis and design. The Step 3 evaluation criteria include quantitative and qualitative performance measures for vehicle safety, vehicle mobility, walkability/bikeability, and SEE impacts. Transit evaluation criteria include elements that relate to the *Hwy 252/I-94 Transit Feasibility Study*. SEE criteria used to evaluate and screen scoping alternatives focus on topics that relate to substantive environmental regulations (e.g., Section 4(f) for parks and trails, Section 106 for historic properties, Section 404 for wetlands), the project setting (e.g., right of way impacts, environmental justice), and respond to public input (e.g., Mississippi National River and Recreation Area and bluff impact zone).

In general, the alternatives evaluation and screening in scoping identifies no impact and/or adverse impacts to SEE resources. The Draft EIS will identify adverse impacts of project alternatives as well as off-setting benefits, addressing how project alternatives may improve existing conditions. The Draft EIS will also identify measures to mitigate adverse impacts of the project. Mitigation measures will be incorporated into the project and may improve existing conditions.

6.2 Transit Feasibility Study and Transit Scoping Evaluation

The following sections describe the *Highway 252/I-94 Transit Feasibility Study* and consideration of transit elements in Step 1 through Step 3 of the scoping process. The evaluation of alternatives in scoping was based on transit compatibility (e.g., access to park and ride facilities) and physical impacts to existing transit infrastructure. The transit feasibility study and consideration of transit elements in scoping involved participation from Metro Transit. Transit infrastructure included with alternatives in the Draft EIS will be designed in collaboration with Metro Transit. These capital improvements are intended to benefit transit and could include bus-only shoulders, managed lanes,

bus stops, and park and ride improvements. All transit operations are subject to Metro Transit and Metropolitan Council service and performance standards within the Twin Cities Region. The Hwy 252/I-94 Project provides the opportunity for Metro Transit to envision how transit service could be improved in the Hwy 252 and I-94 corridor in the future.

6.2.1 Transit Feasibility Study

The *Highway 252/I-94 Transit Feasibility Study* (TFS) was a collaborative effort led by MnDOT and Metro Transit, in partnership with FHWA, Hennepin County, and the cities of Minneapolis, Brooklyn Center, Brooklyn Park, and Maple Grove. The TFS was conducted concurrently with the Hwy 252/I-94 scoping process and responds to public feedback received during the EA phase that indicated community interest in transit improvements that could be implemented alongside roadway alternatives. The TFS included an initial screening of transit concepts and recommended transit elements for further study in this SD (see Section 7.5 of this SD). The findings of the TFS were presented to the Policy Advisory Committee in August 2021.[23]

Section 2.8.1 of this SD identifies the Blue Line LRT Extension Project. Metropolitan Council and Hennepin County approved a modified recommended alignment for the Blue Line LRT Extension in June 2022. The TFS was completed in October 2021, prior to approval of the Blue Line LRT Extension modified recommended alignment. The TFS used the previous Blue Line LRT Extension alignment for analysis.

Appendix J of this SD includes the *Highway 252/I-94 Transit Feasibility Study Final Report*.

6.2.2 Transit Scoping Evaluation

Following completion of the TFS, the Step 1 through Step 3 evaluation for transit elements were completed. The purpose of the Step 1 through Step 3 evaluation for transit elements was to identify the appropriate transit service model for the Hwy 252/I-94 corridor and project study area. The findings of the Step 1 through Step 3 evaluation for transit elements were then presented to the PAC in January 2022. The *Highway 252/I-94 Transit Technical Report* in Appendix K of this SD documents the results of the Step 1 through Step 3 evaluation for transit elements. The Step 1 through Step 3 evaluation for transit elements is summarized in Section 7.1 through Section 7.4 of this SD.

6.3 Updates Since the Evaluation Criteria Report

The *Evaluation Criteria Report* in Appendix I was released for public review in June 2021. Updates to the evaluation criteria have been identified since the *Evaluation Criteria Report* was published. These updates were implemented to reflect the documentation of evaluation results in Chapter 7 of this SD and to clarify the use of certain criteria in the evaluation process.

[23] See Section 3.2.3 of this SD for a description of the Hwy 252/I-94 Policy Advisory Committee (PAC).

6.3.1 Step 1 Evaluation Updates

Two updates to the Step 1 evaluation criteria were identified since the *Evaluation Criteria Report* was published in June 2021.

Step 1 Evaluation Criteria Update #1

The *Evaluation Criteria Report* identified on-time performance and transit travel time as transit criteria in Step 1. On-time performance and transit travel time are tied to highway configurations and are therefore better suited for consideration in Step 2 and Step 3. Step 1 (corridor elements) criteria for transit include ridership forecasts and a qualitative assessment of transit advantages.

Step 1 Evaluation Criteria Update #2

The *Evaluation Criteria Report* identified roadway segment level of service (LOS) as a vehicle mobility criterion in Step 1. This criterion would apply to Step 1 freeway elements. The Step 1 modeling assumptions for Hwy 252 freeway elements includes interchange access at each existing intersection location with auxiliary lanes between interchanges. This assumption was required with Step 1 because the number and location of Hwy 252 accesses is not considered until the Step 2 evaluation. Segment LOS also is not applicable to expressways or arterial roadway elements because intersection capacity is the controlling factor for these types of facilities. Therefore, segment LOS was not included as an evaluation criterion in Step 1.

6.3.2 Step 2 Evaluation Updates

No updates to the Step 2 evaluation criteria have been identified since the *Evaluation Criteria Report* was published in June 2021.

6.3.3 Step 3 Evaluation Updates

Step 3 Evaluation Process Update

The Step 3 evaluation process described in the *Evaluation Criteria Report* in Appendix I of this SD identified three parts. These three parts are summarized below.

- The first part of the Step 3 evaluation focuses on Highway 252 access types/configurations.
- The second part of the Step 3 evaluation focuses on additional vehicular and pedestrian connections across I-94 and the number of lanes on I-94.
- The third part of the Step 3 evaluation focuses on a corridor-level evaluation of corridor alternatives combining the outcomes of parts one and two listed above.

Several updates to the Step 3 evaluation process have been identified since the *Evaluation Criteria Report* was published in June 2021. These updates were identified to supplement and provide additional detail following the Step 2 analysis and to reflect analyses that are better suited for the

Draft EIS phase of the project. Updates to the three parts of the Step 3 evaluation process are summarized below.

- An additional analysis was added to the Step 3 evaluation for Hwy 252 access alternatives, including an evaluation of Hwy 252 managed lane performance with the various access combinations.
- An evaluation of the number of lanes on I-94 occurred with the corridor alternatives in Step 2. The outcome of Step 2 was identification of I-94 corridor alternatives for further study in the Draft EIS; therefore, an evaluation of the number of lanes on I-94 in Step 3 was not necessary.
- An additional analysis was added to the Step 3 evaluation for Hwy 252 and I-94 design options. This included a preliminary evaluation of Hwy 252 grade separated overpasses, a West River Road connection, and the Hwy 252/I-94 lane configuration south of the Hwy 252/I-94/I-694 system interchange.
- The *Evaluation Criteria Report* in Appendix I of this SD identified a corridor-level evaluation of alternatives with Step 3, combining elements for Hwy 252 and I-94. The corridor level evaluation was completed with Step 3 for Hwy 252 access combinations based on an assumed interchange configuration at each Hwy 252 access location. The corridor-level evaluation will occur with preliminary design of build alternatives in the Draft EIS.

Step 3 Evaluation Criteria Update

Four updates to the Step 3 evaluation criteria were identified since the *Evaluation Criteria Report* was published in June 2021.

Step 3 Evaluation Criteria Update #1

Capital costs were added as a transit criterion for Step 3 to understand the value of transit benefits and costs among transit service elements. Transit service capital costs were based on estimates prepared as part of the TFS and include one-time expenditures for transit system construction. The TFS includes a technical memorandum describing the capital cost estimates methodology and assumptions.

Step 3 Evaluation Criteria Update #2

A transit compatibility criterion was included with the Step 3 evaluation for Hwy 252 access alternatives. This is a qualitative criterion that considers the quality of access to park and ride facilities at 73rd Avenue and 66th Avenue for transit and passenger vehicles. The Hwy 252 access alternatives transit compatibility criterion uses a Good/Fair/Poor ranking based the proximity of the 73rd Avenue and 66th Avenue park and ride facilities to interchange locations with each Hwy 252 access combination.

- Good: Hwy 252 interchanges next to both park and ride facilities at 73rd Avenue and 66th Avenue. Minimal travel on local streets to access both park and ride facilities from Hwy 252.

- Fair: Hwy 252 interchange next to either the 73rd Avenue or the 66th Avenue park and ride facilities. Minimal travel on local streets to access one park and ride facility from Hwy 252. Additional travel on local streets to access the other park and ride facility from Hwy 252 (e.g., travel on West River Road or Dupont Avenue from an interchange at 70th Avenue to access the park and ride at 66th Avenue).
- Poor: Hwy 252 interchanges are not located next to either the 73rd Avenue or the 66th Avenue park and ride facilities. Additional travel on local streets required to access both park and ride facilities from Hwy 252.

Step 3 Evaluation Criteria Update #3

A transit compatibility evaluation criterion was included with the Step 3 evaluation for Hwy 252 access types. This is a qualitative criterion that considers impacts to transit facilities and transit service based on "yes" or "no" responses to the following eight questions.

Transit Facility Impacts

1. Are existing bus stops and park and ride facilities maintained?
2. Quality of bus access to/from Hwy 252 and park and ride facilities?
3. Quality of vehicular access to/from Hwy 252 at the park and ride facility?
4. Is there pedestrian access to/from the bus stop and/or park and ride facility?
5. Is West River Road reconnected between 75th Avenue and 74th Way in Brooklyn Park?

Transit Service Impacts

6. Is the Hwy 252 access type compatible with transit service (2019 routes)?
7. Is the Hwy 252 access type compatible with Metro Transit service plans for the Hwy 252 corridor in 2040?
8. Is the Hwy 252 access type compatible with local and express bus service improvements proposed in the TFS?

The Hwy 252 access type transit compatibility criterion uses a Good/Fair/Poor assessment based on the "yes" and "no" responses to these eight questions.

- Good: Hwy 252 access types where most of the responses to transit facility and service impacts were "yes".
- Fair: Hwy 252 access types where responses to transit facility and service impacts were mixed between "yes" and "no".
- Poor: Hwy 252 access types where most of the responses to transit facility and service impacts were "no".

Step 3 Evaluation Criteria Update #4

The *Evaluation Criteria Report* identified return-on-investment (i.e., benefit-cost ratio) as an additional consideration criterion with the Step 3 evaluation. The cost estimates included in Chapter 8 of this SD are planning level estimates based on concept designs. The return-on-investment criterion is better suited for project cost estimates with preliminary design layouts for the build alternatives in the Draft EIS. Therefore, return on investment (i.e., benefit-cost ratio) will be evaluated with the No Build Alternative and build alternatives as part of the Draft EIS.

Chapter 7 Alternatives

This chapter of the SD describes the alternatives identified for study during project scoping and recommendations based on the alternatives analysis. Alternative means any option that is different from the existing conditions on Hwy 252 and I-94. Identification and development of scoping alternatives involved several factors, including:

- Consideration of the project's transportation purpose and need.
- Reviewing information from previous studies for Hwy 252 and I-94 (see Section 2.4 of this SD).
- Use of applicable information from the environmental assessment process led by Hennepin County in 2018 and 2019.
- Obtaining stakeholder and public input.

At the scoping level of alternative development, detailed design decisions are not made. After completion of the Scoping process, more specific design recommendations will be made for the alternatives carried forward to the Draft EIS for analysis.

Corridor elements and alternatives for the Hwy 252/I-94 Project have been evaluated based on the process and criteria summarized in Chapter 6 of this SD. The following sections of this SD summarize the results of Step 1 through Step 3 of the corridor elements and alternatives evaluation process. Step 1 includes the analysis of corridor elements. Step 2 and Step 3 include the analysis of corridor alternatives. The *Transportation Technical Report* in Appendix L of this SD includes the detailed traffic analysis for corridor elements and corridor alternatives, including traffic modeling methodologies and travel demand forecasts.

7.1 Development of Range of Corridor Alternatives and Elements

This section of the SD describes the corridor-wide alternatives and corridor elements identified for study in Step 1 of the evaluation process in project scoping. Corridor-wide alternatives include the No Build Alternative, Transportation System Management and Operations Alternative, and Transit Alternatives. Corridor elements represent a range of potential highway and pedestrian and bicycle improvements that may address the project's purpose and need and can be combined into corridor alternatives for study in Step 2. Corridor elements include facility type improvements on Hwy 252, access control for at-grade facility designs on Hwy 252, pedestrian and bicycle improvements across Hwy 252 and I-94, number of traffic lanes on I-94, and traffic operations on Hwy 252 and I-94 (e.g., general purpose lanes vs. managed lanes).

7.1.1 Corridor-Wide Alternatives

No Build Alternative

The full range of alternatives for study in project scoping must include a baseline for assessing the performance of build alternatives (i.e., corridor elements in Step 1 and corridor alternatives in Step 2 and Step 3). The No Build Alternative would maintain the current roadway geometry, lane configuration, and other existing conditions within the logical termini with no additional improvements to address needs in the Hwy 252/I-94 corridor beyond ongoing preventative maintenance work. Those maintenance activities will be developed and delivered under any applicable environmental laws in a standalone environmental process. Development of a No Build Alternative is required as part of the NEPA and MEPA processes, whether it appears reasonable, to act as a baseline scenario in the alternatives screening and evaluation process. The No Build Alternative includes maintaining the existing number of lanes, intersections, overpass bridges, transit advantages, and pedestrian and bicycle facilities on Hwy 252 and I-94:[24]

- The number of through traffic lanes on the existing Hwy 252 expressway varies from four lanes to six lanes.
- There are six at-grade signalized intersections on Hwy 252.
- A multi-use trail bridge crosses over Hwy 252 north of 85th Avenue in Brooklyn Park.
- The I-94 corridor includes an 8-lane freeway from I-694 to Dowling Avenue and 10-lane freeway from Dowling Avenue to North 4th Street.
- There are 10 overpass bridges over I-94 between the Hwy 252/I-94/I-694 system interchange and Plymouth Avenue, including five interchanges.
- There are two trail underpasses under I-94 between 49th Avenue and 42nd Avenue in Minneapolis connecting to North Mississippi Park on the east side of I-94.
- Transit advantages include bus-only shoulders on Hwy 252 in both directions from Hwy 610 to I-94/I-694; bus-only shoulders on southbound I-94 from Hwy 100 to downtown Minneapolis; and bus-only shoulders on northbound I-94 from downtown Minneapolis to West Broadway Avenue and Dowling Avenue to 57th Avenue.

Transportation System Management and Operations Alternative

MnDOT defines Transportation System Management and Operations (TSMO) as a broad set of strategies that optimize the safe, efficient, and reliable use of transportation infrastructure. TSMO strategies can maintain performance of the transportation system before a major capital investment is needed. Examples of TSMO strategies include traffic incident management, traffic signal

[24] The *Purpose and Need Report* in Appendix H of this SD includes a description of the existing characteristics of Hwy 252 and I-94 (e.g., number of existing lanes, transit advantages, etc.).

coordination, transit signal priority, freight management, work zone management, special event management, road weather management, managed lanes, and ridesharing programs.[25]

The Hwy 252/I-94 project corridor is currently served by several TSMO strategies. MnDOT completed a traffic signal coordination project on Hwy 252 in 2014. Interchange ramps on I-94 include ramp metering. Bus-only shoulders operate on Hwy 252 and I-94. MnDOT operates the Freeway Incident Response Safety Team (FIRST) safety service patrols on Metro area freeways.

The TSMO Alternative includes maintaining the existing Hwy 252 and I-94 configurations, maintaining existing TSMO strategies (including existing bus-only shoulders), installing transit signal priority at Hwy 252 intersections, and installing dynamic message signing (DMS) along Hwy 252 and I-94 throughout the project study area.

Transit-Only Alternative

Bus Rapid Transit

The Transit-Only Alternative includes station-to-station bus rapid transit (BRT) along Hwy 252 and I-94, providing frequent, all-day service between Brooklyn Park and downtown Minneapolis. The Transit-Only Alternative includes maintaining the existing Hwy 252 expressway and I-94 configurations. No new lanes or other highway-related improvements would be constructed on Hwy 252 and I-94. In-line BRT stations would be constructed along Hwy 252 and I-94, and buses would operate on existing bus-only shoulders. Transit signal priority would be included at the six at-grade signalized intersections on Hwy 252. Existing Hwy 252 signalized intersections would be maintained, including at-grade pedestrian and bicycle crossings.

Transit service elements also were identified for study in Step 1. Transit service elements will be combined with highway elements to identify any transportation system synergies that may be gained because of the various combinations. See the "Description of Transit Service Elements" section below for additional information.

Light Rail Transit

Planned transitways in the Twin Cities include the METRO Blue Line LRT Extension Project in North Minneapolis, Robbinsdale, Crystal, and Brooklyn Park. The Blue Line LRT Extension is parallel to and west of Hwy 252 and I-94. The transit service area for the Blue Line LRT extension extends to the east to the Mississippi River and includes the Hwy 252/I-94 project study area.

Metropolitan Council and Hennepin County adopted the modified recommended alignment for the Blue Line LRT Extension in June 2022. Metropolitan Council is preparing a supplemental EIS for the Blue Line LRT Extension. The supplemental EIS is anticipated to be completed in 2023.

[25] Minnesota Department of Transportation. June 28, 2019. *MnDOT Transportation Systems Management and Operations (TSMO) Strategic Plan* accessed 17 October 2021 and available at https://www.dot.state.mn.us/trafficeng/tsmo/Docs/tsmostrategicplan.pdf.

Environmental, design, and other related activities are being prepared in advance of a full funding grant application to FTA. The Blue Line LRT Extension construction is estimated to start in 2025. The Blue Line LRT Extension is identified in the 2022-2025 STIP.

A LRT transitway in the Hwy 252/I-94 corridor is redundant with the Blue Line LRT extension; therefore, a LRT alternative will not be studied with the Hwy 252/I-94 Project.

7.1.2 Description of Hwy 252 Elements

Hwy 252 Facility Types

Seven different potential facility types were identified for the Hwy 252 corridor based on engineering expertise and consideration of the project's purpose and need. All Hwy 252 facility types would be located along the existing Hwy 252 alignment between Hwy 610 and I-94/I-694. These facility types represent a range for the number of lanes on Hwy 252, access type (e.g., at-grade or grade-separated), and vehicle speeds.

Four-Lane Expressway

The four-lane expressway facility type maintains the existing six at-grade intersections on Hwy 252. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed, resulting in four-lane design (two northbound lanes and two southbound lanes) from Hwy 610 to I-94/I-694. The existing Hwy 252 posted speed of 55 MPH would be maintained. The existing bus-only shoulders would be maintained. Bus-only shoulders would operate during the morning and afternoon peak periods. The maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Figure 7.1 illustrates the four-lane expressway facility type.

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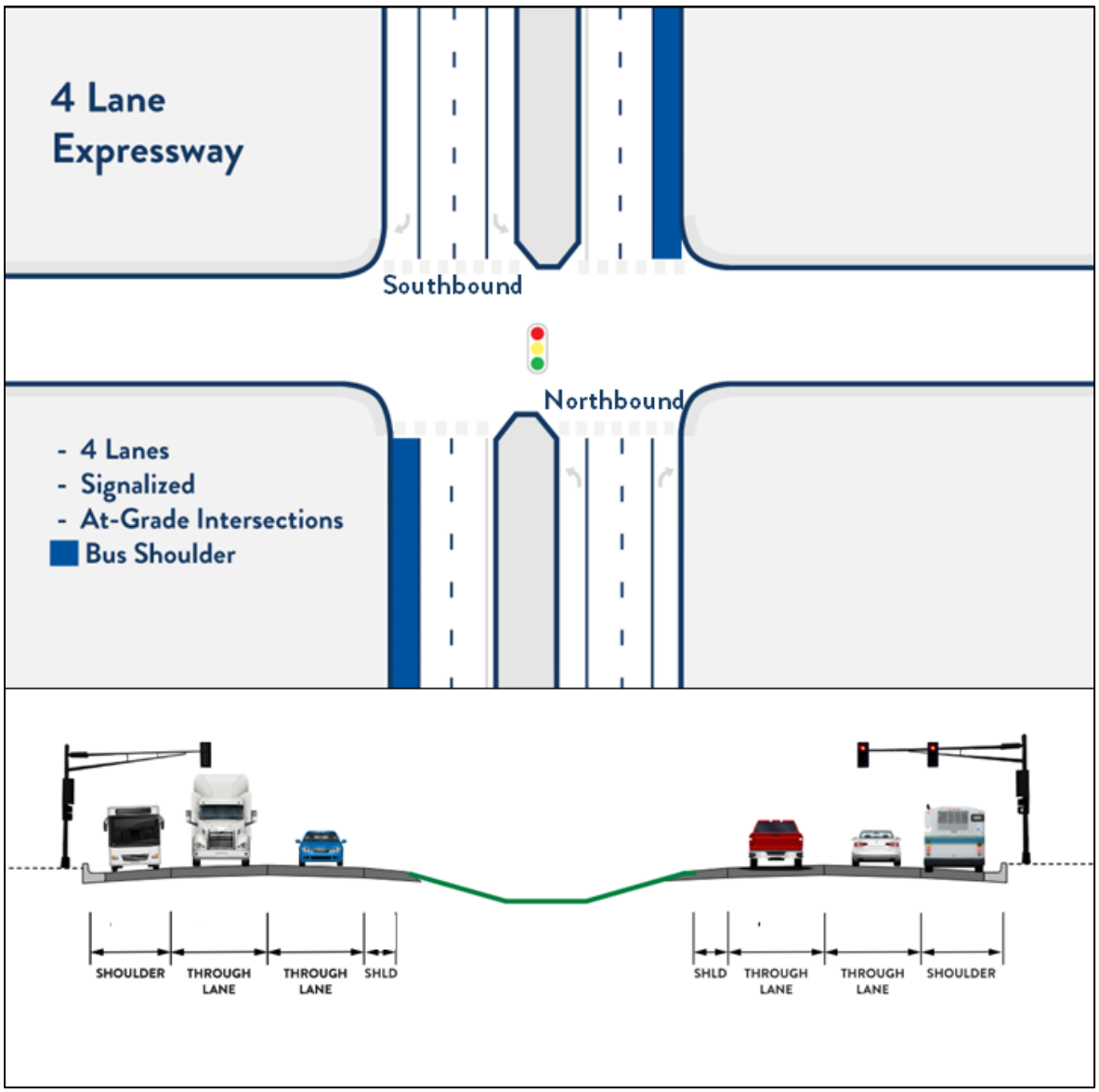
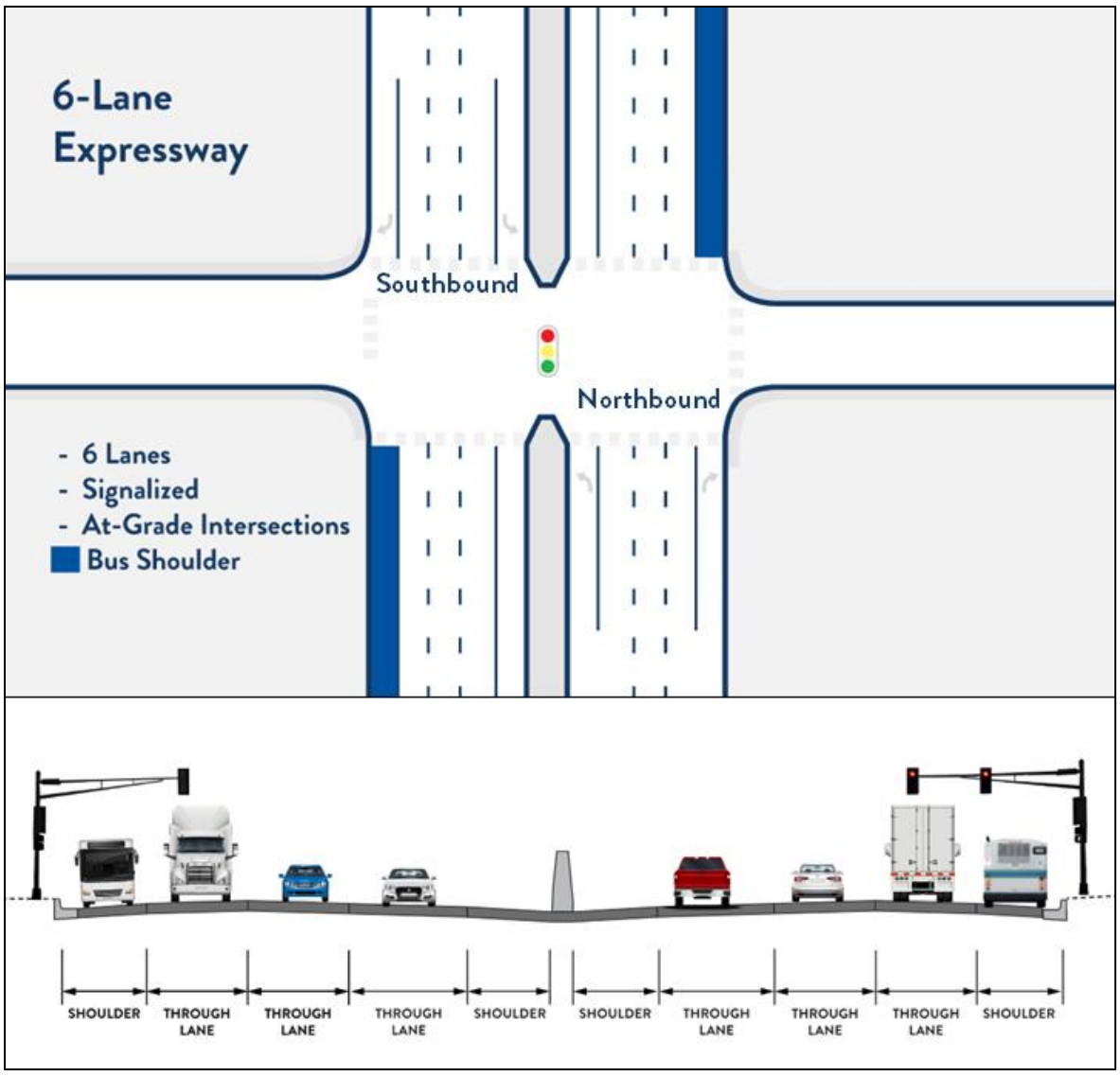
Figure 7.1 Hwy 252 Four-Lane Expressway



Six-Lane Expressway

The six-lane expressway facility type maintains the existing six at-grade intersections on Hwy 252. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694 (i.e., three lanes on northbound Hwy 252 and three lanes on southbound Hwy 252). The existing Hwy 252 posted speed of 55 MPH would be maintained. Existing bus-only shoulders also would be maintained. Bus-only shoulders would operate during the morning and afternoon peak periods. The maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Figure 7.2 illustrates the six-lane expressway facility type.

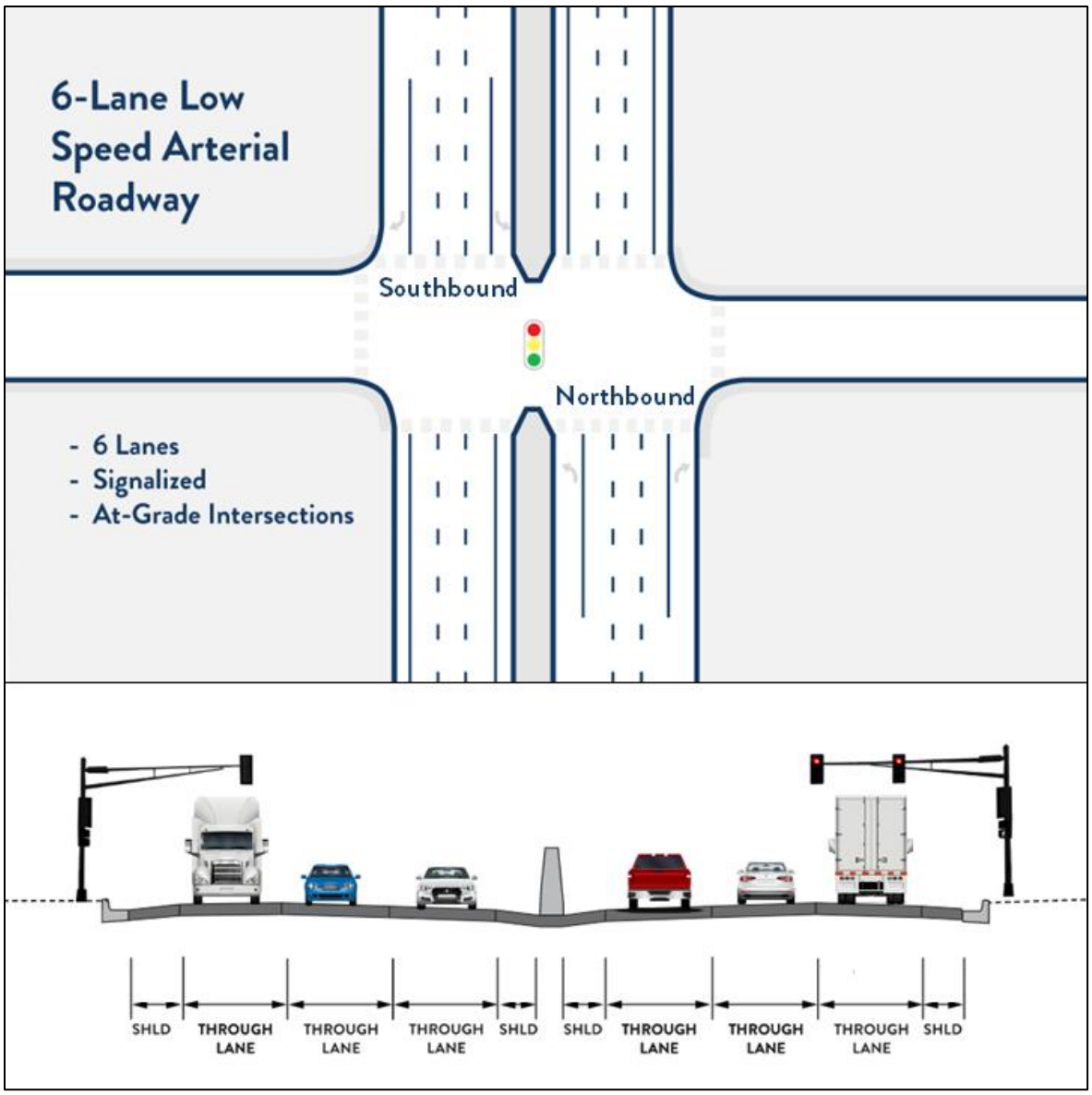
Figure 7.2 Hwy 252 Six-Lane Expressway



Six-Lane Low Speed Arterial Roadway

The six-lane, low speed arterial roadway facility type maintains the existing six at-grade intersections on Hwy 252. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694 (i.e., three lanes on northbound Hwy 252 and three lanes on southbound Hwy 252). Connections would be maintained with Hwy 610 at the north end of the corridor and I-94/I-694 at the south end of the corridor. The posted speed on Hwy 252 would be lowered from 55 MPH to the 35 MPH to 45 MPH range. The six-lane low speed arterial roadway does not include transit advantages (e.g., bus-only shoulders) because the lane and shoulder widths are reduced to encourage lower speeds. Figure 7.3 illustrates the six-lane low-speed arterial roadway facility type.

Figure 7.3 Hwy 252 Six-Lane Low-Speed Arterial Roadway

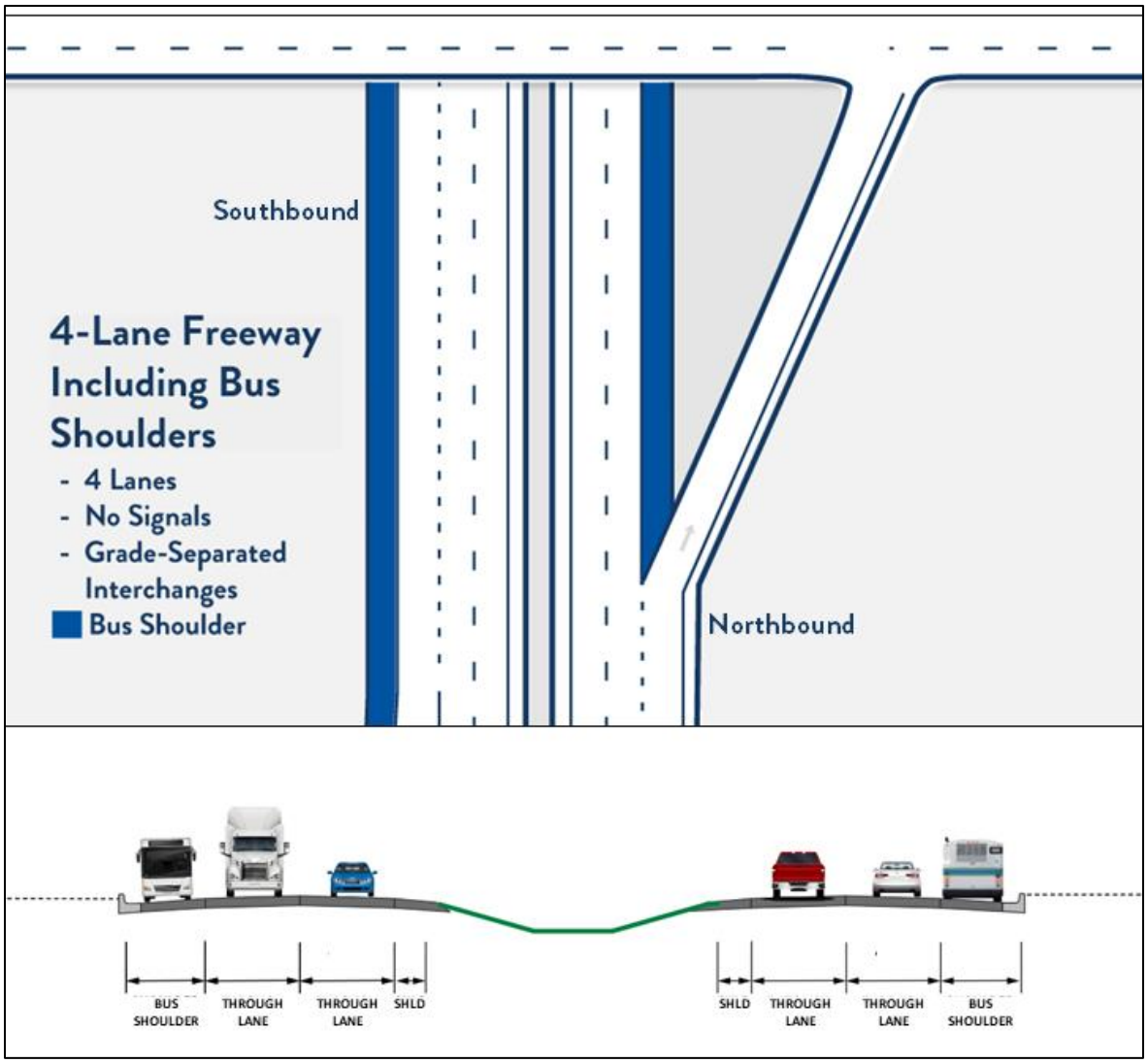


Four-Lane Freeway Including Bus Shoulders

The four-lane freeway type includes reconstructing Hwy 252 as a grade-separated freeway facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchange access at select locations (i.e., interchange ramps to/from Hwy 252 and intersecting local roadways). The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed, resulting in a four-lane freeway design from Hwy 610 to I-94/I-694 (two northbound lanes and two southbound lanes). The outside shoulders in both directions on Hwy 252 would operate as bus-only shoulders during the morning and afternoon peak periods. Posted speeds on Hwy 252 would be 60 MPH like those on other

freeway facilities in the Twin Cities Metropolitan Area (e.g., Hwy 100). The maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Figure 7.4 illustrates the four-lane freeway facility type with bus shoulders.

Figure 7.4 Hwy 252 Four-Lane Freeway Including Bus Shoulders



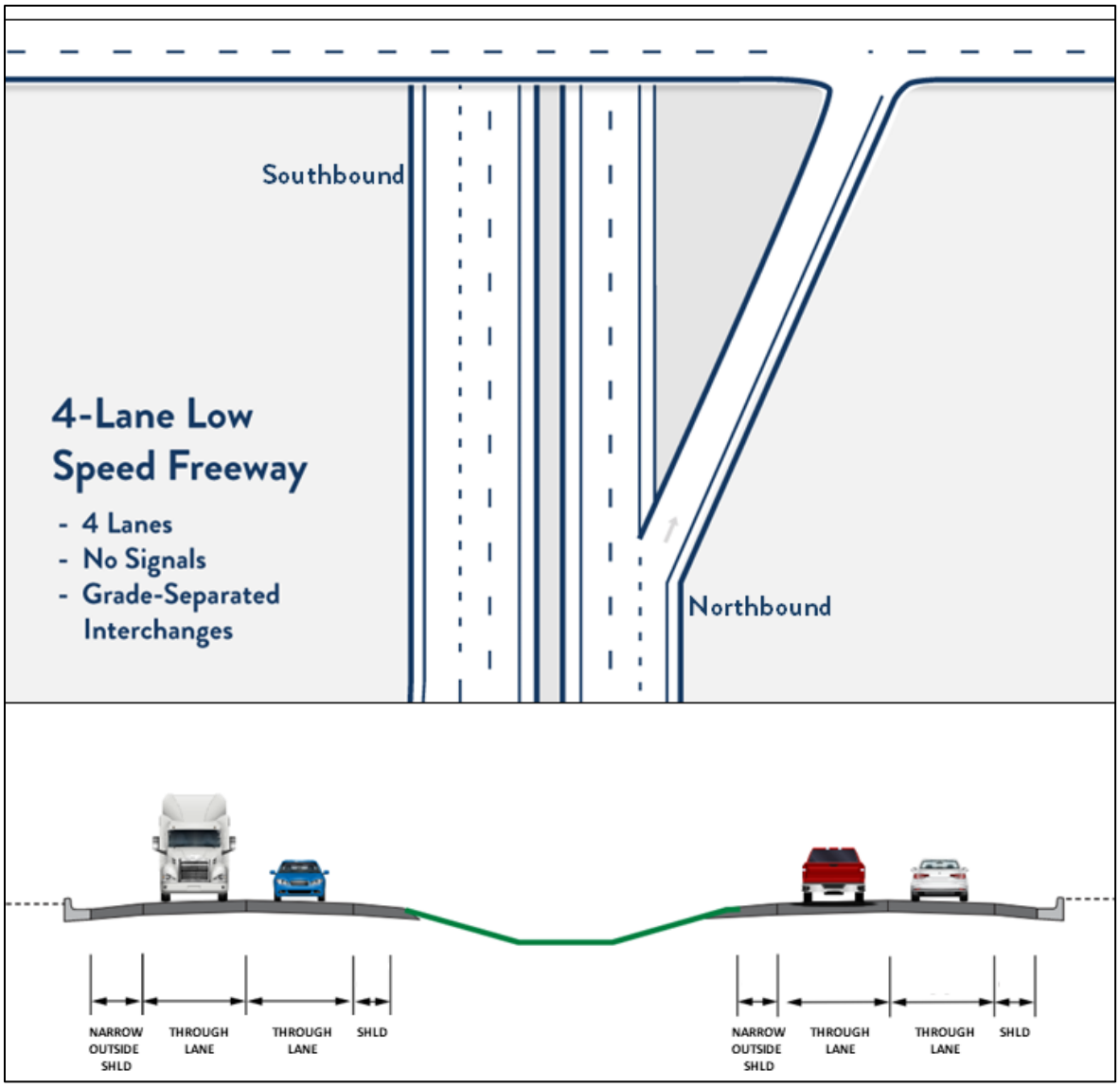
Four-Lane Low Speed Freeway

The four-lane low speed freeway type includes reconstructing Hwy 252 as a grade-separated freeway facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchange access at select locations (i.e., interchange ramps to/from Hwy 252 and intersecting local roadways). The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed, resulting in a

four-lane freeway design from Hwy 610 to I-94/I-694 (two northbound lanes and two southbound lanes).

Posted speeds on Hwy 252 would be reduced to 45 MPH, similar to the Interstate 35E (I-35E) parkway in St. Paul, Minnesota. Drivers operate at a speed at which they feel comfortable based on road conditions and design. The presence of a speed limit sign has limited impact on operating speeds on a road. Therefore, to encourage lower speeds, the four-lane low speed freeway design would include reduced lane widths and narrow shoulders. The four-lane low speed freeway does not include transit advantages (e.g., bus-only shoulders). Figure 7.5 illustrates the four-lane low-speed freeway facility type.

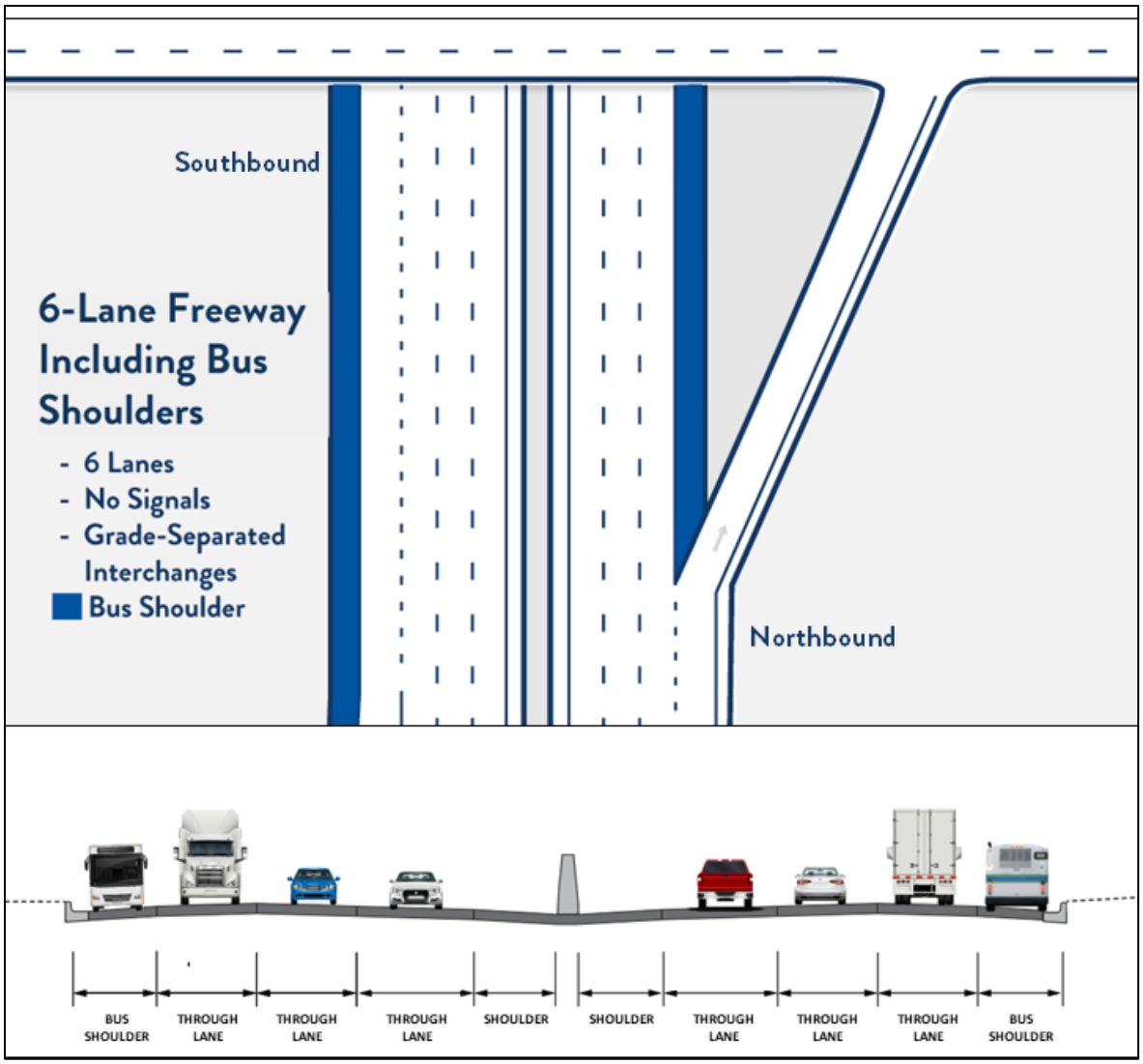
Figure 7.5 Hwy 252 Four-Lane Low Speed Freeway



Six-Lane Freeway Including Bus Shoulders

The six-lane freeway type includes reconstructing Hwy 252 as a grade-separated freeway facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchange access at select locations (i.e., interchange ramps to/from Hwy 252 and intersecting local roadways). One new lane would be added in each direction on Hwy 252, resulting in six lanes on Hwy 252 from Hwy 610 to I-94/I-694 (i.e., three northbound Hwy 252 lanes and three southbound Hwy 252 lanes). The outside shoulders in both directions on Hwy 252 would operate as bus-only shoulders during the morning and afternoon peak periods. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. The maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Figure 7.6 illustrates the six-lane freeway facility type.

Figure 7.6 Hwy 252 Six-Lane Freeway Including Bus Shoulders



Limited Access Super Two Expressway

The limited access super two expressway facility maintains the existing six at-grade intersections on Hwy 252. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed, resulting in four-lane design (two northbound lanes and two southbound lanes) from Hwy 610 to I-94/I-694. The posted speed on Hwy 252 would be lowered to the 35 MPH to 45 MPH range. A two-lane, grade-separated bypass would be constructed parallel to existing Hwy 252. This bypass facility would only be accessible at Hwy 610 and at I-94/I-694 and serve through trips along the Hwy 252 corridor, including express buses. The posted speed on the bypass facility would be 60 MPH. Local access to land uses adjacent to the Hwy 252 corridor would be maintained by the existing Hwy 252 roadway. Figure 7.7 illustrates the Hwy 252 limited access super two expressway facility type.

Access Type for Hwy 252 Expressway Facilities

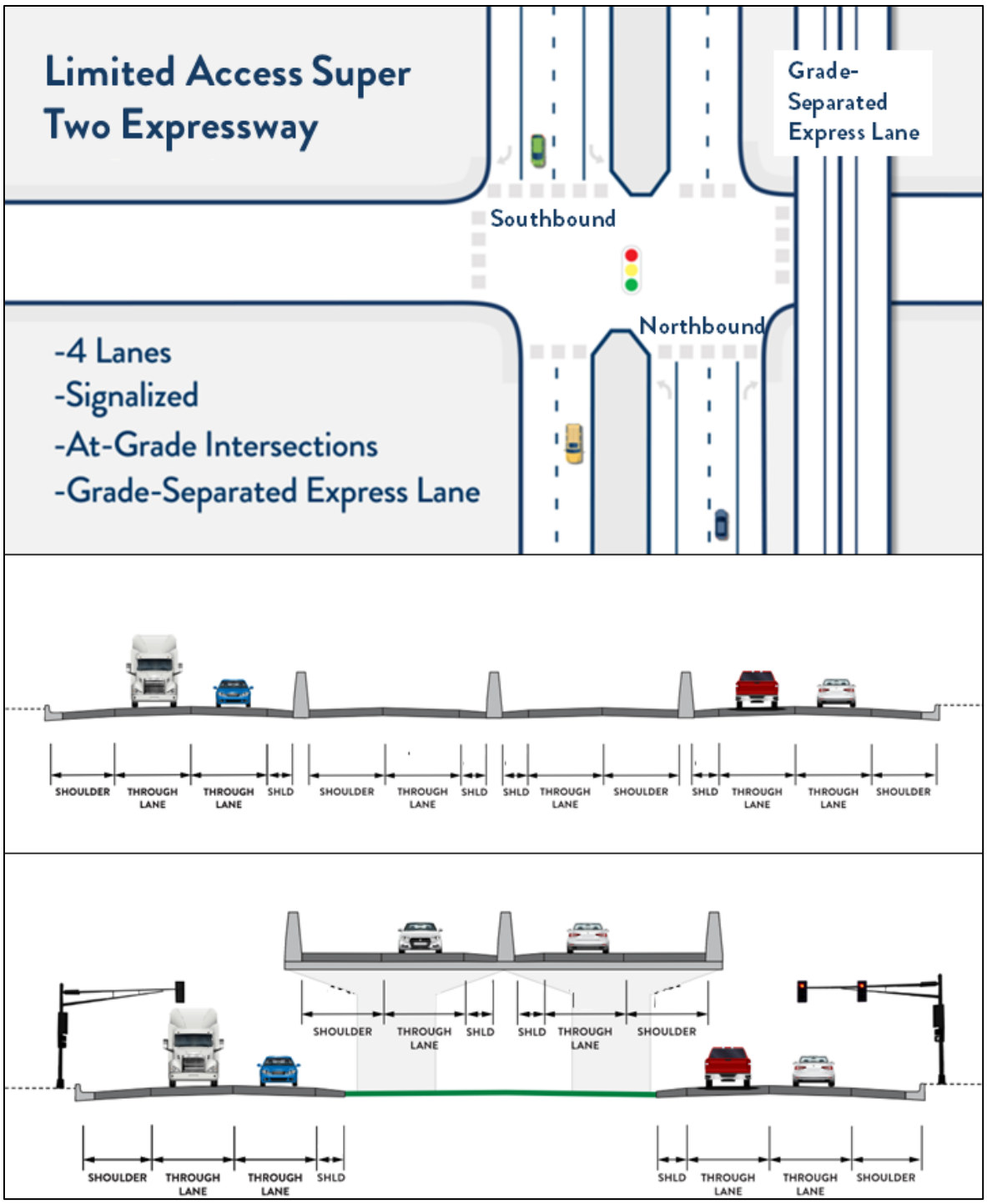
Eight potential intersection access types were studied for the Hwy 252 at-grade expressway facility types described above (e.g., four-lane expressway, six-lane expressway, four-lane low speed arterial roadway, and six-lane low speed arterial roadway). These represent a range of intersection capacities and differ in their ability to accommodate movements between Hwy 252 and intersecting local roadways. The eight intersection access types are summarized below. Figure 7.8 includes representative graphics illustrating the access types for Hwy 252 at-grade expressway facilities.

- Traffic Signals: includes traffic signals and dedicated right- and left-turn lanes on Hwy 252 and intersecting local roadways.
- Roundabouts: replaces existing Hwy 252 traffic signals with multi-lane roundabouts. Maintains full access between Hwy 252 and intersecting local roadways. MnDOT's webpage includes detailed features of a roundabout and a link to videos illustrating how to navigate a multi-lane roundabout.[26]
- Restricted Crossing U-Turns: also referred to as reduced conflict intersections (RCI). Includes modification of the center median on Hwy 252 to allow for left turns only from Hwy 252 to intersecting local roads. Motorists approaching Hwy 252 from intersecting local roads are not allowed to make left turns or cross directly through the intersection. Motorists approaching Hwy 252 from intersecting local roads make a right-turn onto Hwy 252 then a U-turn at a designated nearby median opening. MnDOT's webpage includes detailed features of a reduced conflict intersection and videos illustrating reduced conflict intersections operations.[27]

[26] Minnesota Department of Transportation. Roundabouts in Minnesota accessed 21 February 2022 and available at https://www.dot.state.mn.us/roundabouts/index.html.

[27] Minnesota Department of Transportation. Reduced Conflict Intersections accessed 21 February 2022 and available at https://www.dot.state.mn.us/roadwork/rci/.

Figure 7.7 Hwy 252 Limited Access Super Two Expressway



- Median U-Turns: includes closure of the center median on Hwy 252. Left turn movements between Hwy 252 and intersecting local roads are not allowed. Motorists on Hwy 252 make a U-turn at a designated nearby median opening, reversing direction and making right turn onto local roadways. Motorists approaching Hwy 252 from intersecting local roads make a right-turn onto Hwy 252 then a U-turn at a designated nearby median opening. Figure 7.8 illustrates a typical median U-turn intersection design.

- Displaced Left Turns: moves the conflict between left turning vehicles on Hwy 252 and oncoming through traffic. Left turning motorists on Hwy 252 cross over to the other side of opposing through traffic in advance of the main intersection. The greatest benefit of the displaced left-turn design is for through traffic on Hwy 252.

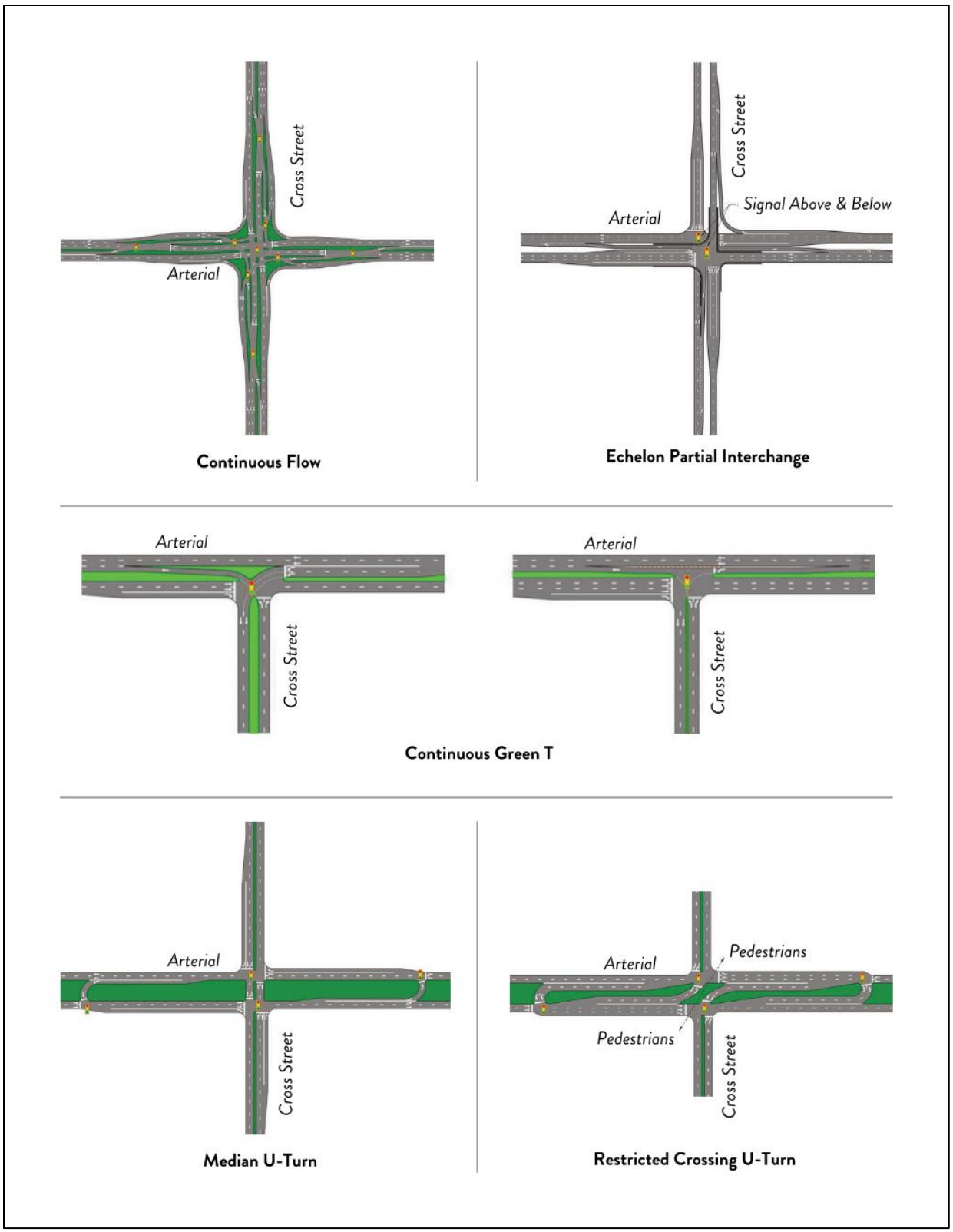
- Right-In/Right-Out: includes closure of the center median on Hwy 252. Left-turn movements from Hwy 252 and intersecting local roadways are prohibited. Accommodates right turns from northbound and southbound Hwy 252 to local roadways, and right turns out from local roadways to Hwy 252.

- Continuous Green T: a continuous green T intersection design can only be used at T-intersections. For the Hwy 252 corridor, this would be applicable only at the 70th Avenue intersection in Brooklyn Center. The continuous green T intersection would provide for free-flow operations on northbound Hwy 252, while accommodating left turns to and from 70th Avenue.

- Echelon Partial Interchange: the echelon partial interchange separates each intersection into two separate intersections that can operate independently of one another. One direction on Hwy 252 and the adjacent local roadway would be elevated on structure, while the opposite direction on Hwy 252 and adjacent local roadway would be at-grade. There are no echelon partial interchanges on any existing highways in the State of Minnesota.

  The Virginia Department of Transportation (VDOT) has developed a webpage describing the benefits of an echelon partial interchange and a video illustrating echelon partial interchange operations. See the VDOT webpage at https://www.virginiadot.org/info/innovative_intersections_and_interchanges/echelon.asp.

Figure 7.8 Access Types for Hwy 252 Expressway Facilities



Managed Lanes on Hwy 252

Managed lanes are defined as a highway facility or set of travel lanes where operations and use of the lanes are actively managed in response to changing conditions. Managed lane strategies include access control, vehicle eligibility, and pricing. The three managed lane strategies considered for the Hwy 252/I-94 Project are listed below.

- E-ZPass lanes: use of E-ZPass lanes is restricted to high occupancy vehicles (HOVs), transit vehicles, motorcycles and toll paying single-occupancy vehicles during weekday morning and afternoon peak periods. E-ZPass lanes have no restriction on use during off-peak hours and operate as general purpose lanes. Examples of E-ZPass lanes in the Twin Cities include I-394 west of Minneapolis, I-35W south of Minneapolis, and I-35E north of St. Paul.

- HOV lanes: use of HOV lanes is restricted to high occupancy vehicles (i.e., more than one occupant in a vehicle), transit vehicles, and motorcycles during the weekday morning and afternoon peak periods. HOV lanes have no restriction on use during off-peak hours and operate as general purpose lanes.

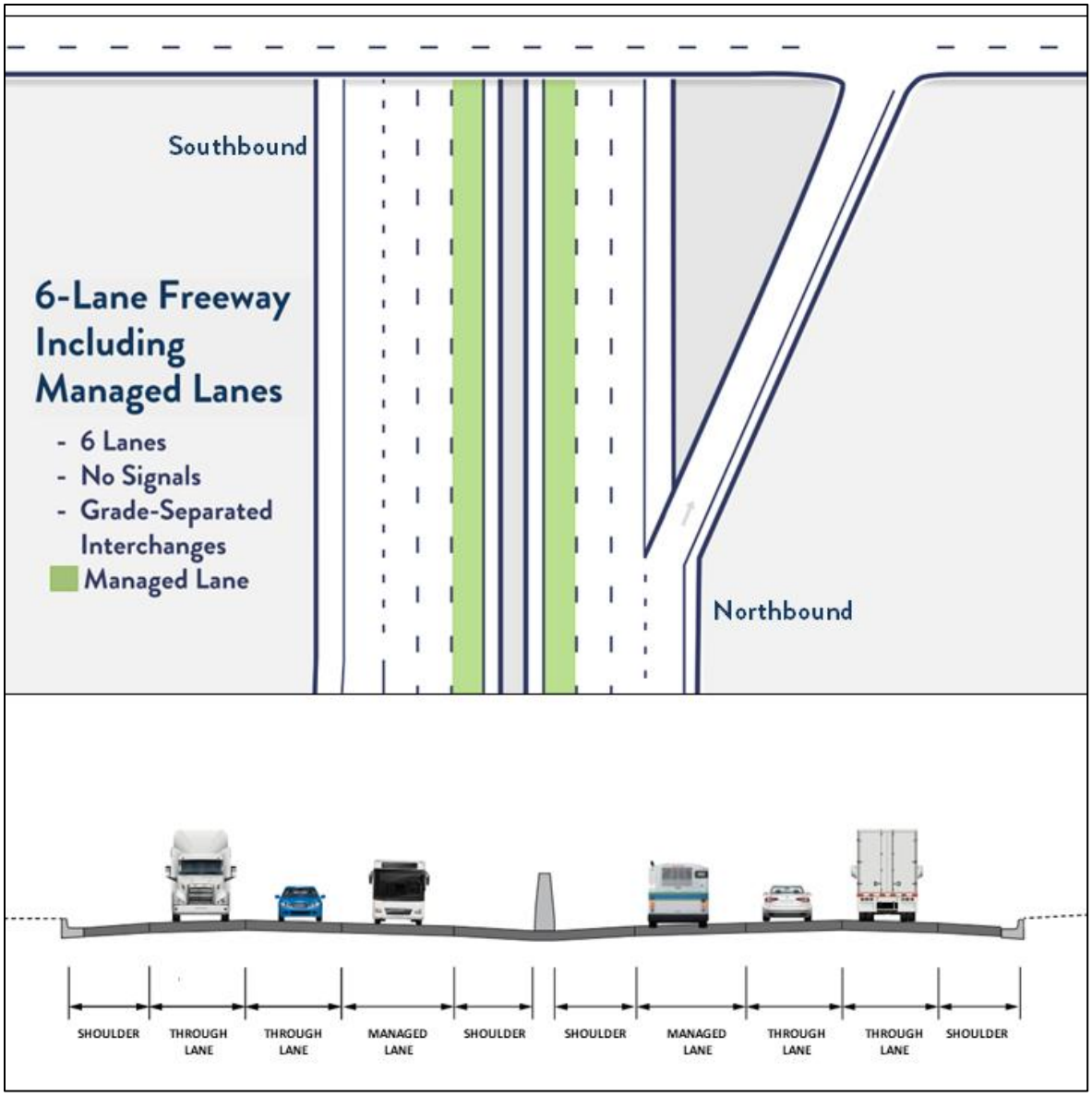
- Transit-only lanes: transit-only lanes are restricted to transit vehicles only. Other vehicles are prohibited from traveling in the transit-only lanes.

Two potential scenarios were evaluated for Hwy 252 freeway facility types and managed lanes.

- Freeway facility type without managed lanes: includes a freeway facility on Hwy 252 between Hwy 610 and I-94/I-694. All lanes on Hwy 252 would operate as general purpose lanes. There would be no restrictions for automobiles, motorcycles, transit, or freight vehicles in any of the Hwy 252 travel lanes. See Figure 7.6 for an illustration of a six-lane freeway facility on Hwy 252 without managed lanes.

- Freeway facility type including managed lanes: includes a six-lane freeway facility on Hwy 252 between Hwy 610 and I-94/I-694. One lane in each direction on Hwy 252 would operate as a managed lane. The southbound Hwy 252 managed lane would operate during the weekday morning peak period and the northbound Hwy 252 managed lane would operate during the weekday afternoon peak period. The managed lanes would have no restriction on use during off-peak hours and operate as general purpose lanes. Figure 7.9 illustrates a six-lane freeway facility on Hwy 252 including managed lanes.

Figure 7.9 Hwy 252 Six-Lane Freeway Including Managed Lanes



Pedestrian and Bicycle Access Across Hwy 252

Three potential facility type improvements were studied for pedestrian and bicycle access across Hwy 252.

- Improve existing at-grade crossings: includes improvements for non-motorized users at existing Hwy 252 at-grade intersections.

- Overpass bridges with sidewalks and trails: includes new overpass bridges over Hwy 252. These bridges would accommodate both vehicular traffic and non-motorized users. Trails and/or sidewalks would be included on the bridges for pedestrians and bicyclists.
- Dedicated multi-use trail bridge for pedestrians and bicyclists: includes new multi-use trail bridges over Hwy 252 for pedestrians and bicyclists. Figure 7.10 illustrates a typical multi-use trail bridge design over a highway.

Figure 7.10 Dedicated Multi-Use Trail Bridge for Pedestrians and Bicyclists

7.1.3 Description of I-94 Elements

Number of Freeway Lanes and Managed Lanes on I-94

The I-94 corridor in the project study area consists of two existing main cross sections: an eight-lane freeway from I-694 to Dowling Avenue (four northbound I-94 lanes and four southbound I-94 lanes), and a ten-lane freeway from Dowling Avenue to Broadway Avenue (five northbound I-94 lanes and five southbound I-94 lanes). Six different corridor elements were considered for the I-94 corridor: lane conversions, lane additions, managed lanes, and with and without a direct connection from I-94 into downtown Minneapolis. Managed lanes on I-94 would include the three strategies as described above under the "Managed Lanes on Hwy 252" section.

No Change on I-94

The no change on I-94 element includes no lane conversion or lane addition on I-94 between I-694 and Dowling Avenue, and no lane conversion on I-94 south of Dowling Avenue. This element maintains the existing number of lanes on I-94. The no change on I-94 element is different from the No Build Alternative because it would not preclude other spot mobility improvements on I-94 or pedestrian and bicycle elements across I-94.

Convert One Lane on Southbound I-94 to Managed Lane With or Without Direct Connection

This element includes converting the existing inside travel lane on southbound I-94 from I-694 to North 4th Street to a managed lane. Maintains the existing number of lanes on northbound I-94 from North 4th Street to I-694. Includes two options for access to downtown Minneapolis – with or without a direct connection from the southbound I-94 managed lane in the center median along I-94 to the North 4th Street exit ramp to downtown Minneapolis.

Convert One Lane on Northbound and Southbound I-94 to Managed Lanes With or Without Direct Connection

This element includes converting the existing inside travel lane on northbound and southbound I-94 from I-694 to North 4th Street to managed lanes. Includes two options for access to downtown Minneapolis – with or without a direct connection from the southbound I-94 managed lane in the center median along I-94 to the North 4th Street exit ramp to downtown Minneapolis.

Add one lane on southbound I-94

The add one lane on southbound I-94 element includes adding one lane on southbound I-94 between I-694 and Dowling Avenue. The additional southbound lane would be operated as a general purpose lane (i.e., open to all traffic at all times of the day). Maintains the existing number of lanes on southbound I-94 south of Dowling Avenue and northbound I-94 from North 4th Street to I-694.

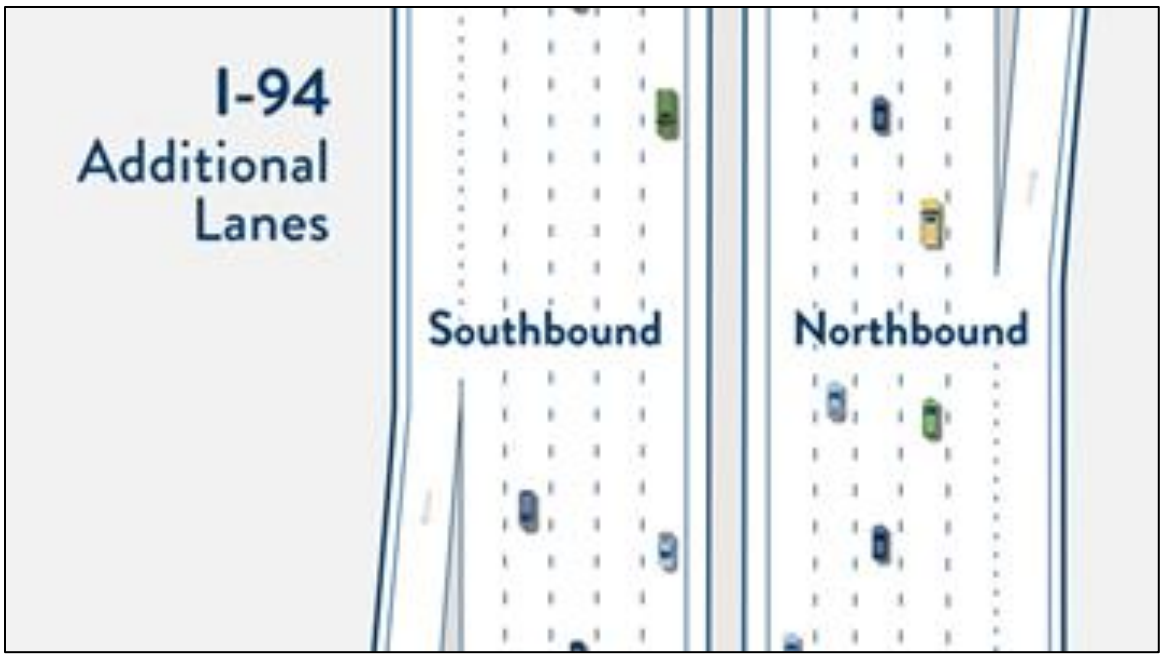
Add One Lane on Southbound I-94 as Managed Lane, With or Without Direct Connection

This element includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane. Maintains the existing number of lanes on southbound I-94 south of Dowling Avenue and converts the inside-most travel lane to a managed lane. Maintains the existing number of lanes on northbound I-94 from North 4th Street to I-694. Includes two options for access to downtown Minneapolis – with or without a direct connection from the southbound I-94 managed lane in the center median along I-94 to the North 4th Street exit ramp to downtown Minneapolis.

Add One Lane on Northbound and Southbound I-94

The add one lane on northbound and southbound I-94 includes adding one lane on northbound I-94 and one lane on southbound I-94 between I-694 and Dowling Avenue. The additional lanes would be operated as general purpose lanes. Maintains the existing number of lanes on I-94 south of Dowling Avenue, resulting in continuous 10-lane freeway facility from North 4th Street to I-694. Figure 7.11 illustrates the number of lanes on I-94 in the project study area with this corridor element.

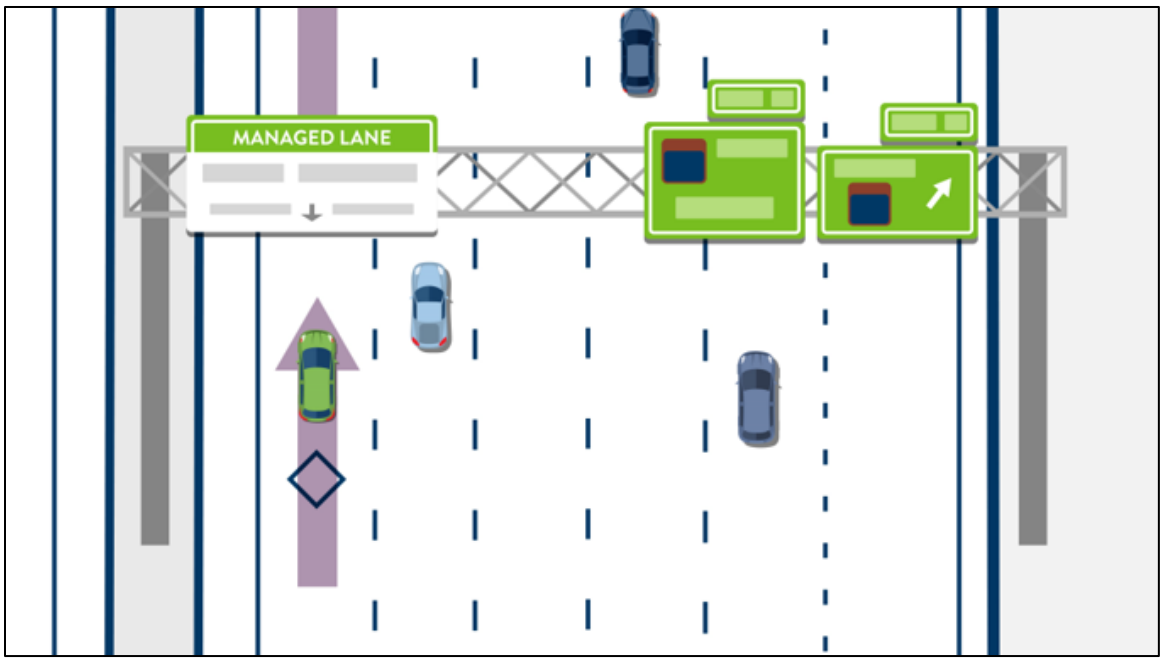
Figure 7.11 Lane Addition on Southbound and Northbound I-94 North of Dowling Avenue



Add One Lane on Northbound and Southbound I-94 as Managed Lanes, With or Without Direct Connection

This element includes adding a lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes. Maintains the existing ten-lane freeway on I-94 south of Dowling Avenue. Includes converting the inside-most travel lane on northbound and southbound I-94 from Dowling Avenue to North 4th Street to managed lanes. Includes two options for access to downtown Minneapolis – with or without a direct connection from the southbound I-94 managed lane in the center median along I-94 to the North 4th Street exit ramp to downtown Minneapolis. Figure 7.12 illustrates the lane configuration on northbound I-94 with an additional lane north of Dowling Avenue and the inside-most travel lane operating as a managed lane.

Figure 7.12 I-94 Freeway Facility with Managed Lanes



Pedestrian and Bicycle Access Across I-94

There are ten existing vehicular overpass bridges on I-94 from 57th Avenue North in Brooklyn Center to Plymouth Avenue in Minneapolis. These bridges include non-motorized accommodations such as sidewalks, multi-use trails, and on-street bikeways. Two corridor elements were studied for pedestrian and bicycle access across I-94.

- Improve existing overpass bridges over I-94: includes improvements on existing overpass bridges over I-94 such as wider trails and sidewalks and on-street bike lanes.
- Dedicated multi-use trail bridge for pedestrians and bicyclists: includes new multi-use trail bridges over I-94 for non-motorized users (see Figure 7.10 above).

7.1.4 Description of Transit Service Elements

Existing and Planned Transit Service

Existing transit service in Brooklyn Park, Brooklyn Center, and North Minneapolis includes local and express routes and the METRO C Line arterial bus rapid transit (BRT). Most of the service in North Minneapolis neighborhoods is provided on Metro Transit's urban local routes, which provide service all day, seven days per week. Brooklyn Center is served by the C Line BRT, as well as urban and suburban local routes, many of which connect at Brooklyn Center Transit Center. Brooklyn Park is primarily served by express routes operating on weekdays only. Metro Transit and suburban transit providers operate express and suburban local bus routes on Hwy 252 and I-94 to downtown

Minneapolis. Six bus stops are along Hwy 252 at 73rd Avenue, 70th Avenue, and 66th Avenue. The *Purpose and Need Statement Report* in Appendix H of this SD describes existing (2019) express bus routes on Hwy 252 and I-94 and existing express bus stops on Hwy 252.

Several transitway projects are underway which will dramatically improve the access to fast, frequent transit service for North Minneapolis, Brooklyn Center, and Brooklyn Park. These include the METRO D Line BRT (under construction in North Minneapolis and Brooklyn Center) and the Blue Line LRT Extension (serving North Minneapolis, Robbinsdale, Crystal, and Brooklyn Park). A modified recommended alignment for the Blue Line LRT Extension was adopted by the Metropolitan Council and Hennepin County in June 2022. The modified recommended alignment for the Blue Line LRT Extension extends from downtown Minneapolis along West Broadway Avenue to County Road 81 in Crystal and Robbinsdale, and along West Broadway Avenue in Brooklyn Park. Metropolitan Council is preparing a supplemental EIS for the Blue Line LRT Extension based on the modified recommended alignment.[28]

Figure 7.13 illustrates existing local and express bus routes and planned transitways.

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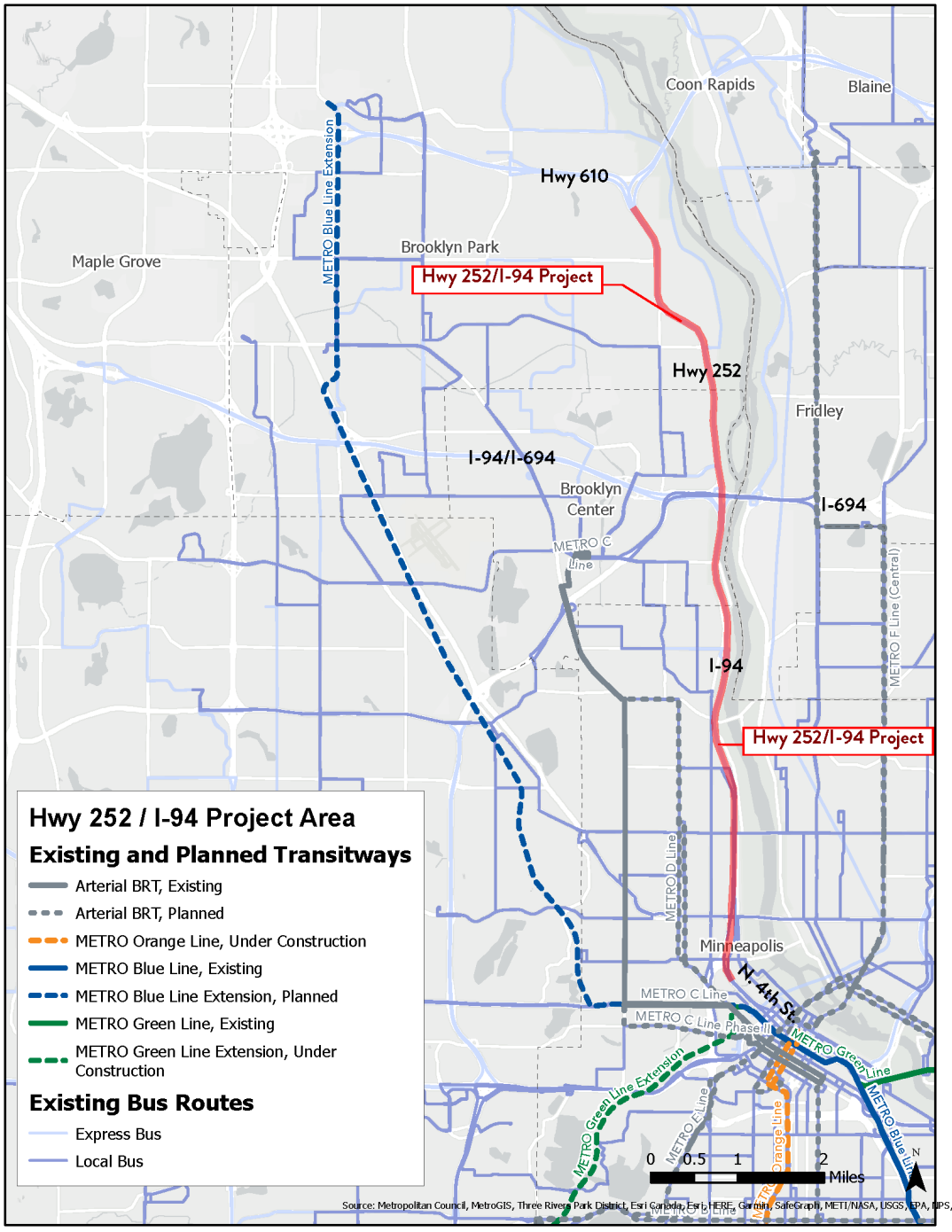
[28] Metropolitan Council. Metro Blue Line Extension accessed 10 August 2022 and available at https://metrocouncil.org/Transportation/Projects/Light-Rail-Projects/METRO-Blue-Line-Extension.aspx.

Figure 7.13 Existing and Planned (2021) Transit Service



Note: Figure 7.13 (Existing and Planned Transit Service) was prepared with the TFS and includes the previous Blue Line LRT Extension route. The TFS was completed in fall 2021. Metropolitan Council and Hennepin County approved the modified recommended alignment in June 2022, after completion of the TFS. The modified recommended alignment extends along West Broadway Avenue in north Minneapolis to County Road 81 in Crysal and Robbinsdale. The METRO Orange Line and METRO D Line opened in late 2021 and 2022, respectively.

Transit Service Elements

Metro Transit and MnDOT completed the TFS in parallel with the Hwy 252 and I-94 scoping process. The purpose of the TFS was to assess existing transit service in the Hwy 252/I-94 corridor and to evaluate potential options for transit improvements. The TFS considered six transit concepts, with and without managed lanes, that could be implemented with Hwy 252 and I-94 highway improvements. These concepts were evaluated based on ridership projections, costs, and other factors. Section 4.2.1 of this SD includes additional information regarding the TFS. Appendix F of this SD includes the *Hwy 252/I-94 Transit Feasibility Study Final Report*.

Four transit service elements were identified for study in Step 1 based on the findings of the transit concepts screening in the TFS. Transit service elements will be combined with highway elements to identify any transportation system synergies that may be gained as a result of the various combinations.

- Bus rapid transit: includes a highway bus rapid transit (BRT) line on Hwy 252 and I-94 between Hwy 610 and downtown Minneapolis with frequent service and dedicated stations.
- Bus stations along I-94 & maintain existing service: includes three new bus stations along I-94 in Minneapolis. These stations would be served by existing express bus routes. Metro Transit and suburban transit providers operate 18 express bus routes on Hwy 252 and I-94. Includes operating existing Metro Transit and suburban transit providers express bus routes along Hwy 252 and I-94 with schedules that were in effect in Fall 2019.
- Bus stations along I-94 & improve express service: includes three new bus stations along I-94 in Minneapolis that would be served by express bus routes and enhancing existing express bus service on Hwy 252 and I-94 by increasing service frequency, adding additional trips, implementing transit advantages, or adding new transit stops.
- Improve local and express bus service: includes enhancing existing local bus service on local roadways adjacent to Hwy 252 and I-94 in Brooklyn Park, Brooklyn Center, and North Minneapolis by increasing service frequency, extending the weekday/weekend span of service, or changing route alignments to deliver new connections. Includes enhancing existing express bus service on Hwy 252 and I-94 by increasing service frequency, adding additional trips, implementing transit advantages, or adding new transit stops.

7.1.5 Elements Identified Through Public Input

Several corridor elements were suggested through public input received during the scoping process and evaluated in Step 1. One corridor element suggested through public input was not evaluated in further detail in this SD based on the reasons described below.

Corridor Elements Evaluated in Step 1

Hwy 252 Four-Lane Low Speed Arterial Roadway

Some stakeholders and individuals suggested an element that includes converting the existing Hwy 252 expressway to a four-lane, low speed arterial roadway design to serve the safety, mobility, and walkability/bikeability needs of the project. This element maintains the existing six at-grade intersections on Hwy 252. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed, resulting in a four-lane design (two northbound lanes and two southbound lanes) from Hwy 610 to I-94/I-694. Connections would be maintained with Hwy 610 at the north end of the corridor and I-94/I-694 at the south end of the corridor. The posted speed on Hwy 252 would be lowered from 55 MPH to the 35 MPH to 45 MPH range. The four-lane low speed arterial roadway does not include transit advantages (e.g., bus-only shoulders) because the lane and shoulder widths are reduced to encourage lower speeds

The Hwy 252 four-lane, low speed arterial roadway element was evaluated further in Step 1.

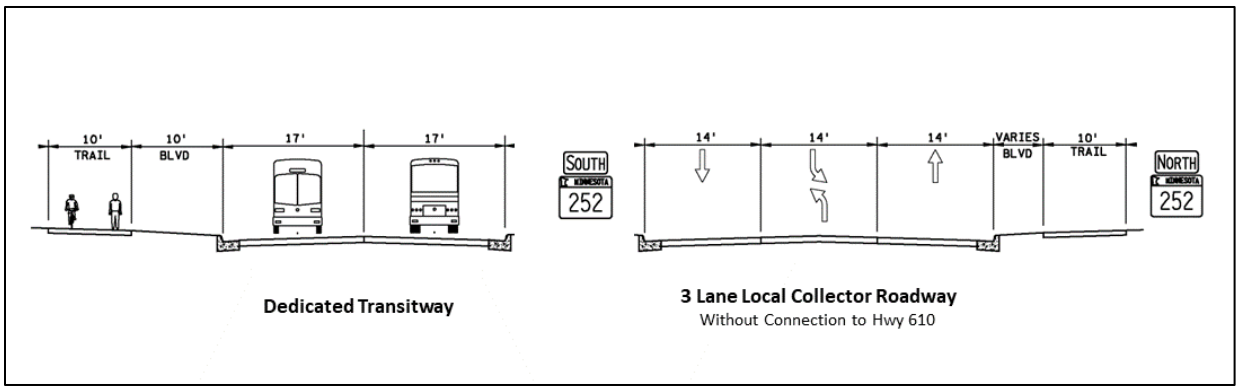
Hwy 252 Conversion to Local Collector Road with Transitway

Some stakeholders and individuals asked about an element that includes converting the existing Hwy 252 expressway to local street design to serve the safety, mobility, and walkability/bikeability needs for the project. This element includes severing the connection between Hwy 252 and Hwy 610 in Brooklyn Park and reconstructing Hwy 252 as a three-lane, low speed parkway-like facility (e.g., 35 MPH posted speed). This element would change the functional classification of Hwy 252 from a principal arterial to a collector road. This idea was suggested in response to concerns about traffic volumes, vehicle speeds, and potential social and environmental impacts with the Hwy 252 freeway elements.

Stakeholders and the public also have emphasized the importance of transit in serving project study area communities. In response to this feedback, a transitway element was identified by the project team for the Hwy 252 corridor. The transitway element includes a dedicated two-lane roadway serving north/south travel for transit vehicles only. General-purpose traffic would be prohibited from using the transitway. Local access across the transitway element would be provided at the six existing Hwy 252 intersections. One example of a dedicated transitway in the Twin Cities includes the University of Minnesota Transitway between the Minneapolis and St. Paul campuses.

An element that combines the local collector road with the transitway was identified as a potentially feasible element and was evaluated further in Step 1. Figure 7.14 illustrates a typical section for the Hwy 252 local collector road with transitway element.

Figure 7.14 Hwy 252 Local Collector Road with Transitway



Corridor Element Not Evaluated in Further Detail

Multi-Use Trail Tunnels Under Hwy 252

Some individuals asked if multi-use trail tunnels under Hwy 252 for pedestrians and bicyclists could serve the walkability and bikeability needs for the project. The multi-use trail tunnel element was suggested as an alternative to multi-use trail bridges over Hwy 252 (see "Pedestrian and Bicycle Access Across Hwy 252" section above).

The multi-use trail tunnels element under Hwy 252 was not considered for further study in scoping because:

- There is shallow groundwater in the Hwy 252 portion of the project study area. Excavation to accommodate a multi-use trail tunnel under Hwy 252 would encroach into this shallow groundwater.
- There are numerous utilities crossing under Hwy 252, including municipal water, sewer, and storm sewer. Depending on the location, a multi-use trail tunnel under Hwy 252 would conflict with these utilities.
- The width of the existing northbound and southbound Hwy 252 lanes and center median is approximately 140 feet. A multi-use trail tunnel of this length, combined with the confined environment of a trail tunnel, presents safety and security concerns.

7.2 Step 1 Evaluation of Corridor Elements

7.2.1 Purpose and Need Assessment

Table 7.1 summarizes the purpose and need assessment results for the Hwy 252 corridor elements, the I-94 corridor elements, and transit elements evaluated in Step 1 based on the project needs. Assessment results for the corridor elements are compared to the 2040 No Build Alternative. The first row in Table 7.1 summarizes the performance of the 2040 No Build Alternatives. Subsequent

rows for the corridor elements include "yes" or "no" responses (i.e., the corridor elements improve or do not improve performance compared to the 2040 No Build Alternative). Refer to Section 4.3 and Section 4.4 of the *Transportation Technical Report* in Appendix L for supporting data and analysis results for Step 1.

The *Evaluation Criteria Report* in Appendix I of this SD describes the analysis tools used for the Step 1 evaluation. Step 1 analyses were completed at a higher level of detail compared to subsequent steps in the evaluation process. Section 4.2 of the *Transportation Technical Report* in Appendix L of this SD includes detailed figures and tables with the Step 1 traffic forecasting and modeling results for the 2040 No Build Alternative and the Hwy 252 and I-94 facility and access elements. The *Transit Evaluation Technical Memorandum* in Appendix K of this SD includes detailed tables with the Step 1 evaluation results for the transit elements.

7.2.2 Fatal Flaw Assessment

Each of the Hwy 252 and I-94 corridor elements and transit elements described above were assessed for potential fatal flaws. A fatal flaw is when a corridor element would result in an un-mitigable environmental impact (e.g., the complete loss of a high-quality, significant environmental resource that cannot be mitigated), is not fiscally attainable, or is not constructable.

For this assessment, the mainline Hwy 252 travel lanes were assumed to fit within existing highway right of way under the Hwy 252 facility types. Potential improvements at Hwy 252 access locations (e.g., access control for Hwy 252 at-grade facilities, interchange configurations for Hwy 252 freeway facilities) were assumed to fit within approximately one block east and west of the corridor. I-94 corridor elements were assumed to fit within existing highway right of way. The local bus service transit elements use existing bus routes and operate on existing local roadways. The express bus service and BRT transit elements operate in the Hwy 252/I-94 corridor. Potential bus stations with the transit elements (e.g., in-line stations, on-line stations, off-line stations) were assumed to require improvements outside of existing right of way adjacent to the Hwy 252/I-94 corridor.

None of the Hwy 252 and I-94 corridor elements and transit elements were identified as being fatally flawed. While environmental impacts are anticipated because of the Hwy 252/I-94 Project, none of the corridor elements and transit are expected to result in impacts that would be considered fatally flawed and warrant elimination from further study at this stage in the alternatives evaluation process.

Table 7.1 Step 1 Evaluation Summary Based on Project Needs

Corridor-Wide Alternative or Corridor Element	Vehicle Safety, Mainline Crashes	Vehicle Safety, Intersection Crashes (non-mainline)	Vehicle Mobility, Corridor Travel Time	Vehicle Mobility, Travel Time Reliability	Vehicle Mobility, Intersection LOS	Vehicle Mobility, Volume-to-Capacity (V/C) Ratio	Vehicle Mobility, Transit Advantage	Vehicle Mobility, Transit Ridership	Walkability/ Bikeability MMLOS	Addresses the Transportation Purpose and Need?
No Build Alternative	Segment crash rates exceed critical index of 1.0	Intersection crash rates exceed critical index of 1.0	Increase in morning and afternoon peak hour travel times compared to existing conditions	Increase in travel time variability in morning and afternoon peak periods compared to existing conditions	Hwy 252 morning peak hour. LOS E or worse Hwy 252 afternoon peak hour, LOS D or worse	Hwy 252 mainline exceeding capacity (V/C = 1.63) Hwy 252 intersections approaching/exceeding capacity (V/C = 0.69 to 1.33)	Maintains existing bus only shoulders, low level of transit advantage	Increase in daily transit ridership (700 riders per day) compared to existing conditions	Intersection MMLOS on Hwy 252, MMLOS E and F Segment MMLOS across I-94, MMLOS C or better	**No**, baseline alternative (retain for evaluation in Draft EIS)
TSMO Alternative	**No** (does not improve vehicle safety)	**No** (does not improve vehicle safety)	**No** (does not improve corridor travel times)	**No** (does not improve travel time reliability)	**No** (does not improve intersection LOS)	**No** (does not improve mainline or intersection capacity)	**Yes** (bus only shoulders and transit signal priority, moderate level of transit advantage)	**Yes** (increase in daily transit ridership)	**No** (does not improve MMLOS)	**No** (eliminate from further consideration)
Transit-Only Alternative (BRT without highway improvements)	**No** (does not improve vehicle safety)	**No** (does not improve vehicle safety)	**No** (does not improve corridor travel times)	**No** (does not improve travel time reliability)	**No** (does not improve intersection LOS)	**No** (does not improve mainline or intersection capacity)	**Yes** (bus only shoulders and transit signal priority, moderate level of transit advantage)	**Yes** (increase in daily transit ridership)	**No** (does not improve MMLOS)	**No** (eliminate from further consideration)
Hwy 252 Facility Types [1]										
Four-Lane Expressway	**No** (increases mainline crash costs)	N/A	**No** (increases corridor travel time)	**No** (increases SB travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**No** (eliminate from further consideration)
Six-Lane Expressway	**Yes** (reduces mainline crash cost)	N/A	**Yes** (reduces corridor travel time)	**No** (increases SB travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Four-Lane Low Speed Arterial Roadway	**Yes** (reduces mainline crash cost)	N/A	**No** (increases corridor travel time)	**No** (increases SB travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**No** (no transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Six-Lane Low Speed Arterial Roadway	**Yes** (reduces mainline crash cost)	N/A	**Yes** (reduces corridor travel time)	**No** (increases SB travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**No** (no transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Four-Lane Low Speed Freeway	**Yes** (reduces mainline crash costs)	N/A	**Yes** (reduces corridor travel time)	**Yes** (reduces travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**No** (no transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Four-Lane Freeway Including Bus Shoulders	**Yes** (reduces mainline crash costs)	N/A	**Yes** (reduces corridor travel time)	**Yes** (reduces travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Six-Lane Freeway Including Bus Shoulders	**Yes** (reduces mainline crash costs)	N/A	**Yes** (reduces corridor travel time)	**Yes** (reduces travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Limited Access Super Two Expressway	**Yes** (reduces mainline crash costs)	N/A	**Yes** (reduces corridor travel time)	**Yes** (reduces travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bypass facility, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)

Corridor-Wide Alternative or Corridor Element	Vehicle Safety, Mainline Crashes	Vehicle Safety, Intersection Crashes (non-mainline)	Vehicle Mobility, Corridor Travel Time	Vehicle Mobility, Travel Time Reliability	Vehicle Mobility, Intersection LOS	Vehicle Mobility, Volume-to-Capacity (V/C) Ratio	Vehicle Mobility, Transit Advantage	Vehicle Mobility, Transit Ridership	Walkability/ Bikeability MMLOS	Addresses the Transportation Purpose and Need?
Hwy 252 Local Collector Road with Transitway	**Yes** (reduces mainline crash costs)	N/A	**No** (increases corridor travel time)	**Yes** (reduces travel time variability)	N/A	**No** (does not improve daily V/C ratio)	**Yes** (transitway, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Access Types for Hwy 252 Expressway Facilities										
Traffic Signals	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**Yes** (improves intersection LOS)	**Yes** (improves peak hour V/C ratio)	N/A	N/A	**No** (does not improve MMLOS)	**Yes** (retain for further consideration in Step 2)
Roundabouts	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**No** (does not improve intersection LOS)	**No** (does not improve peak hour V/C ratio)	N/A	N/A	**Yes** (improves MMLOS)	**No** (eliminate from further consideration)
Restricted Crossing U-Turn	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**No** (does not improve intersection LOS)	**Yes** (improves peak hour V/C ratio)	N/A	N/A	**Yes** (improves MMLOS)	**Yes** (retain for further consideration in Step 2)
Median U-Turn	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**No** (does not improve intersection LOS)	**No** (does not improve peak hour V/C ratio)	N/A	N/A	**Yes** (improves MMLOS)	**No** (eliminate from further consideration)
Displaced Left Turns	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**Yes** (improves intersection LOS)	**Yes** (improves peak hour V/C ratio)	N/A	N/A	**Yes** (improves MMLOS)	**Yes** (retain for further consideration in Step 2)
Right-In/Right-Out	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**Yes** (improves intersection LOS)	**Yes** (improves peak hour V/C ratio)	N/A	N/A	**No** (does not improve MMLOS)	**Yes** (retain for further consideration in Step 2)
Continuous Green T	N/A	**No** (increases intersection crash cost)	N/A	N/A	**No** (does not improve intersection LOS)	**No** (does not improve peak hour V/C ratio)	N/A	N/A	**No** (does not improve MMLOS)	**No** (eliminate from further consideration)
Echelon Partial Interchange	N/A	**Yes** (reduces intersection crash cost)	N/A	N/A	**Yes** (improves intersection LOS)	**Yes** (improves peak hour V/C ratio)	N/A	N/A	**Yes** (improves MMLOS)	**Yes** (retain for further consideration in Step 2)
Managed Lanes on Hwy 252										
Freeway Facility without Managed Lanes	N/A	N/A	N/A	**Yes** (reduces travel time variability)	N/A	N/A	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Freeway Facility Including Managed Lanes	N/A	N/A	N/A	**Yes** (reduces travel time variability)	N/A	N/A	**Yes** (managed lanes, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Pedestrian and Bicycle Access Across Hwy 252										
Improve Existing At-Grade Crossings	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (improves MMLOS compared to existing)	**Yes** (retain for further consideration in Step 2)

Corridor-Wide Alternative or Corridor Element	Vehicle Safety, Mainline Crashes	Vehicle Safety, Intersection Crashes (non-mainline)	Vehicle Mobility, Corridor Travel Time	Vehicle Mobility, Travel Time Reliability	Vehicle Mobility, Intersection LOS	Vehicle Mobility, Volume-to-Capacity (V/C) Ratio	Vehicle Mobility, Transit Advantage	Vehicle Mobility, Transit Ridership	Walkability/ Bikeability MMLOS	Addresses the Transportation Purpose and Need?
Overpass Bridges with Sidewalks and Trails	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (improves MMLOS compared to existing)	**Yes** (retain for further consideration in Step 2)
Dedicated Multi-Use Trail Bridges	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (improves MMLOS compared to existing)	**Yes** (retain for further consideration in Step 2)
Freeway Lanes and Managed Lanes on I-94										
No Change on I-94	**No** (does not improve vehicle safety)	N/A	**No** (does not improve corridor travel times)	**No** (does not improve travel time reliability)	N/A	**No** (does not improve daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**No** (retain for further consideration in Step 2, see discussion below)
Convert One Lane on Southbound I-94 to Managed Lane, With or Without Direct Connection	N/A	N/A	N/A	**Yes** (reduces travel time variability)	N/A	N/A	**Yes** (managed lanes and direct connection, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Convert One Lane on Northbound and Southbound I-94 as Managed Lanes, With or Without Direct Connection	N/A	N/A	N/A	**Yes** (reduces travel time variability)	N/A	N/A	**Yes** (managed lanes and direct connection, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Add One Lane on Southbound I-94	**Yes** (reduces mainline crash costs)	N/A	**Yes** (reduces corridor travel time)	**Yes** (reduces travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Add One Lane on Southbound I-94 as Managed Lane, With or Without Direct Connection	N/A	N/A	N/A	**Yes** (reduces travel time variability)	N/A	N/A	**Yes** (managed lanes and direct connection, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Add One Lane on Northbound and Southbound I-94	**Yes** (reduces mainline crash costs)	N/A	**Yes** (reduces corridor travel time)	**Yes** (reduces travel time variability)	N/A	**Yes** (improves daily V/C ratio)	**Yes** (bus-only shoulders, low level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Add One Lane on Northbound and Southbound I-94 as Managed Lanes, With or Without Direct Connection	N/A	N/A	N/A	**Yes** (reduces travel time variability)	N/A	N/A	**Yes** (managed lanes and direct connection, high level of transit advantage)	N/A	N/A	**Yes** (retain for further consideration in Step 2)
Pedestrian and Bicycle Access Across I-94										
Improve Existing Overpass Bridges over I-94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (improves MMLOS compared to existing)	**Yes** (retain for further consideration in Step 2)
Dedicated Multi-Use Trail Bridges	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (improves MMLOS compared to existing)	**Yes** (retain for further consideration in Step 2)

Corridor-Wide Alternative or Corridor Element	Vehicle Safety, Mainline Crashes	Vehicle Safety, Intersection Crashes (non-mainline)	Vehicle Mobility, Corridor Travel Time	Vehicle Mobility, Travel Time Reliability	Vehicle Mobility, Intersection LOS	Vehicle Mobility, Volume-to-Capacity (V/C) Ratio	Vehicle Mobility, Transit Advantage	Vehicle Mobility, Transit Ridership	Walkability/ Bikeability MMLOS	Addresses the Transportation Purpose and Need?
Type of Transit Service Elements										
Bus Rapid Transit (BRT)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (increase in daily transit ridership)	N/A	**Yes** (retain for further consideration in Step 2)
Bus stations along I-94 & Maintain Existing Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**No** (decrease in daily transit ridership)	N/A	**No** (eliminate from further consideration)
Bus stations along I-94 & Improve Express Bus Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (increase in daily transit ridership)	N/A	**Yes** (retain for further consideration in Step 2)
Improve Local and Express Bus Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**Yes** (increase in daily transit ridership)	N/A	**Yes** (retain for further consideration in Step 2)

N/A = not applicable. Evaluation criteria not applicable to a corridor element. See the *Alternatives Evaluation Criteria Report* in Appendix I of this Scoping Document.

NB = northbound, SB = southbound

Refer to Section 4.2 and Section 4.3 in the *Transportation Technical Report* in Appendix L of this SD for supporting data and analysis.

(1) The walkability/bikeability evaluation of Hwy 252 elements (e.g., pedestrian/bicycle safety, multi-modal level of service) is included in Step 2. See Section 7.3.1 of this SD.

7.2.3 Corridor-Wide Alternative and Element Assessment Results

No Build Alternative

The No Build Alternative does not meet the project's purpose and need (see Table 5.1); however, the No Build Alternative is an important baseline for the comparison of alternatives. The No Build Alternative also is required under NEPA and MEPA to be evaluated in the EIS for comparison purposes. For this reason, the No Build Alternative will be retained as the basis for comparison in Step 2 and Step 3 of the alternative evaluation process and for analysis in the Draft EIS.

Corridor-Wide Alternatives Eliminated from Further Consideration

Transportation System Management and Operations (TSMO) Alternative

TSMO strategies are already well established in the project study area. Given the extent of existing TSMO strategies, vehicle safety and mobility gains with additional TSMO strategies such as DMS and transit signal priority are projected to be limited. While DMS may offer travel benefits by re-directing traffic to alternate routes during periods of severe delays or other incidents, it would not address the day-to-day congestion and delays that currently occur on Hwy 252. Transit signal priority may offer improved travel times for express buses, making transit more attractive and diverting some vehicle traffic from Hwy 252; however, this shift would not be sufficient to reduce traffic volumes and result in meaningful improvements in vehicle safety and mobility. In addition, the TSMO alternative emphasizes strategies to manage traffic congestion, and does not include geometric or other improvements to address pedestrian and bicycle safety and mobility needs for the project. Therefore, the TSMO Alternative was eliminated from further consideration as a stand-alone alternative.

TSMO strategies are not precluded from being implemented in conjunction with other improvements and will be incorporated into corridor elements for Hwy 252 and I-94. For example, managed lanes are a TSMO strategy that aim to provide a congestion-free, reliable option for highway travelers. Managed lanes are included with the corridor elements to identify potential performance synergies for Hwy 252 and I-94.

Transit-Only Alternative

The Transit-Only Alternative includes BRT on Hwy 252 and I-94 without any additional highway improvements. The Transit-Only Alternative is projected to attract approximately 2,700 daily transit trips, with 1,800 daily trips (67 percent) diverting from existing transit routes and 900 new daily transit trips (33 percent). Traffic volumes on Hwy 252 are projected to increase by 4,000 to 6,000 vehicles per day from existing conditions to the 2040 No Build Alternative. Assuming nearly all new transit trips are vehicle trips diverting from Hwy 252, then the reduction in traffic volumes on Hwy 252 would be approximately 900 vehicles per day compared to the 2040 No Build Alternative. Existing Hwy 252 crash rates would not change, and the corridor would continue to experience congestion-related crashes without additional investment to improve Hwy 252 operations. The

Transit-Only Alternative would maintain existing Hwy 252 at-grade intersections and not address pedestrian and bicycle safety and mobility for Hwy 252 crossings. Therefore, the Transit-Only Alternative was eliminated from further consideration.

Transit elements and Hwy 252 and I-94 corridor elements will be assembled and combined in subsequent steps of the Scoping and Draft EIS processes to identify potential synergies for the transportation system as a whole.

Facility, Access, and Transit Elements Eliminated from Further Consideration

One Hwy 252 facility element, three at-grade access elements, and one transit element were eliminated from further consideration in Step 1. The following list identifies the facility, access, and transit elements eliminated from further consideration and the rationale for eliminating these elements. Detailed Step 1 analysis results (e.g., vehicle crash costs, levels of service, etc.) are presented in Section 2.3 of the *Transportation Technical Report* in Appendix L of this SD.

Facility Element

- Four-Lane Expressway: The four-lane expressway element does not address the vehicle safety need for the project. The four-lane expressway would remove one lane on northbound and southbound Hwy 252 and maintain the existing at-grate intersections. Projected traffic volumes on Hwy 252 with the four-lane expressway are approximately 4,000 to 7,000 vehicles per day less than the 2040 No Build Alternative. The resulting congestion on Hwy 252 with the four-lane expressway is projected to increase crash rates compared to the 2040 No Build Alternative. As a result, the four-lane expressway increases mainline vehicle crash costs compared to the 2040 No Build Alternative.[29] The mainline crash cost result for the 2040 No Build Alternative is $8,406,000. The mainline crash cost result for the four-lane expressway element is $8,564,400.

  The four-lane expressway element also does not address the vehicle mobility needs for the project. The four-lane expressway element increases Hwy 252 corridor travel times during the afternoon peak hour by more than one minute and doubles the travel time variability on southbound Hwy 252 during the morning peak hour compared to the 2040 No Build Alternative.[30] Therefore, the four-lane expressway element was eliminated from further consideration.

[29] Vehicle crash costs are in year 2016 dollars. Vehicle crash costs are calculated using crash modification factors applied to existing Hwy 252 segment crash rates in combination with traffic volume forecasts to identify the total number of predicted crashes. MnDOT's estimated crashes by crash severity are then applied to the number of predicted crashes to obtain an estimated crash cost. See Section 2.3 in the *Transportation Evaluation Report* in Appendix L of this SD.

[30] Refer to Section 2.3.2 in the *Transportation Evaluation Report* in Appendix L of this SD for detailed evaluation results for the Hwy 252 four-lane expressway element.

Access Elements

- Roundabouts. The roundabout intersection element does not meet the vehicle mobility needs for the proposed action. The roundabout intersection element would be over-capacity and would not improve intersection LOS compared to the 2040 No Build Alternative. The roundabout intersection element is projected to operate at LOS F during the morning and afternoon peak hours at all intersections with Hwy 252 at-grade facility types. Therefore, the roundabout intersection element was eliminated from further consideration.

- Median U-Turn. The median U-turn intersection element does not meet the vehicle mobility needs for the proposed action. In general, the median U-turn intersection element would be over-capacity at most Hwy 252 intersections and would not improve intersection LOS compared to the 2040 No Build Alternative. The median U-turn intersection element is projected to operate at LOS E and LOS F during the morning and afternoon peak hours with Hwy 252 at-grade facility types. Therefore, the median U-turn intersection element was eliminated from further consideration.

- Continuous Green T. The continuous green T intersection element does not address the vehicle safety, vehicle mobility, and walkability/bikeability needs for the proposed action. The continuous green T intersection type would only be applicable at existing T intersections on Hwy 252 (i.e., 70th Avenue in Brooklyn Center). The intersection crash cost for 70th Avenue under the 2040 No Build Alternative is $636,857. The intersection crash cost for 70th Avenue with the continuous green T intersection is $676,661 with the Hwy 252 four-lane and six-lane facility types.

  The continuous green T intersection does not improve intersection LOS and MMLOS for pedestrians and bicyclists compared to the 2040 Build Alternative. The continuous green T intersection is projected to operate at LOS F during the morning peak hour with Hwy 252 at-grade facility types. The continuous green T intersection is projected to operate at a pedestrian LOS E and bicycle LOS F with Hwy 252 at-grade facility types. Therefore, the continuous green T intersection element was eliminated from further consideration.

Transit Element

- Stations along I-94 & Maintain Existing Service. The stations along I-94 & maintain existing bus service element does not address the vehicle mobility and transit demand needs for the proposed action. The stations along I-94 & maintain existing local bus service element results in a decrease in daily transit ridership of 140 trips compared to the 2040 No Build Alternative; therefore, it would not contribute to auto-trip diversions and subsequent vehicle mobility gains on Hwy 252 and I-94. Because the stations along I-94 & maintain existing bus service transit element does not improve daily transit ridership, it was eliminated from further consideration.

Elements Retained for Further Consideration in Step 2

Thirty (30) facility, access, and transit elements are retained for further consideration in Step 2 of the alternative evaluation process. These elements are retained for further consideration because they

meet the purpose and need for the proposed action and do not present a fatal flaw.[31] Table 7.2 lists the corridor and transit elements identified for further consideration in Step 2.

Table 7.2 Corridor and Transit Elements Retained for Analysis in Step 2

Hwy 252 Corridor Elements	I-94 Corridor Elements	Transit Service Elements
Hwy 252 Facility Types (1) • Six-Lane Expressway • Four-Lane Low Speed Arterial Roadway • Six-Lane Low Speed Arterial Roadway • Four-Lane Low Speed Freeway • Four-Lane Freeway Including Bus Shoulders • Six-Lane Freeway Including Bus Shoulders • Limited Access Super Two Expressway • Local Collector Road with Transitway **Access Type for Hwy 252 Expressway Facility** • Traffic Signals • Restricted Crossing U-Turns • Displaced Left Turns • Right-In/Right-Out • Echelon Partial Interchange **Managed Lanes on Hwy 252** • Freeway Facility without Managed Lane • Freeway Facility with Managed Lane **Pedestrian and Bicycle Access Across Hwy 252** • Improve Existing At-Grade Crossings • Overpass Bridges with Sidewalks and Trails • Dedicated Multi-Use Trail Bridges	**Number of Freeway Lanes and Managed Lanes on I-94** • No Change on I-94 • Convert One Lane on Southbound I-94 to Managed Lane, With and Without Direct Connect • Convert One Lane on Northbound and Southbound I-94 to Managed Lanes, With and Without Direct Connection • Build One Lane on Southbound I-94 • Build One Managed Lane on Southbound I-94 from I-694 to Dowling Avenue, Convert One Lane to Managed Lane on Southbound I-94 from Dowling Avenue to North 4th Street, With and Without Direct Connection • Build One Lane on Northbound and Southbound I-94 • Build One Managed Lane on Northbound and Southbound I-94 from I-694 to Dowling Avenue, Convert One Lane to Managed Lane on Northbound and Southbound I-94 from Dowling Avenue to North 4th Street, With and Without Direct Connection **Pedestrian and Bicycle Access Across I-94** • Improve Existing Overpass Bridges Over I-94 • Dedicated Multi-Use Trail Bridges	• Bus Rapid Transit • Bus Stations along I-94 & Improve Express Bus Service • Improve Local and Express Bus Service

(1) Location of Hwy 252 access and number of access points to Hwy 252 for freeway facilities is considered in Step 2 of the alternatives evaluation process. An initial assessment of interchange access configurations for freeway facilities is considered in Step 3 of the alternatives evaluation process.

[31] The no change on I-94 element would not address the purpose and need for the project; however, this element would be compatible with certain Hwy 252 elements that do not necessitate improvements through the Hwy252/I-94/I-694 system interchange. See "No Change on I-94" discussion on page 7-36 of this SD.

Some elements were projected to perform below the 2040 No Build Alternative for one or more Step 1 evaluation criteria and performance measures (i.e., decrease in performance compared to the 2040 No Build Alternative); however, these elements were retained for further consideration in Step 2 of the alternative evaluation process. The rationale for retaining these elements for further consideration in Step 2 is summarized below.

Facility Elements

- Six-Lane Expressway: the six-lane expressway element improves corridor travel times and the daily volume-to-capacity ratio on Hwy 252 compared to the 2040 No Build Alternative. Travel time reliability (i.e., planning time index) for northbound Hwy 252 is improved compared to the 2040 No Build Alternative; however, travel time variability on southbound Hwy 252 increases under the six-lane expressway element compared to the 2040 No Build Alternative.

  The six-lane expressway reduces Hwy 252 mainline crash costs compared to the 2040 No Build Alternative. The mainline crash cost result for the 2040 No Build Alternative is $8,406,000. The mainline crash cost result for the six-lane expressway element is $7,926,000. Because the six-lane expressway element would improve vehicle safety on Hwy 252, it is carried forward for further evaluation in Step 2.

- Four-Lane Low Speed Arterial Roadway: the four-lane low speed arterial roadway element improves the daily volume-to-capacity ratio on Hwy 252 compared to the 2040 No Build Alternative. The travel time reliability (i.e., planning time index) for northbound Hwy 252 is improved compared to the 2040 No Build Alternative; however, travel time variability on southbound Hwy 252 increases under the four-lane low speed arterial roadway element compared to the 2040 No Build Alternative. The four-lane low speed arterial roadway element also increases corridor travel times compared to the 2040 No Build Alternative.

  The four-lane low speed arterial roadway reduces Hwy 252 mainline crash costs compared to the 2040 No Build Alternative. This is because the four-lane low speed arterial roadway constrains capacity and reduces traffic volumes on Hwy 252. Crash rates do not change compared to the 2040 No Build Alternative; therefore, the lower traffic volumes on Hwy 252 under the four-lane low speed arterial roadway translates into fewer mainline crashes compared to the 2040 No Build Alternative. The mainline crash cost result for the 2040 No Build Alternative is $8,406,000. The mainline crash cost result for the four-lane low speed arterial roadway element is $6,833,400. Because the four-lane low speed arterial roadway element would improve vehicle safety on Hwy 252, it is carried forward for further evaluation in Step 2.

- Six-Lane Low Speed Arterial Roadway: the six-lane low speed arterial roadway element improves corridor travel times and the daily volume-to-capacity ratio on Hwy 252 compared to the 2040 No Build Alternative. Travel time reliability (i.e., planning time index) for northbound Hwy 252 is improved compared to the 2040 No Build Alternative; however, travel time variability on southbound Hwy 252 increases under the six-lane low speed arterial roadway element compared to the 2040 No Build Alternative.

The six-lane low speed arterial roadway reduces Hwy 252 mainline crash costs compared to the 2040 No Build Alternative. This is because the six-lane low speed arterial roadway constrains capacity and reduces traffic volumes on Hwy 252. Crash rates do not change compared to the 2040 No Build Alternative; therefore, the lower traffic volumes on Hwy 252 under the six-lane low speed arterial roadway translates into fewer mainline crashes compared to the 2040 No Build Alternative. The mainline crash cost result for the 2040 No Build Alternative is $8,406,000. The mainline crash cost result for the six-lane low speed arterial roadway element is $6,355,800. Because the six-lane low speed arterial roadway element would improve vehicle safety on Hwy 252, it is carried forward for further evaluation in Step 2.

- Hwy 252 Local Collector Road with Transitway: the local collector road with transitway element improves travel time reliability (i.e., planning time index) for northbound and southbound Hwy 252 compared to the 2040 No Build Alternative. Corridor travel times are greater under the local collector road with transitway compared to the 2040 No Build Alternative. The daily volume-to-capacity ratio on Hwy 252 increases by more than 50 percent with the local collector road with transitway compared to the 2040 No Build Alternative.

  The local collector road with transitway reduces Hwy 252 mainline crash costs compared to the 2040 No Build Alternative. This is because the local collector road with transitway constrains capacity and reduces traffic volumes on Hwy 252. Crash rates do not change compared to the 2040 No Build Alternative; therefore, the lower traffic volumes on Hwy 252 under the local collector road with transitway translates into fewer mainline crashes compared to the 2040 No Build Alternative. The mainline crash cost result for the 2040 No Build Alternative is $8,406,000. The mainline crash cost result for the Hwy 252 local collector road with transitway element is $3,000,800. Because the local collector road with transitway element would improve vehicle safety on Hwy 252, it is carried forward for further evaluation in Step 2.

- No Change on I-94: The no change on I-94 element would not improve vehicle safety and mobility compared to the 2040 No Build Alternative at the Step 1 corridor element level (see Table 5.1); however, this element would be compatible with certain Hwy 252 elements that do not necessitate improvements through the I-94/I-694/Hwy 252 system interchange. The no change on I-94 element also does not preclude pedestrian and bicycle enhancements across I-94 and does not preclude spot improvements that could improve vehicle mobility on I-94. Therefore, the no change on I-94 element is retained for further consideration in Step 2.

7.3 Step 2 Development and Evaluation of Corridor Alternatives

This section describes the development of corridor alternatives and the evaluation of these alternatives using the Step 2 evaluation process. The development of corridor alternatives includes combining the individual Hwy 252 and I-94 corridor elements recommended for further study in Step 2. The individual Hwy 252 and I-94 corridor elements were evaluated independently from one another in Step 2. A detailed accounting of the recommended Hwy 252/I-94 corridor alternatives will occur in the Draft EIS.

Step 2 includes qualitative and quantitative performance measures with results categorized into Good/Fair/Poor rankings. The Step 2 evaluation was completed in five parts:

- Evaluation of Hwy 252 elements for corridor alternatives.
- Evaluation of I-94 elements for corridor alternatives.
- Evaluation of Hwy 252 access alternatives.
- Evaluation of Hwy 252/I-94 transit elements.
- Evaluation of Hwy 252 pedestrian connectivity.

The outcome of Step 2 is the identification of Hwy 252 and I-94 corridor alternatives for further study in the Draft EIS and the identification of Hwy 252 access alternatives and transit considerations for further study in Step 3 of the evaluation process.

The Step 2 evaluation criteria include both quantitative and qualitative performance measures for the project's needs, additional considerations, and select SEE impact areas. Table 7.3 of this SD identifies the select SEE impact areas included in Step 2. These SEE impact areas were included in the scoping alternatives evaluation because these criteria represent substantive environmental regulations (e.g., Section 4(f) for parks and trails, Section 404 for wetlands), reflect the project setting (e.g., community cohesion, future land uses, right of way impacts), and respond to public feedback from the previous EA and scoping phases (e.g., Mississippi National River and Recreation Area, bluff impact zone, shore impact zone). Chapter 9 of this SD describes the SEE issues to be studied in the Draft EIS.

Step 2 evaluation criteria are categorized into Good/Fair/Poor ratings based on performance relative to the No Build Alternative. Table 7.3 lists the Good/Fair/Poor ratings and their general definitions used in the Step 2 evaluation. Refer to Section 5.2 through Section 5.4 of the *Transportation Technical Report* in Appendix L of this SD for supporting data and analysis for Step 2.

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Table 7.3 Step 2 Evaluation Criteria Performance Categories

Category	Evaluation Criteria	Performance Measure/Metric	Poor Performance	Fair Performance	Good Performance
Vehicle Safety	Mainline Crashes	Crash Cost	Less than a 10% reduction in crash cost compared to No Build	Between a 10% and 40% reduction in crash cost compared to No Build	Greater than a 40% reduction in crash cost compared to No Build
	Intersection Crashes (non-mainline)	Crash Cost	Less than a 10% reduction in crash cost compared to No Build	Between a 10% and 40% reduction in crash cost compared to No Build	Greater than a 40% reduction in crash cost compared to No Build
	Network Crashes	Crash Cost	Less than a 10% reduction in crash cost compared to No Build	Between a 10% and 40% reduction in crash cost compared to No Build	Greater than a 40% reduction in crash cost compared to No Build
Vehicle Mobility	Corridor Travel Time	Travel Time	Less than a 10% reduction in travel time compared to No Build	Between a 10% and 40% reduction in travel time compared to No Build	Greater than a 40% reduction in travel time compared to No Build
	Travel Time Reliability	Planning Time Index (PTI)	Greater than 2.5	2.0 to 2.5	Less than 2.0
	Peak Hour Person Throughput	People per hour	Less than a 10% increase in person throughput compared to No Build	Between a 10% to 20% increase in person throughput compared to No Build	Greater than a 20% increase in person throughput compared to No Build
	Intersection Level of Service (LOS)	Intersection LOS	LOS F	LOS D/E	LOS C or better
	Segment Level of Service (LOS)	Segment LOS	LOS E/F	LOS C/D	LOS A/B
	Managed Lane Travel Time	Managed lane travel time (HOV and E-ZPass)	Less than a 10 second per mile of managed lane benefit	Between a 10 second and 30 second per mile of managed lane benefit	Greater than a 30 second per mile of managed lane benefit
	Vehicle Miles Traveled (VMT)	VMT by facility type	Greater than a 10% increase in VMT compared to No Build	Between a 10% increase and a 10% decrease in VMT compared to No Build	Greater than a 10% decrease in VMT compared to No Build
	Vehicle Hours Traveled (VHT)	VHT by facility type	Greater than a 10% increase in VHT compared to No Build	Between a 10% increase and a 10% decrease in VHT compared to No Build	Greater than a 10% decrease in VHT compared to No Build

Category	Evaluation Criteria	Performance Measure/Metric	Poor Performance	Fair Performance	Good Performance
Vehicle Mobility	Traffic Volume Diversion	Daily traffic volume	Greater than a 40% increase in non-freeway annual average daily traffic (AADT) compared to No Build	Between a 40% increase and 10% increase in non-freeway AADT compared to No Build	Less than a 10% increase in non-freeway AADT compared to No Build
Transit Considerations	Transit Advantage	Runningway Availability (1)	No Runningway available on I-94	Runningway available on I-94	Runningway available on I-94 and Hwy 252
	Transit Ridership	Passengers per in-service hour (PPISH)	Bus Rapid Transit (BRT): ≤24.9 Suburban local bus: ≤9.9 Peak express bus: ≤19.9	BRT: 25 to 29.9 Suburban local bus: 10 to 14.9 Peak express bus: 20 to 24.9	BRT: ≥30 Suburban local bus: ≥15 Peak express bus: ≥25
	Transit Travel Time	Transit Travel Time	BRT: <17.3 MPH (under 20% faster than local bus) Local bus: <14 MPH Express bus: >35% slower than auto	BRT: 17.3 MPH to 18.7 MPH (20% to 30% faster than local bus) Local bus: 14 MPH to 14.9 MPH Express bus: 25% to 35% slower than auto	BRT: >18.7 MPH (over 30% faster than local bus) Local bus: ≥15 MPH Express bus: <25% slower than auto
	Mode Shift	Number of New Transit Trips	0 to 2,499 trips	2,500 to 9,999 trips	10,000+ trips
	Station Area Activity	"Activity" within ½-mile of transit stations/stops	≤6,999 total residents, jobs, or students	7,000 to 7,499 total residents, jobs, or students	7,500+ total residents, jobs, or students
	Likely Transit Users	Ratio of % zero-car households within ½-mile of stations/stops to % zero-car households in the region	Ratio ≤ 0.79	Ratio 0.8 to 0.99	Ratio ≥ 1.0
	Alternative Access Location	Access located at a preferred TFS station location	≥50% of proposed BRT stations or local bus stops would be accessible with the proposed highway configuration	50-74.5% of proposed BRT stations or local bus stops would be accessible with the proposed highway configuration	>75% of proposed BRT stations or local bus stops would be accessible with the proposed highway configuration

Category	Evaluation Criteria	Performance Measure/Metric	Poor Performance	Fair Performance	Good Performance
Walkability/Bikeability	Pedestrian/Bicycle Safety	Crash Cost	Less than a 10% reduction in crash cost compared to No Build	Between a 10% and 40% reduction in crash cost compared to No Build	Greater than a 40% reduction in crash cost compared to No Build
	Multimodal Level of Service (Segment and Intersection Analysis)	MMLOS by intersection and segment	LOS E/F	LOS C/D	LOS A/B
	Pedestrian Network Connectivity Index	Index/Ranking	Lowers index value by more than 0.1	Maintains No Build value (+/- 0.1)	Increases index value by more than 0.1
Additional Considerations	Regional Transportation Plans	Consistency with Metropolitan Council Transportation Policy Plan (TPP)	Not consistent with TPP strategies and investment direction	Partially consistent with TPP strategies and investment direction	Consistent with TPP strategies and investment direction
SEE Considerations	Community Facilities	Risk of impacts to community facilities	Impacts to community facilities are likely	Potential impacts to community facilities	No impacts to community facilities
	Community Cohesion	Risk of impacts to community cohesion	Creates a new physical barrier within a neighborhood or community Increases neighborhood traffic	Expands an existing physical barrier within a neighborhood or community Potential increase in traffic in neighborhoods	No new physical barriers within a neighborhood or community No change in traffic in neighborhoods
	Future Land Uses	Consistency with future land uses in local comprehensive plans	Not consistent with local comprehensive plans	Partially consistent with local comprehensive plans	Consistent with local comprehensive plans
	Environmental Justice	Risk for high and adverse impacts to minority and low-income populations	High and adverse impacts to minority and low-income populations are likely	Potential impacts to minority and low-income populations	No impacts to minority and low-income populations
	Right of Way	Risk for right of way acquisition, commercial and residential relocations	Potential impacts to properties requiring right of way acquisition Potential commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations	No right of way acquisition No commercial or residential relocations
	Section 4(f) Involvement	Risk for potential use of Section 4(f) properties	Section 4(f) involvement anticipated to be beyond de minimis	Section 4(f) involvement anticipated to be de minimis	No Section 4(f) involvement

Category	Evaluation Criteria	Performance Measure/Metric	Poor Performance	Fair Performance	Good Performance
SEE Considerations	Historic Properties	Risk for potential adverse effect to known NRHP eligible/listed properties	Adverse effect determination likely	Potential impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties
	Aquatic Resources	Risk for impacts to wetlands and other aquatic resources	Anticipated impacts beyond Section 404 Regional General Permit (RGP)	May impact wetlands and other aquatic resources	No impact to wetlands and other aquatic resources
	100-year Floodplains	Risk for floodplain encroachment	Encroaches into floodplain	May result in floodplain encroachment	No floodplain encroachment
	Mississippi River Bluff Impact Zone	Risk for bluff impact zone encroachment	Encroaches into bluff impact zone	May result in bluff impact zone encroachment	No bluff impact zone encroachment
	Mississippi River Shore Impact Zone	Risk for shore impact zone encroachment	Encroaches into shore impact zone	May result in shore impact zone encroachment	No shore impact zone encroachment
	Mississippi River Corridor Critical Area (MRCCA)	Consistency with general development standards for public facilities (Minnesota Rules 6106.0130)	Not consistent with general development standards for public facilities	Partially consistent with general development standards for public facilities	Consistent with general development standards for public facilities

(1) See Section 2.2.3 in the *Evaluation Criteria Report* in Appendix I of this SD for a full definition of runningway.

7.3.1 Step 2 Corridor Alternatives Evaluation

Development of Corridor Alternatives

Step 2 includes combining the corridor elements from Step 1 into a range of feasible corridor alternatives for Hwy 252 and I-94. The following assumptions were used to identify Hwy 252 and I-94 corridor alternatives.

- Corridor elements can be implemented on Hwy 252 without making changes on I-94 unless three lanes are considered on Hwy 252 through the Hwy 252/I-94/I-694 system interchange.
- A minimum of two general purpose lanes is needed adjacent to a managed lane. Managed lanes are included with freeways. A freeway is defined as a divided highway with full control of access and two or more lanes. Managed lanes on I-94 are evaluated by direction.
- A direct connection from I-94 to downtown Minneapolis at North 4th Street is only considered when managed lanes are considered on I-94.
- Managed lanes are assumed to be started as an add-lane (i.e., no immediate lane designation change from general purpose lane to managed lane).

Fifty-two (52) corridor alternatives were identified for Hwy 252 and I-94 based on these assumptions. Table 7.4 identifies the 52 Hwy 252 and I-94 corridor alternatives for study in Step 2. These are developed by combining the individual Hwy 252 and I-94 corridor elements. For example, Hwy 252 Corridor Element 1 (Hwy 252 Six-Lane Expressway) and I-94 Corridor Element A (No Change on I-94) combine to create Alternative A.1. Hwy 252 and I-94 corridor alternatives were then organized into six different groupings referred to as "Corridor Alternatives Packages". The purpose of the Corridor Alternatives Packages was to consolidate corridor alternatives based on similar design features for presenting at public engagement meetings and in this SD. These groupings are described after Table 7.4.

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Table 7.4 List of Corridor Elements Combined to Develop Alternatives for Assessment in Step 2 (1)

Hwy 252 and I-94 Corridor Elements	A. No Change on I-94	Convert One Southbound I-94 Lane to Managed Lane from I-694 to North 4th Street		Convert One Northbound I-94 Lane and One Southbound I-94 Lane to Managed Lanes from I-694 to North 4th Street		F. Build One Additional Southbound I-94 Lane from I-694 to Dowling Avenue	Build One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lane Convert One Southbound I-94 Lane to Managed Lane from Dowling Avenue to North 4th Street		I. Build One Northbound I-94 Lane and One Southbound I-94 Lane from I-694 to Dowling Avenue	Build One Additional Northbound I-94 Lane and One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lanes Convert One Northbound I-94 Lane and One Southbound I-94 Lane from Dowling Avenue to North 4th Street to Managed Lanes	
		B. With Direct Connection	C. Without Direct Connection	D. With Direct Connection	E. Without Direct Connection		G. With Direct Connection	H. Without Direct Connection		J. With Direct Connection	K. Without Direct Connection
1. Hwy 252 Six-Lane Expressway	A.1 (1)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.1 (15)	H.1 (24)	Not compatible	J.1 (35)	K.1 (44)
2. Hwy 252 Four-Lane Low Speed Arterial Roadway	A.2 (2)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.2 (16)	H.2 (25)	Not compatible	J.2 (36)	K.2 (45)
3. Hwy 252 Six-Lane Low Speed Arterial Roadway	A.3 (3)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.3 (17)	H.3 (26)	Not compatible	J.3 (37)	K.3 (46)
4. Hwy 252 Four-Lane Low Speed Freeway	A.4 (4)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.4 (18)	H.4 (27)	Not compatible	J.4 (38)	K.4 (47)
5. Hwy 252 Four-Lane Freeway including Bus Shoulders	A.5 (5)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.5 (19)	H.5 (28)	Not compatible	J.5 (39)	K.5 (48)
6. Hwy 252 Six-Lane Freeway including Bus Shoulders	A.6 (6)	Not compatible	Not compatible	Not compatible	Not compatible	F.6 (13)	G.6 (20)	H.6 (29)	I.6 (33)	J.6 (40)	K.6 (49)
7. Hwy 252 Six-Lane Freeway including Managed Lanes	Not compatible	B.7 (9)	C.7 (10)	D.7 (11)	E.7 (12)	F.7 (14)	G.7 (21)	H.7 (30)	I.7 (34)	J.7 (41)	K.7 (50)
8. Hwy 252 Limited Access Super Two	A.8 (7)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.8 (22)	H.8 (31)	Not compatible	J.8 (42)	K.8 (51)
9. Hwy 252 Local Collector Road with Transitway	A.9 (8)	Not compatible	Not compatible	Not compatible	Not compatible	Not compatible	G.9 (23)	H.9 (32)	Not compatible	J.9 (43)	K.9 (52)
Hwy 252/I-94 Corridor Alternatives	Corridor Alternatives Package 1	Corridor Alternatives Package 2	Corridor Alternatives Package 2	Corridor Alternatives Package 2	Corridor Alternatives Package 2	Corridor Alternatives Package 3	Corridor Alternatives Package 4	Corridor Alternatives Package 4	Corridor Alternatives Package 5	Corridor Alternatives Package 6	Corridor Alternatives Package 6

Not compatible = the Hwy 252 corridor element is not compatible with the I-94 corridor element based on the assumptions identified above.

The number in parentheses represents one of the 52 possible corridor alternatives when combining Hwy 252 and I-94 elements based on the assumptions described above.

(1) The No Build Alternative will be carried through the Step 2 evaluation and used as the basis for comparison of Hwy 252/I-94 corridor alternatives.

Hwy 252 and I-94 Corridor Alternatives Package 1

Hwy 252 and I-94 Corridor Alternatives Package 1 includes eight corridor alternatives. Each of these corridor alternatives share the same configuration for I-94 (i.e., Element A, No Change on I-94). Element 7 is not combined with Element A in Corridor Alternatives Package 1 because Element 7 would include three lanes on Hwy 252 through the Hwy 252/I-94/I-694 system interchange (see assumptions above). Figure 7.15 illustrates the Hwy 252 and I-94 Corridor Alternatives Package 1. The eight corridor alternatives included with Package 1 are summarized below.

- Corridor Alternative A.1: includes construction of Hwy 252 as a six-lane expressway and no changes on I-94 between I-694 and North 4th Street. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694. Five to six at-grade intersections would remain on Hwy 252. The existing posted speed of 55 MPH on Hwy 252 would be maintained.

- Corridor Alternative A.2: includes construction of Hwy 252 as a four-lane low-speed arterial roadway and no changes on I-94 between I-694 and North 4th Street. The connection between Hwy 252 and Hwy 610 in Brooklyn Park would be maintained. This element changes the functional classification of Hwy 252 from a principal arterial to a minor arterial roadway. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to the 35 MPH to 45 MPH range.

- Corridor Alternative A.3: includes construction of Hwy 252 as a six-lane low-speed arterial roadway and no changes on I-94 between I-694 and North 4th Street. The connection between Hwy 252 and Hwy 610 in Brooklyn Park would be maintained. This element changes the functional classification of Hwy 252 from a principal arterial to a minor arterial roadway. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be set in the 35 MPH to 45 MPH range.

- Corridor Alternative A.4: includes reconstructing Hwy 252 as a low-speed four-lane grade-separated freeway facility and no changes on I-94 between I-694 and North 4th Street. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be reduced to 45 MPH.

- Corridor Alternative A.5: includes reconstructing Hwy 252 as four-lane grade-separated freeway facility including bus shoulders and no changes on I-94 between I-694 and North 4th Street. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH.

Figure 7.15 Hwy 252 and I-94 Corridor Alternatives Package 1

- Corridor Alternative A.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including bus shoulders and no changes on I-94 between I-694 and North 4th Street. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH.

- Corridor Alternative A.8: includes constructing a two-lane grade-separated bypass facility parallel to Hwy 252 and no changes on I-94 between I-694 and North 4th Street. Existing Hwy 252 would be redesigned as a four-lane roadway, and existing at-grade intersections would remain. The two-lane bypass would be accessible on the north end at Hwy 610 and the south end at I-94/I-694. Posted speeds on the two-lane bypass would be 60 MPH.

- Corridor Alternative A.9: includes constructing Hwy 252 as a three-lane, low-speed local collector road. The connection between Hwy 252 and Hwy 610 in Brooklyn Park would be removed. Six at-grade intersections would remain on Hwy 252. This element changes the functional classification of Hwy 252 from a principal arterial to a collector road. Includes constructing a dedicated transitway for transit vehicles only between Hwy 610 and I-94/I-694 and no changes on I-94 between I-694 and North 4th Street. Posted speeds on Hwy 252 would be reduced to 35 MPH.

Hwy 252 and I-94 Corridor Alternatives Package 2

Hwy 252 and I-94 Corridor Alternatives Package 2 includes four corridor alternatives. Each of these corridor alternatives share the same configuration for Hwy 252 (i.e., Element 7, Hwy 252 Six-Lane Freeway including Managed Lanes). Figure 7.16 illustrates the Hwy 252 and I-94 Corridor Alternatives Package 2. The four corridor alternatives included with Package 2 are summarized below.

- Corridor Alternative B.7: includes reconstruction of Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes, conversion of one existing lane on southbound I-94 to a managed lane from I-694 to North 4th Street, and a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area.

- Corridor Alternative C.7: includes reconstruction of Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes and conversion of one existing lane on southbound I-94 to a managed lane from I-694 to North 4th Street. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area.

Figure 7.1 Hwy 252 and I-94 Corridor Alternatives Package 2

Note: Direct connection is only looked at under a managed lane scenario. Managed lane can be E-ZPass, high-occupancy vehicle, or bus-only.

Note: Each alternative is compatible with all advancing transit concepts.

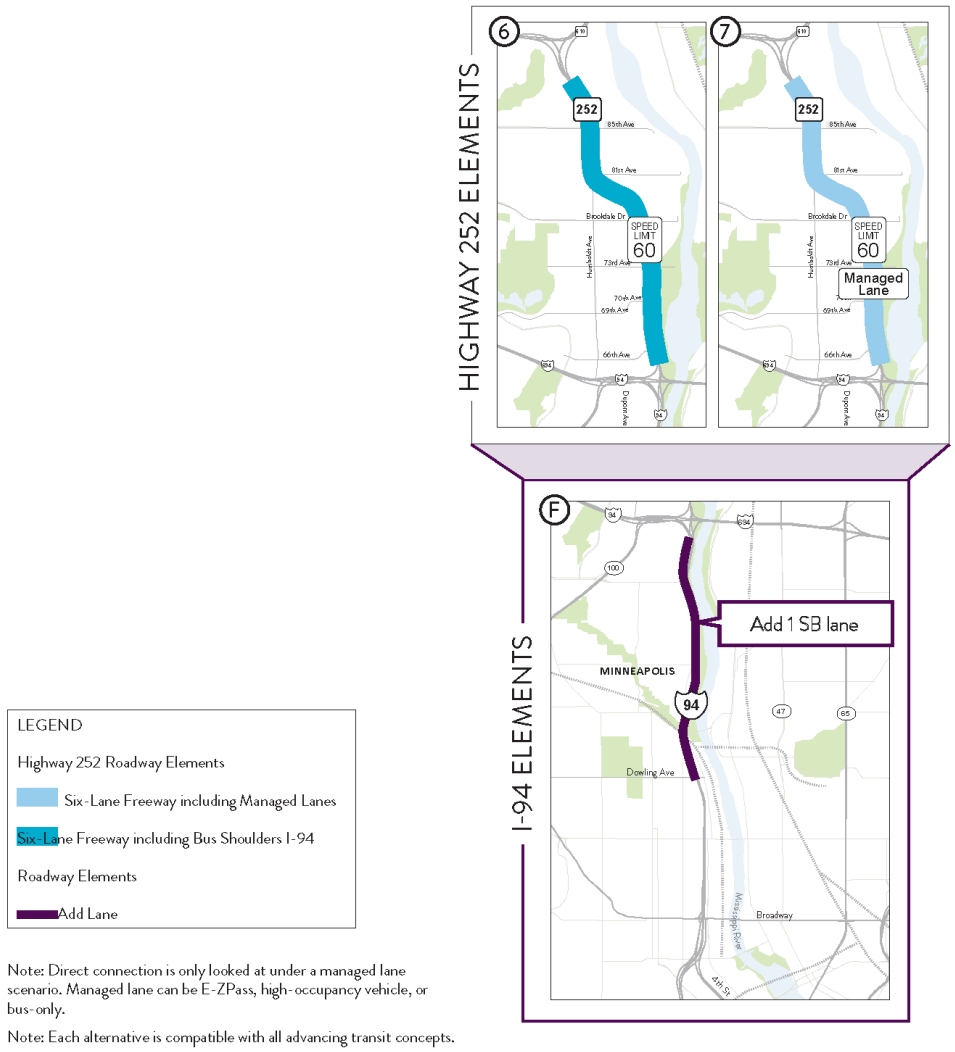
- Corridor Alternative D.7: includes reconstruction of Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes, conversion of one existing lane on northbound and southbound I-94 to managed lanes from I-694 to North 4th Street, and a direct connection from the I-94 managed lanes to the North 4th Street exit ramp to downtown Minneapolis. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area.
- Corridor Alternative E.7: includes reconstruction of Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes and conversion of one existing lane on northbound and southbound I-94 to managed lanes from I-694 to North 4th Street. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area.

Hwy 252 and I-94 Corridor Alternatives Package 3

Hwy 252 and I-94 Corridor Alternatives Package 3 includes two corridor alternatives. Each of these corridor alternatives share the same configuration for I-94 (i.e., Element F, Build One Additional Southbound I-94 Lane from I-694 to Dowling Avenue). Figure 7.17 illustrates the Hwy 252 and I-94 Corridor Alternatives Package 3. The two corridor alternatives included with Package 3 are summarized below.

- Corridor Alternative F.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including bus shoulders and constructing a new lane on southbound I-94 between I-694 and Dowling Avenue. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH.
- Corridor Alternative F.7: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes and constructing a new lane on southbound I-94 between I-694 and Dowling Avenue. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. The inside-most lane on northbound and southbound Hwy 252 would be operated as managed lanes. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area.

Figure 7.17 Hwy 252 and I-94 Corridor Alternatives Package 3



Hwy 252 and I-94 Corridor Alternatives Package 4

Hwy 252 and I-94 Corridor Alternatives Package 4 includes 18 corridor alternatives. Each of these corridor alternatives share the same configuration for I-94. This I-94 configuration includes building one additional southbound I-94 lane from I-694 to Dowling Avenue and converting one southbound I-94 lane to a managed lane from Dowling Avenue to North 4th Street (i.e., Element G, with direct connection and Element H, without direct connection). Figure 7.18 illustrates the Hwy 252 and I-94 Corridor Alternatives Package 4. The 18 corridor alternatives included with Package 4 are summarized below.

- Corridor Alternative G.1: includes construction of Hwy 252 as a six-lane expressway. Five to six at-grade intersections would remain on Hwy 252. The existing posted speed of 55 MPH on Hwy 252 would be maintained. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.2: includes construction of Hwy 252 as a four-lane low-speed arterial roadway. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to the 35 MPH to 45 MPH range. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.3: includes construction of Hwy 252 as a six-lane low-speed arterial roadway and no changes on I-94 between I-694 and North 4th Street. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be set in the 35 MPH to 45 MPH range. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.4: includes reconstructing Hwy 252 as a low-speed four-lane grade-separated facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be reduced to 45 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.5: includes reconstructing Hwy 252 as a four-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.7: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.8: includes constructing a two-lane grade-separated bypass facility parallel to Hwy 252. Existing Hwy 252 would be redesigned as a four-lane roadway and existing at-grade intersections would remain. The two-lane bypass would be accessible on the north end at Hwy 610 and the south end at I-94/I-694. Posted speeds on the two-lane bypass would be 60 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative G.9: includes constructing Hwy 252 as a three-lane, low-speed local collector road and severing the connection between Hwy 252 and Hwy 610 in Brooklyn Park. Includes constructing a dedicated transitway for transit vehicles only between Hwy 610 and I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative H.1: includes construction of Hwy 252 as a six-lane expressway. Five to six at-grade intersections would remain on Hwy 252. The existing posted speed of 55 MPH on Hwy 252 would be maintained. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.2: includes construction of Hwy 252 as a four-lane low-speed arterial roadway. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive

and the third lane on northbound Hwy 252 south of 85th Avenue would be removed. Five to six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to the 35 MPH to 45 MPH range. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.3: includes construction of Hwy 252 as a six-lane low-speed arterial roadway and no changes on I-94 between I-694 and North 4th Street. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be set in the 35 MPH to 45 MPH range. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.4: includes reconstructing Hwy 252 as a low-speed four-lane grade-separated facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be reduced to 45 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.5: includes reconstructing Hwy 252 as a four-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.7: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

Figure 7.18 Hwy 252 and I-94 Corridor Alternatives Package 4

Note: Direct connection is only looked at under a managed lane scenario. Managed lane can be E-ZPass, high-occupancy vehicle, or bus-only.

Note: Each alternative is compatible with all advancing transit concepts.

- Corridor Alternative H.8: includes constructing a two-lane grade-separated bypass facility parallel to Hwy 252. Existing Hwy 252 would be redesigned as a four-lane roadway and existing at-grade intersections would remain. The two-lane bypass would be accessible on the north end at Hwy 610 and the south end at I-94/I-694. Posted speeds on the two-lane bypass would be 60 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

- Corridor Alternative H.9: includes constructing Hwy 252 as a three-lane, low-speed local collector road and severing the connection between Hwy 252 and Hwy 610 in Brooklyn Park. Includes constructing a dedicated transitway for transit vehicles only between Hwy 610 and I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on southbound I-94 between Dowling Avenue and North 4th Street to a managed lane.

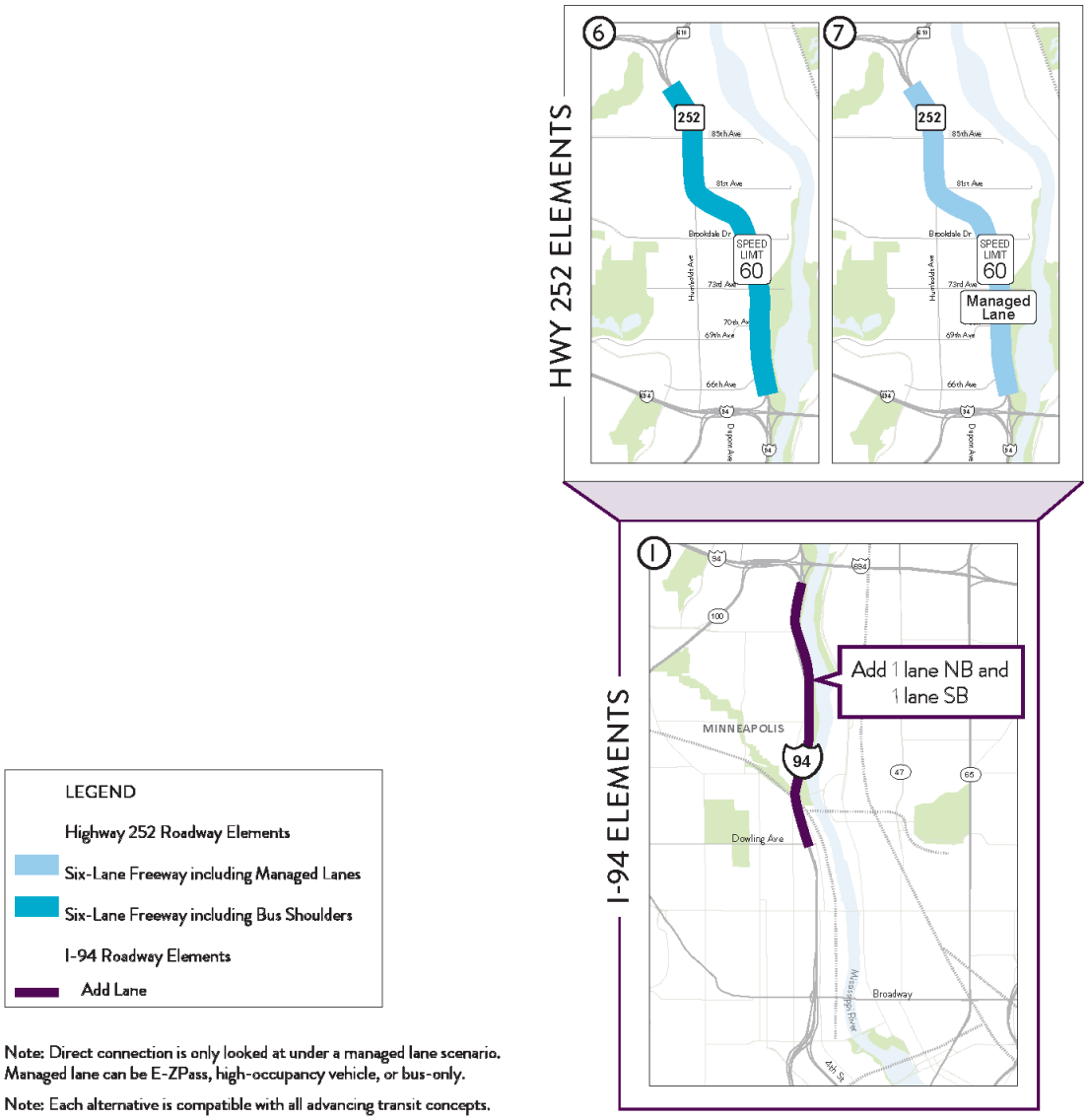
Hwy 252 and I-94 Corridor Alternatives Package 5

Hwy 252 and I-94 Corridor Alternatives Package 5 includes two corridor alternatives. Each of these corridor alternatives share the same configuration for I-94 (i.e., Element I, Build One Northbound I-94 Lane and One Southbound I-94 Lane from I-694 to Dowling Avenue). Figure 7.19 illustrates the Hwy 252 and I-94 Corridor Alternatives Package 5. The two corridor alternatives included with Package 5 are summarized below.

- Corridor Alternative I.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility with bus shoulders and constructing a new lane on northbound and southbound I-94 between I-694 and Dowling Avenue. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH.

- Corridor Alternative I.7: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including two managed lanes and constructing a new lane on northbound and southbound I-94 between I-694 and Dowling Avenue. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. The inside-most lane on northbound and southbound Hwy 252 would be operated as managed lanes. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area.

Figure 7.19 Hwy 252 and I-94 Corridor Alternatives Package 5



Hwy 252 and I-94 Corridor Alternatives Package 6

Hwy 252 and I-94 Corridor Alternatives Package 6 includes 18 corridor alternatives. Each of these corridor alternatives share the same configuration for I-94. This I-94 configuration includes building one additional northbound I-94 lane and one additional southbound I-94 lane from I-694 to Dowling Avenue, and converting one northbound I-94 lane and one southbound I-94 lane to managed lanes from Dowling Avenue to North 4th Street (i.e., Element J, with direct connection and Element K, without direct connection). Figure 7.20 illustrates the Hwy 252 and I-94 Corridor Alternatives Package 6. The 18 corridor alternatives included with Package 6 are summarized below.

- Corridor Alternative J.1: includes construction of Hwy 252 as a six-lane expressway. Five to six at-grade intersections would remain on Hwy 252. The existing posted speed of 55 MPH on Hwy 252 would be maintained. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.2: includes construction of Hwy 252 as a four-lane low-speed arterial roadway. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed. Five to six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to the 35 MPH to 45 MPH range. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as a managed lane and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.3: includes construction of Hwy 252 as a six-lane low-speed arterial roadway and no changes on I-94 between I-694 and North 4th Street. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be set in the 35 MPH to 45 MPH range. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as a managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.4: includes reconstructing Hwy 252 as a low-speed four-lane grade-separated facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be reduced to 45 MPH. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.5: includes reconstructing Hwy 252 as a four-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North

4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.7: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including managed lanes. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.8: includes constructing a two-lane grade-separated bypass facility parallel to Hwy 252. Existing Hwy 252 would be redesigned as a four-lane roadway and existing at-grade intersections would remain. The two-lane bypass would be accessible on the north end at Hwy 610 and the south end at I-94/I-694. Posted speeds on the two-lane bypass would be 60 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as managed lane and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative J.9: includes constructing Hwy 252 as a three-lane, low-speed local collector road and severing the connection between Hwy 252 and Hwy 610 in Brooklyn Park. Includes constructing a dedicated transitway for transit vehicles only between Hwy 610 and I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as managed lane and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes. Includes a direct connection from the southbound I-94 managed lane to the North 4th Street exit ramp to downtown Minneapolis.

- Corridor Alternative K.1: includes construction of Hwy 252 as a six-lane expressway. Five to six at-grade intersections would remain on Hwy 252. The existing posted speed of 55 MPH on Hwy 252 would be maintained. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as a managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.2: includes construction of Hwy 252 as a four-lane low-speed arterial roadway. The third lane on northbound and southbound Hwy 252 south of Brookdale Drive and the third lane on northbound Hwy 252 south of 85th Avenue would be removed. Five to six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to the 35 MPH to 45 MPH range. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as a managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.3: includes construction of Hwy 252 as a six-lane low-speed arterial roadway and no changes on I-94 between I-694 and North 4th Street. One new lane would be added in each direction on Hwy 252 north of Brookdale Drive, resulting in a continuous six-lane design from Hwy 610 to I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be set in the 35 MPH to 45 MPH range. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as a managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.4: includes reconstructing Hwy 252 as a low-speed four-lane grade-separated facility. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be reduced to 45 MPH. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.5: includes reconstructing Hwy 252 as a four-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.6: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including bus shoulders. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

Figure 7.20 Hwy 252 and I-94 Corridor Alternatives Package 6

Note: Direct connection is only looked at under a managed lane scenario. Managed lane can be E-ZPass, high-occupancy vehicle, or bus-only.

Note: Each alternative is compatible with all advancing transit concepts.

- Corridor Alternative K.7: includes reconstructing Hwy 252 as a six-lane grade-separated freeway facility including managed lanes. Existing at-grade intersections on Hwy 252 would be removed and replaced with interchanges. Posted speeds on Hwy 252 would be 60 MPH like those on other freeway facilities in the Twin Cities Metropolitan Area. Includes adding one lane on northbound and southbound I-94 between I-694 and Dowling Avenue as managed lanes and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.8: includes constructing a two-lane grade-separated bypass facility parallel to Hwy 252. Existing Hwy 252 would be redesigned as a four-lane roadway and existing at-grade intersections would remain. The two-lane bypass would be accessible on the north end at Hwy 610 and the south end at I-94/I-694. Posted speeds on the two-lane bypass would be 60 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as managed lane and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

- Corridor Alternative K.9: includes constructing Hwy 252 as a three-lane, low-speed local collector road and severing the connection between Hwy 252 and Hwy 610 in Brooklyn Park. Includes constructing a dedicated transitway for transit vehicles only between Hwy 610 and I-94/I-694. Six at-grade intersections would remain on Hwy 252. Posted speeds on Hwy 252 would be reduced to 35 MPH. Includes adding one lane on southbound I-94 between I-694 and Dowling Avenue as managed lane and converting one lane on northbound and southbound I-94 between Dowling Avenue and North 4th Street to managed lanes.

Traffic Volume Forecasts

Future (year 2040) travel demand forecasts were prepared for the Hwy 252 elements and I-94 elements for corridor alternatives using the Hennepin County Travel Demand Model, incorporating output from Metropolitan Council's Activity Based Model for the Twin Cities Metropolitan Area. Background highway and transit assumptions were included in the travel demand forecasts consistent with state, regional, and local improvement programs and plans. Forecast traffic volumes were used in the evaluation of Hwy 252 elements and I-94 elements for corridor alternatives (see "Evaluation of Corridor Alternatives" section). Table 7.5 summarizes Hwy 252 traffic volumes under year 2040 conditions with Hwy 252 elements. Table 7.6 summarizes I-94 traffic volumes under year 2040 conditions with I-94 elements.

Table 7.5 Year 2040 Traffic Volume Forecasts, Hwy 252 Elements

Hwy 252 Location	No Build Alternative	1. Six-Lane Expressway	2. Four-Lane Low Speed Arterial Roadway	3. Six-Lane Low Speed Arterial Roadway	4. Four-Lane Low Speed Freeway	5. Four-Lane Freeway Including Bus Shoulders	6. Six-Lane Freeway Including Bus Shoulders	7. Six-Lane Freeway Including Managed Lanes	8. Limited Access Super Two Expressway	9. Local Collector Road with Transitway
Hwy 610 to 85th Avenue	63,000	69,600	53,800	59,200	76,500	91,400	101,200	95,400	81,000	N/A
85th Avenue to Humboldt Avenue	65,000	72,100	55,000	61,400	80,200	97,900	111,500	103,700	84,200	27,800
Brookdale Drive to 73rd Avenue	62,000	67,300	50,300	56,800	76,600	95,700	110,200	102,100	82,400	28,500
70th Avenue to 66th Avenue	62,000	66,000	49,800	57,300	77,500	97,000	112,500	104,400	84,000	29,700
66th Avenue to I-694	70,000	74,100	59,600	64,300	83,700	101,500	114,000	107,400	90,400	43,200

Year 2040 forecast traffic volumes for Hwy 252 elements in vehicles per day (VPD).

Table 7.6 Year 2040 Traffic Volume Forecasts, I-94 Elements

I-94 Location	A. No Change on I-94 (No Build Alternative)	B/C. Southbound I-94 Lane Conversion to Managed Lane from I-694 to North 4th Street	D/E. Northbound and Southbound I-94 Lane Conversion to Managed Lanes from I-694 to North 4th Street	F. Southbound I-94 Lane Addition from I-694 to Dowling Avenue	G/H. Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lane Southbound I-94 Lane Conversion to Managed Lane from Dowling Avenue to North 4th Street	I. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue	J/K. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lanes Northbound and Southbound I-94 Lane Conversion to Managed Lanes from Dowling Avenue to North 4th Street
I-694 to 53rd Avenue	118,000	119,800	117,700	122,600	122,600	125,200	124,000
53rd Avenue to 49th Avenue	108,000	108,800	106,300	113,200	112,100	115,800	113,400
49th Avenue to Dowling Avenue	120,000	120,500	118,600	124,300	123,400	126,800	124,900
Dowling Avenue to 26th Avenue	121,000	121,500	120,500	124,000	123,300	125,600	124,500
Broadway Avenue to Plymouth Avenue	96,000	95,000	92,800	97,500	96,000	98,500	94,700

Year 2040 forecast traffic volumes for I-94 elements in vehicles per day (VPD).

Evaluation of Corridor Alternatives

Hwy 252 and I-94 corridor alternatives were evaluated in two parts: 1) evaluation of Hwy 252 elements for corridor alternatives, and 2) evaluation of I-94 elements for corridor alternatives. It was determined that Hwy 252 elements for corridor alternatives and I-94 elements for corridor alternatives could be evaluated independently of one another in scoping. Microsimulation modeling and analysis of Hwy 252/I-94 corridor alternatives will be completed with the Draft EIS.

Evaluation criteria for the Hwy 252 elements and I-94 elements for corridor alternatives included the project's needs, additional considerations, and select SEE impact areas. The Good/Fair/Poor rankings for each evaluation criteria are compared to the 2040 No Build Alternative. Transportation-related evaluation criteria were ranked based on whether the corridor alternative substantially improves the condition (Good rating), moderately improves the condition (Fair rating), or results in minimal to no improvement in the condition compared to the No Build Alternative (Poor rating). For impact-related evaluation criteria, the categories include whether a corridor alternative does not impact/avoids a resource (Good rating), may impact a resource (Fair rating), or does impact a resource (Poor rating). Table 7.3 lists the Good/Fair/Poor ratings and their definitions.

The Step 2 evaluation does not include a quantitative evaluation of vehicle mobility for I-94 alternatives with and without the direct connection to downtown Minneapolis. Traffic modeling tools used in this phase of the scoping evaluation do not include the level of detail necessary to analyze the with and without direct connection option. Microsimulation modeling of I-94 with and without the direct connection to downtown Minneapolis will be completed in the Draft EIS.

Table 7.7 and Table 7.8 include the Good/Fair/Poor ratings and summarize the evaluation results for the Hwy 252 and I-94 elements for corridor alternatives, respectively. Section 5.3 of the *Transportation Technical Report* in Appendix L of this SD includes the detailed evaluation results for the Hwy 252 elements and I-94 elements. The evaluation of I-94 elements includes an evaluation of vehicle safety and mobility with lane conversion to managed lanes and additional lanes on I-94. Pedestrians and bicyclists are prohibited from I-94. Therefore, Table 7.8 does not include walkability/bikeability evaluation criteria (e.g., pedestrian/bicycle safety, multimodal level of service).

Hwy 252 and I-94 Corridor Alternatives Key Findings

As noted above, Hwy 252 elements and I-94 elements for corridor alternatives were evaluated independently of one another in scoping. Key findings of the Hwy 252 elements and I-94 elements evaluation are summarized below.

- General traffic patterns show that Hwy 252 is an important connection for residents in Brooklyn Park and Brooklyn Center to access other major roadways. Over 50 percent of motorists on Hwy 252 begin their trip in Brooklyn Park (25 percent), Brooklyn Center (8 percent), or Minneapolis (20 percent). Hwy 252 also is a commuter route for north and northwest Twin Cities metropolitan area suburbs.
- Conversion of Hwy 252 to a freeway facility is expected to result in the greatest improvements in vehicle safety and walkability/bikeability. This is because the grade separation eliminates

vehicle conflicts between traffic on Hwy 252 and intersecting local streets. The grade separation also eliminates conflicts between high-speed traffic on Hwy 252 and pedestrians/bicyclists.

- The Hwy 252 at-grade elements (e.g., Element 1, Element 2, and Element 3) provide minimal vehicle safety and mobility benefits compared to other Hwy 252 corridor elements.
- Vehicle mobility improvements that attract traffic to Hwy 252 have the largest reduction in vehicle miles traveled and vehicle hours traveled on non-Hwy 252 roadways, including local roadways adjacent to Hwy 252, and result in the largest reduction in overall crash costs in Brooklyn Park, Brooklyn Center, and Minneapolis.
- The freeway elements are projected to increase traffic volumes on Hwy 252 under year 2040 conditions; however, vehicle mobility also progressively improves as additional capacity is added on Hwy 252. For example, the segment level of service (LOS) improves from LOS E/F during the morning and afternoon peak hours with Element 4 (Hwy 252 four-lane low speed freeway) to LOS D with Element 7 (Hwy 252 six-lane freeway including managed lanes).
- As capacity is added on Hwy 252, this attracts regional trips from other lower classification roadways (e.g., county highways, local streets), decreasing the vehicle miles traveled and vehicle hours traveled on these lower classification roadways. This reduction in vehicle miles traveled may lead to safer operations on the lower classification roadways as the total vehicle exposure is reduced for motorists and non-motorized users.
- Vehicle safety and mobility performance is similar among I-94 corridor elements.

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Table 7.7 Step 2 Corridor Alternatives Evaluation, Hwy 252 Elements

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative		1. Six-Lane Expressway		2. Four-Lane Low Speed Arterial Roadway		3. Six-Lane Low Speed Arterial Roadway		4. Four-Lane Low-Speed Freeway		5. Four-Lane Freeway Including Bus Shoulders		6. Six-Lane Freeway Including Bus Shoulders		7. Six-Lane Freeway Including Managed Lanes		8. Limited Access Super Two Expressway		9. Local Collector Road with Transitway	
Vehicle Safety	Intersection Crashes (Non-Mainline) (Total Annual Crash Costs)	85th Avenue	$1,492,084		$1,226,825		$1,127,352		$1,061,037		$490,730		$417,783		$437,678		$417,837		$895,250		$165,787	
		Humboldt Avenue	$1,052,658		$886,448		$775,642		$775,642		$0		$0		$0		$0		$609,433		$277,015	
		Brookdale Drive	$1,184,205		$1,287,179		$1,029,744		$1,081,231		$175,056		$123,569		$123,569		$123,569		$772,308		$772,308	
		73rd Avenue	$809,716		$844,922		$739,306		$774,511		$84,492		$77,451		$77,451		$77,451		$492,871		$528,076	
		70th Avenue	$636,857		$676,661		$557,250		$597,054		$15,921		$15,921		$7,961		$7,961		$358,232		$398,036	
		66th Avenue	$1,947,195		$2,041,414		$1,821,569		$1,758,756		$100,500		$94,219		$94,219		$87,938		$1,256,255		$1,256,255	
	Mainline Crashes	Hwy 252 Corridor	$8,406,000		$7,925,996		$6,754,150		$5,708,065		$3,328,387		$4,261,713		$5,832,945		$5,801,728		$7,879,500		$3,289,652	
	Network Crashes	Hwy 252 Corridor	$2,336,595		$2,333,741		$2,342,167		$2,338,878		$2,332,300		$2,324,316		$2,320,047		$2,324,779		$2,333,422		$2,358,898	
Vehicle Mobility	Corridor Travel Time (AM/PM)	Hwy 252 Corridor	13.9	7.7	6.4	6.1	15.0	12.3	7.3	7.4	5.4	5.1	5.3	4.2	4.1	4.1	4.2	4.1	4.1	4.1	12.5	12.6
	Travel Time Reliability (AM/PM)	Hwy 252 Corridor	2.6	3.4	2.5	2.9	3.3	2.0	3.0	2.8	1.3	1.4	1.7	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.9	2.2
	Peak Hour Person Throughput	Hwy 252 Corridor	30,284		31,622		27,714		30,061		32,889		36,635		39,695		38,725		34,738		21,755	
	Intersection LOS (AM/PM)	85th Avenue	LOS F	LOS F	LOS C	LOS E	LOS F	LOS E	LOS C	LOS D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	LOS D	LOS D	LOS F	LOS F
		Humboldt Avenue	LOS B	LOS F	LOS B	LOS D	LOS B	LOS F	LOS B	LOS F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	LOS B	LOS E	LOS D	LOS C
		Brookdale Drive	LOS E	LOS C	LOS C	LOS C	LOS E	LOS C	LOS D	LOS C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	LOS E	LOS B	LOS F	LOS D
		73rd Avenue	LOS B	LOS C	LOS B	LOS D	LOS B	LOS F	LOS C	LOS E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	LOS B	LOS C	LOS B	LOS F
		70th Avenue	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	LOS A	LOS A	LOS A	LOS F
		66th Avenue	LOS C	LOS D	LOS D	LOS D	LOS F	LOS F	LOS E	LOS D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	LOS F	LOS E	LOS F	LOS F
	Segment LOS (AM/PM) (1)	Hwy 252 Corridor	N/A		N/A	N/A	N/A	N/A	N/A	N/A	LOS F	LOS E	LOS F	LOS E	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	N/A	N/A
	Regional VMT	Hwy 252 Corridor	34,703,175		34,697,571		34,702,240		34,703,726		34,725,819		34,727,052		34,731,094		34,739,912		34,708,087		34,748,571	
	Regional VHT	Hwy 252 Corridor	1,023,296		1,022,353		1,024,992		1,023,815		1,022,778		1,020,321		1,020,350		1,019,585		1,021,707		1,031,080	
	Volume Diversion	Hwy 252 Corridor	151,915		-5,881		14,947		5,479		-17,227		-37,197		-51,599		-45,665		-22,470		42,904	
Walkability/ Bikeability	Pedestrian/Bicycle Safety (Intersection Crash Costs)	85th Avenue	$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	
		Humboldt Avenue	$24,498		$20,438		$17,602		$17,486		$0		$0		$0		$0		$13,416		$6,388	
		Brookdale Drive	$500,605		$539,983		$447,747		$460,284		$71,544		$54,231		$52,536		$52,536		$333,902		$320,871	
		73rd Avenue	$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	
		70th Avenue	$165,559		$173,786		$142,164		$148,639		$4,228		$3,159		$2,822		$2,762		$95,607		$101,731	
		66th Avenue	$47,740		$50,233		$44,603		$43,572		$2,553		$2,307		$2,304		$2,254		$30,660		$30,607	
	Multi-Modal Level of Service (Pedestrian LOS/Bicycle LOS) (2), (3)	85th Avenue	LOS F	LOS F	LOS F	LOS F	LOS C	LOS E	LOS D	LOS E	LOS A	LOS E	LOS A	LOS E	LOS A	LOS E	LOS A	LOS E	LOS C	LOS E	LOS B	LOS E
		Humboldt Avenue	LOS E	LOS F	LOS D	LOS E	LOS D	LOS F	LOS D	LOS F	LOS A	LOS E	LOS A	LOS E	LOS A	LOS E	LOS A	LOS E	LOS D	LOS F	LOS B	LOS E
		Brookdale Drive	LOS E	LOS F	LOS D	LOS E	LOS C	LOS F	LOS D	LOS F	LOS A	LOS E	LOS A	LOS E	LOS A	LOS E	LOS A	LOS E	LOS C	LOS F	LOS B	LOS E

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative	1. Six-Lane Expressway	2. Four-Lane Low Speed Arterial Roadway	3. Six-Lane Low Speed Arterial Roadway	4. Four-Lane Low-Speed Freeway	5. Four-Lane Freeway Including Bus Shoulders	6. Six-Lane Freeway Including Bus Shoulders	7. Six-Lane Freeway Including Managed Lanes	8. Limited Access Super Two Expressway	9. Local Collector Road with Transitway
Walkability/ Bikeability	Multi-Modal Level of Service (Pedestrian LOS/Bicycle LOS) [2], [3]	73rd Avenue	LOS F / LOS F	LOS D / LOS E	LOS C / LOS F	LOS D / LOS F	LOS A / LOS E	LOS A / LOS E	LOS A / LOS E	LOS A / LOS E	LOS C / LOS F	LOS C / LOS E
		70th Avenue	LOS E / LOS F	LOS D / LOS E	LOS B / LOS E	LOS B / LOS E	LOS A / LOS E	LOS A / LOS E	LOS A / LOS E	LOS A / LOS E	LOS B / LOS E	LOS A / LOS E
		66th Avenue	LOS E / LOS F	LOS D / LOS E	LOS C / LOS F	LOS D / LOS F	LOS A / LOS E	LOS A / LOS E	LOS A / LOS E	LOS A / LOS E	LOS C / LOS F	LOS C / LOS E
Additional Considerations	Consistency with Metropolitan Council Transportation Policy Plan	Hwy 252 Corridor	Does not include managed lanes, maintains existing bus only shoulders	Includes bus only shoulders Improves person throughput compared to No Build Does not eliminate bus-only shoulders, precludes managed lanes	Does not include transit advantage) Does not improve person throughput compared to No Build Eliminates bus-only shoulders, precludes managed lanes	Does not include transit advantage Does not improve person throughput compared to No Build Eliminates bus-only shoulders, precludes managed lanes	Does not include transit advantage Improves person throughput compared to No Build Eliminates bus-only shoulders, does not preclude future managed lanes	Does not include managed lanes, bus only shoulders Improves person throughput compared to No Build Does not eliminate bus-only shoulders, does not preclude future managed lanes	Does not include managed lanes, bus only shoulders Improves person throughput compared to No Build Does not eliminate bus-only shoulders, does not preclude future managed lanes	Includes managed lanes, high level of transit advantage Improves person throughput compared to No Build Includes managed lanes	Does not include managed lanes, high level of transit advantage Improves person throughput compared to No Build Does not preclude future managed lanes	Does not include managed lanes, high level of transit advantage Reduces person throughput compared to No Build Does not eliminate existing transit advantage, does not preclude future managed lanes
Social, Economic, and Environmental Considerations	Community Facilities	Hwy 252 Corridor	No impact to community facilities	No impacts to community facilities	No impacts to community facilities	No impacts to community facilities	Potential impacts to community facilities	Potential impacts to community facilities	Potential impacts to community facilities	Potential impacts to community facilities	No impacts to community facilities	No impacts to community facilities
	Community Cohesion	Hwy 252 Corridor	No new physical barriers within a neighborhood or community	No new physical barriers within a neighborhood or community	No new physical barriers within a neighborhood or community	No new physical barriers within a neighborhood or community	Expands an existing physical barrier within a neighborhood or community	Expands an existing physical barrier within a neighborhood or community	Expands an existing physical barrier within a neighborhood or community	Expands an existing physical barrier within a neighborhood or community	Creates a new physical barrier within a neighborhood or community	No new physical barriers within a neighborhood or community
			No change in neighborhood traffic	No change in traffic in neighborhoods	Potential increase in neighborhood traffic	Potential increase in neighborhood traffic	Potential increase in neighborhood traffic	Potential increase in neighborhood traffic	Potential increase in neighborhood traffic	Potential increase in neighborhood traffic	No change in traffic in neighborhoods	Increase in neighborhood traffic
	Future Land Uses	Hwy 252 Corridor	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans	Consistent with local comprehensive plans
	Environmental Justice	Hwy 252 Corridor	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits
	Right of Way	Hwy 252 Corridor	No right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations	No right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition Potential commercial or residential relocations	Potential impacts to properties requiring right of way acquisition Potential commercial or residential relocations	Potential impacts to properties requiring right of way acquisition Potential commercial or residential relocations	Potential impacts to properties requiring right of way acquisition Potential commercial or residential relocations	Potential impacts to properties requiring right of way acquisition Potential commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations
	Section 4(f) Resources	Hwy 252 Corridor	No use of Section 4(f) resources	No Section 4(f) involvement anticipated	No Section 4(f) involvement anticipated	No Section 4(f) involvement anticipated	Section 4(f) anticipated to be de minimis	Section 4(f) anticipated to be de minimis	Section 4(f) anticipated to be de minimis	Section 4(f) anticipated to be de minimis	No Section 4(f) involvement anticipated	No Section 4(f) involvement anticipated

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative	1. Six-Lane Expressway	2. Four-Lane Low Speed Arterial Roadway	3. Six-Lane Low Speed Arterial Roadway	4. Four-Lane Low-Speed Freeway	5. Four-Lane Freeway Including Bus Shoulders	6. Six-Lane Freeway Including Bus Shoulders	7. Six-Lane Freeway Including Managed Lanes	8. Limited Access Super Two Expressway	9. Local Collector Road with Transitway
Social, Economic, and Environmental Considerations	Historic Properties	Hwy 252 Corridor	No impact to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties
	Aquatic Resources	Hwy 252 Corridor	No impacts to wetlands or other aquatic resources	May impact wetlands and other aquatic resources	No impacts to wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources
	Floodplains	Hwy 252 Corridor	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment
	Mississippi River Bluff Impact Zone	Hwy 252 Corridor	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment
	Mississippi River Shore Impact Zone	Hwy 252 Corridor	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment
	Mississippi River Corridor Critical Area (MRCCA)	Hwy 252 Corridor	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities

Refer also to Section 5.3 in the *Transportation Technical Report* in Appendix L of this SD.

See Table 7.3 at the beginning of Section 7.3 of this SD for the general definitions of the Good/Fair/Poor rankings.

Results for Hwy 252 freeway elements are presented as an average based on Hwy 252 access combinations. See Section 7.3.2 of this SD for vehicle safety, vehicle mobility, and walkability/bikeability results by Hwy 252 access alternative.

LOS = level of service, VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour, N/A = not applicable, NRHP = National Register of Historic Places

Intersection and mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Segment level of service (LOS) is a measure of congestion on freeways and uses a grading system of A to F. Segment LOS A represents free-flow conditions and segment LOS F represents a break down in traffic flow.

(2) Multi-Modal Level of Service (MMLOS) for Hwy 252 freeway elements include interchange ramp terminal intersections. Poor ranking for bicycle LOS represents a minimum condition (e.g., on-road bicycle use adjacent to vehicle travel lanes). Bicycle LOS depends on the amount of separation from vehicle traffic (e.g., shared lane, bike lane, separated bikeway, etc.). The Draft EIS will evaluate design features to improve bicycle LOS.

(3) Poor ranking for bicycle level of service (LOS) for Hwy 252 non-freeway elements is because of crossing distances, number of lanes at intersections, and vehicle speeds on Hwy 252.

Table 7.8 Step 2 Corridor Alternatives Evaluation, I-94 Elements

Category	Evaluation Criteria	A. No Change on I-94 (No Build Alternative)		B/C. Southbound I-94 Lane Conversion to Managed Lane from I-694 to North 4th Street		D/E. Northbound and Southbound I-94 Lane Conversion to Managed Lanes from I-694 to North 4th Street		F. Southbound I-94 Lane Addition from I-694 to Dowling Avenue		G/H. Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lane Southbound I-94 Lane Conversion to Managed Lane from Dowling Avenue to North 4th Street		I. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue		J/K. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lanes Northbound and Southbound I-94 Lane Conversion to Managed Lanes from Dowling Avenue to North 4th Street	
Vehicle Safety	Mainline Crashes	$8,128,876		$8,327,142		$8,446,101		$6,978,938		$6,820,326		$6,146,224		$5,908,305	
	Network Crashes	$2,336,595		$2,334,568		$2,334,444		$2,330,337		$2,333,708		$2,329,474		$2,333,682	
Vehicle Mobility	Corridor Travel Time (AM/PM)	7.4	6.5	7.7	6.6	7.7	9.4	7.5	6.6	7.6	6.5	7.7	5.6	7.6	6.2
	Managed Lane Travel Time (AM/PM)	N/A	N/A	7.3	N/A	7.3	6.0	N/A	N/A	6.2	N/A	N/A	N/A	6.2	5.4
	Travel Time Reliability (AM/PM)	1.9	2.0	1.5	2.0	1.5	2.0	1.6	2.0	1.5	2.0	1.6	1.4	1.5	1.5
	Peak Hour Person Throughput	30,284		31,460		31,804		33,587		31,902		33,857		32,900	
	Segment LOS (AM/PM) (1)	LOS D	LOS F	LOS F	LOS F	LOS F	LOS F	LOS D	LOS F	LOS D	LOS F	LOS D	LOS F	LOS D	LOS F
	Regional VMT	34,703,175		34,700,596		34,695,097		34,703,486		34,703,652		34,703,795		34,708,786	
	Regional VHT	1,023,296		1,022,623		1,022,577		1,021,674		1,022,315		1,021,196		1,022,184	
	Volume Diversion	151,915		4,516		11,719		-15,359		1,988		-16,884		4,998	
Additional Considerations	Consistency with Metropolitan Council Transportation Policy Plan	Does not include managed lanes, maintains existing bus-only shoulders		Includes managed lanes (high level of transit advantage) Improves person throughput compared to No Build Does not eliminate existing transit advantage, provides managed lanes		Includes managed lanes (high level of transit advantage) Improves person throughput compared to No Build Does not eliminate existing transit advantage, provides managed lanes		Does not include managed lanes, maintains bus only shoulders Improves person throughput compared to No Build Does not eliminate existing transit advantage, does not preclude future managed lanes		Includes managed lanes (high level of transit advantage) Improves person throughput compared to No Build Does not eliminate existing transit advantage, provides managed lanes		Does not include managed lanes, maintains bus only shoulders Improves person throughput compared to No Build Does not eliminate existing transit advantage, does not preclude future managed lanes		Includes managed lanes (high level of transit advantage) Improves person throughput compared to No Build Does not eliminate existing transit advantage, provides managed lanes	
Social, Economic, and Environmental Considerations	Community Facilities	No impacts to community facilities		No impacts to community facilities		No impacts to community facilities		No impacts to community facilities		No impacts to community facilities		No impacts to community facilities		No impacts to community facilities	
	Community Cohesion	No new physical barriers within a neighborhood or community		No new physical barriers within a neighborhood or community		No new physical barriers within a neighborhood or community		No new physical barriers within a neighborhood or community		No new physical barriers within a neighborhood or community		No new physical barriers within a neighborhood or community		No new physical barriers within a neighborhood or community	
		No change in neighborhood traffic		Potential increase in neighborhood traffic		Potential increase in neighborhood traffic		No change in traffic in neighborhoods		Potential increase in neighborhood traffic		No change in traffic in neighborhoods		Potential increase in neighborhood traffic	
	Future Land Uses	Consistent with local comprehensive plans		Consistent with local comprehensive plans		Consistent with local comprehensive plans		Consistent with local comprehensive plans		Consistent with local comprehensive plans		Consistent with local comprehensive plans		Consistent with local comprehensive plans	
	Environmental Justice	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits		Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits		Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits		Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits		Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits		Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits		Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits	

Category	Evaluation Criteria	A. No Change on I-94 (No Build Alternative)	B/C. Southbound I-94 Lane Conversion to Managed Lane from I-694 to North 4th Street	D/E. Northbound and Southbound I-94 Lane Conversion to Managed Lanes from I-694 to North 4th Street	F. Southbound I-94 Lane Addition from I-694 to Dowling Avenue	G/H. Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lane Southbound I-94 Lane Conversion to Managed Lane from Dowling Avenue to North 4th Street	I. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue	J/K. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lanes Northbound and Southbound I-94 Lane Conversion to Managed Lanes from Dowling Avenue to North 4th Street
Social, Economic, and Environmental Considerations	Right of Way	No right of way acquisition No commercial or residential relocations	No right of way acquisition No commercial or residential relocations	No right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations	Potential impacts to properties requiring right of way acquisition No commercial or residential relocations
	Section 4(f) Resources	No use of Section 4(f) resources	No Section 4(f) involvement anticipated	No Section 4(f) involvement anticipated	Section 4(f) anticipated to be de minimis	Section 4(f) anticipated to be de minimis	Section 4(f) anticipated to be de minimis	Section 4(f) anticipated to be de minimis
	Historic Properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties	No impacts to known NRHP eligible/listed properties
	Aquatic Resources	No impacts to wetlands and other aquatic resources	No impacts to wetlands and other aquatic resources	No impacts to wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources	May impact wetlands and other aquatic resources
	Floodplains	No floodplain encroachment	No floodplain encroachment	No floodplain encroachment	May result in floodplain encroachment	May result in floodplain encroachment	May result in floodplain encroachment	May result in floodplain encroachment
	Mississippi River Bluff Impact Zone	No bluff impact zone encroachment	No bluff impact zone encroachment	No bluff impact zone encroachment	May result in bluff impact zone encroachment	May result in bluff impact zone encroachment	May result in bluff impact zone encroachment	May result in bluff impact zone encroachment
	Mississippi River Shore Impact Zone	No shore impact zone encroachment	No shore impact zone encroachment	No shore impact zone encroachment	May result in shore impact zone encroachment	May result in shore impact zone encroachment	May result in shore impact zone encroachment	May result in shore impact zone encroachment
	Mississippi River Corridor Critical Area (MRCCA)	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities	Consistent with general development standards for public facilities

Refer also to Section 5.3 in the *Transportation Technical Report* in Appendix L of this SD.

See Table 7.3 at the beginning of Section 7.3 of this SD for the general definitions of the Good/Fair/Poor rankings.

LOS = level of service, VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour, N/A = not applicable, NRHP = National Register of Historic Places

Mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Segment level of service (LOS) is a measure of congestion on freeways and uses a grading system of A to F. Segment LOS A represents free-flow conditions and segment LOS F represents a breakdown in traffic flow.

Hwy 252 and Functional Classification

The Hwy 252 corridor elements include designs that would change the function of Hwy 252 in the overall roadway network. Changing the roadway classification of Hwy 252 from a principal arterial roadway to a minor arterial or collector roadway would result in changes in travel patterns and volumes on project study area roadways. Information regarding roadway classification and Hwy 252 was presented to the Policy Advisory Committee on June 27, 2022. The following sections describe functional classification and summarizes the Hwy 252 corridor element modeling results presented to the Policy Advisory Committee.

Functional Classification Descriptions

Functional classification describes the role or purpose that a roadway serves within the overall transportation system. Appendix D in Metropolitan Council's *2040 Transportation Policy Plan* describes functional classification.[32]

Functional classification identifies the role a highway or street plays in the transportation system. Some highways are intended to emphasize mobility for longer distance trips, while other roads are intended to primarily provide access to land.

The following list summarizes characteristics of roadway functional classification and includes the functional classification of Hwy 252 corridor elements.

- Principal arterial roadways function to move large volumes of traffic over longer distances rather than providing direct access to land. Hwy 252 is currently classified as a principal arterial roadway. Hwy 252 corridor elements classified as a principal arterial roadway include Element 1, Element 4, Element 5, Element 6, and Element 7.
- Minor arterial roadways function to supplement principal arterial roadways and provide connections to principal arterials. Minor arterials support access to major traffic generators and serve medium to short-distance trips. Hwy 252 corridor elements classified as a minor arterial roadway include Element 2, Element 3, and Element 8.
- Collector roads function to support mobility and land access. Collector roads typically serve short distance trips of one to four miles. The Hwy 252 corridor element classified as a collector roadway includes Element 9.

Functional Classification Analysis Results

Existing Hwy 252 is an expressway facility and is classified as a principal arterial roadway. Hwy 252 connects to other principal arterial roadways (i.e., Hwy 610, I-94/I-694) and is supported by a

[32] Metropolitan Council. *2040 Transportation Policy Plan*. Appendix D Functional Classification Criteria and Characteristics, and MnDOT Access Guidance available at https://metrocouncil.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan/The-Adopted-2040-TPP-(1)/Final-2040-Transportation-Policy-Plan/2040-TPP-Appendix-D-Functional-Class.aspx.

network of minor arterial and collector roadways. The regional travel demand model was used to assess changes in traffic volumes compared to the 2040 No Build Alternative with conversion of Hwy 252 to a freeway facility or changing its classification to a lower classification roadway.

Figure 7.21 illustrates the projected changes in traffic volumes with the conversion of Hwy 252 to a lower classification roadway (e.g., arterial road, collector road). Changing the functional classification of Hwy 252 to a lower classification roadway is anticipated to shift traffic to other regional roadways such as Hwy 169, Hwy 47, and Hwy 65, as well as other nearby local roads (e.g., county highways, local roads). The traffic volume on Hwy 252 is projected to decrease by more than 15 percent compared to the 2040 No Build Alternative. Other nearby roadways, including 85th Avenue, Noble Parkway, Zane Avenue and West Broadway Avenue are anticipated to experience an increase in traffic volumes. For example, the projected traffic volume on Noble Parkway is anticipated to increase by 50 percent compared to the 2040 No Build Alternative with conversion of Hwy 252 to a lower classification roadway. Humboldt Avenue is anticipated to experience a reduction in traffic volumes compared to the 2040 No Build Alternative with changing the functional classification of Hwy 252 to a collector road; however, Humboldt Avenue would experience an increase in traffic with maintaining the functional classification of Hwy 252 as an expressway.

Figure 7.21 Change in Hwy 252 to Local Road and Traffic Volume Shift

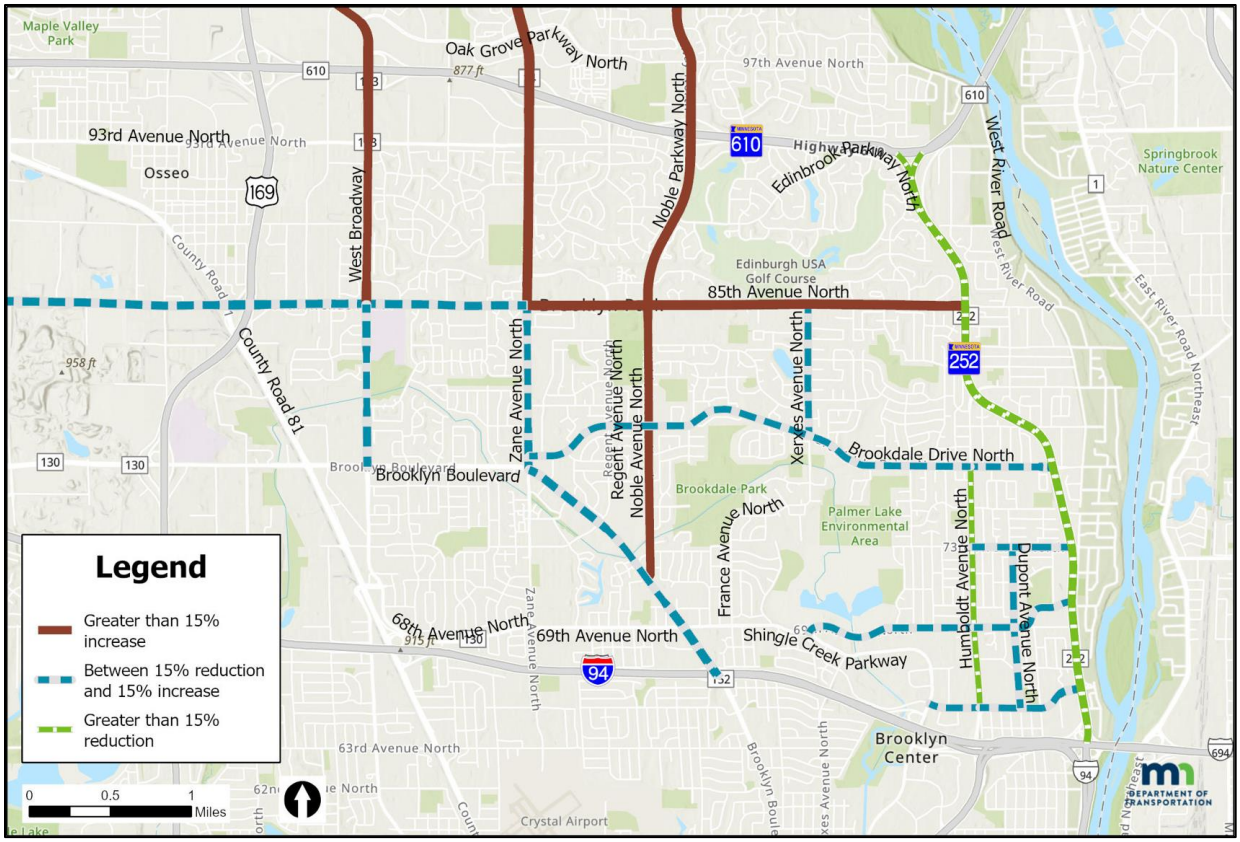
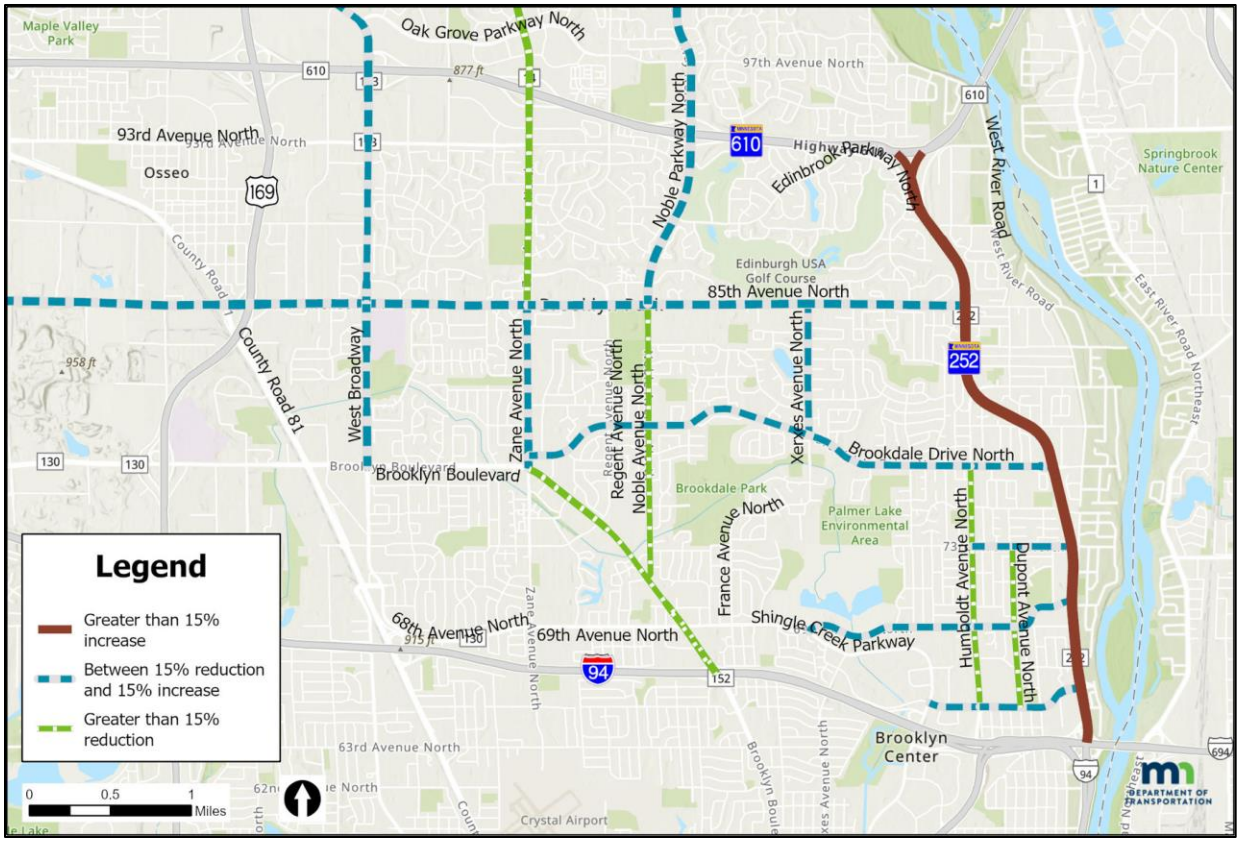


Figure 7.22 illustrates the projected changes in traffic volumes with conversion of Hwy 252 to a freeway facility. When Hwy 252 is converted to a freeway facility, the traffic volume on Hwy 252 is projected to increase by at least 15 percent compared to the 2040 No Build Alternative. Conversion of Hwy 252 to a freeway facility attracts trips from other regional roadways as well as other nearby local roads (e.g., county highways, local streets). For example, the projected traffic volume on Humboldt Avenue is anticipated to decrease by 35 percent compared to the 2040 No Build Alternative.

Figure 7.22 Change in Hwy 252 to Freeway and Traffic Volume Shift



Hwy 252 Four-Lane Freeway (Element 5) and Six-Lane Freeway (Element 6)

An initial assessment of forecast traffic volumes on nearby local roads with Element 5 and Element 6 was completed as part of the scoping process. Section 5.4.3 in the *Transportation Technical Report* in Appendix L of this SD includes tables illustrating projected traffic volumes on local streets, including percent changes in traffic compared to the 2040 No Build Alternative. Key findings of traffic on nearby local roads with Element 5 and Element 6 are summarized below.

- In general, traffic volumes on most nearby local roads are projected to decrease compared to the 2040 No Build Alternative with Element 5 and Element 6.
- In general, traffic volumes on most nearby local roads are projected to be lower with Element 6 compared to Element 5. This change varies from 50 vehicles per day on 73rd Avenue east of Humboldt Avenue to 1,750 vehicles per day on Zane Avenue between Brooklyn Boulevard and 85th Avenue.
- Four nearby local roads are projected to see an increase in traffic volumes with Element6 compared to Element 5. Local roads with an increase in projected traffic volumes under Element 6 compared to Element 5 include West Broadway Avenue north of 85th Avenue, 85th Avenue east of Zane Avenue, and 70th and 65th Avenues between Shingle Creek Parkway and Humboldt Avenue. This increase varies between 50 vehicles per day and 200 vehicles per day.
- This evaluation assumed interchange access at each existing intersection location along Hwy 252. Traffic volumes on nearby local roads will change depending on the number and location of Hwy 252 interchange access (see Section 7.3.2 of this SD).

Corridor Alternatives Conclusion

The following sections identify the Hwy 252 and I-94 corridor elements eliminated from further consideration, the corridor elements retained for further study in Step 3 of the alternative evaluation process, and the Hwy252/I-94 corridor alternatives retained for further consideration in the Draft EIS.

Hwy 252 and I-94 Corridor Elements Eliminated from Further Consideration

Hwy 252 Corridor Elements

The Step 2 evaluation started with nine Hwy 252 corridor elements. The following five Hwy 252 corridor elements are eliminated from further consideration and not recommended for further study in the Draft EIS.

- Element 2. Hwy 252 four-lane low speed arterial roadway
- Element 3. Hwy 252 six-lane low speed arterial roadway
- Element 4. Hwy 252 four-lane low speed freeway
- Element 8. Hwy 252 limited access super two expressway
- Element 9. Hwy 252 local collector roadway with transitway

The following sections describes the key factors in making the decision to eliminate these five Hwy 252 corridor alternatives from further consideration. Key factors include vehicle safety and trip diversion to local roadways, safety and mobility for pedestrians and bicyclists crossing Hwy 252, transit considerations, and vehicle mobility.

Element 2. Hwy 252 Four-Lane Low Speed Arterial Roadway

Element 2 is eliminated from further consideration and will not be studied further in the Draft EIS because of vehicle safety and diversion of traffic to local streets; lower pedestrian and bicycle safety and mobility performance compared to Hwy 252 freeway elements; and poor vehicle mobility performance as measured by intersection operations, corridor travel times, and person throughput.

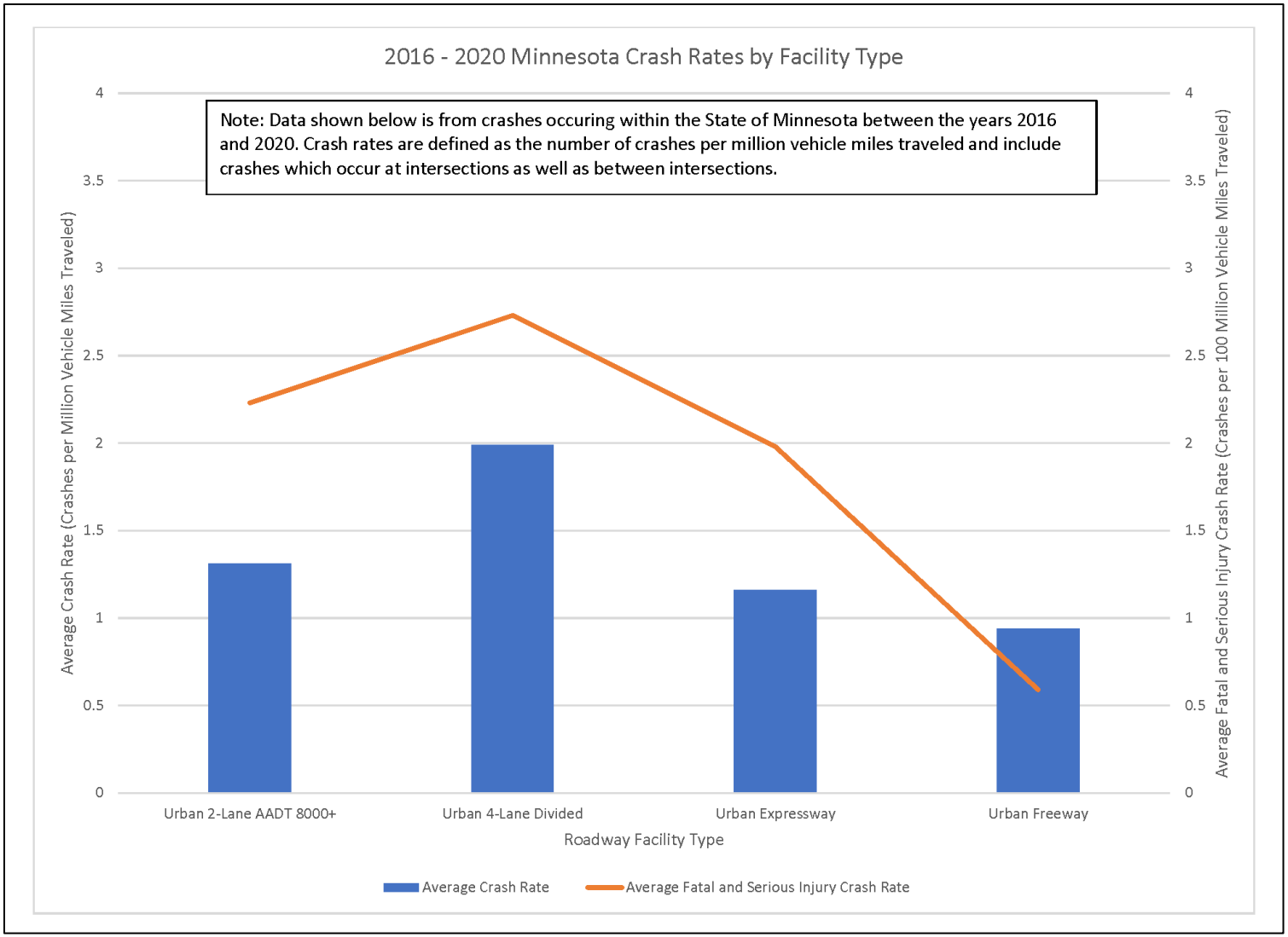
- Element 2 results in lower mainline crash costs compared to the 2040 No Build Alternative. This is because the reduced capacity of Element 2 diverts traffic from Hwy 252 to other nearby roads (e.g., county highways, local roads), resulting in lower volumes on Hwy 252 compared to No Build conditions. There is no crash modification factor for maintaining the existing Hwy 252 at-grade intersections and reducing the number of travel lanes. The lower mainline crash cost is an artifact of the lower traffic volumes on Hwy 252 with Element 2.

- Element 2 results in higher network crash costs compared to the 2040 No Build Alternative. This is because Element 2 diverts traffic from Hwy 252 to other nearby roads (e.g., county highways, local roads) (see "Hwy 252 and Functional Classification" section above). Crash rates describe the number of crashes in a given period as compared to the traffic volume (or exposure). Figure 7.23 illustrates crash rates and crash severity rates in Minnesota for the five-year period from 2016 to 2020 by facility type. Lower classification roadways such as urban two-lane roads have higher crash rates and higher crash severity rates (fatal and serious injury crashes) compared to freeways. The increase in traffic on other nearby roads (e.g., county highways, local roads) with Element 2 increases exposure and the likelihood of vehicle crashes on these roads.

- Pedestrian and bicycle safety as measured by intersection crash costs is improved with Element 2 compared to the No Build Alternative. This is because traffic diverts to other nearby roadways (see "Hwy 252 and Functional Classification" section above), resulting in lower traffic volumes on Hwy 252 and lower vehicle-pedestrian/bicycle exposure at Hwy 252 intersections. However, the increase in traffic on nearby local roads (e.g., county highways, local roads) increases exposure and vehicle-pedestrian/bicycle conflicts, increasing the likelihood of crashes involving vehicles and pedestrian/bicyclists on these roads.

- Element 2 includes at-grade intersections along Hwy 252. Pedestrians and bicyclists are exposed to Hwy 252 through traffic with the at-grade intersections, creating potential vehicle-pedestrian/bicycle conflicts. This conflict could be mitigated with pedestrian and bicycle overpass bridges over Hwy 252. Experience with pedestrian and bicycle overpasses on other signalized roadways indicates that some users will continue to attempt to cross the roadway at-grade. The construction of a pedestrian and bicycle overpass bridge alone does not remove vehicle-pedestrian/bicycle conflicts with at-grade facilities.

Figure 7.23 2016 to 2020 Minnesota Crash Rates by Facility Type



- The pedestrian mobility performance of Element 2 as measured by pedestrian LOS is lower compared to the Hwy 252 freeway facility alternatives. The Hwy 252 at-grade intersections are projected to operate at pedestrian LOS D or better with Element 2. The Hwy 252 freeway facilities are projected to operate at LOS A.
- Five of the six Hwy 252 intersections with Element 2 are projected to operate at LOS E or worse during peak hours. These intersections are projected to be over-capacity and experience poor operations. The vehicle mobility performance of Element 2 as measured by corridor travel times and peak hour person throughput is lower than the No Build Alternative.

Element 3. Hwy 252 Six-Lane Low Speed Arterial Roadway

Element 3 is eliminated from further consideration and will not be studied further in the Draft EIS because of vehicle safety and diversion of traffic to local streets; lower pedestrian and bicycle safety and mobility performance compared to Hwy 252 freeway elements; and poor vehicle mobility performance as measured by intersection operations, corridor travel times, and person throughput.

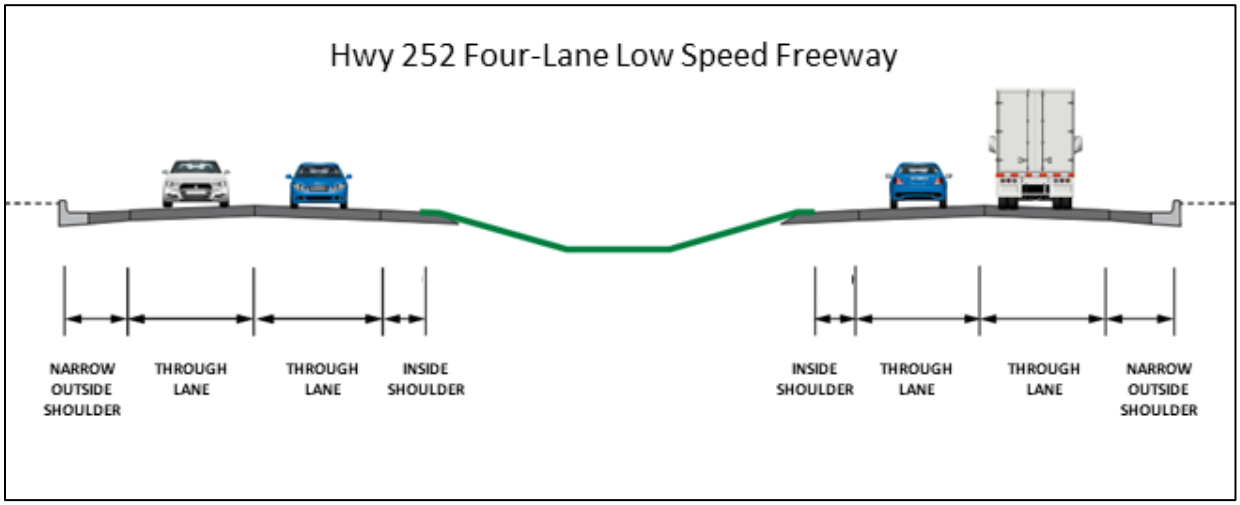
- Element 3 results in higher network crash costs compared to the 2040 No Build Alternative. This is because Element 3 diverts traffic from Hwy 252 to other nearby roads (e.g., county highways, local roads) (see "Hwy 252 and Functional Classification" section above). The increase in traffic on other nearby roads increases exposure and the likelihood of vehicle crashes on these roads (see Figure 7.23 above).
- Four of the six Hwy 252 at-grade intersections were ranked in the "poor" category for intersection crash costs. The reduction in intersection crash costs with Element 3 is an artifact of the lower traffic volumes on Hwy 252 compared to the No Build Alternative. Element 3 does not provide an advantage or benefit in terms of intersection crash costs when compared to the Hwy 252 freeway elements.
- The increase in traffic on nearby local roads (e.g., county highways, local roads) with Element 3 increases exposure and vehicle-pedestrian/bicycle conflicts, increasing the likelihood of crashes involving vehicles and pedestrians/bicyclists on these roads.
- Element 3 includes at-grade intersections along Hwy 252. Pedestrians and bicyclists are exposed to Hwy 252 through traffic with the at-grade intersections, creating potential vehicle-pedestrian/bicycle conflicts. See the discussion of Element 2 above.
- The pedestrian mobility performance of Element 3 as measured by pedestrian LOS is lower compared to the Hwy 252 freeway facility alternatives. The Hwy 252 at-grade intersections are projected to operate at pedestrian LOS D or better with Element 2. The Hwy 252 freeway facilities are projected to operate at LOS A.
- Three of the six Hwy 252 intersections with Element 3 are projected to operate at LOS E or worse during peak hours. These intersections are projected to be over-capacity and experience poor operations.

Element 4. Hwy 252 Four-Lane Low Speed Freeway

Element 4 is eliminated from further consideration and will not be studied further in the Draft EIS because it eliminates transit advantages from the Hwy 252 corridor and does not provide additional vehicle safety and mobility benefits compared to other Hwy 252 freeway elements.

- The intersection, mainline, and network crash costs with Element 4 are improved compared to the No Build Alternative. However, intersection and network crash costs are greater with Element 4 compared to other Hwy 252 freeway elements.
- People drive at the speed at which they feel most comfortable based on roadway conditions and design. To encourage lower speeds, the Element 4 design would include narrow outside shoulders (e.g., 6-foot wide outside shoulders) and reduced lane widths. Figure 7.24 illustrates a Hwy 252 four-lane low speed freeway typical section. Narrow, 6-foot wide outside shoulders would remove existing bus-only shoulders from Hwy 252 and prohibit transit advantages from operating on Hwy 252.

Figure 7.24 Hwy 252 Element 4 Typical Section



- Historic crash data was reviewed for Hwy 252. This review showed that speeding contributed to approximately 20 percent of Hwy 252 crashes. When predicting the future number of crashes, speed limit is almost never a factor. As noted above, roadway design and conditions determine the speed at which drivers are comfortable driving.
- Element 4 does not improve vehicle mobility performance when compared to the No Build Alternative and the Hwy 252 six-lane freeway elements. Element 4 is projected to be congested during the morning and afternoon peak hours. The segment LOS with Element 4 is projected to be LOS F/E during the morning and afternoon peak hours. Element 4 also results in lower person throughput compared to other Hwy 252 elements.

Element 8. Hwy 252 Limited Access Super Two Expressway

Element 8 is eliminated from further consideration and will not be studied further in the Draft EIS because of lower vehicle safety performance compared to other elements; lower pedestrian and bicycle safety performance compared to Hwy 252 freeway elements; lower vehicle mobility performance as measured by intersection operations; and other operational considerations identified by MnDOT.

- Element 8 results in lower mainline crash costs compared to the 2040 No Build Alternative. However, the mainline crash costs with Element 8 are greater than other Hwy 252 expressway, arterial roadway, and freeway elements. Element 8 provides no advantage or benefit in terms of vehicle safety compared to other Hwy 252 elements.

- Element 8 includes at-grade intersections along Hwy 252. While Hwy 252 through traffic is expected to use the bypass facility, at-grade intersections would remain on Hwy 252 for access and connectivity. Pedestrians and bicyclists are exposed to Hwy 252 traffic with the at-grade intersections, creating potential vehicle-pedestrian/bicycle conflicts.

- Intersection operations at the Hwy 252 and 66th Avenue intersection are projected to be worse under Element 8 compared to the 2040 No Build Alternative. The Hwy 252 and 66th Avenue intersection operates at an overall LOS C/D during the morning and afternoon peak hours under the 2040 No Build Alternative. The Hwy 252 and 66th Avenue intersection operates at an overall LOS F/E during peak hours with Element 8.

- Feedback from MnDOT functional groups and State Highway Patrol was also a consideration in the decision to eliminate Element 8 from further consideration. Highway incidents such as crashes on the super two expressway facility would be expected to create substantial delays and congestion. Access points and additional systems (e.g., gates) would be needed along the super two expressway facility to provide access for emergency service providers. Breaks in the barriers along the super two expressway facility for emergency access would create an additional safety hazard. The super two expressway facility presents additional challenges for winter maintenance and snow removal.

Element 9. Hwy 252 Local Collector Roadway with Transitway

Element 9 is eliminated from further consideration and will not be studied further in the Draft EIS because of vehicle safety and diversion of traffic to local streets; lower pedestrian and bicycle safety performance compared to Hwy 252 freeway elements; and poor vehicle mobility performance as measured by intersection operations.

- Element 9 results in lower mainline crash costs compared to the 2040 No Build Alternative. This is because the reduced capacity of Element 9 diverts traffic from Hwy 252 to other nearby roads (e.g., county highways, local roads), resulting in lower volumes on Hwy 252 compared to No Build conditions. See the discussion of Element 2 above.

- Element 9 results in higher network crash costs compared to the 2040 No Build Alternative. This is because Element 9 diverts traffic from Hwy 252 to other nearby roads (e.g., county highways, local roads) (see "Hwy 252 and Functional Classification" section above). The increase in traffic on other nearby roads increases exposure and the likelihood of vehicle crashes on these roads.
- The increase in traffic on nearby local roads (e.g., county highways, local roads) with Element 9 increases exposure and vehicle-pedestrian/bicycle conflicts, increasing the likelihood of crashes involving vehicles and pedestrians/bicyclists on these roads.
- Element 9 includes at-grade intersections along Hwy 252. Pedestrians and bicyclists are exposed to Hwy 252 through traffic with the at-grade intersections, creating potential vehicle-pedestrian/bicycle conflicts. See the discussion of Element 2 above.
- Three of the six Hwy 252 intersections with Element 9 are projected to operate at LOS F during the morning peak hour, and four of the six Hwy 252 intersections with Element 9 are projected to operate at LOS F during the afternoon peak hour. These intersections are projected to be over-capacity and experience poor operations during peak hours.

I-94 Corridor Elements

The Step 2 evaluation started with 11 I-94 corridor elements. Six of the I-94 corridor elements are eliminated from further consideration. These elements were eliminated from further consideration and will not be studied in the Draft EIS because there are no vehicle mobility and transit advantage benefits compared to other elements. The following list describes key factors in making determinations for eliminating certain I-94 corridor elements from further consideration.

- Element C. Convert One Southbound I-94 Lane to Managed Lane from I-694 to North 4th Street, Without Direct Connection. This element does not include a direct connection to downtown Minneapolis at North 4th Street. Without the direct connection, southbound I-94 managed lane users will need to weave across traffic lanes to enter downtown Minneapolis at North 4th Street. This minimizes the effectiveness of the managed lane. Studies completed during the EA phase indicated that the I-94 managed lane would lose approximately 40 to 60 percent of its users without the direct connection. Transit service providers also have indicated that express buses on southbound I-94 would likely not use a managed lane without the direct connection because of weaving across lanes at the system interchange and near the North 4th Street entrance to Minneapolis. Therefore, the southbound I-94 lane conversion to a managed lane without a direct connection was eliminated from further consideration.
- Element E. Convert One Northbound I-94 Lane and One Southbound I-94 Lane to Managed Lanes from I-694 to North 4th Street, Without Direct Connection. This element does not include a direct connection to and from downtown Minneapolis at North 4th Street. The effectiveness of the managed lane is minimized without a direct connection at North 4th Street (see discussion above). This element also shows the worst performance for northbound I-94 corridor travel times during the afternoon peak hour among the I-94 corridor elements. Therefore, the

northbound and southbound I-94 lane conversion to managed lanes without a direct connection was eliminated from further consideration.

- Element F. Southbound I-94 Lane Addition from I-694 to Dowling Avenue. This element maintains existing bus-only shoulders and does not include managed lanes on I-94. Bus-only shoulders provide a lower level of transit advantage compared to managed lanes. Managed lanes provide a congestion-free, reliable alternative for transit riders during peak travel times, whereas bus-only shoulders are used by transit vehicles under certain operating conditions. The additional general purpose lane capacity has minimal benefit to I-94 performance. Corridor travel time and reliability are similar across I-94 elements. Morning peak hour level of service (LOS D) is the same with the southbound I-94 general purpose lane addition as compared to the managed lane addition. Element F is also less consistent with the Metropolitan Council's *2040 Transportation Policy Plan* strategy for prioritizing mobility investments. Therefore, this element was eliminated from further consideration.

- Element H. Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lane, Convert One Southbound I-94 Lane to Managed Lane from Dowling Avenue to North 4th Street, Without Direct Connection. This element does not include a direct connection to and from downtown Minneapolis at North 4th Street. The effectiveness of the managed lane is minimized without a direct connection at North 4th Street (see discussion above). Therefore, this element was eliminated from further consideration.

- Element I. Northbound and Southbound I-94 Lane Addition from I-694 to Dowling Avenue. This element maintains existing bus-only shoulders and does not include managed lanes on I-94. Bus-only shoulders provide a lower level of transit advantage compared to managed lanes. Managed lanes provide a congestion-free, reliable alternative for transit riders during peak travel times, whereas bus-only shoulders are used by transit vehicles under certain operating conditions. The additional general purpose lane capacity has minimal benefit to I-94 performance. Corridor travel time and reliability are similar across I-94 elements. Morning and afternoon peak hour level of service (LOS D/F) is the same as other elements that add I-94 managed lanes. Element I is also less consistent with the Metropolitan Council's *2040 Transportation Policy Plan* strategy for prioritizing mobility investments. Therefore, this element was eliminated from further consideration.

- Element K. Northbound I-94 and Southbound I-94 Lane Addition from I-694 to Dowling Avenue as Managed Lanes, Convert One Northbound I-94 Lane and One Southbound I-94 Lane to Managed Lane from Dowling Avenue to North 4th Street, Without Direct Connection. This element does not include a direct connection to and from downtown Minneapolis at North 4th Street. The effectiveness of the managed lanes is minimized without a direct connection at North 4th Street (see discussion above). Therefore, this element was eliminated from further consideration.

Hwy 252 and I-94 Corridor Elements Retained for Further Consideration

No Build Alternative

The No Build Alternative does not address the vehicle safety, vehicle mobility, and walkability/bikeability needs for the project (see "Step 1 Corridor Element Conclusions" above). The No Build Alternative will continue to be carried forward for evaluation in Step 3 as it serves as the baseline condition against which build alternatives are compared.

Hwy 252 Corridor Elements

The Step 2 analysis started with nine corridor alternatives for Hwy 252. The following four Hwy 252 corridor alternatives will be retained for further consideration in Step 3 and the Draft EIS.

- Element 1. Hwy 252 six-lane expressway
- Element 5. Hwy 252 four-lane freeway including bus shoulders
- Element 6. Hwy 252 six-lane freeway including bus shoulders
- Element 7. Hwy 252 six-lane freeway including managed lanes

Element 1. Hwy 252 Six-Lane Expressway

Element 1 is retained for more detailed evaluation in Step 3. In general, vehicle safety and mobility performance improves under the Hwy 252 six-lane expressway compared to the 2040 No Build Alternative. This is because the additional capacity with the Hwy 252 six-lane expressway reduces congestion and congestion-related crashes compared to the 2040 No Build Alternative.

Element 1 is retained for further study in Step 3 because it provides the opportunity to evaluate vehicle safety, walkability/bikeability, and vehicle mobility performance of innovative intersection designs for Hwy 252 at-grade intersections, including "pedestrian-friendly" at-grade intersection designs.

Element 5. Hwy 252 Four-Lane Freeway including Bus Shoulders

Element 5 is retained for further consideration in the Draft EIS because Element 5 will improve safety, walkability/bikeability, and mobility and provides a transit advantage along the Hwy 252 corridor. Public feedback was also an important factor in the decision to retain Element 5 for further study in the Draft EIS. The following list describes the key factors in making the determination for retaining Element 5 for further study in the Draft EIS.

- The mainline crash cost for Element 5 is projected to be lower than the 2040 No Build Alternative and Hwy 252 non-freeway elements. The reduction in mainline crash costs with Element 5 is related to the reduction in congestion compared to the 2040 No Build Alternative and eliminating vehicle conflicts between Hwy 252 through traffic and intersecting roadway traffic. This is the key vehicle safety benefit of the freeway grade separations compared to Hwy 252 at-grade elements.

- The additional capacity with Element 5 attracts trips from other roadways, including adjacent lower classification roadways (i.e., county highways and local streets). This is anticipated to improve overall network vehicle safety by reducing exposure and likelihood of vehicle crashes on lower classification roadways.
- The grade separations with Element 5 benefits pedestrian and bicycle safety and mobility. The grade separations eliminate potential conflicts between Hwy 252 traffic and pedestrians and bicyclists traveling across Hwy 252. The freeway grade separations reduce pedestrian and bicycle delays that occur with Hwy 252 at-grade intersections.
- Element 5 provides a transit advantage along Hwy 252. The four-lane freeway design accommodates non-continuous bus-only shoulders like the existing Hwy 252 bus-only shoulders. Maximum operating speed for transit vehicles in the bus-only shoulders would be 35 MPH.
- Element 5 is expected to result in greater right of way impacts compared to non-freeway elements because of interchanges at Hwy 252 access locations. Potential interchange configurations are identified in Section 7.4.4 of this SD. Interchange designs will be refined in the Draft EIS to avoid and minimize right of way impacts where feasible to adjacent properties.
- Traffic modeling completed as part of the Step 2 evaluation indicates that Element 5 would operate at acceptable levels of service (LOS D or better) for approximately 5 to 10 years following construction. Element 5 is expected to experience congestion under year 2040 conditions. Segment LOS with Element 5 is projected to be LOS F during the morning peak hour and LOS E during the afternoon peak hour. Microsimulation analysis of Element 5 will be completed in the Draft EIS. This next level of analysis will provide additional insight on how Element 5 performs in combination with I-94 elements. This microsimulation analysis will also include investigating mitigation measures to potentially improve the peak hour operations of Element 5 under future conditions.

Public Review and Comments

MnDOT hosted three rounds of public engagement during the Hwy 252/I-94 scoping process. This engagement provided the public with opportunities to submit feedback to MnDOT regarding the scoping process; scoping elements and alternatives; development and evaluation; and other issues of concern. Section 3.1 of this SD summarizes public engagement activities.

Public input was an important factor in deciding to retain Element 5 for further evaluation in the Draft EIS. More than 830 public comments were received during the development of this SD. Comments received did not overwhelmingly point towards one alternative or element. However, common comment themes included support for or against freeway conversion, safety, and environmental concerns (e.g., induced demand, VMT, air quality, traffic noise). These concerns are directly related to traffic volume forecasts. Year 2040 traffic volume forecasts with Element 5 are projected to be approximately 9,800 to 15,500 vehicles per day less than with the Hwy 252 six-lane freeway elements.

The scoping evaluation shows that Element 5 improves vehicle safety and mobility performance compared to the 2040 No Build Alternative. The scoping analysis included an evaluation of regional VMT for all Hwy 252 elements. Hwy 252 freeway elements increase regional VMT compared to the 2040 No Build Alternative; however, the regional VMT increase is less with Element 5 compared to the Hwy 252 six-lane freeway elements. Detailed analyses including air quality and traffic noise modeling will be completed in the Draft EIS phase of the project development process.[33] Based on this feedback, Element 5 is recommended for further study in the Draft EIS as an alternative to the Hwy 252 six-lane freeway elements.

Element 6, Hwy 252 Six-Lane Freeway including Bus Shoulders and Element 7, Hwy 252 Six-Lane Freeway including Managed Lanes

Element 6 and Element 7 are retained for further study in the Draft EIS because these elements will improve safety, walkability/bikeability, and mobility. Both elements provide a transit advantage along the Hwy 252 corridor. The following list describes the key factors in making the determination for retaining Element 6 and Element 7 for further study in the Draft EIS.

- The grade separations with Element 6 and Element 7 improve vehicle safety by eliminating vehicle conflicts between Hwy 252 through traffic and intersecting roadway traffic. The grade separations are projected to reduce congestion and congestion-related crashes on Hwy 252. This is the key vehicle safety benefit of the freeway grade separations compared to Hwy 252 elements with at-grade intersections.

- The additional capacity with Element 6 and Element 7 attracts trips from other roadways, including adjacent lower classification roadways (i.e., county highways and local streets). The traffic volume diversion from lower classification roadways to Hwy 252 is higher with Element 6 and Element 7 compared to the Hwy 252 four-lane freeway elements. This is anticipated to improve overall network vehicle safety by reducing exposure and likelihood of vehicle crashes on lower classification roadways.

- Element 6 and Element 7 improve network crashes compared to the 2040 No Build Alternative. All Hwy 252 elements rank in the "poor" category for network crashes because the reduction in network crash costs was less than 10 percent compared to the 2040 No Build Alternative; however, Element 6 and Element 7 result in lower network crash costs compared to other Hwy 252 elements.

- Element 6 and Element 7 rank in the "fair" category for Hwy 252 mainline crash costs. This is because traffic volumes on Hwy 252 are greater compared to the Hwy 252 four-lane freeway elements. Crash rates do not change with a four-lane freeway compared to a six-lane freeway; therefore, the higher traffic volumes with Element 6 and Element 7 translates into additional mainline crashes compared to other Hwy 252 elements.

[33] See Section 9.2.3 and Section 9.2.27 of this SD for a discussion of air quality and traffic noise analyses in the Draft EIS.

- Vehicle safety at the ramp terminal intersections with Element 6 and Element 7 is improved compared to the 2040 No Build Alternative and other non-freeway elements (i.e., lower intersection crash costs).
- The freeway grade separations with Element 6 and Element 7 benefit pedestrian and bicycle safety and mobility. The grade separations eliminate conflicts between Hwy 252 traffic and east-west pedestrian and bicycle travel across Hwy 252. The freeway grade separations reduce pedestrian and bicycle delays that occur with Hwy 252 at-grade intersections.
- Element 6 and Element 7 increase VMT compared to other Hwy 252 elements. This is because safety and mobility improvements on Hwy 252 with Element 6 and Element 7 attract trips from other roadways. Drivers are willing to travel greater distances for improved travel times. Element 6 and Element 7 reduce VHT compared to other alternatives because of improved corridor operations and travel times.
- Element 6 and Element 7 provide improved vehicle mobility performance as measured by segment LOS (LOS D) and meets the required 20-year design compared to the Hwy 252 four-lane freeway elements.
- Element 6 and Element 7 are expected to result in greater right of way impacts compared to non-freeway elements because of interchanges at Hwy 252 access locations. Potential interchange configurations are identified in Section 7.4.4 of this SD. Interchange designs will be refined in the Draft EIS to avoid and minimize right of way impacts where feasible to adjacent properties.
- Element 6 and Element 7 do not preclude implementing Hwy 252 improvements in phases. Section 7.5.8 of this SD discusses project phasing.

I-94 Corridor Elements

The Step 2 evaluation started with 11 corridor elements for I-94. The following five I-94 corridor elements will be retained for further consideration in the Draft EIS.

- Element A. No change on I-94.
- Element B. Convert one southbound I-94 lane from I-694 to Dowling Avenue with a direct connection into downtown Minneapolis at North 4th Street.
- Element D. Convert northbound I-94 lane and one southbound I-94 lane from I-694 to Dowling Avenue with a direct connection into downtown Minneapolis at North 4th Street.
- Element G. Build one additional southbound I-94 lane from I-694 to Dowling Avenue as a managed lane, convert one southbound I-94 lane from Dowling Avenue to North 4th Street to a managed lane, with a direct connection into downtown Minneapolis at North 4th Street.
- Element J. Build one additional northbound I-94 and one additional southbound I-94 lane from I-694 to Dowling Avenue as a managed lane, convert one northbound I-94 lane and one

southbound I-94 lane from Dowling Avenue to North 4th Street to managed lanes, with a direct connection into downtown Minneapolis at North 4th Street.

The key factors in making this determination include similar performance compared to alternatives that include general purpose lane capacity, benefits to person throughput and travel time reliability for all I-94 users into the future (beyond year 2040), and transit advantages with the managed lanes and direct connection to downtown Minneapolis. Microsimulation analysis (e.g., PTV VISSIM computer modeling) of I-94 managed lane conversion and managed lane addition will be completed as part of the Draft EIS.

Element A would not improve vehicle safety and mobility compared to the 2040 No Build Alternative (see Table 7.1 of this SD); however, Element A is compatible with the Hwy 252 four-lane freeway with bus shoulders. The Hwy 252 four-lane freeway with bus shoulders does not necessitate improvements through the I-94/I-694/Hwy 252 system interchange. Element A does not preclude pedestrian and bicycle enhancements across I-94 and does not preclude spot improvements that could improve vehicle mobility on I-94. Therefore, Element A is retained for further consideration in the Draft EIS.

Corridor Alternatives Recommended for Further Study

Fifty-two (52) possible corridor alternatives were identified for Hwy 252 and I-94 in this SD. These corridor alternatives were identified by combining the individual Hwy 252 and I-94 corridor elements. Hwy 252 and I-94 elements for corridor alternatives were evaluated independently of one another in scoping. Based on the Step 2 evaluation of Hwy 252 and I-94 elements, 41 of the Hwy 252 and I-94 corridor alternatives were dismissed from further consideration. Element 1 (Hwy 252 six-lane expressway) is retained for further study in Step 3 because it provides the opportunity to evaluate vehicle safety, walkability/bikeability, and vehicle mobility performance of innovative intersection designs for Hwy 252 at-grade intersections. The remaining individual Hwy 252 and I-94 elements recommended for further study in the Draft EIS are combined to create 10 Hwy 252 and I-94 corridor alternatives. Table 7.9 identifies the 10 Hwy 252 and I-94 corridor alternatives.

Table 7.9 List of Corridor Elements Combined to Develop Alternatives for Assessment in Draft EIS

Hwy 252 and I-94 Corridor Elements (1)	A. No Change on I-94	B. Convert One Southbound I-94 Lane to Managed Lane from I-694 to North 4th Street With Direct Connect	D. Convert One Northbound I-94 Lane and One Southbound I-94 Lane to Managed Lanes from I-694 to North 4th Street With Direct Connect	G. Build One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lane Convert One Southbound I-94 Lane to Managed Lane from Dowling Avenue to North 4th Street With Direct Connect	J. Build One Additional Northbound I-94 Lane and One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lanes Convert One Northbound I-94 Lane and One Southbound I-94 Lane from Dowling Avenue to North 4th Street to Managed Lanes With Direct Connect
1. Hwy 252 Six-Lane Expressway	Hwy 252 Element 1 retained for further study in Step 3	Not compatible	Not compatible	Not compatible	Not compatible
5. Hwy 252 Four-Lane Freeway Including Bus Shoulders	A.5 (1)	Not compatible	Not compatible	G.5 (5)	J.5 (8)
6. Hwy 252 Six Lane Freeway including Bus Shoulders	A.6 (2)	Not compatible	Not compatible	G.6 (6)	J.6 (9)
7. Hwy 252 Six-Lane Freeway including Managed Lanes	N/A	B.7 (3)	D.7 (4)	G.7 (7)	J.7 (10)

Not compatible = the Hwy 252 corridor element is not compatible with the I-94 corridor element. See assumptions listed in Section 7.3.1 of this SD.

The number in parentheses represents one of the 10 possible corridor alternatives when combining Hwy 252 and I-94 elements based on the assumptions listed in Section 7.3.1.

(1) The No Build Alternative will be carried forward to the Draft EIS as required under NEPA and MEPA. The No Build Alternative will be used as the basis for comparison of Hwy 252/I-94 corridor alternatives.

7.3.2 Step 2 Hwy 252 Access Combinations Evaluation

The corridor alternatives described above include three basic designs for the Hwy 252 elements: expressway, freeway, and a limited access super two expressway. The 6-lane expressway includes maintaining five to six at-grade intersections on Hwy 252. The limited access super two expressway includes one entrance and one exit at each end of the two-lane bypass facility and maintaining the existing intersections on Hwy 252 for local access. The purpose of the Hwy 252 access combinations evaluation is to identify the number and location of interchange access for the four-lane freeway and six-lane freeway elements.

Development of Hwy 252 Access Combinations

The following assumptions were used to develop the interchange access combinations for the Hwy 252 four-lane and six-lane freeway elements. These assumptions are based on the Metropolitan Council criteria for preliminary interchange access approval. The following list summarizes *Metropolitan Council Transportation Policy Plan* (TPP) criteria for preliminary access approval.[34] Chapter 4 of this SD describes the vehicle safety and mobility needs for the project.

- Consistency with local and regional planning: supports local comprehensive plans approved by the Metropolitan Council as well as approved state and regional plans.
- Project need: documented vehicle safety and mobility need.
- Functional classification: interchanges should connect principal arterial roadways to other principal arterials or a principal arterial to an A-minor arterial roadway.
- Local roadway network and access management: regional travel demand and operations for the principal arterial system should take precedence over local or land parcel development and related access needs.
- Interchange spacing: interchanges should be spaced at a minimum of one mile apart (center to center) along a freeway.

There are six existing access points on Hwy 252. Maintaining five or more access points with the Hwy 252 freeway elements can result in a negative impact on Hwy 252 traffic operations due to weaving between entering and exiting traffic at consecutive interchanges. Maintaining one access point with the Hwy 252 freeway elements can provide benefits to Hwy 252 traffic operations; however, this also results in the greatest impact to traffic operations on local roadways adjacent to Hwy 252 (i.e., concentrating traffic on local roadways destined to and from Hwy 252 at one access point). Therefore, access combinations for Hwy 252 freeway elements were identified with two, three, or four access points to Hwy 252.

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[34] Metropolitan Council. *2040 Transportation Policy Plan 2020 Update*. Approved November 18, 2020. Appendix F: Preliminary Interchange Approval Process available at https://metrocouncil.org/Transportation/Publications-And-Resources/Planning/2040-TRANSPORTATION-POLICY-PLAN-(2020-version)/Appendices/Appendix-F.aspx.

Five access combinations were identified for the Hwy 252 four-lane or six-lane freeway elements. These access combinations include two, three, or four access points on Hwy 252 with either full access interchanges or partial access interchanges. A full access interchange includes access to/from northbound and southbound Hwy 252 at an individual access point. A partial access interchange includes access to/from one direction on Hwy 252. Table 7.10 identifies the five access combinations for the Hwy 252 four-lane and six-lane freeway elements.[35] Figure 7.25 illustrates the five access combinations for the Hwy 252 four-lane and six-lane freeway elements.

Table 7.10 Description of Hwy 252 Access Combinations

Hwy 252 Four-Lane or Six Lane Freeway	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
85th Avenue	Full Access Interchange	Full Access Interchange	Full Access Interchange	Full Access Interchange	Full Access Interchange
Humboldt Avenue	Closed (1)	Closed (1)	Closed (1)	Closed (1)	Closed (1)
Brookdale Drive	Full Access Interchange	Partial Access Interchange (2)	Partial Access Interchange (2)	Full Access Interchange	Closed (1)
73rd Avenue	Closed (1)	Partial Access Interchange (3)	Partial Access Interchange (3)	Closed (1)	Full Access Interchange
70th Avenue	Closed (1)	Closed (1)	Closed (1)	Full Access Interchange	Closed (1)
66th Avenue	Full Access Interchange	Full Access Interchange	Closed (1)	Closed (1)	Closed (1)

(1) No access to/from Hwy 252 and intersecting local street. Could include local road over or under Hwy 252 using bridges for local connectivity across Hwy 252 or dedicated multi-use trail bridges for pedestrians and bicyclists.

(2) Includes access between Hwy 252 and Brookdale Drive to and from the north. Connects to 73rd Avenue with north and south frontage roads parallel to Hwy 252.

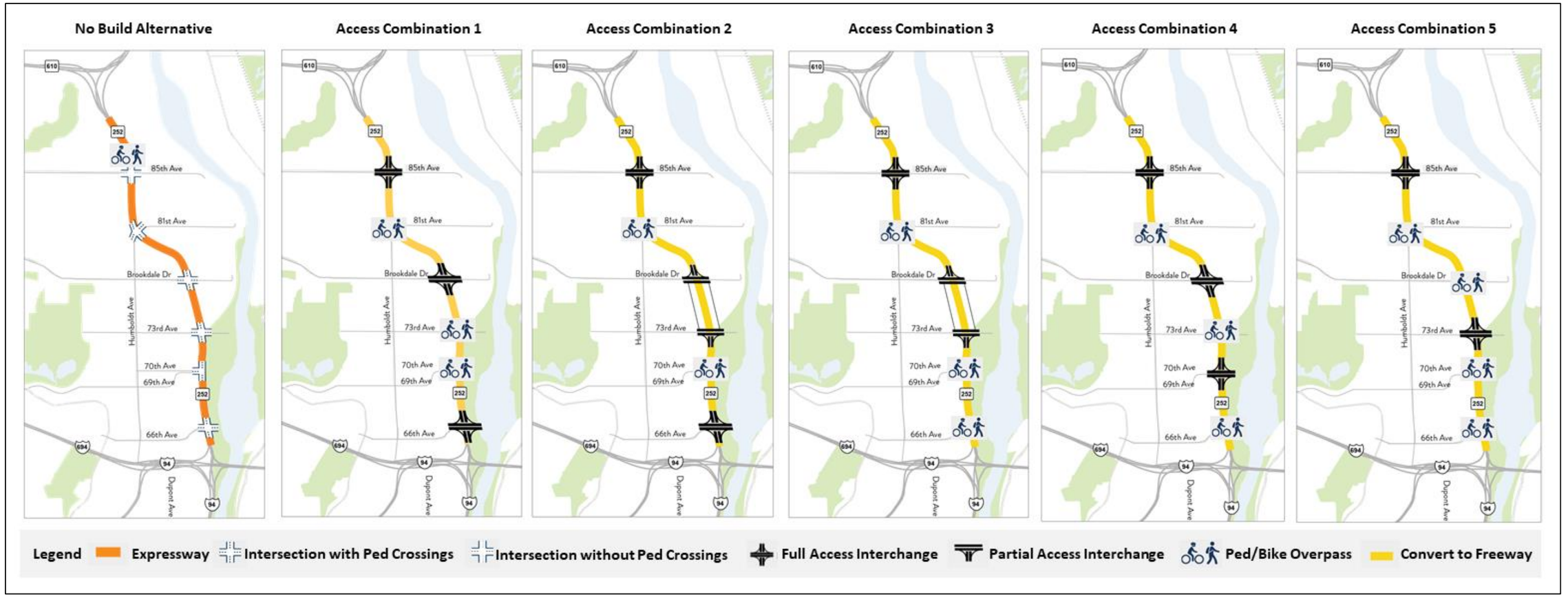
(3) Includes access between Hwy 252 and 73rd Avenue to and from the south. Connects to Brookdale Drive with north and south frontage roads parallel to Hwy 252.

Hwy 252 Access Combinations and Humboldt Avenue

The five Hwy 252 access combinations do not include a combination with interchange access at Humboldt Avenue/81st Avenue. Humboldt Avenue is a local collector street west of and parallel to Hwy 252. Humboldt Avenue extends from Hwy 252 in Brooklyn Park to 65th Avenue in Brooklyn Center. Interchange ramps to/from Hwy 100 connect with Humboldt Avenue at 65th Avenue. City staff and residents have observed cut-through traffic on Humboldt Avenue bypassing existing at-grade intersections on Hwy 252. Limiting access at Humboldt Avenue is expected to reduce the likelihood for Humboldt Avenue to be used as a cut-through route by regional traffic with the Hwy 252 freeway elements.

[35] The Hwy 252 access alternatives are applicable with the freeway elements (Element 4, Element 5, Element 6, and Element 7). The Hwy 252 at-grade facility elements maintain the six existing at-grade signalized intersections on Hwy 252.

Figure 7.25 Hwy 252 Four-Lane and Six-Lane Freeway Access Combinations



Interchange Spacing Crash Analysis

The Metropolitan Council TPP describes the criteria for preliminary access approval, including interchange spacing (see "Development of Hwy 252 Access Alternatives" above). This one-mile spacing is considered a desirable condition but is not an absolute minimum. Interchange spacing for the five Hwy 252 access alternatives varies from approximately 0.35 miles to 1.75 miles.[36]

Closely spaced interchanges are common in the Twin Cities Metropolitan Area. MnDOT, counties, and cities must balance the needs of roadway users while minimizing impacts to surrounding neighborhoods and must design roadways to fit within the existing transportation system. MnDOT prepared a comprehensive safety analysis of interchanges in the Twin Cities Metropolitan Area with less than one mile spacing between consecutive interchanges. This analysis considered crashes at all Metro Area interchanges, 215 interchanges with less than one mile spacing, and 189 interchanges with greater than one-mile spacing for the five-year period from 2015 through 2019. Table 7.11 summarizes the interchange spacing crash analysis results.

Table 7.11 Twin Cities Metropolitan Area Interchange Spacing Crash Analysis

	Locations with Less than One Mile Interchange Spacing	Locations with Greater than One-Mile Interchange Spacing	Total Metro Interchanges
Number of Interchanges	215	189	404
Average Total Crash Rate (crashes per one million entering vehicle miles traveled)	1.158	1.132	1.146
Average Severe Crash Rate (severe crashes per one million entering vehicle miles traveled)	0.805	1.212	0.995

The results of the crash analysis indicate that interchanges with spacing less than one mile had similar overall crash rates when compared to interchanges spaced greater than one mile for the five-year period from 2015 to 2019. The average severe crash rate was lower for interchanges with spacing less than one mile compared to interchanges spaced greater than one mile.

Evaluation of Hwy 252 Access Combinations

The Step 2 evaluation for Hwy 252 access combinations focuses on safety, mobility, and walkability/bikeability with the Hwy 252 freeway options. Table 7.12 through Table 7.15 summarize the Hwy 252 access combination evaluation results with Element 4, Element 5, Element 6, and Element 7. The Good/Fair/Poor rankings for each evaluation criteria are compared to the 2040 No

[36] As measured from center-to-center of interchanges.

Build Alternative as described above. The *Transportation Technical Report* in Appendix L of this SD includes detailed evaluation results for the Hwy 252 access combinations.

Hwy 252 Access Combinations Key Findings

Key findings of the Hwy 252 access combinations evaluation in Step 2 are listed below.

- The vehicle safety and walkability/bikeability performance was similar across the five access combinations for Hwy 252 freeway elements.
- Providing two access points to Hwy 252 is most consistent with Metropolitan Council criteria for interchange access (e.g., one-mile interchange spacing guideline); however, this also results in the greatest increase in traffic volumes on local roadways adjacent to Hwy 252.
- Providing three access points to Hwy 252 is less consistent with Metropolitan Council criteria for interchange access. It is more difficult to achieve the one-mile interchange spacing guideline with three access points to Hwy 252; however, providing three access points balances the traffic benefits and impacts on Hwy 252 and adjacent lower classification roadways (e.g., county highways, local streets).
- The number of access points determines how traffic is distributed along Hwy 252.
- The corridor level of service (LOS) progressively improves as additional capacity is added on Hwy 252 for all access combinations (i.e., four-lane low-speed freeway to four-lane freeway including bus shoulders to six-lane freeway including bus shoulders).[37]
- The number of freeway lanes, number of access points, and location of access points has minimal influence on Hwy 252 travel time reliability.

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[37] Traffic analysis completed during the EA phase indicated that Hwy 610 can accommodate additional traffic with added capacity on Hwy 252 with the four-lane freeway and six-lane freeway alternatives, and that I-94 experiences minimal increases in daily traffic volumes. Microsimulation modeling of Hwy 610 and I-94 will be completed for build alternatives with the Draft EIS.

Table 7.12 Step 2 Hwy 252 Access Combinations Summary with Element 4 (Four-Lane Low Speed Freeway)

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative		Access Combination 1		Access Combination 2		Access Combination 3		Access Combination 4		Access Combination 5	
Vehicle Safety	Intersection Crashes (non-mainline)	85th Avenue	$1,492.084		$464,204		$364,732		$497,361		$497,361		$629,991	
		Humboldt Avenue	$1,052,658		$0		$0		$0		$0		$0	
		Brookdale Drive	$1,184,205		$308,923		$102,974		$154,462		$308,923		$0	
		73rd Avenue	$809,716		$0		$105,615		$176,025		$0		$140,820	
		70th Avenue	$636,857		$0		$0		$0		$79,607		$0	
		66th Avenue	$1,947,195		$282,657		$219,845		$0		$0		$0	
	Mainline Crashes	Hwy 252 Corridor	$8,406,000		$3,352,616		$3,382,903		$3,247,775		$3,278,062		$3,380,578	
	Network Crashes	Hwy 252 Corridor	$2,336,595		$2,331,456		$2,332,338		$2,331,131		$2,333,185		$2,333,389	
Vehicle Mobility	Corridor Travel Time (AM/PM)	Hwy 252 Corridor	13.9	7.7	5.8	5.1	5.8	5.1	5.0	5.1	5.1	5.1	5.1	5.1
	Travel Time Reliability (AM/PM)	Hwy 252 Corridor	2.6	3.4	1.3	1.5	1.3	1.5	1.3	1.3	1.3	1.3	1.3	1.3
	Peak Hour Person Throughput	Hwy 252 Corridor	30,284		33,610		31,775		31,724		33,577		33,756	
	Segment LOS (AM/PM)	Hwy 252 Corridor	N/A	N/A	LOS F	LOS E	LOS F	LOS E	LOS F	LOS E	LOS F	LOS E	LOS E	LOS E
	Network VMT	Hwy 252 Corridor	34,703,175		34,718,697		34,733,223		34,716,788		34,730,826		34,729,561	
	Network VHT	Hwy 252 Corridor	1,023,296		1,002,450		1,023,020		1,022,264		1,023,097		1,023,060	
	Volume Diversion (1)	Hwy 252 Corridor	151,915		-17,787		-17,066		-15,653		-18,274		-17,355	

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Walkability/ Bikeability	Pedestrian and Bicycle Safety	85th Avenue	$0	$0	$0	$0	$0	$0
		Humboldt Avenue	$24,498	$0	$0	$0	$0	$0
		Brookdale Drive	$500,605	$126,273	$44,029	$61,475	$125,941	$0
		73rd Avenue	$0	$0	$0	$0	$0	$0
		70th Avenue	$165,559	$0	$0	$0	$21,138	$0
		66th Avenue	$47,740	$7,260	$5,508	$0	$0	$0

Refer also to Section 5.3.3 in the *Transportation Technical Report* in Appendix L of this SD.

LOS = level of service, VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour

Intersection and mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Volume diversion. A negative number indicates the daily traffic volume attracted to the Hwy 252/I-94 corridor from other routes. A positive number indicates the daily traffic volume that would divert from the Hwy 252/I-94 corridor to other routes.

Table 7.13 Step 2 Hwy 252 Access Combinations Summary with Element 5 (Four-Lane Freeway including Bus Shoulders)

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative		Access Combination 1		Access Combination 2		Access Combination 3		Access Combination 4		Access Combination 5	
Vehicle Safety	Intersection Crashes (non-mainline)	85th Avenue	$1,492.084		$397,889		$397,889		$397,889		$397,889		$497,361	
		Humboldt Avenue	$1,052,658		$0		$0		$0		$0		$0	
		Brookdale Drive	$1,184,205		$205,949		$102,974		$102,974		$205,949		$0	
		73rd Avenue	$809,716		$0		$140,820		$140,820		$0		$105,615	
		70th Avenue	$636,857		$0		$0		$0		$79,607		$0	
		66th Avenue	$1,947,195		$251,251		$219,845		$0		$0		$0	
	Mainline Crashes	Hwy 252 Corridor	$8,406,000		$4,247,267		$4,247,267		$4,291,535		$4,216,981		$4,305,516	
	Network Crashes	Hwy 252 Corridor	$2,336,595		$2,324,283		$2,322,717		$2,323,628		$2,324,968		$2,325,985	
Vehicle Mobility	Corridor Travel Time (AM/PM)	Hwy 252 Corridor	13.9	7.7	5.8	4.2	5.7	4.2	5.5	4.2	5.5	4.2	4.2	4.2
	Travel Time Reliability (AM/PM)	Hwy 252 Corridor	2.6	3.4	1.8	1.4	1.8	1.4	1.7	1.4	1.8	1.4	1.3	1.4
	Peak Hour Person Throughput	Hwy 252 Corridor	30,284		37,568		35,140		35,240		37,521		37,704	
	Segment LOS (AM/PM)	Hwy 252 Corridor	N/A	N/A	LOS F	LOS E	LOS F	LOS E	LOS F	LOS E	LOS F	LOS E	LOS F	LOS E
	Network VMT	Hwy 252 Corridor	34,703,175		34,729,940		34,716,192		34,720,964		34,727,340		34,740,825	
	Network VHT	Hwy 252 Corridor	1,023,296		1,020,588		1,019,650		1,019,876		1,020,335		1,021,154	
	Volume Diversion (1)	Hwy 252 Corridor	151,915		-37,371		-37,064		-36,482		-38,451		-36,617	

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Walkability/ Bikeability	Pedestrian and Bicycle Safety	85th Avenue	$0	$0	$0	$0	$0	$0
		Humboldt Avenue	$24,498	$0	$0	$0	$0	$0
		Brookdale Drive	$500,605	$126,273	$39,045	$43,365	$94,538	$0
		73rd Avenue	$0	$0	$0	$0	$0	$0
		70th Avenue	$165,559	$0	$0	$0	$15,793	$0
		66th Avenue	$47,740	$7,260	$5,666	$0	$0	$0

Refer also to Section 5.3.3 in the *Transportation Technical Report* in Appendix L of this SD.

LOS = level of service, VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour

Intersection and mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Volume diversion. A negative number indicates the daily traffic volume attracted to the Hwy 252/I-94 corridor from other routes. A positive number indicates the daily traffic volume that would divert from the Hwy 252/I-94 corridor to other routes.

Table 7.14 Step 2 Hwy 252 Access Combinations Summary with Element 6 (Six-Lane Freeway including Bus Shoulders)

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative		Access Combination 1		Access Combination 2		Access Combination 3		Access Combination 4		Access Combination 5	
Vehicle Safety	Intersection Crashes (non-mainline)	85th Avenue	$1,492.084		$431,046		$397,889		$431,046		$431,046		$497,361	
		Humboldt Avenue	$1,052,658		$0		$0		$0		$0		$0	
		Brookdale Drive	$1,184,205		$205,949		$102,974		$102,974		$205,949		$0	
		73rd Avenue	$809,716		$0		$140,820		$140,820		$0		$105,615	
		70th Avenue	$636,857		$0		$0		$0		$39,804		$0	
		66th Avenue	$1,947,195		$251,251		$219,845		$0		$0		$0	
	Mainline Crashes	Hwy 252 Corridor	$8,406,000		$5,782,620		$5,782,620		$5,857,174		$5,782,620		$5,959,690	
	Network Crashes	Hwy 252 Corridor	$2,336,595		$2,320,373		$2,319,420		$2,319,835		$2,318,865		$2,321,741	
Vehicle Mobility	Corridor Travel Time (AM/PM)	Hwy 252 Corridor	13.9	7.7	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	Travel Time Reliability (AM/PM)	Hwy 252 Corridor	2.6	3.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	Peak Hour Person Throughput	Hwy 252 Corridor	30,284		40,810		37,847		37,875		41,000		40,941	
	Segment LOS (AM/PM)	Hwy 252 Corridor	N/A	N/A	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D
	Network VMT	Hwy 252 Corridor	34,703,175		34,735,937		34,730,710		34,737,062		34,719,410		34,747,079	
	Network VHT	Hwy 252 Corridor	1,023,296		1,018,955		1,018,484		1,018,882		1,017,875		1,019,524	
	Volume Diversion (1)	Hwy 252 Corridor	151,915		-52,199		-51,156		-50,646		-52,773		-51,220	

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Walkability/ Bikeability	Pedestrian and Bicycle Safety	85th Avenue	$0	$0	$0	$0	$0	$0
		Humboldt Avenue	$24,498	$0	$0	$0	$0	$0
		Brookdale Drive	$500,605	$95,535	$35,223	$37,217	$94,705	$0
		73rd Avenue	$0	$0	$0	$0	$0	$0
		70th Avenue	$165,559	$0	$0	$0	$14,112	$0
		66th Avenue	$47,740	$5,902	$5,618	$0	$0	$0

Refer also to Section 5.3.3 in the *Transportation Technical Report* in Appendix L of this SD.

LOS = level of service, VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour

Intersection and mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Volume diversion. A negative number indicates the daily traffic volume attracted to the Hwy 252/I-94 corridor from other routes. A positive number indicates the daily traffic volume that would divert from the Hwy 252/I-94 corridor to other routes.

Table 7.15 Step 2 Hwy 252 Access Combinations Summary with Element 7 (Six-Lane Freeway including Managed Lanes)

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative		Access Combination 1		Access Combination 2		Access Combination 3		Access Combination 4		Access Combination 5	
Vehicle Safety	Intersection Crashes (non-mainline)	85th Avenue	$1,492.084		$397,889		$397,889		$397,889		$397,889		$497,361	
		Humboldt Avenue	$1,052,658		$0		$0		$0		$0		$0	
		Brookdale Drive	$1,184,205		$205,949		$102,974		$102,974		$205,949		$0	
		73rd Avenue	$809,716		$0		$140,820		$140,820		$0		$105,615	
		70th Avenue	$636,857		$0		$0		$0		$39,804		$0	
		66th Avenue	$1,947,195		$219,845		$219,845		$0		$0		$0	
	Mainline Crashes	Hwy 252 Corridor	$8,406,000		$5,722,046		$5,722,046		$6,092,493		$5,647,492		$5,824,563	
	Network Crashes	Hwy 252 Corridor	$2,336,595		$2,323,037		$2,324,259		$2,324,668		$2,325,538		$2,326,393	
Vehicle Mobility	Corridor Travel Time (AM/PM)	Hwy 252 Corridor	13.9	7.7	4.2	4.1	4.2	4.1	4.2	4.1	4.2	4.1	4.0	4.1
	Travel Time Reliability (AM/PM)	Hwy 252 Corridor	2.6	3.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	Peak Hour Person Throughput	Hwy 252 Corridor	30,284		39,883		36,995		36,991		39,908		39,851	
	Segment LOS (AM/PM)	Hwy 252 Corridor	N/A	N/A	LOS E	LOS D	LOS E	LOS D	LOS E	LOS D	LOS E	LOS D	LOS D	LOS D
	Network VMT	Hwy 252 Corridor	34,703,175		34,724,172		34,739,936		34,736,719		34,747,939		34,750,796	
	Network VHT	Hwy 252 Corridor	1,023,296		1,019,016		1,019,545		1,019,907		1,019,870		1,020,527	
	Volume Diversion (1)	Hwy 252 Corridor	151,915		-46,497		-45,086		-44,969		-46,468		-45,305	

Category	Evaluation Criteria	Location (Corridor/ Intersection)	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Walkability/ Bikeability	Pedestrian and Bicycle Safety	85th Avenue	$0	$0	$0	$0	$0	$0
		Humboldt Avenue	$24,498	$0	$0	$0	$0	$0
		Brookdale Drive	$500,605	$95,037	$34,227	$38,879	$94,538	$0
		73rd Avenue	$0	$0	$0	$0	$0	$0
		70th Avenue	$165,559	$0	$0	$0	$13,812	$0
		66th Avenue	$47,740	$5,745	$5,524	$0	$0	$0

Refer also to Section 5.3.3 in the *Transportation Technical Report* in Appendix L of this SD.

See Section 7.4.1 of this SD for a comparison of the Hwy 252 six-lane freeway including bus shoulders versus the Hwy 252 six-lane freeway including managed lanes.

LOS = level of service, VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour

Intersection and mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Volume diversion. A negative number indicates the daily traffic volume attracted to the Hwy 252/I-94 corridor from other routes. A positive number indicates the daily traffic volume that would divert from the Hwy 252/I-94 corridor to other routes.

Hwy 252 Access Combinations Conclusion

The results of the Step 2 analysis indicated that there was not adequate information at this level of evaluation detail to differentiate among the Hwy 252 access combinations and justify eliminating one or more of the access combinations at this stage in the process. Therefore, the five Hwy 252 access combinations considered in Step 2 were recommended for further evaluation in Step 3. The Hwy 252 access combinations are applicable to all Hwy 252 freeway elements.

- Access Combination 1: includes full access interchanges at 85th Avenue, Brookdale Drive, and 66th Avenue.
- Access Combination 2: includes full access interchanges at 85th Avenue and 66th Avenue and a partial access interchange at Brookdale Drive/73rd Avenue.
- Access Combination 3: includes a full access interchange at 85th Avenue and a partial access interchange at Brookdale Drive/73rd Avenue.
- Access Combination 4: includes full access interchanges at 85th Avenue, Brookdale Drive, and 70th Avenue.
- Access Combination 5: includes full access interchanges at 85th Avenue and 73rd Avenue.

7.3.3 Step 2 Transit Service Considerations Evaluation

Development of Transit Service Elements

Three transit service elements were carried forward from Step 1 for further evaluation in Step 2. Transit elements include new service on Hwy 252 and I-94, new stations, and improvements to existing local and express bus service. These three transit service elements represent a range of potential capital and operating costs. These transit service elements are summarized below.

- Bus rapid transit: includes a highway BRT line on Hwy 252 and I-94 between Hwy 610 and downtown Minneapolis with frequent service and dedicated stations.
- Bus stations along I-94 & improve express service: includes three new bus stations along I-94 in Minneapolis and enhancing existing express bus service on Hwy 252 and I-94 by increasing service frequency, adding additional trips, implementing transit advantages, or adding new transit stops.
- Improve local and express bus service: includes enhancing existing local bus service on local roadways adjacent to Hwy 252 and I-94 in Brooklyn Park, Brooklyn Center, and North Minneapolis by increasing service frequency, extending the weekday/weekend span of service, or changing route alignments to deliver new connections. Includes enhancing existing express bus service on Hwy 252 and I-94 by increasing service frequency, adding additional trips, implementing transit advantages, or adding new transit stops.

Evaluation of Transit Service Elements

The Step 2 transit service elements were evaluated in combination with Hwy 252 and I-94 corridor alternatives. For this evaluation, Hwy 252 expressway and freeway elements were considered together. The I-94 component considered transit service performance with and without managed lanes. The Hwy 252 and I-94 combinations included with the Step 2 transit service evaluation are listed below.

- Hwy 252 expressway and freeway elements, I-94 with managed lanes and direct connection to downtown Minneapolis.
- Hwy 252 expressway and freeway elements, I-94 existing configuration (no managed lanes).

Transit service elements were evaluated using six different evaluation criteria, including ridership, travel time, mode shift, and spatial metrics. Table 7.16 summarizes results of the Step 2 transit service evaluation. The Good/Fair/Poor rankings for each evaluation criteria were compared to established guidelines and performance measures from Metropolitan Council's *2040 Transportation Policy Plan,* Metropolitan Council's *Regional Transitway Guidelines*, and Federal Transit Administration's (FTA) *Capital Investment Grants Program Interim Policy Guidance.*

Transit Evaluation Key Findings

Key findings of the Step 2 transit service evaluation are listed below.

- BRT ridership performance depends on the presence of managed lanes on I-94. BRT ridership with managed lanes on I-94 was rated in the "good" category, whereas maintaining the existing I-94 configuration resulted in "poor" BRT ridership.
- Express bus service ridership performance benefits from managed lanes on I-94 but does not rely on the presence of managed lanes to achieve a "good" ridership rating.
- With the exception of select trips operating non-stop segments on I-94, the majority of local bus service does not use highways and is not directly affected by highway transit advantages (e.g., managed lanes or bus-only shoulders).
- All three transit service elements were projected to result in limited increases in new transit trips (i.e., mode shift), indicating that the project study area market is already well served by existing transit service. Much of the projected BRT ridership is drawn from existing transit routes. The stations on I-94 element competes with existing and planned arterial BRT service in north Minneapolis.
- The improve local and express bus service element provides improved transit service to a larger area compared to BRT and was projected to result in a similar number of new transit trips as BRT.

Table 7.16 Step 2 Transit Service Evaluation Summary

Evaluation Criteria	Performance Measure	Hwy 252 Expressway and Freeway Elements (1) I-94: Managed Lanes with Direct Connection			Hwy 252 Expressway and Freeway Elements (1) I-94: Existing Configuration (No Managed Lanes)		
		Bus Rapid Transit (BRT)	Bus stations on I-94, Improve Express Service	Improve Local/Express Service	Bus Rapid Transit (BRT)	Bus stations on I-94, Improve Express Service	Improve Local/Express Service
Transit Ridership	Passengers Per In-Service Hour (Local Bus)	13	N/A	31	13	N/A	31
	Passengers Per In-Service Hour (Express Bus)	40	55	58	42	34	50
	Passengers Per In-Service Hour (BRT)	49	N/A	N/A	17	N/A	N/A
Mode Shift	New Transit Trips (2040)	1,200	100	1,000	1,200	-500	1,100
Transit Advantage	Runningway Availability	>50%	>50%	>50%	0% (Assuming no upgraded shoulder over 45 MPH)	0% (Assuming no upgraded shoulder over 45 MPH)	0% (Assuming no upgraded shoulder over 45 MPH)
Station Area Activity	Total Residents, Jobs, or Students within ½-Mile of Stations/Stops	4,299	5,429	N/A (no new stations)	4,299	5,429	N/A (no new stations)
Likely Transit Users	Ratio of Zero-Car HH within ½-Mile of Stations/Stops to Percent of Zero-Car HH in Region	2.24	3.72	1.36	2.24	3.72	1.36
Alternative Access Location	Access Located at Preferred TFS Station Location	Good (depends on Hwy 252 access alternative)	Good (depends on Hwy 252 access alternative)	N/A (no new stations)	Good (depends on Hwy 252 access alternative)	Good (depends on Hwy 252 access alternative)	N/A (no new stations)
Transit Travel Time	Transit Travel Time (Local Bus)	16.4 MPH	N/A	16.2 MPH	16.4 MPH	N/A	16.2 MPH

Evaluation Criteria	Performance Measure	Hwy 252 Expressway and Freeway Elements (1) I-94: Managed Lanes with Direct Connection			Hwy 252 Expressway and Freeway Elements (1) I-94: Existing Configuration (No Managed Lanes)		
		Bus Rapid Transit (BRT)	Bus stations on I-94, Improve Express Service	Improve Local/Express Service	Bus Rapid Transit (BRT)	Bus stations on I-94, Improve Express Service	Improve Local/Express Service
Transit Travel Time	Transit Travel Time (Express Bus)	39% slower than auto	37% slower than auto	27% slower than auto	37% slower than auto	45% slower than auto	28% slower than auto
	Transit Travel Time (BRT)	23.3 MPH	N/A	N/A	17.9 MPH	N/A	N/A

Refer to Table 2 and Table 3 in the *Transit Evaluation Technical Memorandum* in Appendix K of this SD for supporting data/analysis results.

HH= Households, TFS = Transit Feasibility Study, N/A = Not Applicable

(1) Hwy 252 elements include Element 1 (six-lane expressway), Element 4 (four-lane low speed freeway), Element 5 (four-lane freeway including bus shoulders), Element 6 (six-lane freeway including bus shoulders), and Element 7 (six-lane freeway including managed lanes).

- Managed lanes were projected to provide improved highway speeds for both buses and personal vehicles, resulting in lower travel times for both modes. Transit service competes with improved travel times for personal vehicles, impacting transit ridership, mode shift, and express bus service travel times.
- All three transit service elements serve areas with percentages of zero-car households greater than the regional average (i.e., likely transit users). All three transit service elements do not meet Metropolitan Council's regional guidelines for station area activity (i.e., less than 7,000 total residents, jobs, or students within ½-mile of station locations).

Transit Service Elements Conclusion

The results of the Step 2 analysis indicated that there was not adequate information at this level of evaluation detail to differentiate among the transit service elements and justify eliminating one or more of the transit service elements at this stage in the process. All the transit elements were expected to perform similarly based on the Step 2 evaluation criteria. Therefore, the three transit elements considered in Step 2 and listed below were recommended for further evaluation in Step 3.

- Bus rapid transit (BRT)
- Bus stations along I-94 & improve express service
- Improve local and express bus service

7.3.4 Step 2 Hwy 252 Pedestrian Connectivity Evaluation

Hwy 252 Pedestrian Connectivity Analysis

A pedestrian connectivity analysis was prepared for the Hwy 252 corridor as part of the Step 2 evaluation. This analysis identifies a Pedestrian Connectivity Index (PCI) for a given destination and is a measure of the density and directness of pedestrian connections. The PCI value is calculated using the number of parcels that can be accessed by walking a given distance to a destination and the total number of parcels within a given radius of the destination. The Hwy 252 pedestrian connectivity analysis used a ½-mile distance for calculating the PCI because this represents a typical walking distance. The formula for calculating the PCI is listed below.

Pedestrian Connectivity Index = number of parcels reachable by walking ½-mile or less from a destination ÷ total number of parcels within ½-mile radius of destination

The PCI value ranges from 1.0 to 0. A PCI value of 1.0 indicates that all parcels within a ½-mile radius of a pedestrian destination can be accessed by walking ½-mile or less. A PCI value of 0 indicates that walking distances greater than ½-mile are required to access a pedestrian destination.

Twelve (12) pedestrian destinations were identified along Hwy 252 in or near residential neighborhoods. Pedestrian destinations were determined following guidance from MnDOT's *Statewide Pedestrian System Plan* (March 2021)[38] and represent locations where people are likely to walk. Figure 7.26 illustrates the locations of pedestrian destinations along Hwy 252 used in the pedestrian connectivity analysis.

The pedestrian connectivity analysis involved two steps. The first step included calculating the PCI value for each of the 12 pedestrian destinations along Hwy 252 under the No Build Alternative. The second step involved calculating the PCI value for each of the 12 pedestrian destinations with access closed at any one of the six Hwy 252 intersections (85th Avenue, Humboldt Avenue, Brookdale Drive, 73rd Avenue, 70th Avenue, and 66th Avenue). Changes in the PCI value with Hwy 252 access closures were then compared to PCI values under the No Build Alternative and assigned a Good/Fair/Poor rating (see Table 7.3 of this SD).

- Good: increases the PCI value by more than 0.1 (i.e., improves pedestrian connectivity)
- Fair: no change in the PCI value compared to the No Build Alternative (i.e., no change in pedestrian connectivity)
- Poor: decreases the PCI value by more than 0.1 (i.e., decreases pedestrian connectivity)

Evaluation of Hwy 252 Pedestrian Connectivity

Table 7.17 includes results of the Hwy 252 pedestrian connectivity evaluation. The PCI values for the 12 pedestrian destinations along Hwy 252 under the No Build Alternative vary from less than 0.2 to greater than 0.5. Changes in access at 85th Avenue and 70th Avenue were found to result in no change in connectivity to the pedestrian destinations along Hwy 252. Changes in access at Humboldt Avenue, Brookdale Drive, 73rd Avenue, and 66th Avenue were found to result in decreases in connectivity to one or more of the 12 pedestrian destinations along Hwy 252.

[38] Minnesota Department of Transportation. March 2021. *MnDOT Statewide Pedestrian System Plan* available at https://www.dot.state.mn.us/minnesotawalks/index.html.

Figure 7.26 Pedestrian Destinations Along Hwy 252

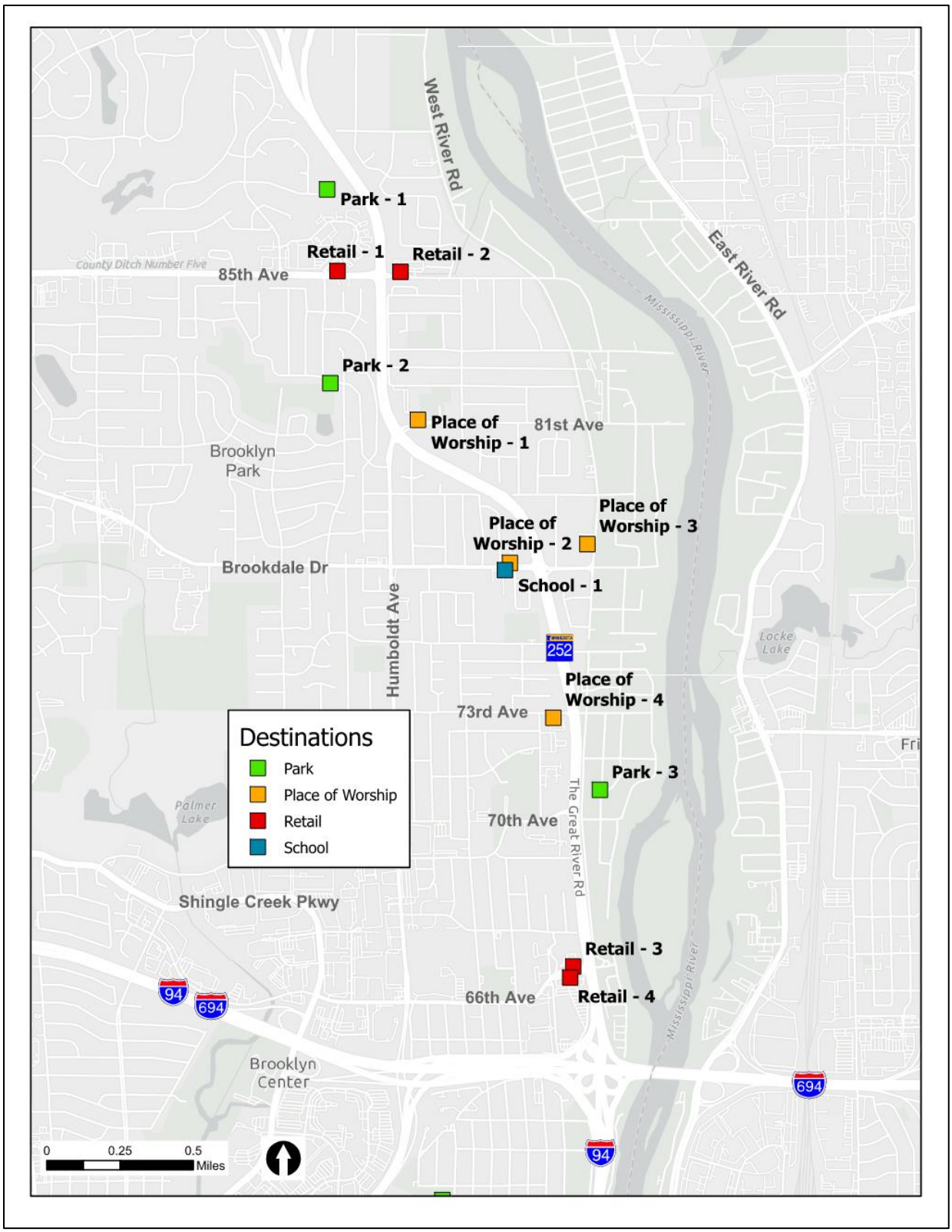


Table 7.17 Step 2 Hwy 252 Pedestrian Connectivity Index

Pedestrian Destination	No Build Alternative	PCI with 85th Avenue Closed	PCI with Humboldt Avenue Closed	PCI with Brookdale Drive Closed	PCI with 73rd Avenue Closed	PCI with 70th Avenue Closed	PCI with 66th Avenue Closed
Park-1	0.235	0.235	0.235	0.235	0.235	0.235	0.235
Park-2	0.490	0.490	0.490	0.490	0.490	0.490	0.490
Park-3	0.412	0.412	0.412	0.412	0.403	0.397	0.412
Place of Worship-1	0.388	0.388	0.224	0.388	0.388	0.388	0.388
Place of Worship-2	0.375	0.375	0.375	0.26	0.375	0.375	0.375
Place of Worship-3	0.462	0.462	0.462	0.396	0.462	0.462	0.462
Place of Worship-4	0.545	0.545	0.545	0.545	0.325	0.545	0.545
Retail-1	0.370	0.325	0.370	0.370	0.370	0.370	0.370
Retal-2	0.307	0.239	0.307	0.307	0.307	0.307	0.307
Retail-3	0.540	0.540	0.540	0.540	0.540	0.540	0.417
Retail-4	0.541	0.541	0.541	0.541	0.541	0.541	0.421
School-1	0.374	0.374	0.374	0.277	0.374	0.374	0.374

Refer also to Section 5.3.4 in the *Transportation Technical Report* in Appendix L of this SD.

PCI = Pedestrian Connectivity Index

Hwy 252 Pedestrian Connectivity Conclusions

In general, the results of the Hwy 252 pedestrian connectivity analysis indicate that access closures on Hwy 252 would have little impact on accessibility to the 12 destinations evaluated along Hwy 252 in the project study area. MnDOT is responsible for creating safe transportation facilities that connect pedestrians to destinations. If a pedestrian crossing is accommodated under existing conditions, then Minnesota Statute 160.264 obligates MnDOT to maintain this non-motorized connection with any highway improvement project with a comparable facility or access. Minnesota Statute 160.264 is presented below.[39]

Whenever an existing bikeway, pedestrian way, or roadway used by bicycles or pedestrians or the sole access to such is destroyed by any new, reconstructed, or relocated federal, state, or local highway, the road authority responsible shall replace the destroyed facility or access with a comparable facility or access. Replacement is not required where it would be contrary to public safety or when sparsity of population, other available ways or other factors indicate an absence of need for such facility or access.

Pedestrian access is currently provided at all six at-grade intersections with Hwy 252. Therefore, all build alternatives recommended for study in the Draft EIS will include pedestrian accommodations at or adjacent to these six intersections. Dedicated multi-use trail bridges over Hwy 252 will be added where an existing intersection is closed and no vehicle access is provided to Hwy 252. Trails and sidewalks along local roads will be provided at Hwy 252 grade separations (i.e., interchanges, overpass bridges, underpasses).

7.4 Step 3 Identification of Alternatives for Detailed Study in the Draft EIS

This section describes the Hwy 252 access alternatives, Hwy 252 grade separated interchange alternatives, I-94 pedestrian and bicycle overpass elements, and transit service identified for study in Step 3 of the evaluation process. Step 3 includes qualitative and quantitative transportation and social, economic, and environmental (SEE) performance measures. The Step 3 evaluation was completed in six parts:

- Evaluation of Hwy 252 and I-94 corridor alternatives, including a transit advantage analysis for Hwy 252 six-lane freeway elements and a preliminary analysis of a southbound I-94 design option at the Hwy 252/I-94/I-694 system interchange.
- Evaluation of Hwy 252 access alternatives, including grade separated crossings with Hwy 252 access alternatives.
- Evaluation of innovative intersection designs for Hwy 252 at-grade intersections.

[39] State of Minnesota. Revisor of Statutes. Minnesota Statute 160.264 Replacing Bikeways and Pedestrian Ways accessed 09 June 2022 and available at https://www.revisor.mn.gov/statutes/cite/160.264.

- Evaluation of Hwy 252 grade separated interchange configurations.
- Evaluation of I-94 overpasses and pedestrian connectivity.
- Evaluation of transit service elements.

The outcome of Step 3 is the identification of a reasonable range of Hwy 252/I-94 alternatives and design features for further study in the Draft EIS.

7.4.1 Step 3 Hwy 252 and I-94 Corridor Alternatives Evaluation

Hwy 252 Transit Advantage Analysis

Element 6 and Element 7 are recommended for further analysis in the Draft EIS. Element 6 includes a Hwy 252 six-lane freeway including bus shoulders. Element 7 includes a Hwy 252 six-lane freeway including managed lanes. The results of the Step 2 evaluation show a similar level of mobility performance between Element 6 and Element 7. A preliminary analysis for Element 6 and Element 7 was completed in Step 3 to evaluate and compare the impact of Hwy 252 access combinations (see Table 7.18) on transit advantage and managed lane performance (e.g., managed lane travel time, commute travel time, quality of transit advantage). The next level of analysis in the Draft EIS will include microsimulation modeling (e.g., PTV VISSIM) of Element 6 and Element 7 combined with I-94 elements identified for further study in the Draft EIS. The Draft EIS analysis will provide greater insight into how the Hwy 252/I-94 corridor alternatives perform compared to the No Build Alternative and one another.

Hwy 252 Transit Advantage Analysis Results

Table 7.18 tabulates the Hwy 252 transit advantage analysis results. The Hwy 252 transit advantage evaluation includes four criteria categories: vehicle safety, vehicle mobility, transit advantages, and SEE considerations. Results are presented for the Hwy 252 six-lane freeway including bus shoulders and Hwy 252 six-lane freeway including managed lanes across the five Hwy 252 access combinations. Results for the traffic volume diversion criterion are presented as a negative number compared to the 2040 No Build Alternative. A negative number indicates the traffic volume that would divert from other routes, including nearby local roads (e.g., county highways, local streets), to Hwy 252 and I-94 compared to the 2040 No Build Alternative.

Table 7.18 Hwy 252 Access Combinations and Transit Advantage Analysis Results

Category	Evaluation Criteria	No Build Alternative	Hwy 252 Access Combination 1 6. Six-Lane Freeway including Bus Shoulders	Hwy 252 Access Combination 1 7. Six-Lane Freeway including Managed Lanes	Hwy 252 Access Combination 2 6. Six-Lane Freeway including Bus Shoulders	Hwy 252 Access Combination 2 7. Six-Lane Freeway including Managed Lanes	Hwy 252 Access Combination 3 6. Six-Lane Freeway including Bus Shoulders	Hwy 252 Access Combination 3 7. Six-Lane Freeway including Managed Lanes	Hwy 252 Access Combination 4 6. Six-Lane Freeway including Bus Shoulders	Hwy 252 Access Combination 4 7. Six-Lane Freeway including Managed Lanes	Hwy 252 Access Combination 5 6. Six-Lane Freeway including Bus Shoulders	Hwy 252 Access Combination 5 7. Six-Lane Freeway including Managed Lanes
Vehicle Safety	Mainline Crashes (Total Annual Crash Cost)	$8,406,000	$5,782,620	$5,722,046	$5,782,620	$5,647,492	$5,857,174	$6,092,493	$5,782,620	$5,647,492	$5,959,690	$5,824,563
	Network Crashes (Total Annual Crash Cost)	$2,336,595	$2,320,373	$2,323,037	$2,318,865	$2,325,538	$2,319,835	$2,324,668	$2,318,865	$2,325,538	$2,321,741	$2,326,393
Vehicle Mobility	Corridor Travel Time (Minutes) (AM/PM)	13.9/7.74	4.1/4.1	4.2/4.1	4.1/4.1	4.2/4.1	4.1/4.1	4.2/4.1	4.1/4.1	4.2/4.1	4.1/4.1	4.0/4.1
	Managed Lane Travel Time (Minutes) (AM/PM)	Not applicable (N/A)	N/A	4.2/4.1	N/A	4.2/4.1	N/A	4.2/4.1	N/A	4.2/4.1	N/A	4.0/4.1
	Travel Time Reliability (AM/PM)	2.6/3.4	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3
	Peak Hour Person Throughput	30,284	40,810	39,883	41,000	39,908	37,875	36,991	41,000	39,908	40,941	39,851
	Regional VMT	34,703,175	34,735,937	34,724,172	34,735,937	34,747,939	34,735,937	34,736,719	34,735,937	34,747,939	34,735,937	34,750,796
	Regional VHT	1,023,296	1,018,955	1,019,016	1,018,955	1,019,870	1,018,955	1,019,907	1,018,955	1,019,870	1,018,955	1,020,527
	Volume Diversion (1)	151,915	-52,199	-46,497	-52,773	-46,468	-50,646	-44,969	-52,773	-46,468	-51,220	-45,305
Transit Considerations	Quality of Transit Advantage	Low transit advantage (bus only shoulder)	Low transit advantage (bus only shoulder)	High transit advantage (managed lane)	Low transit advantage (bus only shoulder)	High transit advantage (managed lane)	Low transit advantage (bus only shoulder)	High transit advantage (managed lane)	Low transit advantage (bus only shoulder)	High transit advantage (managed lane)	Low transit advantage (bus only shoulder)	High transit advantage (managed lane)
SEE Considerations	Commute Travel Times (Average Number of Jobs Accessible Within a 30-Minute Travel Time Buffer)	15,788	22,529	38,783	22,465	39,289	24,215	42,125	23,871	41,003	22,255	42,051

VMT = vehicle miles traveled, VHT = vehicle hours traveled, AM = morning peak hour, PM = afternoon peak hour

Intersection and mainline crash costs are based on year 2040 traffic volume forecasts and year 2016 crash costs. Network crash costs are based on year 2040 daily vehicle miles traveled and year 2016 crash costs.

Network crash cost includes the area bound by Hwy 10 to the north, I-35E to the east, I-94/I-394 to the south, and I-94/I-494 to the west.

(1) Traffic volume diversion. The 2040 No Build Alternative represents the Hwy 252 daily traffic volume plus the I-94 daily traffic volume. For Hwy 252 access combinations with Element 6 (Hwy 252 Six-Lane Freeway including Bus Shoulders) and Element 7 (Hwy 252 Six-Lane Freeway including Managed Lanes), a negative number indicates the daily traffic volume attracted to Hwy 252/I-94 from other routes. A positive number indicates the daily traffic volume that would divert from the Hwy 252/I-94 corridor to other routes.

Hwy 252 Transit Advantage Analysis Key Findings

The following list summarizes key findings of the Step 3 Hwy 252 access alternatives and transit advantage analysis.

- Element 6 and Element 7 improve vehicle mobility compared to the 2040 No Build Alternative as measured by corridor travel times and travel time reliability.
- The Hwy 252 access alternatives have minimal impact on Hwy 252 mobility. Corridor travel times, managed lane travel times, travel time reliability, and peak hour person throughput are similar across Hwy 252 access alternatives under Element 6 and Element 7.
- Travel times influence the average number of jobs that can be reached within a 30-minute commute (travel time buffer) by using Hwy 252 corridor. Element 7 increases the number of jobs that can be reached within a 30-minute commute by approximately 16,000 jobs to more than 19,000 jobs compared to Element 6.
- Element 6 includes adequate capacity to accommodate future (2040) traffic volumes. Element 6 is projected to operate at LOS D during morning and afternoon peak hours under 2040 conditions (see Section 7.3.1 of this SD). As such, there is less incentive for motorists to use the Hwy 252 managed lanes with Element 7 (i.e., less incentive to carpool or for single occupancy vehicles to pay for managed lanes). Because Element 6 includes adequate capacity, it would attract additional traffic from other routes resulting in greater person throughput compared to Element 7.
- At some point in the future beyond the year 2040, Hwy 252 will approach capacity and experience congested conditions. Element 7 provides a high-level of transit advantage, benefits person throughput, and improves travel time reliability into the future beyond year 2040. This is consistent with Metropolitan Council highway investment strategies identified in the *2040 Transportation Policy Plan.*

Hwy 252 Transit Advantage Analysis Conclusions

Element 6 and Element 7 are retained for further consideration in the Draft EIS (see Section 7.3.1 of this SD). Element 6 includes a low-level of transit advantage (bus-only shoulders), whereas Element 7 includes a high-level of transit advantage. The vehicle mobility performance of Element 6 and Element 7 is similar across Hwy 252 access alternatives. Element 7 preserves travel time reliability and transit advantages into the future beyond year 2040. The preliminary analysis in scoping indicates access to a greater number of jobs with Element 7 because of the travel time and reliability benefits of managed lanes. Microsimulation modeling in the Draft EIS will be used to compare the transit advantage performance of Hwy 252/I-94 corridor alternatives. Microsimulation modeling in the Draft EIS will also be used to identify the user experience in general purpose lanes versus managed lanes (see Section 9.2.28 of this SD).

Southbound I-94 Design Concept

Description of Southbound I-94 Design Concept

Two southbound Hwy 252 lanes currently pass through the I-94/I-694/Hwy 252 system interchange. The two southbound Hwy 252 lanes enter I-94 on the left and combine with two I-94 lanes from the west to the south of the system interchange. Southbound I-94 then continues south of the system interchange as a four-lane freeway to Dowling Avenue. Two northbound I-94 lanes cross over the southbound Hwy 252 lanes and continue to the west of the system interchange.

As part of the Federal-Aid Highway Act of 1956, the American Association of State Highway and Transportation Officials (AASHTO) established design standards for the Interstate System, including full control of access, design speeds of 50 mph to 70 mph, and *a minimum of two travel lanes in each direction*. Existing southbound I-94 through Brooklyn Center and Minneapolis is consistent with these design standards.

The Hwy 252 elements recommended from Step 2 include Element 5 (four-lane freeway including bus shoulders), Element 6 (six-lane freeway including bus shoulders), and Element 7 (six-lane freeway including managed lanes). Element 7 includes three lanes on southbound Hwy 252 through the I-94/I-694/Hwy 252 system interchange. It is not feasible to maintain two travel lanes on southbound I-94, combine the two southbound I-94 lanes with three lanes from Hwy 252, and accommodate a managed lane on southbound I-94 without any additional general-purpose lanes on I-94 south of the system interchange.

A design concept was identified for Hwy 252 and I-94 that accommodates a southbound I-94 managed lane without adding lanes to I-94 south of the 53rd Avenue interchange. This design "flips" the merge between Hwy 252 and I-94 south of the system interchange. The southbound I-94 lanes would be on a bridge structure over the southbound Hwy 252 lanes. The two southbound Hwy 252 lanes would merge with the I-94 lanes from the right, and the southbound Hwy 252 managed lane would merge with I-94 on the left. The rightmost lane from Hwy 252 would drop at the exit ramp to 53rd Avenue, maintaining two though lanes from I-94 through the merge with Hwy 252.

Figure 7.27 illustrates lane schematics on I-94 south of the system interchange under existing conditions, without the Hwy 252 and I-94 "flip" (i.e., Hwy 252 lanes merging with I-94 on the left), and with the Hwy 252 and I-94 "flip" (i.e., Hwy 252 lanes merging with I-94 on the right). The blue arrows in this figure represent I-94 lanes, the orange arrows represent Hwy 252 lanes, and the green arrows represent managed lanes.

Figure 7.27 Southbound I-94 Lane Schematics

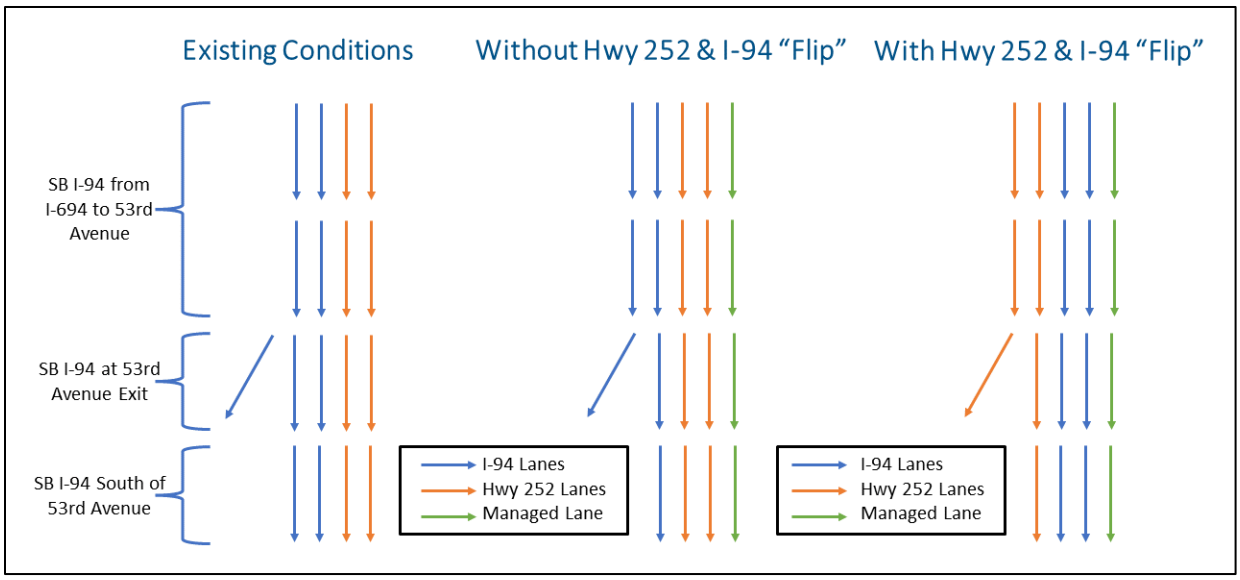
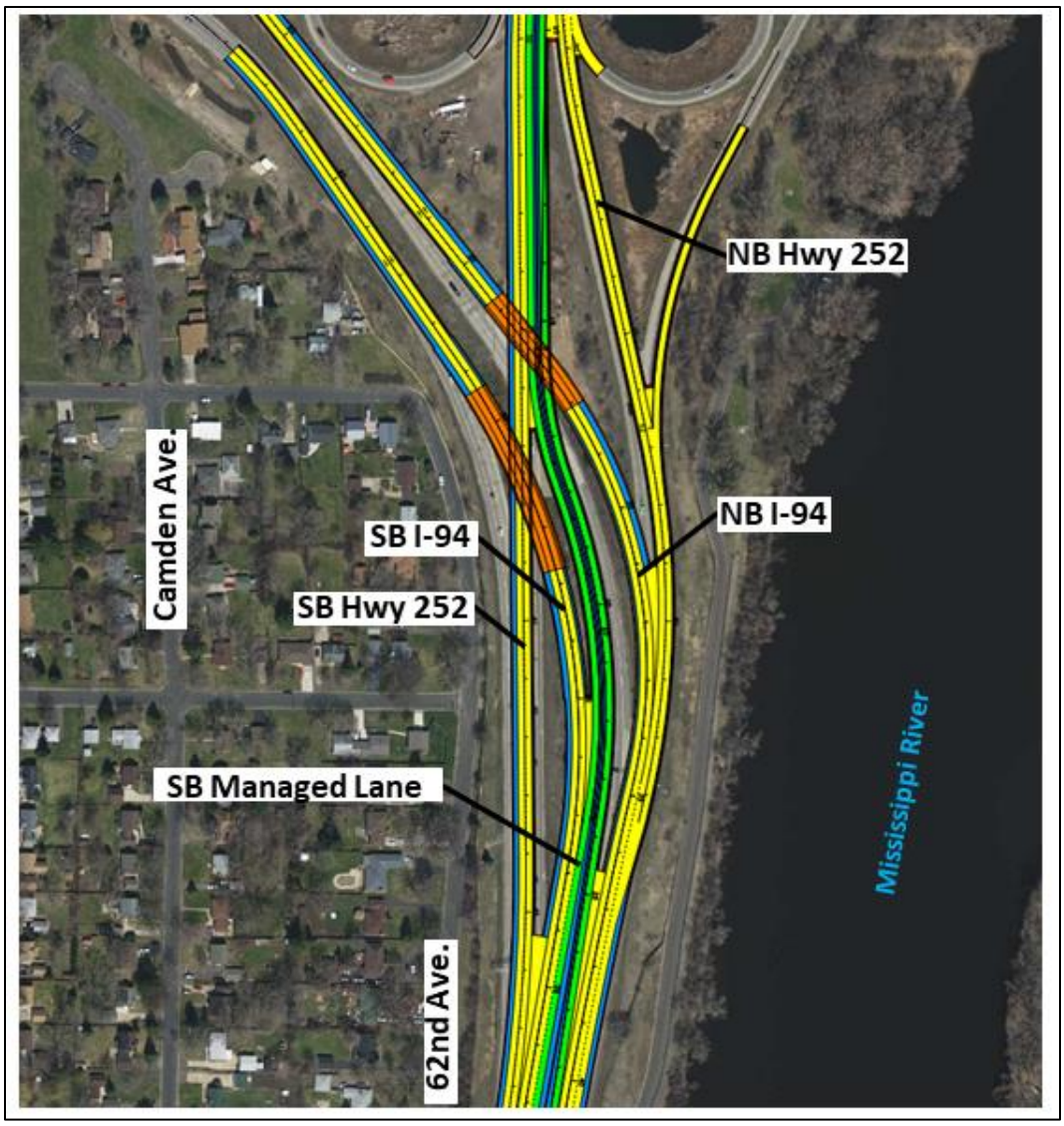


Figure 7.28 illustrates a concept design for the Hwy 252 and I-94 "flip" south of the system interchange. The yellow lanes in this figure represent general-purpose lanes, the green lanes represent managed lanes, the blue represents shoulders, and the orange represents I-94 bridges over Hwy 252. This design is consistent with AASHTO guidance to maintain two through lanes on I-94. This design also accommodates conversion of an existing southbound I-94 lane to a managed lane south of 53rd Avenue. No additional lanes would be constructed on southbound I-94 between 53rd Avenue and Dowling Avenue under this design concept.

The Hwy 252 and I-94 "flip" design south of the system interchange also would benefit transit. Express buses operating on eastbound I-94 heading into downtown Minneapolis could merge into the southbound I-94 managed lane without having to weave across multiple lanes of traffic. These buses would not need to weave across multiple general purpose lanes south of the merge with Hwy 252 to access the southbound I-94 managed lane.

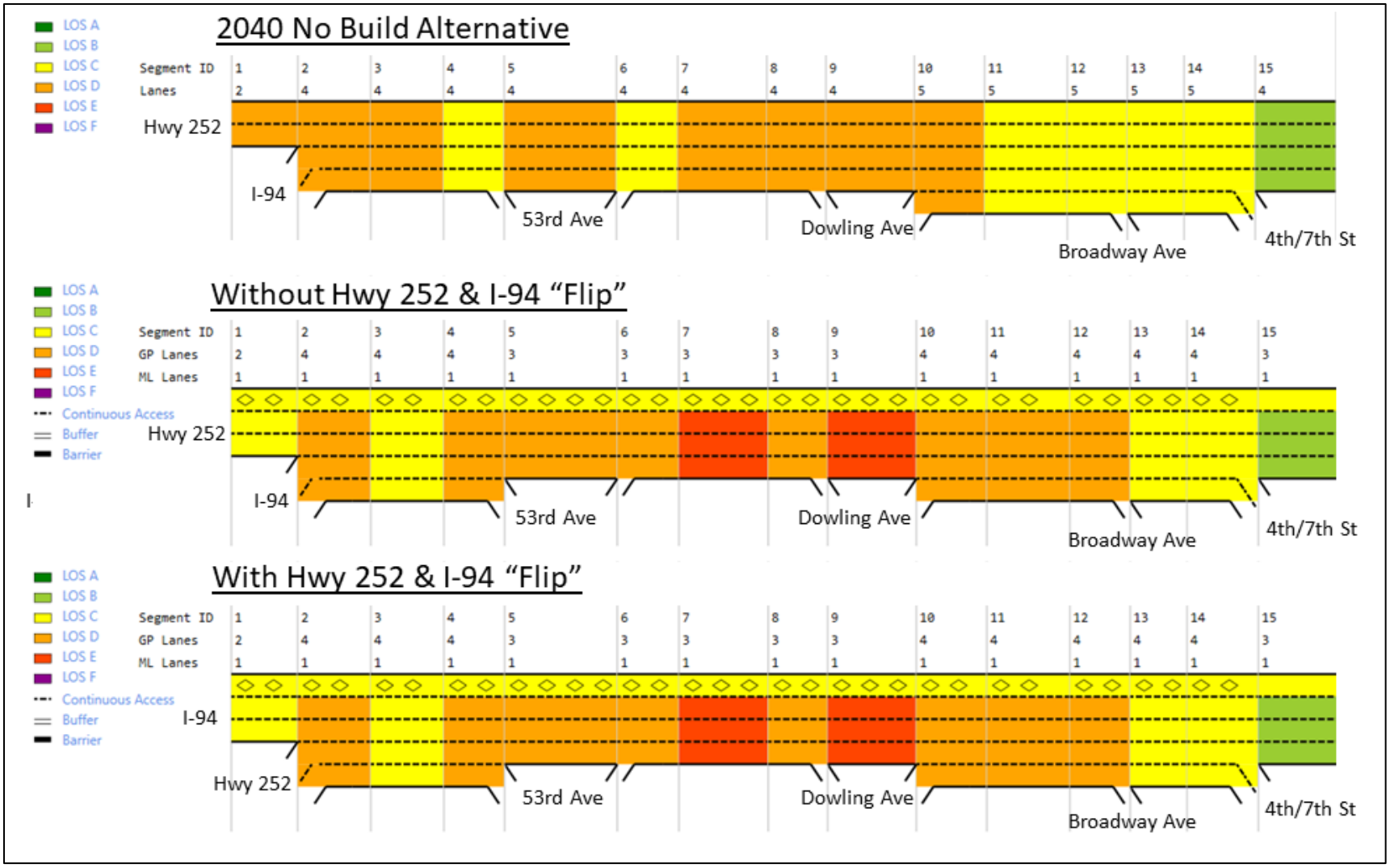
Figure 7.28 Southbound I-94 Concept Design



Evaluation of Southbound I-94 Design Concept

A traffic operations analysis for southbound I-94 during the morning peak hour was prepared using the Highway Capacity Software (HCS) without and with the Hwy 252 and I-94 "flip" design. Figure 7.29 illustrates the HCS analysis results compared to the 2040 No Build Alternative. In general, southbound I-94 is projected to operate at level of service (LOS) D or better under the 2040 No Build Alternative and under future build conditions without and with the Hwy 252 and I-94 "flip" design. Operations without and with the Hwy 252 and I-94 "flip" design are projected to be similar. The southbound I-94 managed lane is projected to operate at LOS C without and with the Hwy 252 and I-94 "flip" design; however, some congestion is expected in the I-94 general purpose lanes at the Hwy 252 and I-94 merge, south of 53rd Avenue, and at the Dowling Avenue interchange.

Figure 7.29 Southbound I-94 Morning Peak Hour Operations Analysis Results



Southbound I-94 Design Concept Conclusion

The design concept to "flip" I-94 and Hwy 252 at the I-94/I-694/Hwy 252 system interchange is retained for further consideration in the Draft EIS. This design concept is consistent with AASHTO guidance to maintain two through lanes on I-94 through the system interchange to the south and accommodates a southbound I-94 managed lane without additional lanes on I-94 south of 53rd Avenue. This design concept also minimizes the amount of new impervious surface on I-94, resulting in less stormwater runoff from the I-94 corridor, and can be accommodated within existing highway right of way. Traffic modeling of the Hwy 252 and I-94 "flip" design indicates that southbound I-94 would operate similar to the design that maintains the existing lane configuration.

7.4.2 Step 3 Hwy 252 Access Combinations

Description of Hwy 252 Access Combinations

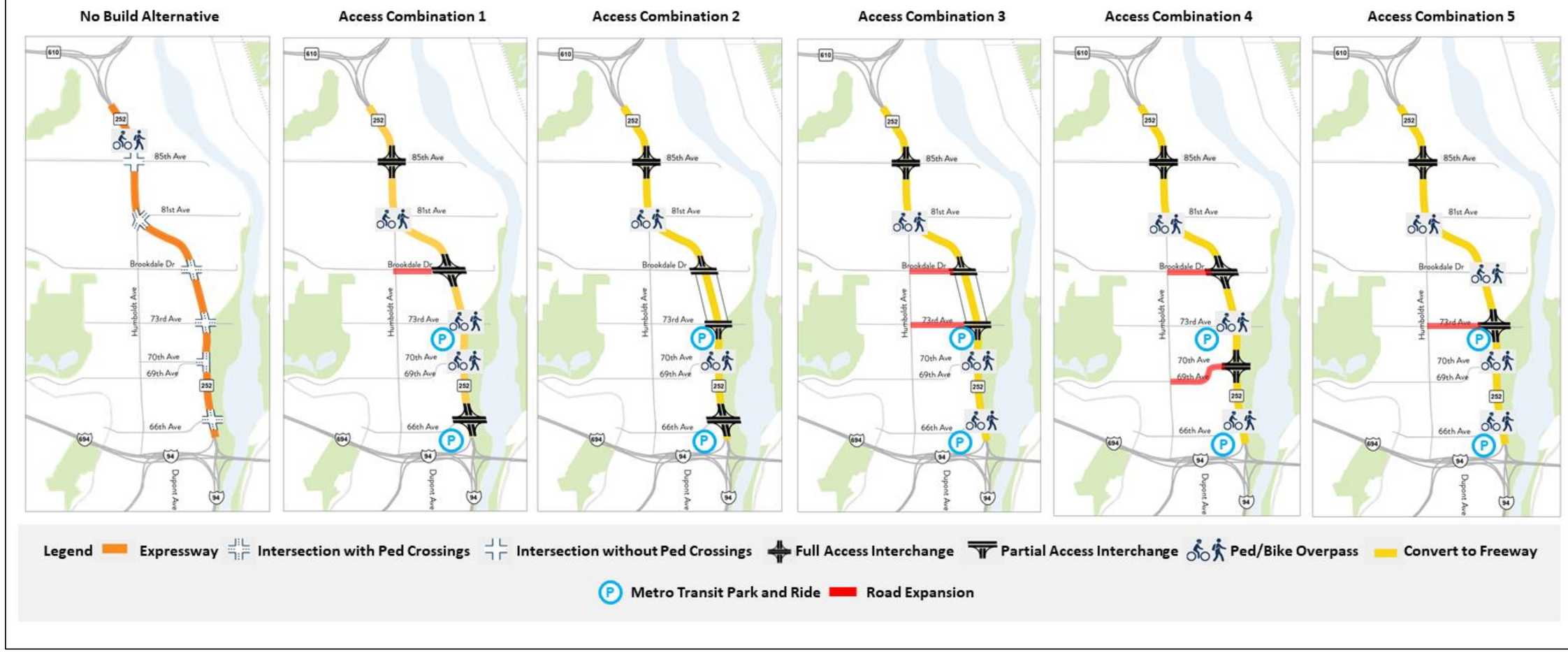
The five Hwy 252 access combinations evaluated in Step 2 were carried forward for further study in Step 3. These access combinations include two, three, or four access points on Hwy 252 with either full access interchanges or partial access interchanges. The Hwy 252 access combinations apply to the Hwy 252 freeway elements (Element 5, Element 6, and Element 7). The Hwy 252 access combinations are listed in Table 7.10 in Section 7.3.2 of this SD and summarized below.

- Access Combination 1: includes full access interchanges at 85th Avenue, Brookdale Drive, and 66th Avenue.
- Access Combination 2: includes full access interchanges at 85th Avenue and 66th Avenue and a partial access interchange at Brookdale Drive/73rd Avenue.
- Access Combination 3: includes a full access interchange at 85th Avenue and a partial access interchange at Brookdale Drive/73rd Avenue.
- Access Combination 4: includes full access interchanges at 85th Avenue, Brookdale Drive, and 70th Avenue.
- Access Combination 5: includes full access interchanges at 85th Avenue and 73rd Avenue.

When access is provided to Hwy 252 at lower volume local roadways (e.g., Brookdale Drive, 73rd Avenue, and 70th Avenue), traffic volumes on these local roadways are projected to increase. Projected traffic volumes on local roadways could double or triple compared to volumes under the 2040 No Build Alternative.[40] These local roadways are limited in capacity to accommodate additional traffic. Therefore, certain access combinations would necessitate expansion of local roadways to maintain mobility and operations. Figure 7.30 illustrates the Hwy 252 access combinations with locations of anticipated local road expansion.

[40] Refer to the *Transportation Evaluation Report* in Appendix L of this SD for traffic volume forecasts.

Figure 7.30 Hwy 252 Four-Lane and Six-Lane Freeway Access Combinations with Local Road Expansion



Evaluation of Hwy 252 Access Combinations

Hwy 252 Access Combinations Results

Hwy 252 access combinations were evaluated in Step 3 using 23 different transit compatibility and SEE impact criteria. The Step 3 evaluation for Hwy 252 access combinations analyzes the total number of interchanges and location impacts. Estimated impacts assume a tight diamond interchange configuration for full interchange access at 85th Avenue, Brookdale Drive, and 70th Avenue, and a folded diamond interchange for full interchange access at 66th Avenue. Partial access interchange locations at Brookdale Drive and 73rd Avenue assume a split diamond interchange configuration. Table 7.19 tabulates evaluation results for the Hwy 252 access combinations.

Hwy 252 Access Combinations and Travel Demand Modeling

Travel demand modeling of the Hwy 252 access combinations indicates that Hwy 252 access combinations with fewer access points results in the greatest amount of vehicle miles compared to other access combinations. With fewer access points, trips destined to and from Hwy 252 must travel further on lower classification roadways (e.g., county roads, local streets) to access Hwy 252. Therefore, a travel demand model analysis of Hwy 252 access combinations was prepared for a sub-area comprised of the cities of Brooklyn Park, Brooklyn Center, and Minneapolis. This analysis considered crash costs and vehicle miles traveled on lower classification roadways (e.g., county roads, local streets) compared to the 2040 No Build Alternative and did not include Hwy 252 or other nearby freeways such as I-94/I-694 or Hwy 610.

Table 7.20 tabulates the crash cost and vehicle miles traveled (VMT) comparison results for Hwy 252 access combinations. Results are presented as percentage change compared to the 2040 No Build Alternative. The negative percentages equate to a reduction in crash costs and VMT compared to the 2040 No Build Alternative.

- A one percent change equates to an approximately $2,000 change in crash costs. For example, a -4.74 percent change in crash costs for Access Combination 1 with the Hwy 252 six-lane freeway including managed lanes is an approximately $9,500 reduction in crash cost compared to the 2040 No Build Alternative.
- A one percent change equates to an approximately 16,000 vehicle-mile change in VMT. For example, a -5.93 percent change in VMT for Access Combination 1 with the Hwy 252 six-lane freeway including managed lanes is an approximately 94,890 vehicle-mile reduction in VMT compared to the 2040 No Build Alternative.

Table 7.19 Step 3 Evaluation Hwy 252 Access Combinations Summary

Evaluation Criteria	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Morning and Afternoon Peak Hour Corridor Travel Time	13.9 min./7.7 min.	Element 5: 5.8 min./4.2 min. Element 6: 4.1 min./4.1 min. Element 7:4.2 min./4.1 min.	Element 5: 5.7 min./4.2 min. Element 6: 4.1 min/4.1 min. Element 7: 4.2 min./4.1 min.	Element 5: 5.5 min./4.2 min. Element 6: 4.1 min./4.1 min. Element 7: 4.2 min./4.1 min.	Element 5: 5.5 min./4.2 min. Element 6: 4.1 min./4.1 min. Element 7: 4.2 min./4.1 min.	Element 5: 4.2 min./4.2 min. Element 6: 4.1 min./4.1 min. Element 7: 4.0 min./4.1 min.
Percent Change in Vehicle Miles Traveled (VMT) Compared to 2040 No Build Alternative	34,703,175	Element 5: -4.88% Element 6: -5.93% Element 7: -5.45%	Element 5: -5.11% Element 6: -6.12% Element 7: -5.52%	Element 5: -4.78% Element 6: -5.83% Element 7: -5.38%	Element 5: -4.83% Element 6: -5.92% Element 7: -5.32%	Element 5: -4.11% Element 6: -5.10% Element 7: -4.62%
Total Number of Intersection Conflict Points (1)	192	82	108	86	90	60
Local Roadway Expansion	None	Brookdale Drive expanded to 3-lane roadway	None	Brookdale Drive and 73rd Avenue expanded to 3-lane roadways	Brookdale Drive and 70th Avenue expanded to 3-lane roadways	73rd Avenue expanded to 3-lane roadway
Compatibility with Transit	Good, minimal travel on local streets to access park and rides at 73rd Avenue and 66th Avenue	Fair, additional travel on local streets to access park and ride at 73rd Avenue	Good, minimal travel on local streets to access park and rides at 73rd Avenue and 66th Avenue	Fair, additional travel on local streets to access park and ride at 66th Avenue	Poor, additional travel on local streets to access park and rides at 73rd Avenue and 66th Avenue	Fair, additional travel on local streets to access park and ride at 66th Avenue
Consistency with Metropolitan Council Five Qualifying Criteria (2)	Not applicable	Consistent with three of five criteria, Brookdale Drive not an A-minor arterial roadway, interchange spacing less than one mile	Consistent with three of five criteria, Brookdale Drive and 73rd Avenue not A-minor arterial roadways, interchange spacing less than one mile	Consistent with four of five criteria, Brookdale Drive and 73rd Avenue not A-minor arterial roadways	Consistent with three of five criteria, 70th Avenue not an A-minor arterial roadway, interchange spacing less than one mile	Consistent with four of five criteria, 73rd Avenue not an A-minor arterial roadway

Evaluation Criteria	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Community Facilities (3)	No community facilities affected	Two facilities affected • Brooklyn Park Fire Station • Monroe Elementary	Three facilities affected • Brooklyn Park Fire Station • Monroe Elementary • Iglesia Del Nazareno	Three facilities affected • Brooklyn Park Fire Station • Monroe Elementary • Iglesia Del Nazareno	Two facilities affected • Brooklyn Park Fire Station • Monroe Elementary	Two facilities affected • Brooklyn Park Fire Station • Iglesia Del Nazareno
Community Cohesion	No new physical barriers	No new physical barriers Interchange at 66th Avenue may bisect residential land uses on east side of Hwy 252	No new physical barriers Interchange at 66th Avenue may bisect residential land uses on east side of Hwy 252	No new physical barriers Expansion of Brookdale Drive and 73rd Avenue	No new physical barriers Expansion of Brookdale Drive and 70th Avenue	No new physical barriers Greater VMT on local roadways compared to other access combinations
Future Land Uses **Consistency with future land uses**	No areas likely to redevelop or potential areas of land use change	No areas likely to redevelop or potential areas of land use change	No areas likely to redevelop or potential areas of land use change	No areas likely to redevelop or potential areas of land use change	No areas likely to redevelop or potential areas of land use change	No areas likely to redevelop or potential areas of land use change
Commute Travel Times (Average Number of Jobs Accessible Within a 30-Minute Travel Time Buffer)	15,788 Jobs	Element 5: 18,758 Jobs Element 6: 22,529 Jobs Element 7: 38,783 Jobs	Element 5: 19,469 Jobs Element 6: 22,465 Jobs Element 7: 39,289 Jobs	Element 5: 20,600 Jobs Element 6: 24,215 Jobs Element 7: 42,125 Jobs	Element 5: 20,565 Jobs Element 6: 23,871 Jobs Element 7: 41,003 Jobs	Element 5: 18,825 Jobs Element 6: 22,255 Jobs Element 7: 42,051 Jobs
Environmental Justice (4)	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits Multi-family property impacts in identified EJ locations, 0 apartment relocations	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits Multi-family property impacts in identified EJ locations, 0 apartment relocations	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits Multi-family property impacts in identified EJ locations, 2-3 apartment building relocations (24 to 40 units)	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits Multi-family property impacts in identified EJ locations, 2-3 apartment building relocations (24 to 40 units)	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits Multi-family property impacts in identified EJ locations, 2 apartment building relocations (32 units)	Impacts to EJ populations identified in Draft EIS considering mitigation and off-setting benefits Multi-family property impacts in identified EJ locations, 2-3 apartment building relocations (24 to 40 units)

Evaluation Criteria	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Estimated Construction Cost (2021 dollars) (5)	Not applicable	$165 million	$180 million	$160 million	$170 million	$145 million
Right of Way (Number of Properties Affected) (6)	Residential = 0 Multi-Family = 0 Commercial = 0 Place of Worship =0 Other = 0	Residential = 74 Multi-Family = 0 Commercial = 11 Place of Worship = 0 Other = 3	Residential = 98 Multi-Family = 3 Commercial = 11 Place of Worship = 1 Other = 3	Residential = 71 Multi-Family = 3 Commercial = 6 Place of Worship = 1 Other = 3	Residential = 61 Multi-Family = 1 Commercial = 6 Place of Worship = 0 Other = 6	Residential = 26 Multi-Family = 3 Commercial = 5 Place of Worship = 1 Other = 5
Right of Way, Acres (7)	0 Acres	Approx. 10 Acres	Approx. 10 Acres	Approx. 3 Acres	Approx. 4 Acres	Approx. 2 Acres
Right of Way, Commercial and Residential Relocations	0 Commercial 0 Residential 0 Households	2 Commercial 17 Residential 17 Households	2 Commercial 21 Residential (includes 2-3 apartment buildings) 59 Households	0 Commercial 10 Residential (includes 2-3 apartment buildings) 48 Households	0 Commercial 10 Residential (includes 2 apartment buildings) 52 Households	0 Commercial 3 Residential (includes 2-3 apartment buildings) 42 Households
Section 4(f) Resources	No use of Section 4(f) resources	2 Section 4(f) resources • West Mississippi River Regional Trail (reconstruct at 66th Avenue, likely de minimis) • 85th Avenue Trail (reroute, likely de minimis)	2 Section 4(f) resources • West Mississippi River Regional Trail (reconstruct at 66th Avenue, likely de minimis) • 85th Avenue Trail (reroute, likely de minimis)	2 Section 4(f) resources • West Mississippi River Regional Trail (reconstruct at 73rd Avenue, likely de minimis • 85th Avenue Trail (reroute, likely de minimis)	3 Section 4(f) resources • West Mississippi River Regional Trail (reroute trail around 70th Avenue, likely de minimis) • 85th Avenue Trail (reroute, likely de minimis) • Riverdale Park (0.3 acres)	2 Section 4(f) resources • West Mississippi River Regional Trail (reconstruct at 73rd Avenue, likely de minimis) • 85th Avenue Trail (reroute, likely de minimis)
Historic Properties	No potential adverse effects to known NRHP eligible/listed properties	Low risk for potential adverse effects to known NRHP eligible/listed properties	Low risk for potential adverse effects to known NRHP eligible/listed properties	Low risk for potential adverse effects to known NRHP eligible/listed properties	Low risk for potential adverse effects to known NRHP eligible/listed properties	Low risk for potential adverse effects to known NRHP eligible/listed properties

Evaluation Criteria	No Build Alternative	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Aquatic Resources	No wetlands, 0 acres	4 wetlands, approx. 3.0 acres	4 wetlands, approx. 3.0 acres	3 wetlands, approx. 2.5 acres	3 wetlands, approx. 2.5 acres	2 wetlands, approx. 2.0 acres
Stormwater Management	0 acres	Approx. area for ponds, 4.4 acres	Approx. area for ponds, 5.8 acres	Approx. area for ponds, 4.4 acres	Approx. area for ponds, 4.4 acres	Approx. area for ponds, 2.8 acres
100-year Floodplain	No floodplain encroachment	Longitudinal floodplain encroachment at 85th Avenue (approx. 775 feet) Avoids floodplain and floodway at 66th Avenue	Longitudinal floodplain encroachment at 85th Avenue (approx. 775 feet) Avoids floodplain and floodway at 66th Avenue	Longitudinal floodplain encroachment at 85th Avenue (approx. 775 feet) Avoids floodplain and floodway at 66th Avenue	Longitudinal floodplain encroachment at 85th Avenue (approx. 775 feet) Avoids floodplain and floodway at 66th Avenue	Longitudinal floodplain encroachment at 85th Avenue (approx. 775 feet) Avoids floodplain and floodway at 66th Avenue
Mississippi River Bluff Impact Zone	Avoids bluff impact zone	Avoids bluff impact zone	Avoids bluff impact zone	Avoids bluff impact zone	Avoids bluff impact zone	Avoids bluff impact zone
Mississippi River Shoreland Impact Zone	Avoids shoreland impact zone	Avoids shoreland impact zone	Avoids shoreland impact zone	Avoids shoreland impact zone	Avoids shoreland impact zone	Avoids shoreland impact zone
Mississippi River Corridor Critical Area	Not applicable	Compatible with general development standards at Minnesota Rules 6106.0130	Compatible with general development standards at Minnesota Rules 6106.0130	Compatible with general development standards at Minnesota Rules 6106.0130	Compatible with general development standards at Minnesota Rules 6106.0130	Compatible with general development standards at Minnesota Rules 6106.0130

(1) Full access interchange locations assume a tight diamond interchange configuration. Partial access interchange locations assume a split diamond interchange configuration.

(2) See the "Step 2 Hwy 252 Access Alternatives" section for a summary of the Metropolitan Council criteria for preliminary interchange access approval.

(3) Includes community facilities affected by interchanges only. Does not include community facility impacts due to local road expansion. Community facilities affected include partial acquisitions and total relocations.

(4) A majority of the project study area is populated by minority and low -income populations. See Section 9.2.9 of this SD for a discussion of Environmental Justice.

(5) Estimated construction costs includes concept design level estimates for Hwy 252 and interchange construction (year 2021 dollars).

(6) Includes parcels impacted due to interchanges only. Does not include parcel impacts due to local road expansion. "Multi-family" category includes apartment properties. "Other" category includes Section 4(f) resources and public facilities (e.g., Brooklyn Center water treatment facility).

(7) Area within preliminary interchange limits based on concept station drawings.

Table 7.20 Step 3 Evaluation Hwy 252 Access Combinations, Crash Cost and VMT Comparison

Hwy 252 Corridor	Crash Cost/VMT	No Build Alternative (1)	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
Element 5 (Four-Lane Freeway including Bus Shoulders)	% Change in Crash Cost Compared to 2040 No Build Alternative	$8,406,000	-3.97%	-4.00%	-3.65%	-3.46%	-2.78%
	% Change in VMT Compared to 2040 No Build Alternative	34,703,175	-4.88%	-5.11%	-4.78%	-4.83%	-4.11%
Element 6 (Six-Lane Freeway including Bus Shoulders)	% Change in Crash Cost Compared to 2040 No Build Alternative	$8,406,000	-4.74%	-4.84%	-4.55%	-4.44%	-3.73%
	% Change in VMT Compared to 2040 No Build Alternative	34,703,175	-5.93%	-6.12%	-5.83%	-5.92%	-5.10%
Element 7 (Six-Lane Freeway including Managed Lanes)	% Change in Crash Cost Compared to 2040 No Build Alternative	$8,406,000	-4.30%	-4.33%	-4.19%	-3.90%	-3.27%
	% Change in VMT Compared to 2040 No Build Alternative	34,703,175	-5.45%	-5.52%	-5.38%	-5.32%	-4.62%

VMT = vehicle miles traveled

(1) Mainline crash costs and VMT for No Build Alternative. See Table 7.12 through Table 7.15 of this SD.

Hwy 252 Access Combinations Key Findings

Key findings of the Step 3 Hwy 252 access combinations evaluation are listed below.

- All of the Hwy 252 access combinations reduce crash costs and vehicle miles traveled compared to the 2040 No Build Alternative because of the conversion of Hwy 252 to a freeway facility. The magnitude of change in crash cost and vehicle miles traveled increases with additional access points to Hwy 252. For example, Hwy 252 access combinations with two interchanges results in smaller crash cost and vehicle miles traveled reductions compared to Hwy 252 access combinations with three interchanges.
- The existing park and ride facilities at 73rd Avenue and 66th Avenue would remain in-place with the Hwy 252/I-94 Project. The location of access points influences compatibility with transit service on Hwy 252. Access combinations with access at 73rd Avenue and 66th Avenue better accommodates transit access to park and ride facilities.
- The number of access points determines how traffic is distributed along Hwy 252.
- The number of access points and location of access points has minimal influence on Hwy 252 morning and afternoon peak hour corridor travel times.
- Each of the access combinations reduces vehicle miles traveled compared to the 2040 No Build Alternative. Providing two access points to Hwy 252 results in the greatest amount of vehicle miles traveled compared to other access combinations. The amount of vehicle miles traveled reduction compared to the 2040 No Build Alternative is lowest with Access Combination 5 (i.e., interchange access at 85th Avenue and 73rd Avenue).
- Providing two access points to Hwy 252 results in fewer property impacts; however, this also results in the greatest amount of travel on lower classification roadways (e.g., county highways, local streets) to access Hwy 252.

Hwy 252 Access Combinations and Grade Separated Crossings

The Step 3 evaluation included an assessment of grade separated crossings at non-interchange locations under certain Hwy 252 access combinations. The purpose of this assessment was to develop an initial understanding of impacts to traffic patterns and circulation with grade separated crossings. Figure 7.31 illustrates the travel patterns with additional or reduced trips with grade separated crossings at Humboldt Avenue, 73rd Avenue, and 66th Avenue. The following sections summarize findings of the grade separated crossings analysis.

Humboldt Avenue Grade Separated Crossing

- The Humboldt Avenue grade separated crossing can be considered with Hwy 252 access combinations 1, 2, and 4.
- The Humboldt Avenue crossing attracts trips from adjacent residential neighborhoods and through trips along Humboldt Avenue that are destined to neighborhoods east of Hwy 252 and to the north along West River Road. The Humboldt Avenue crossing is estimated to attract approximately 1,000 daily trips from Brookdale Drive west of Hwy 252.

- The Humboldt Avenue grade separated crossing does not eliminate the need to expand Brookdale Drive to a three-lane roadway section with Hwy 252 access combinations 1, 2, and 4.

73rd Avenue Grade Separated Crossing

- The 73rd Avenue grade separated crossing can be considered with Hwy 252 access combinations 1 and 4. This evaluation of the 73rd Avenue grade separated crossing assumes West River Road is reconnected between Brookdale Drive and 73rd Avenue. The Hwy 252/I-94 Project does not require a West River Road reconnection. See the "Hwy 252 Access Alternatives and West River Road" discussion below.

- The 73rd Avenue grade separated crossing attracts trips along 73rd Avenue to and from the neighborhood east of Hwy 252. The 73rd Avenue grade separated crossing is estimated to draw approximately 500 daily trips from Brookdale Drive and 70th Avenue with Hwy 252 access combination 4.

- The 73rd Avenue grade separated crossing provides an additional route to Hwy 252 for trips near 73rd Avenue between Humboldt Avenue and Hwy 252 when access is provided at 70th Avenue with Hwy 252 access combination 4.

- The 73rd Avenue grade separated crossing does not eliminate the need to expand Brookdale Drive or 70th Avenue to a three-lane roadway section with Hwy 252 access combination 1 and access combination 4.

70th Avenue Grade Separated Crossing

The existing Hwy 252 and 70th Avenue intersection is a T-intersection and does not allow east-west through movements. A 70th Avenue grade separation would require three to eight residential relocations to make the connection with 70th Avenue east of Hwy 252. West River Road would be bisected at 70th Avenue and require a new connection south of 70th Avenue to Dallas Lane to provide local circulation. The analysis described in this section for other locations also shows that grade separated crossings do not divert enough traffic to eliminate the need for expanding other nearby local streets to three-lane roadways (see Figure 7.31). Therefore, a grade separated crossing for vehicles was not evaluated at 70th Avenue.

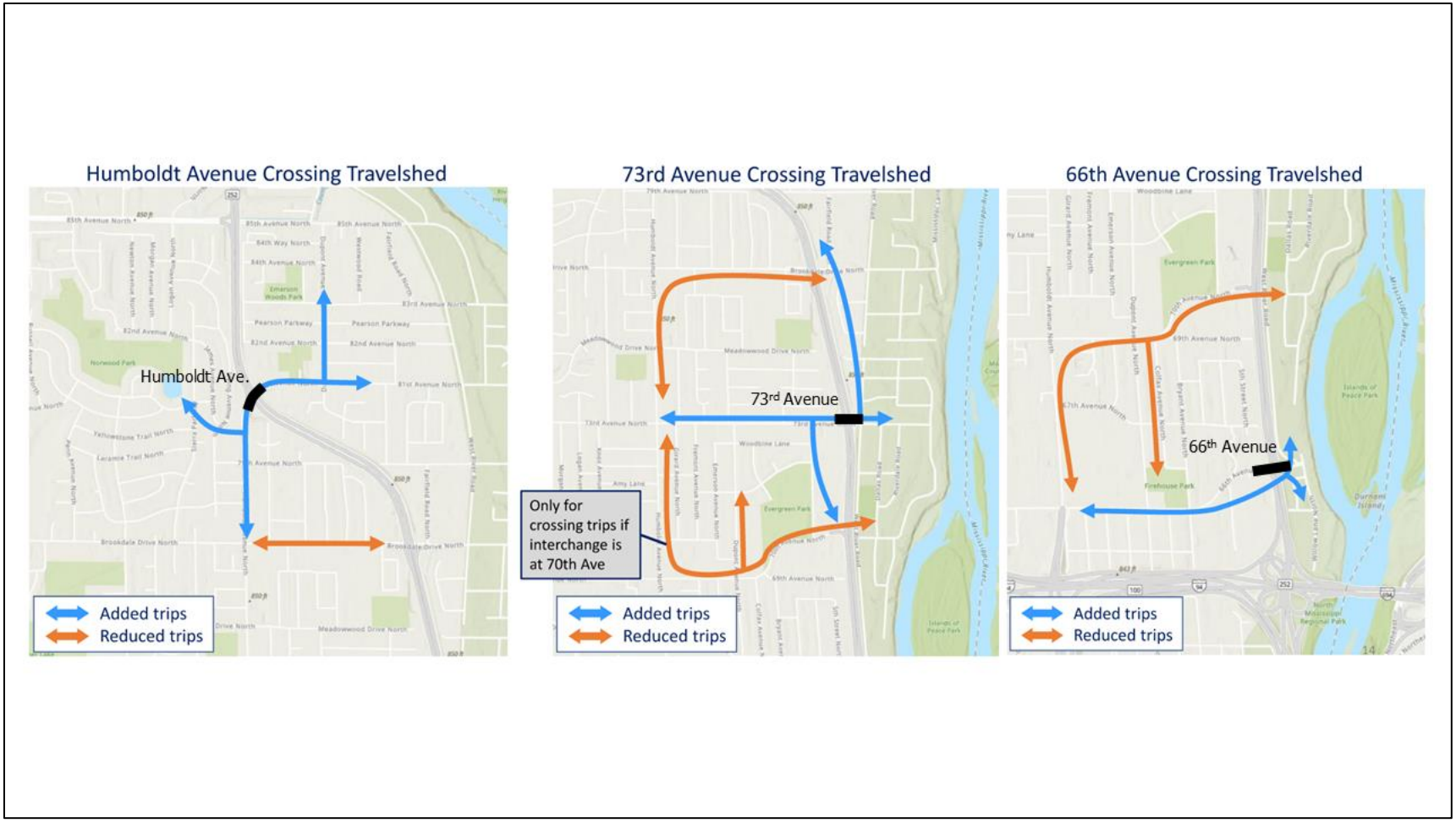
66th Avenue Grade Separated Crossing

- The 66th Avenue grade separated crossing can be considered with Hwy 252 access combination 4.

- The 66th Avenue grade separated crossing attracts trips along 66th Avenue to and from the neighborhood east of Hwy 252 and West River Road to the north. The 66th Avenue grade separated crossing is estimated to attract approximately 1,000 daily trips from 70th Avenue west of Hwy 252.

- The 66th Avenue grade separated crossing does not eliminate the need to expand 70th Avenue to a three-lane roadway section under Hwy 252 access combination 4.

Figure 7.31 Hwy 252 Grade Separated Crossings at Humboldt Avenue, 73rd Avenue, and 66th Avenue



Hwy 252 Access Combinations and West River Road

West River Road is a local street that runs parallel to the Mississippi River on the east side of Hwy 252. In the early to mid-1990s, West River Road was severed as a through route between Brookdale Drive and 73rd Avenue. The purpose of severing West River Road was to minimize cut through traffic in residential neighborhoods on the east side of Hwy 252.

The Hwy 252 freeway alternatives and access combinations provide an opportunity to potentially reconnect West River Road with the Hwy 252/I-94 Project. The Step 3 evaluation included an assessment of reconnecting West River Road under certain Hwy 252 access combinations. The purpose of this assessment was to develop an initial understanding of impacts to traffic patterns and circulation if West River Road is reconnected. Figure 7.32 illustrates travel patterns and added or reduced trips with the West River Road reconnection. The following list summarizes the findings of the West River Road reconnection analysis. Reconnecting West River Road will be studied further in the Draft EIS.

- Reconnecting West River Road was considered with Hwy 252 access combinations 1 and 4. The split interchange configuration with Hwy 252 access combinations 2 and 3 includes a frontage road on the east side of Hwy 252 between interchange ramps at Brookdale Drive and 73rd Avenue.[41] This frontage road would provide the same function as a West River Road reconnection; therefore, the West River Road reconnection was not considered with Hwy 252 access combinations 2 and 3.

- Reconnecting West River Road reduces overall trip lengths for trips to and from Hwy 252 and provides an additional route choice for neighborhoods south of Brookdale Drive to access Hwy 252.

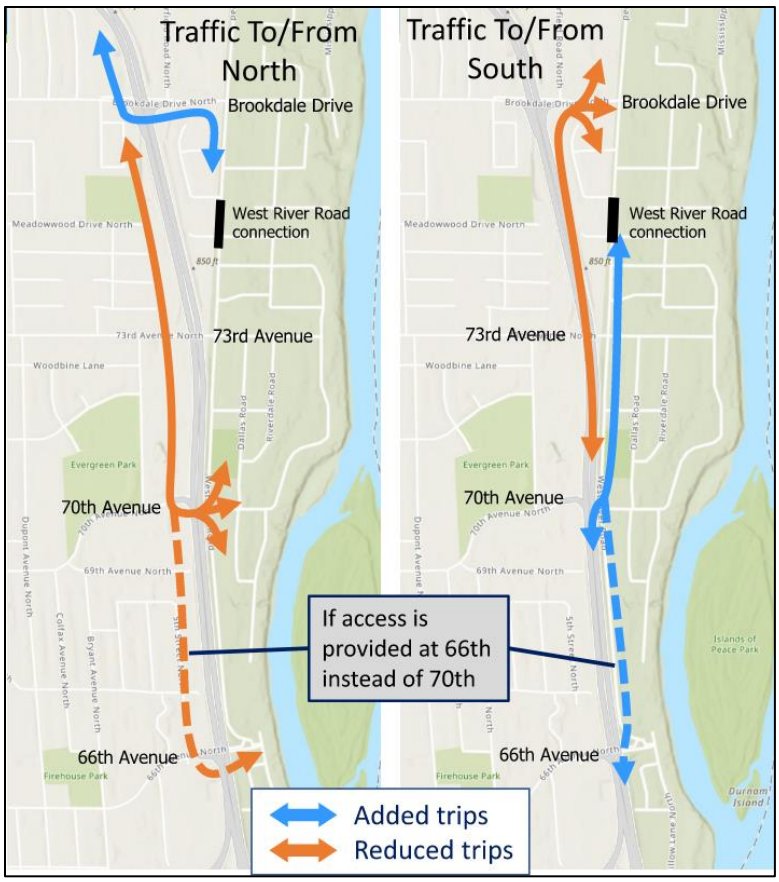
- The reconnection of West River Road shifts where traffic accesses Hwy 252. Trips to and from the north are attracted to the Brookdale Drive access point with the West River Road reconnection. Trips to and from the south are attracted to access points at 73rd Avenue or 66th Avenue with the West River Road reconnection. The overall net increase in daily trips using Hwy 252 access at 73rd Avenue or 66th Avenue with the West River Road reconnection is approximately 1,000 daily vehicles.

- The shift in traffic volumes is not expected to impact the roadway capacity needed on the local roadway system east of Hwy 252.

- Metro Transit Route 766 is a local bus route that currently uses West River Road and accesses Hwy 252 at Brookdale Drive. Reconnecting West River Road provides the opportunity for Metro Transit to modify Route 766 to access the 73rd Avenue park and ride facility and access Hwy 252 at access points south of Brookdale Drive.

[41] Section 7.4.4 of this Scoping Document describes the split diamond interchange design concept with Brookdale Drive and 73rd Avenue.

Figure 7.32 Hwy 252 and West River Road Reconnection



Hwy 252 Access Combinations Conclusions

Hwy 252 Access Combinations

The results of the Step 3 analysis indicates that there is not adequate information to differentiate among the Hwy 252 access combinations and justify eliminating one or more of the Hwy 252 access combinations in the scoping process. The scoping analysis indicates that there are performance differences among the Hwy 252 access combinations (e.g., property impacts, right of way, vehicle miles traveled, crash costs). The Hwy 252 access combinations will be studied in greater detail in the Draft EIS. Therefore, the five Hwy 252 access combinations considered in Step 3 and summarized below are recommended for further evaluation in the Draft EIS.

- Access Combination 1: includes full access interchanges at 85th Avenue, Brookdale Drive, and 66th Avenue.
- Access Combination 2: includes full access interchanges at 85th Avenue and 66th Avenue and a partial access interchange at Brookdale Drive/73rd Avenue.

- Access Combination 3: includes a full access interchange at 85th Avenue and a partial access interchange at Brookdale Drive/73rd Avenue.
- Access Combination 4: includes full access interchanges at 85th Avenue, Brookdale Drive, and 70th Avenue.
- Access Combination 5: includes full access interchanges at 85th Avenue and 73rd Avenue.

The Hwy 252 access combinations recommended for further study in the Draft EIS apply to the Hwy 252 freeway elements, including Element 5 (four-lane freeway including bus shoulders), Element 6 (six-lane freeway including bus shoulders), and Element 7 (six-lane freeway including managed lanes).

Hwy 252 Grade Separated Crossings

This SD includes an initial assessment of grade separated crossings with freeway alternatives at non-interchange locations, including Humboldt Avenue, 73rd Avenue, and 66th Avenue.[42] Grade separated crossings will attract trips and change local traffic patterns adjacent to Hwy 252, depending on the Hwy 252 access location. Grade separated crossings provide additional routes for trips to access Hwy 252; however, grade separated crossings would not eliminate the need to expand local roads at Hwy 252 interchange locations. Grade separated crossings would include sidewalks and/or trails, providing dedicated off-road facilities for pedestrians and bicyclists to cross Hwy 252. Therefore, Hwy 252 grade separated crossings are retained for further consideration in the Draft EIS.

Hwy 252 Access Alternatives and West River Road

This SD includes an initial assessment of reconnecting West River Road between Brookdale Drive and 73rd Avenue with Hwy 252 freeway alternatives and access alternatives. Reconnecting West River Road will be studied further in the Draft EIS.

Reconnecting West River Road would impact traffic patterns in the project study area. Reconnecting West River Road reduces overall trip lengths and provides an additional route choice for access to and from Hwy 252. Reconnecting West River Road shifts the locations where trips access West River Road. Trips to and from the north are attracted to West River Road at Brookdale Drive. Trips to and from the south are attracted to West River Road at locations south of Brookdale Drive (e.g., 70th Avenue, 66th Avenue). Reconnecting West River Road also provides a through route for buses operating on West River Road to access the 73rd Avenue park and ride with Hwy 252 access combinations 1 and 4.

[42] A grade separated crossing at 70th Avenue was not evaluated in this SD. See the "70th Avenue Grade Separated Crossing" section above on page 7-120.

Reconnecting West River Road is retained as a design option for further consideration in the Draft EIS. The Draft EIS will identify the impacts of reconnecting West River Road or leaving West River Road closed with Hwy 252 access combinations.

7.4.3 Step 3 Hwy 252 At-Grade Intersection Concepts

Element 1 (Hwy 252 Six-Lane Expressway) was carried forward to Step 3 for further evaluation of potential at-grade intersection concepts. This evaluation included consideration of standard signalized intersection as well as innovative intersection concepts. Intersections were designed to a concept level using the Bentley Systems *OpenRoads ConceptStation* program.[43] The following sections describe the Element 1 intersection concepts.

Description of Hwy 252 At-Grade Intersection Concepts

Displaced Left-Turn Intersection

The displaced left-turn intersection moves the conflict between left turning vehicles on Hwy 252 and oncoming through traffic. Left turning motorists on Hwy 252 cross over to the other side of opposing through traffic in advance of the main intersection. The greatest benefit of the displaced left-turn design is for through traffic on Hwy 252.

The displaced left-turn intersection was considered for Hwy 252 intersections with 85th Avenue, Humboldt Avenue, Brookdale Drive, and 66th Avenue. Figure 7.33 and Figure 7.34 illustrate the displaced left-turn intersection concept.

Echelon Partial Interchange

The echelon partial interchange concept separates each intersection into two separate intersections that can operate independently of one another. One direction on Hwy 252 and the adjacent local roadway would be elevated on structure, while the opposite direction on Hwy 252 and adjacent local roadway would be at-grade. There are no echelon partial interchanges on any existing highways in the State of Minnesota.

The echelon partial interchange was considered for the Hwy 252 intersections with 85th Avenue and 66th Avenue. Figure 7.33 and Figure 7.34 illustrate the echelon partial interchange concept.

Signalized Intersection

The signalized intersection maintains the existing at-grade intersection at Hwy 252 and 73rd Avenue. The signalized intersection includes a traffic signal and dedicated right- and left-turn lanes on Hwy 252 and the intersecting local roadway. Figure 7.33 illustrates the signalized intersection concept.

[43] Bentley Systems *OpenRoads ConceptStation* is a computer program used by engineers to develop conceptual designs for highway infrastructure, including roads, interchanges, and bridges.

Right-In/Right-Out Intersection

The right-in/right-out intersection includes closure of the center median on Hwy 252. Left-turn movements from Hwy 252 and intersecting local roadways are prohibited. Accommodates right turns from northbound and southbound Hwy 252 to local roadways, and right turns out from local roadways to Hwy 252.

The right-in/right-out intersection was considered for the Hwy 252 and 70th Avenue intersection. Figure 7.34 illustrates the right-in/right-out intersection concept.

Improved Existing Intersections

The improved existing intersection concepts maintain the at-grade Hwy 252 signalized intersections. The intersection geometry is modified to be more "pedestrian-friendly". Improvements include removing free-right turn lanes at select locations, removing left-turn lanes on Hwy 252 at select locations, providing marked crossings more perpendicular to Hwy 252, providing median refuges, and improved sidewalk connections. Traffic signal timing would be modified to include a leading pedestrian interval. Leading pedestrian intervals provides pedestrians additional time to enter a crosswalk before vehicles are given a green indication. Bus stops would be provided on northbound and southbound Hwy 252 downstream of the traffic signals.

The improved existing intersections design was considered at all six intersections on Hwy 252 (i.e., 85th Avenue, Humboldt Avenue, Brookdale Drive, 73rd Avenue, 70th Avenue, and 66th Avenue). Figure 7.35 and Figure 7.36 illustrate the improved existing intersections concepts.

Evaluation of Hwy 252 At-Grade Intersection Concepts

Hwy 252 At-Grade Intersection Concept Results

Table 7.21 tabulates the evaluation results for the Hwy 252 six-lane expressway with the displaced left turn intersection, echelon partial interchange, signalized intersection, and right-in/right-out intersection concepts. Figure 7.33 and Figure 7.34 illustrate concept designs and anticipated parcel impacts. The following list summarizes key findings of the Hwy 252 at-grade intersection concept evaluation.

- The Hwy 252 at-grade intersection concepts reduce projected intersection crash costs compared to the 2040 No Build Alternative except for the signalized intersection at 73rd Avenue.
- In general, the Hwy 252 at-grade intersection concepts improve traffic operations (i.e., intersection LOS) compared to the 2040 No Build Alternative. However, the displaced left turn intersection concept at Brookdale Drive and 66th Avenue is projected to operate at LOS F during the morning peak hour because of traffic volume distribution at each intersection.
- The Hwy 252 at-grade intersection concepts include at-grade crossings for pedestrians and bicyclists. In most instances, the MMLOS would not improve compared to the 2040 No Build

Alternative. Pedestrians and bicyclists are still crossing Hwy 252 at-grade, exposing pedestrians and bicyclists to conflicts with Hwy 252 traffic.

- The displaced left turn intersection concept and echelon partial interchange concept do not avoid residential and commercial property impacts. Anticipated property impacts of the displaced left turn intersection concept and echelon partial interchange concept are similar to grade separated interchanges (see the "Step 3 Hwy 252 Grade Separated Interchanges" discussion below).

Hwy 252 Improved Existing Intersection Results

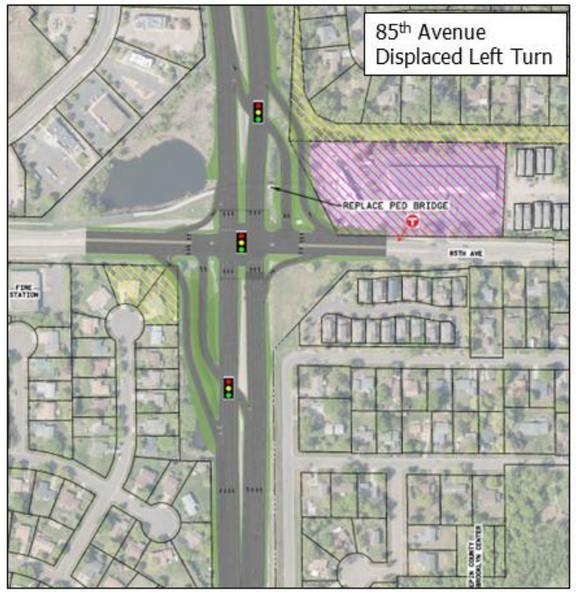
Table 7.22 tabulates the evaluation results for the Hwy 252 six-lane expressway with the improved existing intersection concepts. The improved existing intersection concepts are within the existing Hwy 252 intersection footprints and would not impact adjacent properties. The following list summarizes key findings of the Hwy 252 improved existing intersection results.

- The Hwy 252 improved existing intersection concepts do not address vehicle safety concerns with the existing intersections. Crash costs for four of the six Hwy 252 intersections (Brookdale Drive, 73rd Avenue, 70th Avenue, and 66th Avenue) are projected to be greater than the 2040 No Build Alternative.

- In general, the Hwy 252 improved existing intersection concepts improve intersection LOS during the morning and afternoon peak hours compared to the 2040 No Build Alternative. Intersection operations at 73rd Avenue in the afternoon peak hour and 66th Avenue in the morning peak hour are projected to fall to LOS D, below the 2040 No Build Alternative.

- The Hwy 252 improved existing intersection concepts improve MMLOS compared to the 2040 No Build Alternative. Hwy 252 improved existing intersection concepts are projected to operate at pedestrian LOS C or better and bicycle LOS E or better under year 2040 conditions. These improvements are largely reflective of the shorter crossing distances. However, pedestrians and bicyclists are still crossing a higher speed facility on Hwy 252.

Figure 7.33 Hwy 252 Element 1 (Six-Lane Expressway) At-Grade Intersection Concepts



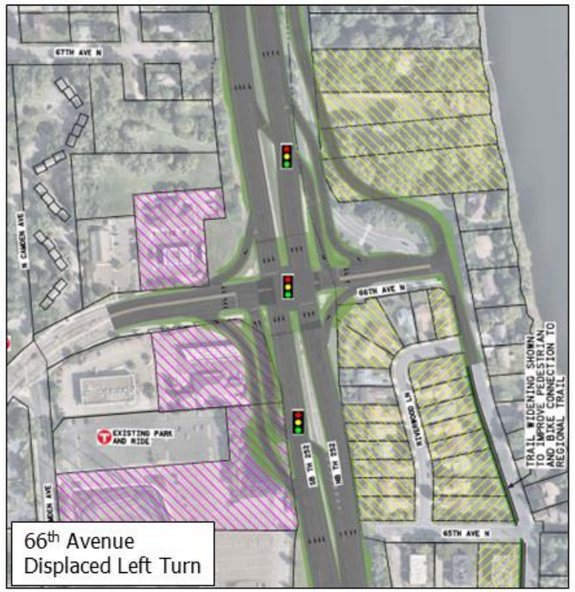
LEGEND

- POTENTIALLY IMPACTED PARCEL (RESIDENTIAL)
- POTENTIALLY IMPACTED PARCEL (PUBLIC)
- POTENTIALLY IMPACTED PARCEL (PLACE OF WORSHIP)
- POTENTIALLY IMPACTED PARCEL (COMMERCIAL)
- PRELIMINARY GRADING LIMITS*
- PERMANENT LOCAL ROAD ROUTE CHANGE
- ROAD CLOSURE
- POTENTIAL BUS STOP LOCATION
- PROPOSED TRAFFIC SIGNAL
- PROPOSED BRIDGE

* PRELIMINARY GRADING LIMITS ARE NOT FINAL AND ARE SUBJECT TO CHANGE AS ALTERNATIVES ARE REFINED.

Disclaimer: this map contains depictions of potential projects and potentially impacted land or parcels, and does not represent any decision by MnDOT as to the land or parcels that may be impacted or acquired for a project. MnDOT is currently preparing an environmental study and a preferred alternative has not yet been identified. As a result, the impact on the land or the parcels required for the project has not been finally determined and may change. This map, and the information contained in this map, shall not be relied upon for any purpose and shall not be construed as an agreement by MnDOT to impact or acquire any land or parcel. In no event will MnDOT be liable for any claims, losses, damages, expenses, costs or liabilities whatsoever that may result or arise directly or indirectly from the use of this map or reliance upon the information contained in this map.

Figure 7.34 Hwy 252 Element 1 (Six-Lane Expressway) At-Grade Intersection Concepts



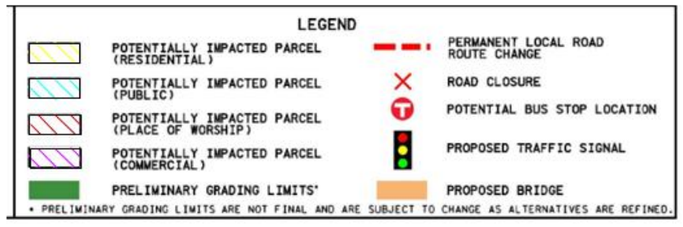


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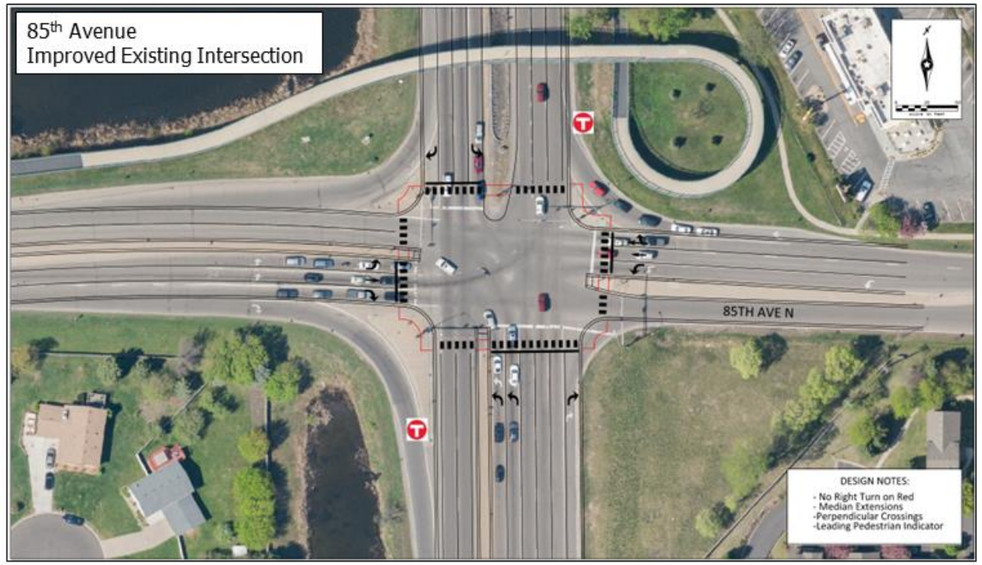
Figure 7.35 Hwy 252 Element 1 (Six-Lane Expressway) Improved Existing Intersections



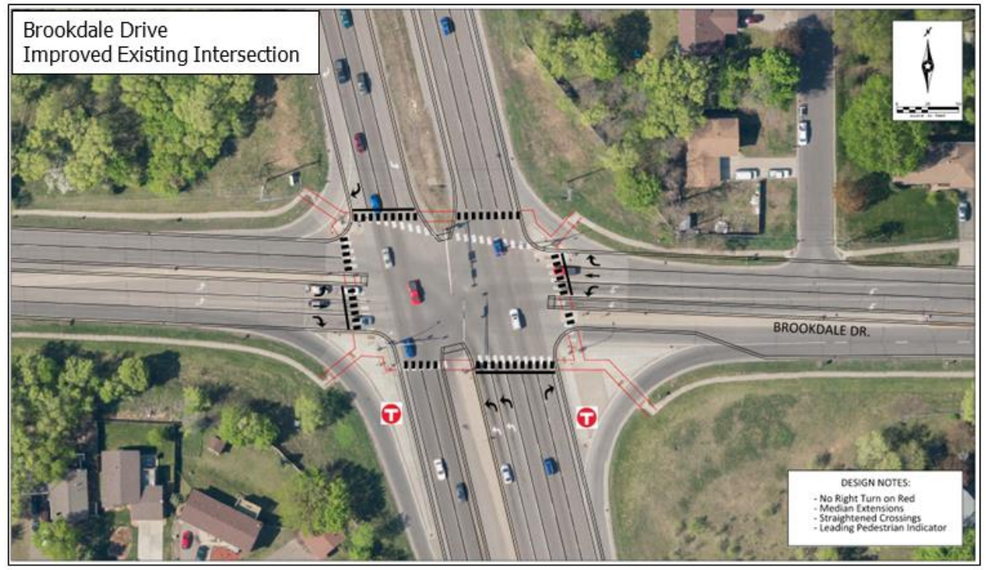
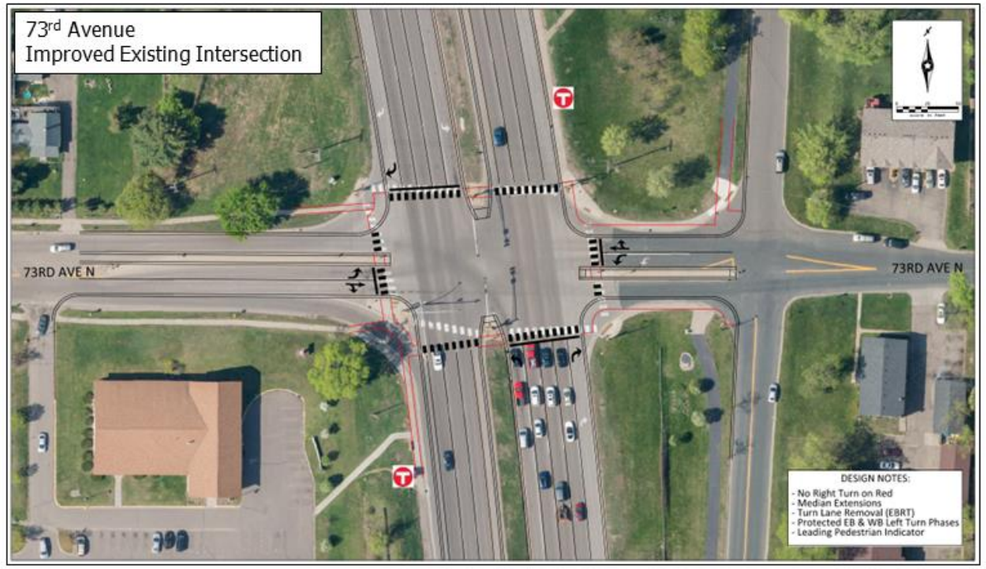
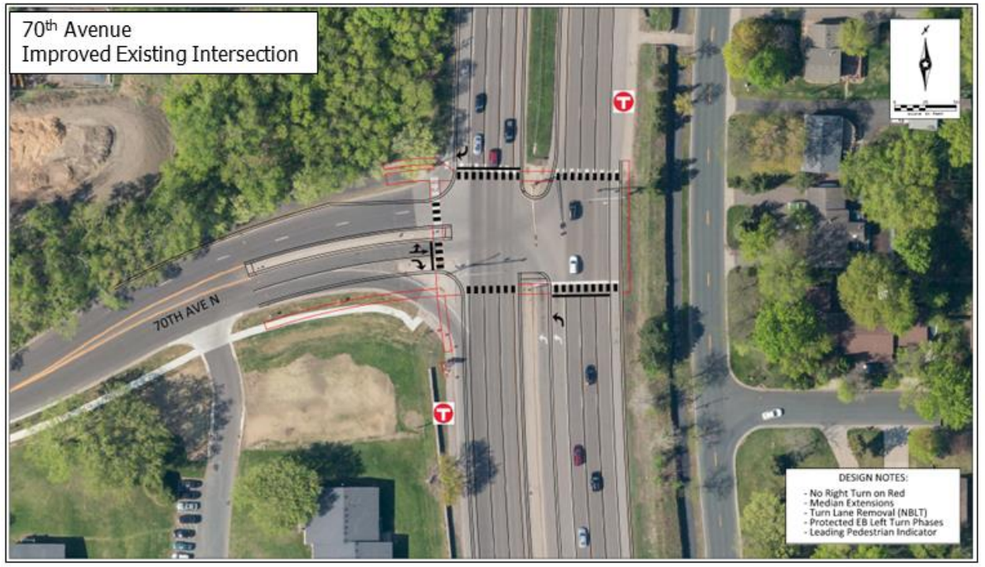


Figure 7.36 Hwy 252 Element 1 (Six-Lane Expressway) Improved Existing Intersections





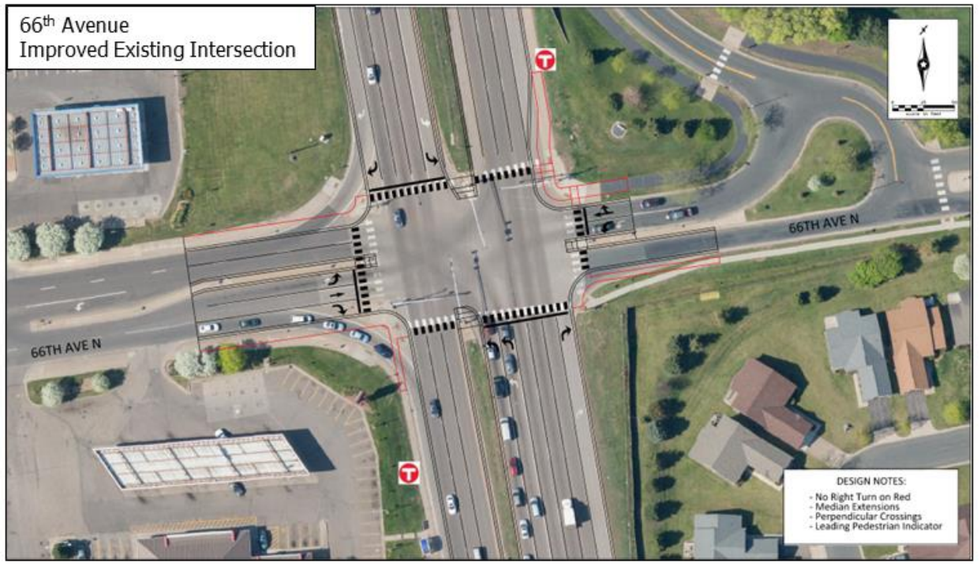


Table 7.21 Hwy 252 Element 1 (Six-Lane Expressway) Intersection Evaluation Results

Hwy 252 Intersections	Hwy 252 Element 1 Intersection Configuration	Intersection Crashes (Total Annual Crash Costs)	Peak Hour Intersection Level of Service (LOS) (1)	Multi-Modal Level of Service (MMLOS) (2)	Right of Way Number of Properties Affected (3)	Right of Way Commercial and Residential Relocations
85th Avenue	No Build Alternative	$1,492,084	LOS F/LOS F	LOS F/LOS F	No properties affected	No commercial or residential relocations
	Displaced Left Turn	$1,094,195	LOS E/LOS C	LOS F/LOS F	Residential = 2 Commercial = 1 Other = 1	No commercial or residential relocations
	Echelon Partial Interchange	$928,408	LOS C/LOS B	LOS F/LOS F	Residential = 1 Commercial = 1	No commercial or residential relocations
Humboldt Avenue	No Build Alternative	$1,052,658	LOS B/LOS F	LOS E/LOS F	No properties affected	No commercial or residential relocations
	Displaced Left Turn	$775,642	LOS B/LOS C	LOS F/LOS D	Place of Worship = 1	No commercial or residential relocations
Brookdale Drive	No Build Alternative	$1,184,205	LOS E/LOS C	LOS E/LOS F	No properties affected	No commercial or residential relocations
	Displaced Left Turn	$1,132,718	LOS F/LOS B	LOS F/LOS D	Residential = 11	0 Commercial 8 Residential
73rd Avenue	No Build Alternative	$809,716	LOS B/LOS C	LOS F/LOS F	No properties affected	No commercial or residential relocations
	Signalized Intersection	$880,127	LOS A/LOS C	LOS E/LOS F	No properties affected	No commercial or residential relocations

Hwy 252 Intersections	Hwy 252 Element 1 Intersection Configuration	Intersection Crashes (Total Annual Crash Costs)	Peak Hour Intersection Level of Service (LOS) (1)	Multi-Modal Level of Service (MMLOS) (2)	Right of Way Number of Properties Affected (3)	Right of Way Commercial and Residential Relocations
70th Avenue	No Build Alternative	$636,857	LOS E/LOS D	LOS E/LOS F	No properties affected	No commercial or residential relocations
	Right-In/Right-Out	$398,036	LOS B	LOS F/LOS F	No properties affected	No commercial or residential relocations
66th Avenue	No Build Alternative	$1,947,195	LOS C/LOS D	LOS E/LOS F	No properties affected	No commercial or residential relocations
	Displaced Left Turn	$1,790,163	LOS F/LOS C	LOS F/LOS D	Residential = 23 Commercial = 3	1 Commercial 0 Residential
	Echelon Partial Interchange	$1,538,912	LOS C/LOS A	LOS C/LOS A	Residential = 30 Commercial = 3	0 Commercial 13 Residential

(1) Peak hour intersection level of service (LOS) results calculated using FHWA's Capacity Analysis for Planning of Junctions (CAP-X) tool. Morning peak hour LOS and afternoon peak hour LOS.

(2) Pedestrian level of service (LOS)/bicycle LOS.

(3) Total number of impacted parcels, including total and partial acquisitions. "Other" category includes Section 4(f) resources and public facilities.

Table 7.22 Hwy 252 Element 1 (Six-Lane Expressway) Improved Existing Intersections Evaluation Results

Hwy 252 Intersections	No Build Alternative Intersection Crashes (Total Annual Crash Costs)	No Build Alternative Peak Hour Intersection Level of Service (LOS) (1)	No Build Alternative Multimodal Level of Service (MMLOS) (2)	Improved Existing Intersection Intersection Crashes (Total Annual Crash Costs)	Improved Existing Intersection Peak Hour Intersection Level of Service (LOS) (1)	Improved Existing Intersection Multimodal Level of Service (MMLOS) (2)
85th Avenue	$1,492,084	LOS F/LOS F	LOS F/LOS F	$1,226,825	LOS C/LOS E	LOS D/LOS F
Humboldt Avenue	$1,052,658	LOS B/LOS F	LOS E/LOS F	$886,448	LOS B/LOS D	LOS C/LOS F
Brookdale Drive	$1,184,205	LOS E/LOS C	LOS E/LOS F	$1,287,179	LOS C/LOS C	LOS D/LOS F
73rd Avenue	$809,716	LOS B/LOS C	LOS F/LOS F	$844,922	LOS B/LOS D	LOS D/LOS F
70th Avenue	$636,857	LOS A/LOS A	LOS E/LOS F	$676,661	LOS A/LOS A	LOS E/LOS F
66th Avenue	$1,947,195	LOS C/LOS D	LOS E/LOS F	$2,041,414	LOS D/LOS D	LOS D/LOS F

(1) Peak hour intersection level of service (LOS) results calculated using Highway Capacity Software (HCS). Morning peak hour level of service (LOS)/afternoon peak hour LOS.

(2) Pedestrian level of service (LOS)/bicycle LOS.

Hwy 252 At-Grade Intersection Conclusions

Element 1 (Hwy 252 Six-Lane Expressway) and the at-grade intersection concepts are eliminated from further consideration and will not be studied in the Draft EIS. This is because the at-grade intersections do not improve safety, mobility; and walkability/bikeability. The innovative at-grade intersection designs provide marginal improvements in intersection operations compared to the No Build Alternative and do not provide property impact benefits when compared to grade separated interchanges. The following list provides the rationale for eliminating the Hwy 252 six-lane expressway and at-grade intersection concepts from further consideration.

- The mainline crash cost is lower for Element 1 compared to the 2040 No Build Alternative. This is because the additional capacity with Element 1 results in a marginal vehicle safety improvement at the segment level (i.e., between intersections). However, Element 1 exhibits lower vehicle safety performance when compared to the Hwy 252 freeway elements as measured by mainline crash costs. See Section 7.3.1 of this SD for Hwy 252 corridor element mainline crash costs.

- The intersection crash costs at Brookdale Drive, 73rd Avenue, 70th Avenue, and 66th Avenue are greater with the Hwy 252 improved existing intersections compared to the 2040 No Build Alternative. Intersection crash rates do not change from existing conditions to the Hwy 252 improved existing intersections. The increase in crash costs at these intersections is because of the increase in traffic volumes under Element 1.

- The displaced left-turn intersection and echelon partial interchange concepts provide marginal operational performance benefits compared to the 2040 No Build Alternative. The displaced left-turn intersection at Brookdale Drive and 66th Avenue perform at LOS F, worse than 2040 No Build conditions. Property impacts with the displaced left-turn intersection and echelon partial interchange concepts are similar to grade separated interchange concepts (e.g., tight diamond interchange configurations, see Section 7.4.4). The displaced left-turn intersection and echelon partial interchange concepts do not provide mobility and property impact benefits when compared to grade separated interchange options.

- The Hwy 252 improved existing intersections exhibit some improvements in pedestrian and bicycle LOS compared to the 2040 No Build Alternative. However, pedestrians and bicyclists must still cross a high-speed facility on Hwy 252 and are exposed to potential vehicle conflicts. This vehicle-pedestrian conflict could be mitigated with multi-use trail bridges adjacent to Hwy 252 intersections. However, experience with other highway corridors indicates that some pedestrians and bicyclists would choose to cross Hwy 252 at-grade even with the nearby multi-use trail bridges.

7.4.4 Step 3 Hwy 252 Grade Separated Interchanges

Step 3 includes an evaluation of interchange concepts for Hwy 252 freeway elements. Interchanges were designed to a concept level using the Bentley Systems *OpenRoads ConceptStation* program.[44] The following sections describe the interchange concepts considered for the Hwy 252 freeway alternatives. The interchange concepts are applicable to Hwy 252 freeway facilities recommended for further consideration, including Element 5 (four-lane freeway including bus shoulders), Element 6 (six-lane freeway including bus shoulders), and Element 7 (six-lane freeway including managed lanes).

Hwy 252 and 85th Avenue Interchange Concepts

Description of Hwy 252 and 85th Avenue Interchange Concepts

Seven interchange concepts were evaluated for Hwy 252 and 85th Avenue. Figure 7.37 illustrates the Hwy 252 and 85th Avenue interchange concepts. The Hwy 252 and 85th Avenue interchange concepts are described below.

- Standard diamond: the standard diamond interchange is the most common type of interchange. Includes two entrance and exit ramps to Hwy 252. One interchange ramp is in each quadrant of Hwy 252 and 85th Avenue. Hwy 252 would cross over 85th Avenue on a bridge structure. The ramp terminal intersections with 85th Avenue are spaced farther apart from one another compared to a tight diamond interchange configuration.
- Tight diamond (with Hwy 252 over): includes two closely spaced intersections at the crossing of the interchange ramp terminals and 85th Avenue. Hwy 252 would cross over 85th Avenue on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 85th Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.
- Tight diamond (with Hwy 252 under): includes two closely spaced intersections at the crossing of the interchange ramp terminals and 85th Avenue. 85th Avenue would cross over Hwy 252 on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 85th Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.
- Folded diamond (north): includes constructing the two entrance ramps and two exit ramps with Hwy 252 to the north of 85th Avenue. The entrance ramp to southbound Hwy 252 and exit ramp from northbound Hwy 252 are constructed as loop ramps. Hwy 252 would cross over 85th Avenue on a bridge structure.
- Folded diamond (south): includes constructing the two entrance ramps and two exit ramps with Hwy 252 to the south of 85th Avenue. The interchange configuration was identified to avoid the 85th Avenue pedestrian bridge north of 85th Avenue. The exit ramp from southbound Hwy 252

[44] Bentley Systems *OpenRoads ConceptStation* is a computer program used by engineers to develop conceptual designs for highway infrastructure, including roads, interchanges, and bridges.

and the entrance ramp to northbound Hwy 252 are constructed as loop ramps. Hwy 252 would cross over 85th Avenue on a bridge structure.

- Single point: also referred to as a single point urban interchange (SPUI) or single point diamond interchange. The single point urban interchange directs all turning movements from the ramp terminal intersections and movements on 85th Avenue through one central intersection. One interchange ramp is in each quadrant of Hwy 252 and 85th Avenue. Hwy 252 would cross over 85th Avenue on a bridge structure.
- Diverging diamond: the interchange ramp configuration of a diverging diamond interchange is like a standard diamond interchange. One interchange ramp is in each quadrant of Hwy 252 and 85th Avenue. Traffic on 85th Avenue moves to the left side of the roadway between the ramp terminal intersections. Hwy 252 would cross over 85th Avenue on a bridge structure.[45]

Evaluation of Hwy 252 and 85th Avenue Interchange Concepts

Table 7.23 tabulates the evaluation results for the seven Hwy 252 and 85th Avenue interchange concepts. Figure 7.37 illustrates anticipated parcel impacts with the Hwy 252 and 85th Avenue interchange concepts. Impacted properties include residential and commercial uses and a public facility (i.e., Brooklyn Park Fire Station). Property impacts vary across interchange concepts, with the folded diamond to the south resulting in the greatest property impacts and residential relocations. In general, the 85th Avenue interchange concepts are expected to result in similar traffic operations and multi-modal levels of service. The single point and diverging diamond interchanges ranked "poor" for transit compatibility, whereas other 85th Avenue interchange concepts ranked "fair" or "good".

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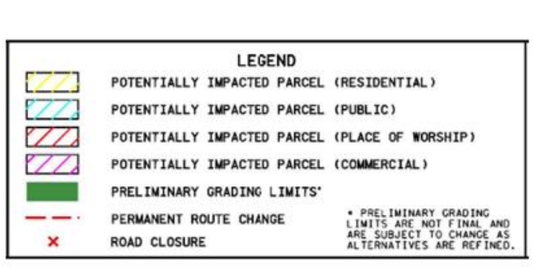
[45] Additional information regarding the vehicle safety and mobility benefits of diverging diamond interchanges is on the MnDOT webpage at https://www.dot.state.mn.us/roadwork/divdiamonds.html.

Figure 7.37 Hwy 252 and 85th Avenue Interchange Concepts



Disclaimer: this map contains depictions of potential projects and potentially impacted land or parcels, and does not represent any decision by MnDOT as to the land or parcels that may be impacted or acquired for a project. MnDOT is currently preparing an environmental study and a preferred alternative has not yet been identified. As a result, the impact on the land or the parcels required for the project has not been finally determined and may change. This map, and the information contained in this map, shall not be relied upon for any purpose and shall not be construed as an agreement by MnDOT to impact or acquire any land or parcel. In no event will MnDOT be liable for any claims, losses, damages, expenses, costs or liabilities whatsoever that may result or arise directly or indirectly from the use of this map or reliance upon the information contained in this map.

Table 7.23 Hwy 252 and 85th Avenue Interchange Evaluation Results

Evaluation Criteria	Standard Diamond	Tight Diamond (with Hwy 252 Over)	Tight Diamond (with Hwy 252 Under)	Folded Diamond (North)	Folded Diamond (South)	Single Point	Diverging Diamond
Right of Way, Number of Properties Affected (1)	Residential = 34 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 0	Residential = 13 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 1	Residential = 29 Multi-Family = 0 Commercial = 4 Place of Worship = 0 Other = 1	Residential = 20 Multi-Family = 0 Commercial = 7 Place of Worship = 0 Other = 0	Residential = 55 Multi-Family = 0 Commercial = 1 Place of Worship = 0 Other = 1	Residential = 13 Multi-Family = 0 Commercial = 4 Place of Worship = 0 Other = 1	Residential = 28 Multi-Family = 0 Commercial = 4 Place of Worship = 0 Other = 0
Right of Way, Commercial and Residential Relocations	4 Commercial 20 Residential	0 Commercial 3 Residential	1 Commercial 13 Residential	6 Commercial 12 Residential	0 Commercial 49 Residential	0 Commercial 6 Residential	2 Commercial 16 Residential
Planning-Level Construction Cost Estimates (2021 dollars)	$30M	$25M	$25M	$30M	$30M	$30M	$30M
Potential Daily Traffic Diversion (2)	100 vehicles per day (vpd)	100 vpd	100 vpd	0 vpd	100 vpd	100 vpd	100 vpd
Number of Conflict Points	30	30	30	22	22	24	18
Peak Hour Traffic Operations (3)	LOS B/LOS B	LOS B/LOS C	LOS B/LOS C	LOS B/LOS B	LOS C/LOS D	LOS A/LOS B	LOS B/LOS B
Multi-Modal Level of Service (LOS) (4)	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better
Transit Compatibility	Fair	Good	Good	Fair	Fair	Poor	Poor

(1) Total number of impacted parcels, including total and partial acquisitions.

(2) Certain 85th Avenue interchange configurations would dis-connect Humboldt Avenue at 84th Way and 84th Avenue in the southeast quadrant of the interchange. Includes traffic volume that would be rerouted to 83rd Avenue and Dupont Avenue to connect with 85th Avenue.

(3) Morning peak hour level of service (LOS)/afternoon peak hour LOS.

(4) Pedestrian level of service (LOS)/bicycle LOS. Bicycle LOS depends on level of separation for bicycle facility.

Hwy 252 and 85th Avenue Interchange Concept Conclusions

The following sections identify the Hwy 252 and 85th Avenue interchange concepts eliminated from further consideration and the Hwy 252 and 85th Avenue interchange concepts retained for further study in the Draft EIS.

Hwy 252 and 85th Avenue Interchange Concepts Eliminated from Further Consideration

The following Hwy 252 and 85th Avenue interchange configurations are eliminated from further consideration and will not be studied in the Draft EIS.

- Standard Diamond Interchange
- Folded Diamond to the North
- Folded Diamond to the South
- Single Point Urban Interchange
- Diverging Diamond Interchange

The key factors in making this determination include property impacts and potential residential and commercial relocations. The standard diamond interchange and the folded diamond interchange (to the north) were dismissed from further consideration because of number of properties affected and commercial and residential relocations. The folded diamond interchange (to the south) results in the greatest number of residential relocations and results in slightly lower peak hour traffic operations compared to other interchange configurations. The single point urban interchange does not accommodate north-south pedestrian crossings of 85th Avenue. These crossings would need to be directed to adjacent intersections, increasing pedestrian travel distances. The single point urban interchange and diverging diamond interchange also ranked poor for transit compatibility because they do not accommodate direct ramp-to-ramp movements for transit vehicles. Design features of a single point urban interchange and diverging diamond interchange include a raised triangular median at the ramp terminal intersection that prohibits through movements from the exit ramp to the entrance ramp. Additional travel on local roads would be necessary for transit vehicles to exit and re-enter the highway. By not accommodating direct ramp-to-ramp movements and increasing bus travel on local roads, the single point urban interchange and diverging diamond interchange would negatively impact transit operations.

Hwy 252 and 85th Avenue Interchange Concepts Retained for Further Consideration in the Draft EIS

The following Hwy 252 and 85th Avenue interchange configurations are retained for further consideration in the Draft EIS.

- Tight Diamond with Hwy 252 Over: the tight diamond with Hwy 252 over 85th Avenue minimizes property impacts and relocations, provides similar traffic operations and multi-modal level of service, and ranked good for transit compatibility.

- Tight Diamond with Hwy 252 Under: the tight diamond with 85th Avenue over Hwy 252 provides similar traffic operations, provides similar multi-modal level of service and ranked good for transit compatibility. The tight diamond with 85th Avenue over Hwy 252 results in greater property impacts. Public feedback during Scoping indicated concerns with elevating Hwy 252 and traffic noise. This interchange configuration maintains Hwy 252 at existing grade and provides an alternative for additional study in the Draft EIS regarding traffic noise.

Hwy 252 and Humboldt Avenue

No interchange concepts were evaluated at Hwy 252 and Humboldt Avenue. The five Hwy 252 access combinations do not include a combination with interchange access at Humboldt Avenue/81st Avenue. See Section 7.3.2 of this SD for additional details regarding Hwy 252 access combinations.

Hwy 252 and Brookdale Drive Interchange Concepts

Description of Hwy 252 and Brookdale Drive Interchange Concepts

Seven interchange concepts were evaluated for Hwy 252 and Brookdale Drive. Figure 7.38 illustrates the Hwy 252 and Brookdale Drive interchange concepts. The Hwy 252 and Brookdale Drive interchange concepts are described below.

- Standard diamond: includes two entrance and exit ramps to Hwy 252. One interchange ramp is in each quadrant of Hwy 252 and Brookdale Drive. Hwy 252 would cross over Brookdale Drive on a bridge structure. The ramp terminal intersections with Brookdale Drive are spaced farther apart from one another compared to a tight diamond interchange configuration.

- Tight diamond (with Hwy 252 over): includes two closely spaced intersections at the crossing of the interchange ramp terminals and Brookdale Drive. Hwy 252 would cross over Brookdale Drive on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and Brookdale Drive. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Tight diamond (with Hwy 252 under): includes two closely spaced intersections at the crossing of the interchange ramp terminals and Brookdale Drive. Brookdale Drive would cross over Hwy 252 on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and Brookdale Drive. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Partial cloverleaf: includes directional interchange ramps and loop ramps in one or more quadrans of an interchange. One interchange ramp is in the northeast and southwest quadrants of Hwy 252 and Brookdale Drive. Interchange ramps and loops are in the northwest and southeast quadrants of Hwy 252 and Brookdale Drive. Brookdale Drive would cross over Hwy 252 on a bridge structure. Ramp terminal intersections are spaced farther apart from one another like a standard diamond interchange.

- Single point: the single point urban interchange directs all turning movements from the ramp terminal intersections and movements on Brookdale Drive through one central intersection. One interchange ramp is in each quadrant of Hwy 252 and Brookdale Drive. Hwy 252 would cross over Brookdale Drive on a bridge structure.
- Diverging diamond: the interchange ramp configuration of a diverging diamond interchange is like a standard diamond interchange. One interchange ramp is in each quadrant of Hwy 252 and Brookdale Drive. Traffic on Brookdale Drive moves to the left side of the roadway between the ramp terminal intersections. Hwy 252 would cross over Brookdale Drive on a bridge structure.
- Split diamond with 73rd Avenue: provides access to Hwy 252 to and from the north at Brookdale Drive. One interchange ramp is in the northwest quadrant and one interchange ramp is in the northeast quadrant of Hwy 252 and Brookdale Drive. Retaining walls would be constructed between Hwy 252 and the interchange ramps. A pair of frontage roads are along the east and west sides of Hwy 252 from Brookdale Drive to 73rd Avenue, connecting the interchange ramps at Brookdale Drive with the interchange ramps at 73rd Avenue. Includes two closely spaced intersections at the interchange ramp terminals and frontage roads. Hwy 252 would cross over Brookdale Drive on a bridge structure.

Evaluation of Hwy 252 and Brookdale Drive Interchange Concepts

Table 7.24 tabulates the evaluation results for the seven Hwy 252 and Brookdale Drive interchange concepts. Figure 7.38 illustrates anticipated parcel impacts with the Hwy 252 and Brookdale Drive interchange concepts. Impacted properties include residential, institutional (i.e., place of worship) and educational uses (i.e., Monroe Elementary School). The standard diamond interchange results in the greatest property impacts and residential relocations. Peak hour intersection operations and multi-modal levels of service are expected to be the same among the Brookdale Drive interchange concepts. The single point and diverging diamond interchanges ranked "poor" for transit compatibility, whereas other interchange concepts ranked in the "fair" or "good" categories.

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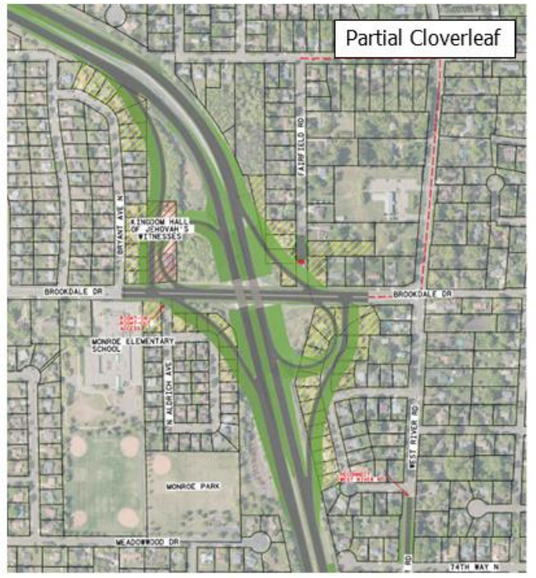
Figure 7.38 Hwy 252 and Brookdale Drive Interchange Concepts



LEGEND

- POTENTIALLY IMPACTED PARCEL (RESIDENTIAL)
- POTENTIALLY IMPACTED PARCEL (PUBLIC)
- POTENTIALLY IMPACTED PARCEL (PLACE OF WORSHIP)
- POTENTIALLY IMPACTED PARCEL (COMMERCIAL)
- PRELIMINARY GRADING LIMITS*
- PERMANENT ROUTE CHANGE
- ROAD CLOSURE

* PRELIMINARY GRADING LIMITS ARE NOT FINAL AND ARE SUBJECT TO CHANGE AS ALTERNATIVES ARE REFINED.

Disclaimer: this map contains depictions of potential projects and potentially impacted land or parcels, and does not represent any decision by MnDOT as to the land or parcels that may be impacted or acquired for a project. MnDOT is currently preparing an environmental study and a preferred alternative has not yet been identified. As a result, the impact on the land or the parcels required for the project has not been finally determined and may change. This map, and the information contained in this map, shall not be relied upon for any purpose and shall not be construed as an agreement by MnDOT to impact or acquire any land or parcel. In no event will MnDOT be liable for any claims, losses, damages, expenses, costs or liabilities whatsoever that may result or arise directly or indirectly from the use of this map or reliance upon the information contained in this map.

Table 7.24 Hwy 252 and Brookdale Drive Interchange Evaluation Results

Evaluation Criteria	Standard Diamond	Tight Diamond (with Hwy 252 Over)	Tight Diamond (with Hwy 252 Under)	Partial Cloverleaf	Single Point	Diverging Diamond	Split Diamond with 73rd Avenue (5)
Right of Way, Number of Properties Affected (1)	Residential = 65 Multi-Family = 0 Commercial = 0 Place of Worship = 1 Other = 1	Residential = 22 Multi-Family = 0 Commercial = 0 Place of Worship = 0 Other = 2	Residential = 45 Multi-Family = 0 Commercial = 0 Place of Worship = 1 Other = 1	Residential = 48 Multi-Family = 0 Commercial = 0 Place of Worship = 1 Other = 0	Residential = 21 Multi-Family = 0 Commercial = 0 Place of Worship = 0 Other = 1	Residential = 32 Multi-Family = 0 Commercial = 0 Place of Worship = 1 Other = 0	Residential = 52 Multi-Family = 1 Commercial = 0 Place of Worship = 1 Other = 2
Right of Way, Commercial and Residential Relocations	0 Commercial 59 Residential	0 Commercial 10 Residential	0 Commercial 30 Residential	0 Commercial 39 Residential	0 Commercial 13 Residential	0 Commercial 24 Residential	0 Commercial 8 Residential
Planning-Level Construction Cost Estimates (2021 dollars)	$30M	$30M	$30M	$35M	$30M	$30M	$45M
Potential Daily Traffic Diversion (2)	600 vehicles per day (vpd)	300 vpd	600 vpd	600 vpd	600 vpd	600 vpd	300 vpd
Number of Conflict Points	30	30	30	18	24	18	60
Peak Hour Traffic Operations (3)	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS A/LOS B	LOS B/LOS B	LOS B/LOS B
Multi-Modal Level of Service (LOS) (4)	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better
Transit Compatibility	Fair	Good	Good	Fair	Poor	Poor	Good

(1) Total number of impacted parcels, including total and partial acquisitions.

(2) Certain Brookdale Drive interchange configurations would disconnect Fairfield Road at Brookdale Drive in the northeast quadrant of the interchange. Includes traffic volume that would be rerouted to West River Road and 79th Avenue.

(3) Morning peak hour level of service (LOS)/afternoon peak hour LOS.

(4) Pedestrian level of service (LOS)/bicycle LOS. Bicycle LOS depends on the level of separation for bicycle facility.

(5) Total impacts for split diamond interchange configuration with 73rd Avenue.

Hwy 252 and Brookdale Drive Interchange Concepts Conclusions

The following sections identify the Hwy 252 and Brookdale Drive interchange concepts eliminated from further consideration and the Hwy 252 and Brookdale Drive interchange concepts retained for further study in the Draft EIS.

Hwy 252 and Brookdale Drive Interchange Concepts Eliminated from Further Consideration

The following Hwy 252 and Brookdale Drive interchange configurations are eliminated from further consideration and will not be studied in the Draft EIS.

- Standard Diamond Interchange
- Partial Cloverleaf Interchange
- Single Point Urban Interchange
- Diverging Diamond Interchange

The key factors in making this determination include property impacts and potential residential relocations. The standard diamond and partial cloverleaf interchanges result in the greatest number of properties affected and residential relocations. The single point urban interchange does not accommodate north-south pedestrian crossings of Brookdale Drive. These crossings would need to be directed to adjacent intersections, increasing pedestrian travel distances. The single point urban interchange and diverging diamond interchange also ranked poor for transit compatibility because they do not accommodate direct ramp-to-ramp movements for transit vehicles. Design features of a single point urban interchange and diverging diamond interchange include a raised triangular median at the ramp terminal intersection that prohibits through movements from the exit ramp to the entrance ramp. Additional travel on local roads would be necessary for transit vehicles to exit and re-enter the highway. By not accommodating direct ramp-to-ramp movements and increasing bus travel on local roads, the single point urban interchange and diverging diamond interchange would negatively impact transit operations.

Hwy 252 and Brookdale Drive Interchange Concepts Retained for Further Consideration in the Draft EIS

The following Hwy 252 and Brookdale Drive interchange configurations are retained for further consideration in the Draft EIS.

- Tight Diamond with Hwy 252 Over: the tight diamond with Hwy 252 over Brookdale Drive minimizes property impacts and residential relocations, provides similar traffic operations and multi-modal level of service, and ranked good for transit compatibility.
- Tight Diamond with Hwy 252 Under. the tight diamond with Brookdale Drive over Hwy 252 provides similar traffic operations, provides similar multi-modal of service, and ranked good for transit compatibility. The tight diamond with Brookdale Drive over Hwy 252 results in greater property impacts compared to the tight diamond with Hwy 252 over Brookdale Drive; however,

this interchange configuration maintains Hwy 252 at existing grade and provides an alternative for additional study in the Draft EIS regarding traffic noise.

- Split Diamond with 73rd Avenue: the split diamond with 73rd Avenue configuration minimizes residential relocations, provides similar traffic operations and multi-modal level of service, and ranked good for transit compatibility. The frontage road design with the split diamond interchange (e.g., one-way versus two-way frontage roads) will be evaluated in the Draft EIS.

Hwy 252 and 73rd Avenue Interchange Concepts

Description of Hwy 252 and 73rd Avenue Interchange Concepts

Six interchange concepts were evaluated for Hwy 252 and 73rd Avenue. Figure 7.39 illustrates the Hwy 252 and 73rd Avenue interchange concepts. The Hwy 252 and 73rd Avenue interchange concepts are described below.

- Split diamond with Brookdale Drive: provides access to Hwy 252 to and from the south at 73rd Avenue. One interchange ramp is in the southwest quadrant and one interchange ramp is in the southeast quadrant of Hwy 252 and 73rd Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps. A pair of frontage roads are along the east and west sides of Hwy 252 from Brookdale Drive to 73rd Avenue, connecting the interchange ramps at Brookdale Drive with the interchange ramps at 73rd Avenue. Includes two closely spaced intersections at the interchange ramp terminals and frontage roads. Hwy 252 would cross over 73rd Avenue on a bridge structure.

- Standard diamond: includes two entrance and exit ramps to Hwy 252. One interchange ramp is in each quadrant of Hwy 252 and 73rd Avenue. Hwy 252 would cross over 73rd Avenue on a bridge structure. The ramp terminal intersections with 73rd Avenue are spaced farther apart from one another compared to a tight diamond interchange configuration.

- Tight diamond (with Hwy 252 over): includes two closely spaced intersections at the crossing of the interchange ramp terminals and 73rd Avenue. Hwy 252 would cross over 73rd Avenue on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 73rd Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Tight diamond (with Hwy 252 under): includes two closely spaced intersections at the crossing of the interchange ramp terminals and 73rd Avenue. 73rd Avenue would cross over Hwy 252 on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 73rd Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Folded diamond (north): includes constructing the two entrance ramps and two exit ramps with Hwy 252 to the north of 73rd Avenue. The entrance ramp to southbound Hwy 252 and exit ramp from northbound Hwy 252 are constructed as loop ramps. Hwy 252 would cross over 73rd Avenue on a bridge structure.

- Single point: the single point urban interchange directs all turning movements from the ramp terminal intersections and movements on 73rd Avenue through one central intersection. One interchange ramp is in each quadrant of Hwy 252 and 73rd Avenue. Hwy 252 would cross over 73rd Avenue on a bridge structure.

Evaluation of Hwy 252 and 73rd Avenue Interchange Concepts

Table 7.25 tabulates the evaluation results for the six Hwy 252 and 73rd Avenue interchange concepts. Figure 7.39 illustrates anticipated parcel impacts with the Hwy 252 and 73rd Avenue interchange concepts. Impacted properties include residential uses (single family and multi-family), institutional uses (place of worship) and public facilities (City of Brooklyn Center water treatment plant, 73rd Avenue park and ride). The folded diamond to the south interchange concept results in the greatest property impacts and residential relocations. Peak hour intersection operations and multi-modal levels of service are expected to be the same among the 73rd Avenue interchange concepts. The single point interchange concept ranked "poor" for transit compatibility, whereas other concepts ranked "fair" or "good".

Hwy 252 and 73rd Avenue Interchange Conclusions

The following sections identify the Hwy 252 and 73rd Avenue interchange concepts eliminated from further consideration and the Hwy 252 and 73rd Avenue interchange concepts retained for further study in the Draft EIS.

Hwy 252 and 73rd Avenue Interchange Concepts Eliminated from Further Consideration

The following Hwy 252 and 73rd Avenue interchange configurations are eliminated from further consideration and will not be studied in the Draft EIS.

- Standard Diamond Interchange
- Folded Diamond to the North
- Single Point Urban Interchange

The key factors in making this determination include property impacts and potential residential relocations. The standard diamond interchange results in the greatest impacts to a place of worship and multi-family residential property in the southwest quadrant of the interchange. The folded diamond interchange (to the north) results in the greatest number of residential relocations. The single point urban interchange does not accommodate north-south pedestrian crossings of 73rd Avenue. These crossings would need to be directed to adjacent intersections, increasing pedestrian travel distances. The single point urban interchange also ranked poor for transit compatibility because it does not accommodate direct ramp-to-ramp movements for transit vehicles. Design features of a single point urban interchange include a raised triangular median at the ramp terminal intersection that prohibits through movements from the exit ramp to the entrance ramp. Additional travel on local roads would be necessary for transit vehicles to exit and re-enter the highway. By not accommodating direct ramp-to-ramp movements and increasing bus travel on local roads, the single point urban interchange would negatively impact transit operations.

Figure 7.39 Hwy 252 and 73rd Avenue Interchange Concepts

LEGEND

- POTENTIALLY IMPACTED PARCEL (RESIDENTIAL)
- POTENTIALLY IMPACTED PARCEL (PUBLIC)
- POTENTIALLY IMPACTED PARCEL (PLACE OF WORSHIP)
- POTENTIALLY IMPACTED PARCEL (COMMERCIAL)
- PRELIMINARY GRADING LIMITS*
- PERMANENT ROUTE CHANGE
- ROAD CLOSURE

* PRELIMINARY GRADING LIMITS ARE NOT FINAL AND ARE SUBJECT TO CHANGE AS ALTERNATIVES ARE REFINED.

Disclaimer: this map contains depictions of potential projects and potentially impacted land or parcels, and does not represent any decision by MnDOT as to the land or parcels that may be impacted or acquired for a project. MnDOT is currently preparing an environmental study and a preferred alternative has not yet been identified. As a result, the impact on the land or the parcels required for the project has not been finally determined and may change. This map, and the information contained in this map, shall not be relied upon for any purpose and shall not be construed as an agreement by MnDOT to impact or acquire any land or parcel. In no event will MnDOT be liable for any claims, losses, damages, expenses, costs or liabilities whatsoever that may result or arise directly or indirectly from the use of this map or reliance upon the information contained in this map.

Table 7.25 Hwy 252 and 73rd Avenue Interchange Evaluation Results

Evaluation Criteria	Split Diamond with Brookdale Drive (5)	Standard Diamond	Tight Diamond (with Hwy 252 Over)	Tight Diamond (with Hwy 252 Under)	Folded Diamond (North)	Single Point
Right of Way, Number of Properties Affected (1)	Residential = 52 Multi-Family = 1 Commercial = 0 Place of Worship = 1 Other = 2	Residential = 26 Multi-Family = 1 Commercial = 0 Place of Worship = 1 Other = 2	Residential = 16 Multi-Family = 1 Commercial = 0 Place of Worship = 1 Other = 1	Residential = 26 Multi-Family = 1 Commercial = 0 Place of Worship = 1 Other = 2	Residential = 38 Multi-Family = 0 Commercial = 0 Place of Worship = 1 Other = 1	Residential = 12 Multi-Family = 1 Commercial = 0 Place of Worship = 1 Other = 1
Right of Way, Commercial and Residential Relocations	0 Commercial 8 Residential	0 Commercial 14 Residential	0 Commercial 1 Residential	0 Commercial 14 Residential	0 Commercial 20 Residential	0 Commercial 0 Residential
Planning-Level Construction Cost Estimates (2021 dollars)	$45M (total with 73rd Avenue)	$30M	$30M	$30M	$30M	$30M
Potential Daily Traffic Diversion (2)	900 vehicles per day (vpd)	900 vpd	900 vpd	900 vpd	900 vpd	600 vpd
Number of Conflict Points	60 (total with 73rd Avenue)	30	30	30	22	24
Peak Hour Traffic Operations (3)	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B
Multi-Modal Level of Service (LOS) (4)	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better
Transit Compatibility	Good	Good	Good	Good	Fair	Poor

(1) Total number of impacted parcels, including total and partial acquisitions.

(2) Certain 73rd Avenue interchange configurations dis-connect West River Road in the northeast and southeast quadrants of the interchange. Includes traffic volume that would be rerouted to Dallas Road, Willow Lane, and 74th Avenue.

(3) Morning peak hour level of service (LOS)/afternoon peak hour LOS.

(4) Pedestrian level of service (LOS)/bicycle LOS. Bicycle LOS depends on level of separation for bicycle facility.

(5) Total impacts for split diamond interchange configuration with Brookdale Drive.

Hwy 252 and 73rd Avenue Interchange Concepts Retained for Further Consideration in the Draft EIS

The following Hwy 252 and 73rd Avenue interchange configurations are retained for further consideration in the Draft EIS.

- Split Diamond with Brookdale Drive: the split diamond with Brookdale Drive configuration minimizes residential relocations, provides similar traffic operations and multi-modal level of service, and ranked good for transit compatibility. The frontage road design with the split diamond interchange (e.g., one-way versus two-way frontage roads) will be evaluated in the Draft EIS.

- Tight Diamond with Hwy 252 Over: the tight diamond with Hwy 252 over 73rd Avenue minimizes property impacts and residential relocations, provides similar traffic operations and multi-modal of service, and ranked good for transit compatibility.

- Tight Diamond with Hwy 252 Under: the tight diamond with 73rd Avenue over Hwy 252 provides similar traffic operations, provides similar multi-modal level of service, and ranked good for transit compatibility. The tight diamond with 73rd Avenue over Hwy 252 results in greater property impacts compared to the tight diamond with Hwy 252 over 73rd Avenue; however, this interchange configuration maintains Hwy 252 at existing grade and provides an alternative for additional study in the Draft EIS with respect to traffic noise.

Hwy 252 and 70th Avenue Interchange Concepts

Description of Hwy 252 and 70th Avenue Interchange Concepts

Five interchange concepts were evaluated for Hwy 252 and 70th Avenue. Figure 7.40 illustrates the Hwy 252 and 70th Avenue interchange concepts. The Hwy 252 and 70th Avenue interchange concepts are described below.

- Standard diamond: includes two entrance and exit ramps to Hwy 252. One interchange ramp is in each quadrant of Hwy 252 and 70th Avenue. Hwy 252 would cross over 70th Avenue on a bridge structure. The ramp terminal intersections with 70th Avenue are spaced farther apart from one another compared to a tight diamond interchange configuration.

- Tight diamond (with Hwy 252 over): includes two closely spaced intersections at the crossing of the interchange ramp terminals and 70th Avenue. Hwy 252 would cross over 70th Avenue on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 70th Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Tight diamond (with Hwy 252 under): includes two closely spaced intersections at the crossing of the interchange ramp terminals and 70th Avenue. 70th Avenue would cross over Hwy 252 on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 70th Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Folded diamond (north): includes constructing the two entrance ramps and two exit ramps with Hwy 252 to the north of 70th Avenue. The entrance ramp to southbound Hwy 252 and exit ramp from northbound Hwy 252 are constructed as loop ramps. Hwy 252 would cross over 70th Avenue on a bridge structure.
- Single point: the single point urban interchange directs all turning movements from the ramp terminal intersections and movements on 70th Avenue through one central intersection. One interchange ramp is in each quadrant of Hwy 252 and 70th Avenue. Hwy 252 would cross over 70th Avenue on a bridge structure.

Evaluation of Hwy 252 and 70th Avenue Interchange Concepts

Table 7.26 tabulates the evaluation results for the five Hwy 252 and 70th Avenue interchange concepts. Figure 7.40 illustrates anticipated parcel impacts and local traffic routing changes with the Hwy 252 and 70th Avenue interchange concepts. Impacted properties include residential uses (single family and multi-family), and public facility (City of Brooklyn Center Water Treatment Facility) and parkland (Evergreen Park, Riverdale Park). The tight diamond interchange concept with Hwy 252 under impacts the greatest number of properties; however, the standard diamond interchange concept results in the most residential relocations. The folded diamond to the north interchange concepts results in the greatest impact to Riverdale Park. Peak hour intersection operations and multi-modal levels of service are expected to be the same among the 70th Avenue interchange concepts. The single point interchange concept ranked "poor" for transit compatibility, whereas other concepts ranked "fair" or "good".

Hwy 252 and 70th Avenue Interchange Conclusions

The following sections identify the Hwy 252 and 70th Avenue interchange concepts eliminated from further consideration and the Hwy 252 and 70th Avenue interchange concepts retained for further study in the Draft EIS.

Hwy 252 and 70th Avenue Interchange Concepts Eliminated from Further Consideration

The following Hwy 252 and 70th Avenue interchange configurations are eliminated from further consideration and will not be studied in the Draft EIS.

- Standard Diamond Interchange
- Folded Diamond to the North
- Single Point Urban Interchange

The key factors in making this determination include property impacts, potential residential relocations, and impacts to the City of Brooklyn Center wastewater treatment plant and Riverdale Park. The standard diamond interchange results in the greatest property impacts and residential relocations. The folded diamond interchange results in the greatest impact to the City of Brooklyn Center's wastewater treatment plant and Riverdale Park. The single point urban interchange does

not accommodate north-south pedestrian crossings of 70th Avenue. These crossings would need to be directed to adjacent intersections, increasing pedestrian travel distances. The single point urban interchange also ranked poor for transit compatibility because it does not accommodate direct ramp-to-ramp movements for transit vehicles. Design features of a single point urban interchange include a raised triangular median at the ramp terminal intersection that prohibits through movements from the exit ramp to the entrance ramp. Additional travel on local roads would be necessary for transit vehicles to exit and re-enter the highway. By not accommodating direct ramp-to-ramp movements and increasing bus travel on local roads, the single point urban interchange would negatively impact transit operations.

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Figure 7.40 Hwy 252 and 70th Avenue Interchange Concepts

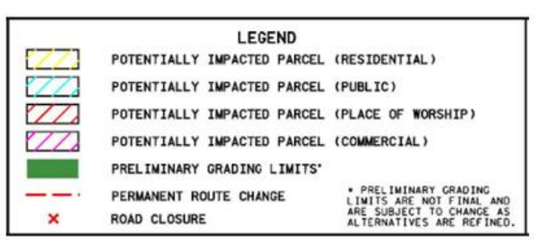

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Table 7.26 Hwy 252 and 70th Avenue Interchange Evaluation Results

Evaluation Criteria	Standard Diamond	Tight Diamond (with Hwy 252 Over)	Tight Diamond (with Hwy 252 Under)	Folded Diamond (North)	Single Point
Right of Way, Number of Properties Affected (1)	Residential = 33 Multi-Family = 1 Commercial = 0 Place of Worship = 0 Other = 2	Residential = 17 Multi-Family = 1 Commercial = 0 Place of Worship = 0 Other = 2	Residential = 39 Multi-Family = 1 Commercial = 0 Place of Worship = 0 Other = 3	Residential = 10 Multi-Family = 0 Commercial = 0 Place of Worship = 0 Other = 2	Residential = 15 Multi-Family = 1 Commercial = 0 Place of Worship = 0 Other = 2
Right of Way, Commercial and Residential Relocations	0 Commercial 26 Residential	0 Commercial 9 Residential	0 Commercial 20 Residential	0 Commercial 5 Residential	0 Commercial 9 Residential
Section 4(f) Resources	Two 4(f) resources: • Riverdale Park (1.3 acres) • West Mississippi Regional Trail High risk, likely individual Section 4(f) Evaluation	Two 4(f) resources: • Riverdale Park (0.3 acres) • West Mississippi Regional Trail Low risk, likely Section 4(f) de minimis	Three 4(f) resources: • Evergreen Park (0.1 acre) • Riverdale Park (1.2 acres) • West Mississippi Regional Trail Medium risk, likely individual Section 4(f) Evaluation or de minimis	Two 4(f) resources • Riverdale Park (2.0 acres) • West Mississippi Regional Trail High risk, likely individual Section 4(f) Evaluation	Two 4(f) resources: • Riverdale Park (0.6 acres) • West Mississippi Regional Trail Low risk, likely Section 4(f) de minimis
Planning-Level Construction Cost Estimates (2021 dollars)	$30M	$30M	$30M	$30M	$30M
Potential Daily Traffic Diversion (2)	600 vehicles per day (vpd)	600 vpd	700 vpd	700 vpd	600 vpd
Number of Conflict Points	30	30	30	22	24
Peak Hour Traffic Operations (3)	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B
Multi-Modal Level of Service (LOS) (4)	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better

Evaluation Criteria	Standard Diamond	Tight Diamond (with Hwy 252 Over)	Tight Diamond (with Hwy 252 Under)	Folded Diamond (North)	Single Point
Transit Compatibility	Good	Good	Good	Fair	Poor

(1) Total number of impacted parcels, including total and partial acquisitions.

(2) Certain 70th Avenue interchange configurations dis-connect 70th Avenue and West River Road in the northeast and southeast quadrants of the interchange. Includes traffic volume that would be rerouted to Dallas Road, Willow Lane, and 72nd Avenue.

(3) Morning peak hour level of service (LOS)/afternoon peak hour LOS.

(4) Pedestrian level of service (LOS)/bicycle LOS. Bicycle LOS depends on level of separation for bicycle facility.

Hwy 252 and 70th Avenue Interchange Concepts Retained for Further Consideration in the Draft EIS

The following Hwy 252 and 70th Avenue interchange configurations are retained for further consideration in the Draft EIS.

- Tight Diamond with Hwy 252 Over: the tight diamond with Hwy 252 over 70th Avenue minimizes property impacts and residential relocations, provides similar traffic operations and multi-modal level of service, and ranked good for transit compatibility.
- Tight Diamond with Hwy 252 Under: the tight diamond with 70th Avenue over Hwy 252 provides similar traffic operations, provides similar multi-modal level of service and ranked good for transit compatibility. The tight diamond with 70th Avenue over Hwy 252 results in greater property impacts compared to the tight diamond with Hwy 252 over 70th Avenue; however, this interchange configuration maintains Hwy 252 at existing grade and provides an alternative for additional study in the Draft EIS with respect to traffic noise.

Hwy 252 and 66th Avenue Interchange Concepts

Description of Hwy 252 and 66th Avenue Interchange Concepts

Nine interchange concepts were evaluated for Hwy 252 and 66th Avenue. The interchange concepts were identified for 66th Avenue because of the proximity to the I-94/I-694 system interchange, proximity to the Mississippi River, and to minimize property impacts. Figure 7.41 and Figure 7.42 illustrate the Hwy 252 and 66th Avenue interchange concepts. The Hwy 252 and 66th Avenue interchange concepts are described below.

- Folded diamond (with Hwy 252 over): includes constructing the two entrance ramps and two exit ramps with Hwy 252 to the north of 66th Avenue. The entrance ramp to southbound Hwy 252 and exit ramp from northbound Hwy 252 are constructed as loop ramps. West River Road would be realigned to the east to accommodate the northbound Hwy 252 entrance ramp and exit loop. Hwy 252 would cross over 66th Avenue on a bridge structure.
- Folded diamond (with Hwy 252 under): includes constructing the two entrance ramps and two exit ramps with Hwy 252 to the north of 66th Avenue. The entrance ramp to southbound Hwy 252 and exit ramp from northbound Hwy 252 are constructed as loop ramps. West River Road would be realigned to the east to accommodate the northbound Hwy 252 entrance ramp and exit loop. 66th Avenue would cross over 70th Avenue on a bridge structure.
- Right on right off: includes buttonhook-style interchange ramps to and from southbound Hwy 252 at 67th Avenue and reconstruction of Camden Avenue on the west side of Hwy 252 between 67th Avenue and 66th Avenue. Includes buttonhook-stye interchange ramps to and from northbound Hwy 252 at West River Road approximately 1,200 feet north of 66th Avenue. West River Road would be realigned to the east to increase spacing from Hwy 252 to accommodate the buttonhook ramps. Hwy 252 would cross over 66th Avenue on a bridge structure.

- Double bridge: includes buttonhook style interchange ramps to and from southbound Hwy 252 at 67th Avenue to an extension of 5th Street south of 67th Avenue. The northbound Hwy 252 exit ramp would connect to the southbound Hwy 252 exit ramp on the west side of Hwy 252 at 67th Avenue. The northbound Hwy 252 exit ramp would cross over 66th Avenue on a bridge structure, and then under Hwy 252 to the extension of 5th Street south of 67th Avenue. Hwy 252 would cross over 66th Avenue on a bridge structure. Includes realignment of West River Road north of 66th Avenue to accommodate the northbound exit ramp and to increase spacing for the northbound entrance ramp.

- Northbound flyover: includes an interchange ramp and loop in the northwest quadrant for access to and from southbound Hwy 252. One directional ramp would be constructed in the northeast quadrant for access to northbound Hwy 252. The northbound Hwy 252 exit ramp would be constructed as a "flyover" ramp on a bridge structure over 66th Avenue and Hwy 252, connecting to the southbound Hwy 252 exit ramp on the west side of Hwy 252. Hwy 252 would cross over 66th Avenue on a bridge structure. West River Road would be realigned at 66th Avenue to accommodate the northbound entrance ramp and northbound flyover ramp.

- Buttonhook: includes buttonhook style interchange ramps to and from southbound Hwy 252 at 67th Avenue to an extension of 5th Street south of 67th Avenue. The northbound Hwy 252 exit ramp to 66th Avenue would be folded to the north as a loop ramp. West River Road would be realigned to the east to accommodate the northbound Hwy 252 entrance ramp and exit loop. Hwy 252 would cross over 66th Avenue on a bridge structure.

- Tight diamond: includes two closely spaced intersections at the crossing of the interchange ramp terminals and 66th Avenue. Hwy 252 would cross over 66th Avenue on a bridge structure. One interchange ramp is in each quadrant of Hwy 252 and 66th Avenue. Retaining walls would be constructed between Hwy 252 and the interchange ramps.

- Braided collector-distributor (CD) road (full access): includes construction of Hwy 252 and 66th Avenue as a standard diamond interchange with two entrance and exit ramps to Hwy 252. One interchange ramp is in each quadrant of Hwy 252 and 66th Avenue. West River Road would be realigned to the east to accommodate the northbound Hwy 252 entrance ramp. Hwy 252 would cross over 66th Avenue on a bridge structure.

- Offset (west): includes construction of Hwy 252 and 66th Avenue as a standard diamond interchange with two entrance and exit ramps to Hwy 252. This interchange concept was identified to minimize property impacts on the east side of Hwy 252 at 66th Avenue. Hwy 252 would cross over 66th Avenue and the northbound Hwy 252 entrance and exit ramps on a bridge structure.

Evaluation of Hwy 252 and 66th Avenue Interchange Concepts

Table 7.27 tabulates the evaluation results for the nine Hwy 252 and 66th Avenue interchange concepts. Figures 7.41 and 7.42 illustrate anticipated parcel impacts with the Hwy 252 and 66th Avenue interchange concepts. Impacted properties include residential and commercial uses.

Property impacts among the 66th Avenue interchange concepts were estimated to range from 26 to 32 properties. The folded diamond to the south interchange concept and braided C/D road interchange concept result in the greatest number of commercial and residential relocations. In general, peak hour intersection operations are expected to be similar among 66th Avenue interchange concepts, with the exception of the braided C/D road (see "Hwy 252 and 66th Avenue Interchange Conclusions" section below). Multi-modal levels of service are expected to be the same among the 73rd Avenue interchange concepts. The right on right off, double bridge, and buttonhook interchange concepts ranked "poor" for transit compatibility, whereas other concepts ranked "fair" or "good".

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Figure 7.41 Hwy 252 and 66th Avenue Interchange Concepts

LEGEND

- POTENTIALLY IMPACTED PARCEL (RESIDENTIAL)
- POTENTIALLY IMPACTED PARCEL (PUBLIC)
- POTENTIALLY IMPACTED PARCEL (PLACE OF WORSHIP)
- POTENTIALLY IMPACTED PARCEL (COMMERCIAL)
- PRELIMINARY GRADING LIMITS*
- PERMANENT ROUTE CHANGE
- ROAD CLOSURE

* PRELIMINARY GRADING LIMITS ARE NOT FINAL AND ARE SUBJECT TO CHANGE AS ALTERNATIVES ARE REFINED.

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Figure 7.42 Hwy 252 and 66th Avenue Interchange Concepts

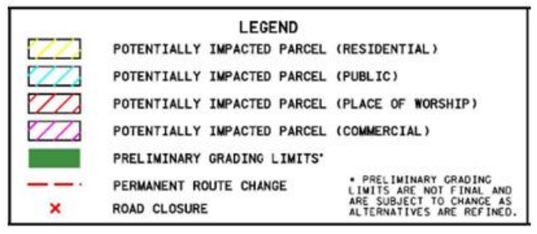

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Table 7.27 Hwy 252 and 66th Avenue Interchange Evaluation Results

Evaluation Criteria	Folded Diamond (with Hwy 252 Over)	Folded Diamond (with Hwy 252 Under)	Right On Right Off	Double Bridge	Northbound Flyover	Buttonhook	Tight Diamond	Braided CD Road (Full Access)	Offset (West)
Right of Way, Number of Properties Affected (1)	Residential = 27 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 0	Residential = 27 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 0	Residential = 22 Multi-Family = 0 Commercial = 4 Place of Worship = 0 Other = 0	Residential = 27 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 0	Residential = 20 Multi-Family = 0 Commercial = 6 Place of Worship = 0 Other = 0	Residential = 21 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 0	Residential = 21 Multi-Family = 0 Commercial = 6 Place of Worship = 0 Other = 0	Residential = 26 Multi-Family = 0 Commercial = 5 Place of Worship = 0 Other = 0	Residential = 22 Multi-Family = 1 Commercial = 5 Place of Worship = 0 Other = 0
Right of Way, Commercial and Residential Relocations	3 Commercial 10 Residential	4 Commercial 16 Residential	0 Commercial 11 Residential	2 Commercial 15 Residential	3 Commercial 13 Residential	2 Commercial 12 Residential	4 Commercial 14 Residential	2 Commercial 18 Residential	2 Commercial 7 Residential
Planning-Level Construction Cost Estimates (2021 dollars)	$25M	$25M	$30M	$30M	$30M	$30M	$35M	$30M	$30M
Potential Daily Traffic Diversion	0 vehicles per day (vpd)	Minimal vpd	0 vpd	0 vpd	0 vpd	0 vpd	0 vpd	0 vpd	0 vpd
Number of Conflict Points	22	22	9	13	14	27	30	30	32
Peak Hour Traffic Operations (2)	LOS B/LOS B	LOS B/LOS B	LOS B/LOS B	LOS B/LOS C	LOS B/LOS B	LOS C/LOS B	LOS B/LOS B	LOS F/LOS F	LOS B/LOS C
Multi-Modal Level of Service (LOS) (4)	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better	LOS A/LOS D or better
Transit Compatibility	Fair	Fair	Poor	Poor	Fair	Poor	Good	Good	Good
Mississippi River Corridor Critical Area, Consistency with General Development Standards for Public Facilities	More consistent with general development standards	More consistent with general development standards	More consistent with general development standards	More consistent with general development standards	Less consistent, potential risk for flyover ramp to exceed structure height limits for River Neighborhood (CA-RN)/Separated from River (SR) Districts	More consistent with general development standards	More consistent with general development standards	More consistent with general development standards	More consistent with general development standards

(1) Total number of impacted parcels, including total and partial acquisitions.

(2) Morning peak hour level of service (LOS) /afternoon peak hour LOS.

(3) Pedestrian level of service (LOS)/bicycle LOS. Bicycle LOS depends on the level of separation for the bicycle facility.

Hwy 252 and 66th Avenue Interchange Conclusions

The following sections identify the Hwy 252 and 66th Avenue interchange concepts eliminated from further consideration and the Hwy 252 and 66th Avenue interchange concepts retained for further study in the Draft EIS.

Hwy 252 and 66th Avenue Interchange Concepts Eliminated from Further Consideration

The following Hwy 252 and 66th Avenue interchange configurations are eliminated from further consideration and will not be studied in the Draft EIS.

- Right-On/Right-Off
- Double Bridge
- Northbound Flyover
- Buttonhook Interchange
- Tight Diamond Interchange
- Offset to the West

The 66th Avenue interchange configurations identified above provide no additional benefit in terms of vehicle mobility performance and property impacts. In general, property impacts are similar across interchange configurations. None of the 66th Avenue interchange configurations would completely avoid residential property impacts or relocations. Traffic operations and multi-modal LOS along 66th Avenue are similar across alternatives (see "Step 3 Alternatives Retained for Further Consideration" section for an explanation of the braided CD road configuration).

Right-On/Right-Off, Double Bridge, and Buttonhook Interchanges

66th Avenue is currently classified as an A-minor reliever roadway.[46] As an A-minor minor reliever roadway, it's function is to provide connections to principal arterial roadways such as Hwy 252. The right-on/right-off, double bridge, and buttonhook configurations include ramp connections with local city streets other than 66th Avenue. For example, the right-on/right-off configuration includes a new roadway connection from 67th Avenue to 66th Avenue. The interchange ramps connect to 67th Avenue, a city street. Trips to and from southbound Hwy 252 would travel on this new roadway between two multi-family residential properties to access southbound Hwy 252 at 67th Avenue. On the east side of Hwy 252, the right-on/right-off and double bridge configurations include interchange ramp connections to West River Road. Trips destined to and from 66th Avenue would travel an additional ¼-mile to access the interchange ramps to northbound Hwy 252. By not accommodating a direct connection to 66th Avenue, the right-on/right-off, double bridge, and

[46] City of Brooklyn Center Comprehensive Plan Update 2040. Chapter 7: Transportation and Transit. Map 7-1. Existing Street and Roadway System.

buttonhook configurations result in additional travel and increases in traffic volumes on local streets. Because these interchange configurations would not provide benefits in terms of property impacts, create additional impacts on city streets, they are eliminated from further consideration and will not be studied in the Draft EIS.

Northbound Flyover and Offset to the West Interchanges

The northbound flyover interchange configuration is a three-level interchange. The exit ramp from northbound Hwy 252 to 66th Avenue would bridge over 66th Avenue and Hwy 252. The offset to the west interchange configuration includes longer bridges on Hwy 252 compared to other interchange configurations. These longer structures are needed to cross over the interchange ramps to and from northbound Hwy 252 and 66th Avenue. The northbound flyover and offset to the west interchange configurations are more complicated designs that provide no additional benefit in terms of property impacts and other performance measures (e.g., peak hour traffic operations, multi-modal LOS, transit compatibility). Therefore, the northbound flyover and offset to the west interchange configurations are eliminated from further consideration and will not be studied in the Draft EIS.

Tight Diamond Interchange

The tight diamond interchange configuration includes interchange ramps to and from the south of 66th Avenue. These interchange ramps are closer to the I-94/I-694/Hwy 252 system interchange compared to any of the other interchange configurations considered at 66th Avenue. The estimated property impacts with the tight diamond interchange are similar to other interchange configurations. For these reasons, the tight diamond interchange is eliminated from further consideration and will not be studied in the Draft EIS.

Hwy 252 and 66th Avenue Interchange Concepts Retained for Further Consideration in the Draft EIS

The following Hwy 252 and 66th Avenue interchange configurations are retained for further consideration in the Draft EIS.

- Folded Diamond with Hwy 252 Over: the folded diamond interchange with Hwy 252 over results in similar property impacts, provides similar traffic operations, provides similar multi-modal level of service and ranked fair for transit compatibility. The reason the folded diamond does not rank good for transit is because the folded interchange ramps do not provide for a direct ramp-to-ramp movement. The inability to perform a ramp-to-ramp movement leads to a reduction in transit performance relative to existing conditions. Existing bus stops are along the Hwy 252 shoulders. Buses access these stops directly from Hwy 252. The inability to provide a direct ramp-to-ramp movement results in additional bus turning movements and travel on local roads, potentially increasing transit travel times.

  The folded diamond interchange maximizes the spacing from the Hwy 252/I-94/I-694 system interchange compared to other 66th Avenue interchange concepts. The Draft EIS will evaluate impacts on operations of the system interchange and will evaluate potential mitigation measures.

- Folded Diamond with Hwy 252 Under: the folded diamond interchange with 66th Avenue over Hwy 252 results in similar property impacts, provides similar traffic operations, provides similar multi-modal level of service and ranked fair for transit compatibility. The reason the folded diamond does not rank good for transit is because the folded interchange ramps do not provide for a direct ramp-to-ramp movement. See the discussion above for the "Folded Diamond with Hwy 252 Over" interchange explaining the fair transit compatibility ranking.

  The folded diamond interchange maximizes the spacing from the Hwy 252/I-94/I-694 system interchange compared to other 66th Avenue interchange concepts. The Draft EIS will evaluate impacts on operations of the system interchange and will evaluate potential mitigation measures. This folded diamond interchange with 66th Avenue over Hwy 252 maintains Hwy 252 at existing grade and provides an alternative for additional study in the Draft EIS with respect to traffic noise.

- Braided Collector/Distributor Road (Full Access): the braided collector/distributor (CD) road interchange results in similar property impacts, provides similar multi-modal level of service and ranked fair for transit compatibility. The braided CD road interchange includes a northbound and southbound CD road that separates entering and exiting traffic between 66th Avenue and the Hwy 252 mainline and addresses weaving concerns along Hwy 252 between 66th Avenue and the system interchange.

  The braided CD road interchange is projected to result in worse peak hour intersection operations at 66th Avenue compared to other interchange configurations. This is because the CD road configuration considered in the scoping evaluation does not have adequate capacity to manage projected traffic volumes exiting southbound Hwy 252 prior to 66th Avenue and continuing to westbound I-694. This results in traffic queues that back up on the 66th Avenue southbound entrance ramp, resulting in poor operations at the ramp terminal intersections. The Draft EIS will include more detailed traffic modeling of this interchange configuration to identify the number of lanes and/or other mitigation measures required on the CD roads to provide acceptable traffic operations.

7.4.5 Step 3 I-94 Pedestrian and Bicycle Overpasses

Description of I-94 Pedestrian and Bicycle Overpasses

A pedestrian connectivity analysis was prepared for the I-94 corridor as part of the Step 3 evaluation. This analysis used the Pedestrian Connectivity Index (PCI) approach described above for the Step 2 Hwy 252 pedestrian connectivity analysis. The I-94 pedestrian connectivity analysis used a 10-minute walking distance between residential parcels and pedestrian destinations.

Three pedestrian destinations on the east and west sides of I-94 were identified for the pedestrian connectivity analysis: North Mississippi Regional Park, Upper Harbor Terminal development site, and Farview Park. Nine potential overpass locations across I-94 were evaluated for connections to these destinations. Table 7.28 lists the nine overpass locations and destinations used in the I-94 pedestrian connectivity analysis.

Table 7.28 I-94 Pedestrian Connectivity Analysis Locations and Destinations

City	Overpass Location Considered	Destination
Brooklyn Center	62nd Avenue North	North Mississippi Regional Park
	61st Avenue North	North Mississippi Regional Park
	59th Avenue North	North Mississippi Regional Park
Minneapolis	51st Avenue North	North Mississippi Regional Park
	40th Avenue North	Upper Harbor Terminal development site
	39th Avenue North	Upper Harbor Terminal development site
	34th Avenue North	Upper Harbor Terminal development site
	28th Avenue North	Connection across I-94 between Lowry Avenue and 26th Avenue at Farview Park
	23rd Avenue North	Connection across I-94 between 26th Avenue and West Broadway Avenue at Farview Park

Evaluation of I-94 Pedestrian and Bicycle Overpasses

Figure 7.43 through Figure 7.45 illustrate the results of the I-94 pedestrian connectivity evaluation. These figures illustrate the location of pedestrian destinations on the east and west sides of I-94 (i.e., North Mississippi Regional Park, Upper Harbor Terminal development site, and Farview Park) and connections to residential parcels within a 10-minute walk of each destination. The green lines crossing I-94 illustrate residential parcels within a 10-minute walk of each destination and served by existing crossings over I-94. The magenta lines illustrate residential parcels that are served by existing crossings; however, the travel time to reach each destination exceeds the 10-minute walk threshold. The magenta lines crossing I-94 illustrate parcels that would be served by new crossings over I-94 within the 10-minute walk threshold of each destination.

Figure 7.43 I-94 Pedestrian Connectivity Results, Brooklyn Center Crossings

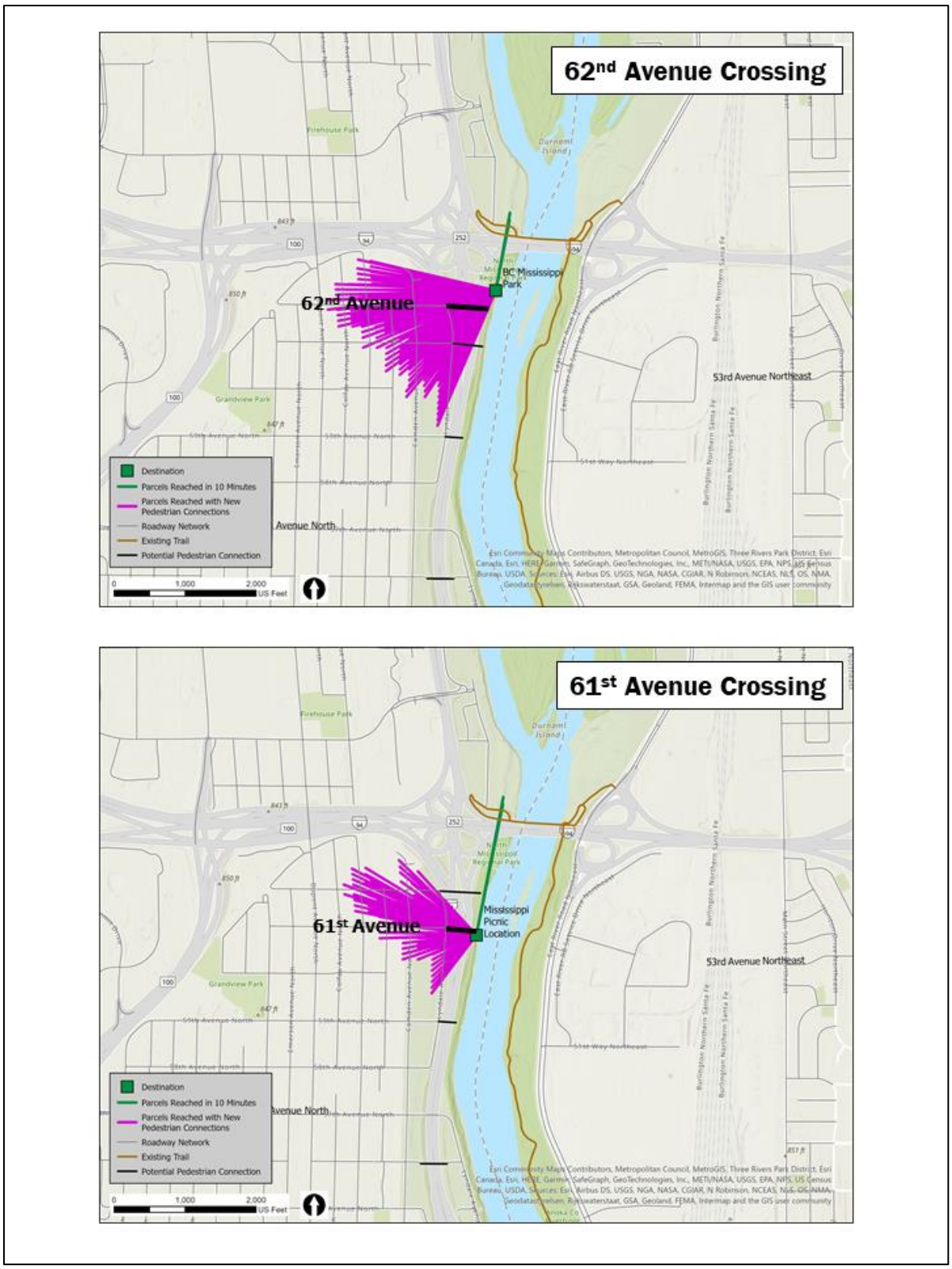


Figure 7.44 I-94 Pedestrian Connectivity Results, Brooklyn Center and Minneapolis Crossings

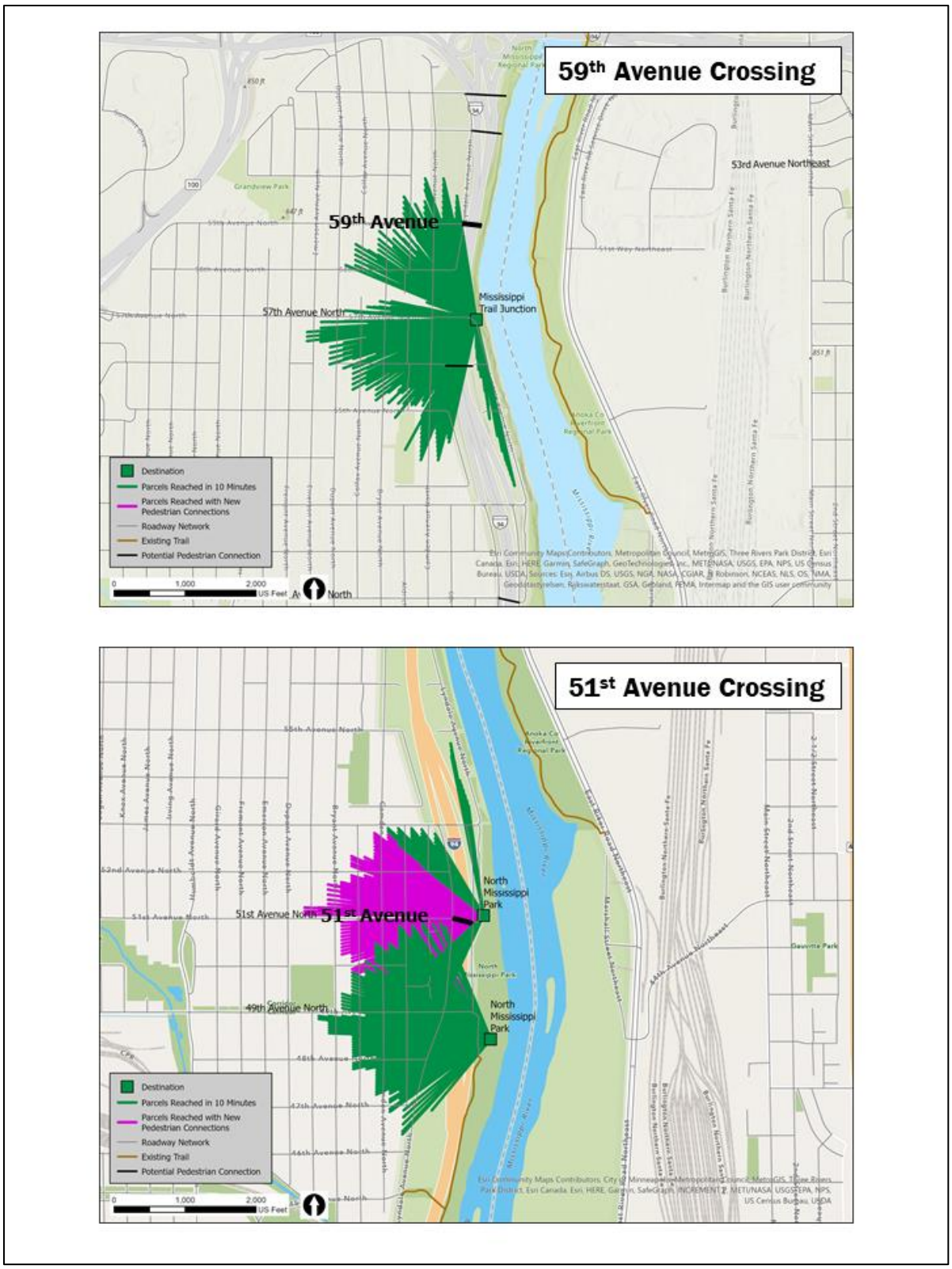
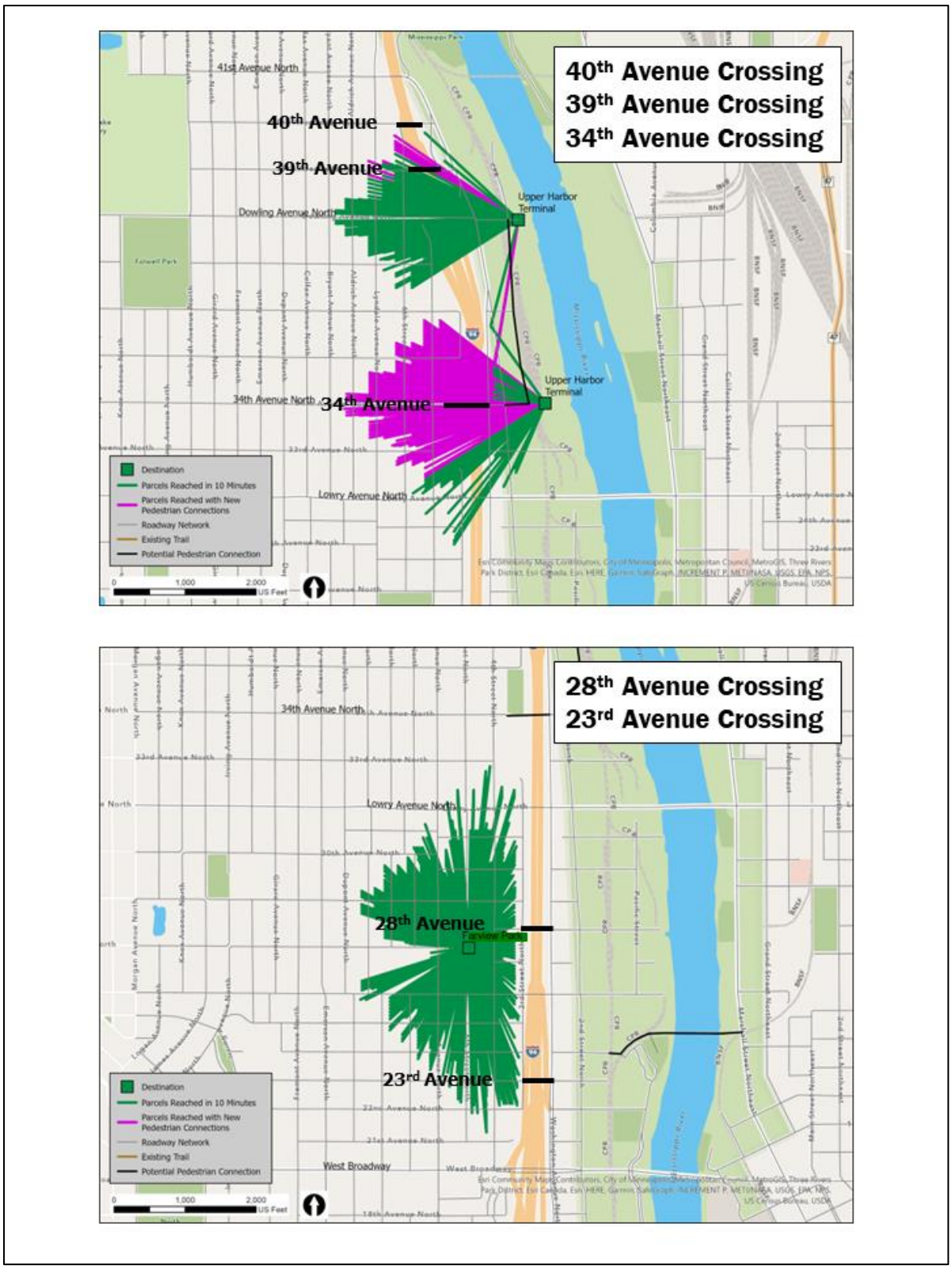


Figure 7.45 I-94 Pedestrian Connectivity Results, Minneapolis Crossings



I-94 Pedestrian and Bicycle Overpass Conclusions

The following sections identify the I-94 pedestrian and bicycle overpasses eliminated from further consideration and the I-94 pedestrian and bicycle overpasses retained for further study in the Draft EIS.

I-94 Pedestrian and Bicycle Overpasses Eliminated from Further Consideration

Six I-94 pedestrian and bicycle overpasses were dismissed from further consideration in Step 3 and will not be studied further in the Draft EIS. In general, these six I-94 pedestrian and bicycle overpasses are near existing overpass bridges. The existing overpass bridges near the six overpasses dismissed in scoping provide connections to destinations along I-94 and adequately provide pedestrian/bicycle connectivity across I-94. The following list describes the rationale for why the six I-94 pedestrian and bicycle overpasses considered in scoping were eliminated from further consideration.

- 59th Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 59th Avenue in Brooklyn Center. This crossing is approximately ¼-mile north of an existing overpass bridge at 57th Avenue. The 57th Avenue overpass includes a trail and sidewalk and provides access to North Mississippi Regional Park and regional trails along the Mississippi River and is within a 10-minute walking distance for residences west of I-94. The 59th Avenue crossing is beyond the 10-miute walking distance from the regional trail junction in North Mississippi Regional Park at 57th Avenue and would not serve any additional residential parcels that are not already served by 57th Avenue. Therefore, the 59th Avenue crossing was eliminated from further consideration.

- 51st Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 51st Avenue in Minneapolis. There are residential parcels on the west side of I-94 would benefit from a 51st Avenue crossing to North Mississippi Regional Park. However, there are existing overpass bridges over I-94 at 53rd Avenue and 49th Avenue. The 53rd Avenue overpass bridge includes on-street bike lanes and sidewalks and the 49th Avenue overpass bridge includes sidewalks. The 53rd Avenue and 49th Avenue overpasses are approximately ¼-mile from 51st Avenue, providing access across I-94 to North Mississippi Regional Park. Therefore, the 51st Avenue crossing was eliminated from further consideration.

- 40th Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 40th Avenue in Minneapolis. There are existing overpass bridges over I-94 at Washington Avenue and Dowling Avenue. The Washington Avenue overpass is less than ¼-mile from 40th Avenue, and the Dowling Avenue bridge is approximately ¼-mile from 40th Avenue. The Washington Avenue overpass bridge includes on-street bike lanes and sidewalks. The City of Minneapolis and MnDOT are investing in pedestrian and bicycle improvements along Dowling Avenue and the Dowling Avenue bridge over I-94. Residences on the west side of I-94 would not benefit from a 40th Avenue crossing because it is beyond a 10-minute walking distance from Upper Harbor Terminal at Dowling Avenue. Therefore, the 40th Avenue crossing was eliminated from further consideration.

- 39th Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 39th Avenue in Minneapolis. Less than 15 percent of residential parcels within a 10-minue walking distance of the Upper Harbor Terminal destination at Dowling Avenue would benefit from a pedestrian and bicycle overpass at 39th Avenue; however, there is an existing overpass bridge over I-94 at Dowling Avenue. The Dowling Avenue bridge is less than ¼-mile from 39th Avenue. Most residences west of I-94 are served by the Dowling Avenue bridge over I-94. The City of Minneapolis and MnDOT are investing in pedestrian and bicycle improvements along Dowling Avenue and the Dowling Avenue bridge over I-94. Therefore, the 39th Avenue crossing was eliminated from further consideration.

- 28th Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 28th Avenue in Minneapolis. Fairview Park and Recreation Center is in a residential neighborhood on the west side of I-94 at 28th Avenue. Land uses on the east side of I-94 at 28th Avenue include primarily industrial uses, and do not include residential uses that would benefit from a 28th Avenue crossing. There is an existing overpass bridge over I-94 at 26th Avenue. The 26th Avenue overpass bridge includes on-street bike lanes and sidewalks and is less than ¼-mile from 28th Avenue. Therefore, the 28th Avenue crossing was eliminated from further consideration.

- 23rd Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 23rd Avenue in Minneapolis. Fairview Park and Recreation Center is in a residential neighborhood on the west side of I-94 north of 23rd Avenue. Land uses on the east side of I-94 at 23rd Avenue include primarily industrial uses, and do not include residential uses that would benefit from a 23rd Avenue crossing. There are existing overpass bridges over I-94 at 26th Avenue and Broadway Avenue. The 26th Avenue overpass bridge includes on-street bike lanes and sidewalks and the Broadway Avenue overpass bridge includes sidewalks. These overpass bridges are approximately ¼-mile from 23rd Avenue. Therefore, the 23rd Avenue crossing was eliminated from further consideration.

I-94 Pedestrian and Bicycle Overpasses Retained for Further Consideration in the Draft EIS

Three new I-94 pedestrian and bicycle overpasses, two in Brooklyn Center and one in Minneapolis, are retained for further consideration in the Draft EIS. These three overpass locations are retained for further study in the Draft EIS because they would improve overall pedestrian and bicycle connectivity across I-94.

- 62nd Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 62nd Avenue in Brooklyn Center. The nearest existing overpass bridge over I-94 is at 57th Avenue, more than ½- mile south of 62nd Avenue. Potential design challenges at this location include the distance across I-94 and the proximity to the Hwy 252/I-94/I-694 system interchange. A 62nd Avenue crossing improves access to North Mississippi Regional Park and the Mississippi River for residents west of I-94. Therefore, the 62nd Avenue crossing is retained for further consideration in the Draft EIS.

- 61st Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 61st Avenue in Brooklyn Center. The nearest existing overpass bridge over I-94 is at 57th Avenue, approximately ½- mile south of 61st Avenue. A 61st Avenue crossing improves access to North Mississippi Regional Park and the Mississippi River for residents west of I-94. Therefore, the 61st Avenue crossing is retained for further consideration in the Draft EIS.

- 34th Avenue Crossing: includes a new pedestrian and bicycle overpass over I-94 at 34th Avenue in Minneapolis. A 34th Avenue crossing improves access for residents west of I-94 to the Upper Harbor Terminal development site. A pedestrian and bicycle overpass at 34th Avenue also is consistent with the *City of Minneapolis Transportation Action Plan* as a planned bikeway (connector or long-term low stress bikeway). Therefore, the 34th Avenue crossing is retained for further consideration in the Draft EIS.

The Step 1 evaluation included an assessment of improving existing overpass bridges over I-94. The City of Minneapolis is preparing a separate project for full reconstruction of Dowling Avenue from Lyndale Avenue to Washington Avenue (SP 141-169-008). This project includes lane re-striping, bikeway construction, and railing improvements on the Dowling Avenue bridge over I-94. Existing I-94 overpass bridges will be evaluated for pedestrian, bicycle, and accessibility improvements in the Draft EIS.

7.4.6 Step 3 Transit Service Considerations

Description of Transit Service Elements

Three transit service elements were carried forward from Step 2 for further evaluation in Step 3. Transit elements include new service on Hwy 252 and I-94, new stations, and improvements to existing local and express bus service and represent a range of potential capital costs. The three transit service elements are summarized below.

- Bus rapid transit: includes a highway BRT line on Hwy 252 and I-94 between Hwy 610 and downtown Minneapolis with frequent service and dedicated stations.

- Bus stations along I-94 & improve express service: includes three new bus stations along I-94 in Minneapolis and enhancing existing express bus service on Hwy 252 and I-94 by increasing service frequency, adding additional trips, implementing transit advantages, or adding new transit stops.

- Improve local and express bus service: includes enhancing existing local bus service on local roadways adjacent to Hwy 252 and I-94 in Brooklyn Park, Brooklyn Center, and North Minneapolis by increasing service frequency, extending the weekday/weekend span of service, or changing route alignments to deliver new connections. Includes enhancing existing express bus service on Hwy 252 and I-94 by increasing service frequency, adding additional trips, implementing transit advantages, or adding new transit stops.

Evaluation of Transit Service Elements

The Step 3 transit service elements were evaluated in combination with Hwy 252 and I-94 corridor alternatives. For this evaluation, Hwy 252 expressway and freeway elements were considered together. The I-94 component considered transit service performance with and without managed lanes. Hwy 252 and I-94 combinations included with the Step 3 transit service evaluation are listed below.

- Hwy 252 expressway and freeway elements, I-94 with managed lanes and direct connection to downtown Minneapolis.
- Hwy 252 expressway and freeway elements, I-94 existing configuration (no managed lanes).

Transit service elements were evaluated in Step 3 using nine different criteria: transit ridership; mode shift; transit advantages; transit travel times; capital costs; operations and maintenance costs; likely transit users; population density; and employment density. Table 7.29 includes the results of the Step 3 transit service evaluation. Key findings of the Step 3 transit service evaluation are summarized below.

- Transit ridership with the BRT transit service concept performed well with managed lanes as measured by passengers per in-service hour;[47] however, BRT productivity was below Metropolitan Council/Metro Transit standards without managed lanes. The Metropolitan Council/Metro Transit minimum threshold for highway BRT is 25 passengers per in-service hour.
- The BRT transit service concept and improve local and express bus service concept could both attract new riders to the system. The BRT transit service concept would contribute an estimated 1,700 new transit trips in 2040. The improve local and express bus service concept would contribute an estimated 1,500 new transit trips in 2040. The BRT transit service concept would receive a "Low" rating (i.e., less than 2,499 trips) in the related FTA New Starts evaluation criterion.
- The BRT transit service concept would cost between approximately $240 million (without managed lanes) and $450 million (with managed lanes). The improve local and express bus service concept does not include capital costs and delivers similar ridership benefits compared to the BRT transit service concept.
- All transit service concepts benefit from the higher-speed bus runningway available with managed lanes.

[47] Passengers per in-service hour measures the productivity of transit service as a ratio of total passengers carried per hour of service provided.

Table 7.29 Step 3 Transit Service Evaluation Results

Evaluation Criteria	Performance Measure	Hwy 252 Expressway and Freeway Elements (1) I-94: Managed Lanes with Direct Connection			Hwy 252 Expressway and Freeway Elements (1) I-94: Existing Configuration (No Managed Lanes)		
		Bus Rapid Transit (BRT)	Bus Stations on I-94, Improve Express Service	Improve Local and Express Bus Service	Bus Rapid Transit (BRT)	Bus Stations on I-94, Improve Express Service	Improve Local and Express Bus Service
Transit Ridership	Passengers Per In-Service Hour	Local, Express, BRT: 13-64	Express: 56	Local, Express: 36-78	Local, Express, BRT: 13-40	Express: 36	Local, Express: 36-65
Mode Shift	New Transit Trips (2040)	1,700 trips	100 trips	1,500 trips	1,600 trips	-400 trips	1,600 trips
Transit Advantages	Runningway Availability	>50% (2)	>50% (2)	>50% (2)	0% (3)	0% (3)	0% (3)
Transit Travel Times	Transit Travel Times	Local: 17.6 mph Express: 39% slower than auto BRT: 23.3 mph	Express: 37% slower than auto	Local; 16.2 mph Express: 27% slower than auto	Local: 17.6 mph Express: 37% slower than auto BRT: 17.9 mph	Express: 45% slower than auto	Local; 16.2 mph Express: 28% slower than auto
Capital Costs	Total Capital Cost of Transit Improvement	$450M	$240M	$0 (no capital improvements)	$240M-$270M	$110M	$0 (no capital improvements)
Operations and Maintenance (O&M) Costs	Annual O&M Costs of Service Improvements (Increase Over No Build)	~$12.4M annually	~ $2.4M annually	~$3.2M annually	~$13.6M annually	~ $2.4M annually	~$3.2M annually
Likely Transit Users	Ratio of Zero-Car HH within ½-Mile of Stations/Stops to Percent of Zero-Car HH in Region	2.24	3.72	1.36	2.24	3.72	1.36
Population Density	People Per Square Mile (New Station Areas Only)	2,972 people per square mile	4,585 people per square mile	N/A (no stations to be constructed)	2,972 people per square mile	4,585 people per square mile	N/A (no stations to be constructed)

Evaluation Criteria	Performance Measure	Hwy 252 Expressway and Freeway Elements (1) I-94: Managed Lanes with Direct Connection			Hwy 252 Expressway and Freeway Elements (1) I-94: Existing Configuration (No Managed Lanes)		
		Bus Rapid Transit (BRT)	Bus Stations on I-94, Improve Express Service	Improve Local and Express Bus Service	Bus Rapid Transit (BRT)	Bus Stations on I-94, Improve Express Service	Improve Local and Express Bus Service
Employment Density	Jobs Per Square Mile (New Station Areas Only)	1,386 jobs per square mile	2,686 jobs per square mile	N/A (no stations to be constructed)	1,386 jobs per square mile	2,686 jobs per square mile	N/A (no stations to be constructed)

HH= Households, TFS = Transit Feasibility Study, mph = miles per hour; N/A = Not Applicable

(1) Hwy 252 elements include Element 1 (six-lane expressway), Element 4 (four-lane low speed freeway), Element 5 (four-lane freeway including bus shoulders), Element 6 (six-lane freeway including bus shoulders), and Element 7 (six-lane freeway including managed lanes).

(2) Assumes managed lanes from 85th Avenue in Brooklyn Park to North 3rd Street/North 4th Street in Minneapolis.

(3) Assumes no upgraded highway shoulders over 45 mph.

Transit Service Conclusions

The following sections identify the transit service elements eliminated from further consideration and the transit service element retained for further study in the Draft EIS.

Transit Service Elements Eliminated from Further Consideration

Two transit service elements were dismissed from further consideration in Step 3. The BRT service element and bus stations along I-94 & improve express bus service element are eliminated from further consideration and will not be studied further in the Draft EIS. Table 7.30 summarizes the Step 3 transit service evaluation results. The Policy Advisory Committee (PAC) confirmed the recommendation to dismiss the BRT and bus stations along I-94 & improve express bus service elements on January 27, 2022.

Table 7.30 Step 3 Transit Service Evaluation Summary

Transit Service Element	Mode Shift and New Rides	Capital and Operating Costs	Recommendation	Rationale
Bus Rapid Transit (BRT)	Poor mode shift 1,700 new rides	$240m - $450m ~$12.4m annually	Dismiss from further consideration	Equivalent benefits to local and express bus improvements without BRT. High capital costs, operating costs, and potential impacts.
Bus Stations Along I-94 & Improve Express Bus Service	Poor mode shift 100 new rides	$240m ~$2.4m annually	Dismiss from further consideration	Limited benefit/high-cost bus stations on Hwy 252 or I-94. High capital costs and low ridership.
Improve Local and Express Bus Service	Poor mode shift 1,500 new rides	$0 – minimal ~$3.2m annually	Advance for further study in Draft EIS	Best value for transit benefit and costs. Opportunity to refine service priorities, passenger facilities and bus access improvements in the Draft EIS.

The following list describes the rationale for why the BRT and stations along I-94 & improve express bus service elements were eliminated from further consideration.

- Bus Rapid Transit (BRT): the information developed as part of the TFS and the scoping process showed that the number of current and anticipated transit users in the Hwy 252/I-94 corridor could be served with improvements to local and express bus routes at a lower cost and impact compared to BRT.[48] The Hwy 252/I-94 corridor is a strong corridor for commuter/express

[48] Appendix J of this SD includes the *Highway 252/I-94 Transit Feasibility Study Final Report* (TFS).

service and has seen substantial investment by Metro Transit. Nearby transitways completed or in development include the METRO C Line Arterial BRT, METRO D Line Arterial BRT and METRO Blue Line Extension LRT. Based on these conclusions, the BRT transit service element was dismissed from further consideration.

- Bus Stations Along I-94 & Improve Express Bus Service: the information as part of the TFS and the scoping process showed that the stations along I-94 & improve express bus service element would attract a small number of new transit riders. Construction of new stations along I-94 has a high capital cost investment. Based on these conclusions, the stations along I-94 & improve express bus service element was dismissed from further consideration.

Transit Service Element Retained for Further Consideration in the Draft EIS

The improve local and express bus service transit element is retained for further consideration in the Draft EIS. The scoping evaluation results for transit service elements indicate that the "best value" option is to continue investing in local and express bus routes in the Hwy 252/I-94 corridor. The number of current and anticipated transit users in the Hwy 252/I-94 corridor could be served with improvements to local and express bus routes at a lower cost and impact than other transit service options.

7.5 Summary of Scoping Evaluation Recommendations

7.5.1 No Build Alternative

The No Build Alternative does not address the vehicle safety, vehicle mobility, and walkability/bikeability needs for the project. The No Build Alternative will be carried forward for evaluation in the Draft EIS as it serves as the baseline condition against which build alternatives are compared.

7.5.2 Hwy 252 and I-94 Corridor Alternatives

Hwy 252 Corridor Elements

The following three Hwy 252 corridor elements will be retained for further evaluation in the Draft EIS. Table 7.31 summarizes the key design features of the Hwy 252 corridor elements. Figure 7.46 illustrates the number of lanes and lane configuration for the Hwy 252 corridor elements.

- Element 5. Hwy 252 four-lane freeway including bus shoulders
- Element 6. Hwy 252 six-lane freeway including bus shoulders
- Element 7. Hwy 252 six-lane freeway including managed lanes

Table 7.31 Description of Hwy 252 Corridor Elements Retained for Further Evaluation in the Draft EIS

Hwy 252 Corridor Elements	Facility Type	Total Number of Lanes	Number of General Purpose Lanes	Transit Advantage Number of Managed Lanes	Transit Advantage Transit Shoulder
No Build Alternative	Expressway with at-grade intersections	4-6 lanes	4-6 lanes	0 managed lanes	Yes (bus-only shoulders)
5. Hwy 252 Four-Lane Freeway including Bus Shoulders	Freeway with interchanges	4 lanes	4 lanes	0 managed lanes	Yes (bus-only shoulders)
6. Hwy 252 Six-Lane Freeway including Bus Shoulders	Freeway with interchanges	6 lanes	6 lanes	0 managed lanes	Yes (bus-only shoulders)
7. Hwy 252 Six-Lane Freeway including Managed Lanes	Freeway with interchanges	6 lanes	4 lanes	2 managed lanes	No

NB = northbound, SB = southbound

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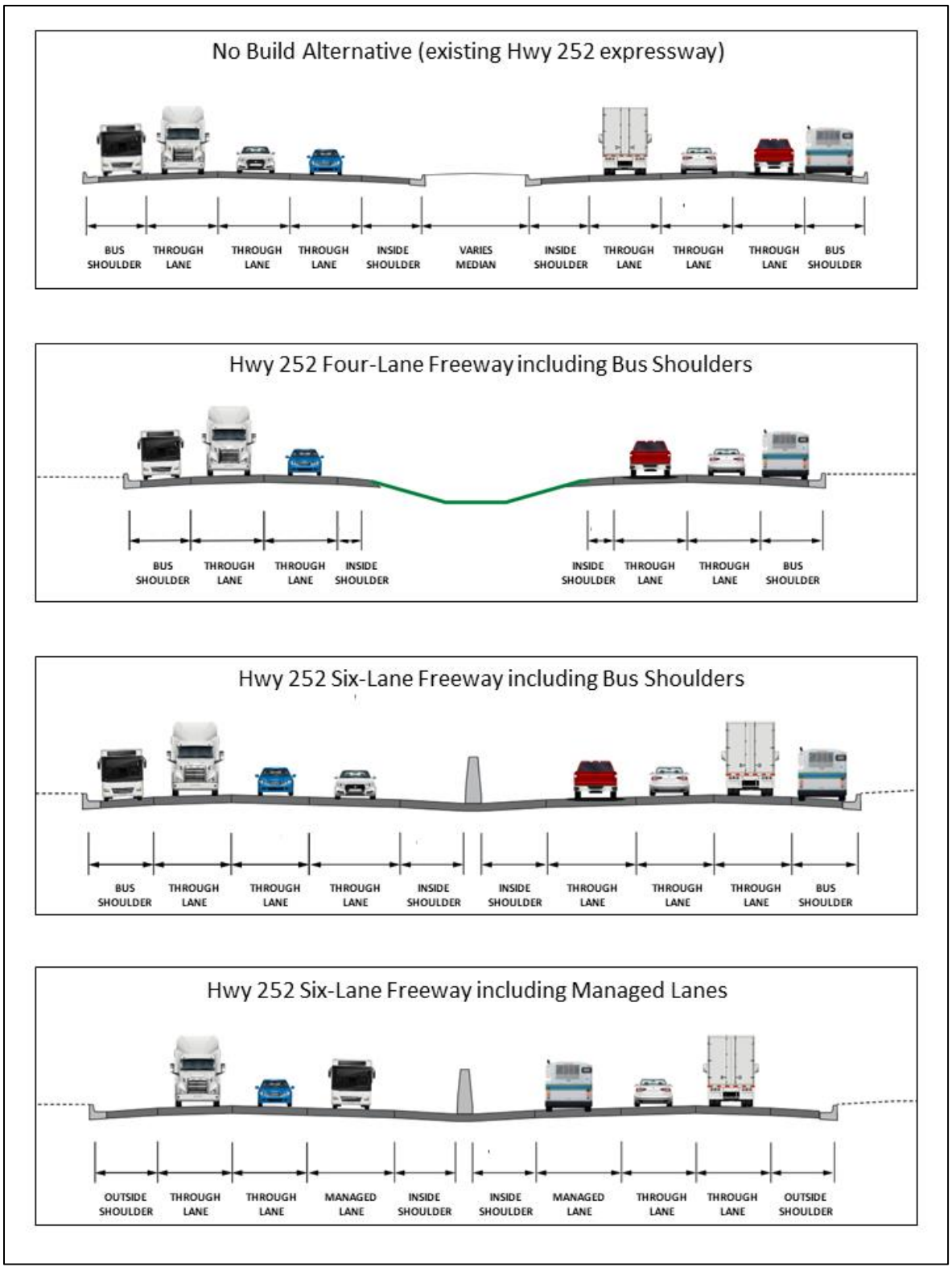
Figure 7.46 Hwy 252 Corridor Elements Retained for Further Evaluation in the Draft EIS



The number of total lanes on the existing Hwy 252 expressway varies from four lanes to six lanes. The typical section shown in Figure 7.45 for the No Build Alternative includes the existing Hwy 252 six-lane expressway between 70th Avenue and 66th Avenue.

I-94 Corridor Elements

The following I-94 corridor elements will be retained for further evaluation in the Draft EIS. Table 7.32 summarizes the key design features of the I-94 corridor elements.

- Element A. No change on I-94.
- Element B. Convert one southbound I-94 lane from I-694 to North 4th Street to a managed lane with a direct connection to downtown Minneapolis.
- Element D. Convert one southbound and one northbound I-94 Lane from I-694 to North 4th Street to managed lanes with a direct connection to downtown Minneapolis.
- Element G. Build one southbound I-94 Lane from I-694 to Dowling Avenue as a managed lane, convert one southbound I-94 Lane from Dowling Avenue to North 4th Street to a managed lane with a direct connection to downtown Minneapolis.
- Element J. Build one southbound and one northbound I-94 Lane from I-694 to Dowling Avenue as managed lanes, convert one southbound and one northbound I-94 Lane from Dowling Avenue to North 4th Street to a managed lane with a direct connection to downtown Minneapolis.

Hwy 252 and I-94 Corridor Alternatives

The individual Hwy 252 and I-94 elements recommended for further study in the Draft EIS are combined to create 10 Hwy 252 and I-94 corridor alternatives. Table 7.33 identifies the 10 Hwy 252 and I-94 corridor alternatives for study in the Draft EIS.

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Table 7.32 Description of I-94 Corridor Elements Retained for Further Evaluation in the Draft EIS

I-94 Corridor Elements	Total Number of Lanes	Number of General Purpose Lanes	Transit Advantage Number of Managed Lanes	Transit Advantage Bus-Only Shoulder	Transit Advantage Direct Connection
No Build Alternative A. No Change on I-94 (1)	8 lanes (I-694 to Dowling Avenue) 10 lanes (Dowling Ave. to North 4th Street)	8 lanes (I-694 to Dowling Avenue) 10 lanes (Dowling Ave. to North 4th Street)	0 managed lanes	Yes (NB and SB I-94 bus-only shoulders)	No
B. Convert One SB I-94 Lane from I-694 to North 4th Street to Managed Lane With Direct Connect	8 lanes (I-694 to Dowling Avenue) 10 lanes (Dowling Ave. to North 4th Street)	7 lanes (I-694 to Dowling Avenue) 9 lanes (Dowling Ave. to North 4th Street)	1 managed lane (SB I-94 from I-694 to North 4th Street)	Yes (NB I-94 bus-only shoulder)	Yes (direct connection from SB I-94 managed lane to North 4th Street exit ramp)
D. Convert One SB and One NB I-94 Lane from I-694 to North 4th Street to Managed Lanes With Direct Connect	8 lanes (I-694 to Dowling Avenue) 10 lanes (Dowling Ave. to North 4th Street)	6 lanes (I-694 to Dowling Avenue) 8 lanes (Dowling Ave. to North 4th Street)	2 managed lanes (NB and SB I-94 from I-694 to North 4th Street)	No	Yes (direct connection from SB I-94 managed lane to North 4th Street exit ramp)
G. Build One SB I-94 Lane from I-694 to Dowling Avenue as Managed Lane Convert One SB I-94 Lane from Dowling Avenue to North 4th Street to Managed Lane With Direct Connect	9 lanes (I-694 to Dowling Avenue) 10 lanes (Dowling Ave. to North 4th Street)	8 lanes (I-694 to Dowling Avenue) 9 lanes (Dowling Ave. to North 4th Street)	1 managed lane (SB I-94 from I-694 to North 4th Street)	Yes (NB I-94 bus-only shoulder)	Yes (direct connection from SB I-94 managed lane to North 4th Street exit ramp)
J. Build One SB and One NB I-94 Lane from I-694 to Dowling Avenue as Managed Lanes Convert One SB and One NB I-94 Lane from Dowling Ave. to North 4th St. to Managed Lane With Direct Connect	10 lanes (I-694 to Dowling Avenue) 10 lanes (Dowling Ave. to North 4th Street)	8 lanes (I-694 to Dowling Avenue) 8 lanes (Dowling Ave. to North 4th Street)	2 managed lanes (NB and SB I-94 from I-694 to North 4th Street)	No	Yes (direct connection from SB I-94 managed lane to North 4th Street exit ramp)

NB = northbound, SB = southbound

(1) Does not preclude pedestrian and bicycle enhancements across I-94 and spot mobility improvements.

Table 7.33 List of Hwy 252 and I-94 Corridor Elements Combined to Develop Alternatives for Further Study in the Draft EIS

Hwy 252 and I-94 Corridor Elements (1)	A. No Change on I-94	B. Convert One Southbound I-94 Lane to Managed Lane from I-694 to North 4th Street With Direct Connect	D. Convert One Northbound I-94 Lane and One Southbound I-94 Lane to Managed Lanes from I-694 to North 4th Street With Direct Connect	G. Build One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lane Convert One Southbound I-94 Lane to Managed Lane from Dowling Avenue to North 4th Street With Direct Connect	J. Build One Additional Northbound I-94 Lane and One Additional Southbound I-94 Lane from I-694 to Dowling Avenue as Managed Lanes Convert One Northbound I-94 Lane and One Southbound I-94 Lane from Dowling Avenue to North 4th Street to Managed Lanes With Direct Connect
5. Hwy 252 Four-Lane Freeway Including Bus Shoulders	A.5 (1)	Not compatible	Not compatible	G.5 (5)	J.5 (8)
6. Hwy 252 Six Lane Freeway including Bus Shoulders	A.6 (2)	Not compatible	Not compatible	G.6 (6)	J.6 (9)
7. Hwy 252 Six-Lane Freeway including Managed Lanes	Not compatible	B.7 (3)	D.7 (4)	G.7 (7)	J.7 (10)

Not compatible = the Hwy 252 corridor element is not compatible with the I-94 corridor element. See assumptions listed in Section 7.3.1 of this SD.

The number in parentheses represents one of the 10 possible corridor alternatives when combining Hwy 252 and I-94 elements based on the assumptions listed in Section 7.3.1.

(1) The No Build Alternative will be carried forward to the Draft EIS as required under NEPA and MEPA. The No Build Alternative will be used as the basis for comparison of Hwy 252/I-94 corridor alternatives.

7.5.3 Hwy 252 Access Combinations

The five Hwy 252 access combinations studied in this SD will be retained for further evaluation in the Draft EIS. Table 7.34 summarizes the Hwy 252 access combinations and Figure 7.47 illustrates the Hwy 252 access combinations to be studied further in the Draft EIS. The Hwy 252 access combinations apply to the Hwy 252 freeway facilities identified for further study in the Draft EIS (Element 5, Element 6, and Element 7).

Table 7.34 Hwy 252 Access Combinations Retained for Further Evaluation in the Draft EIS

Hwy 252 Access Combinations	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
85th Avenue	Full Access Interchange	Full Access Interchange	Full Access Interchange	Full Access Interchange	Full Access Interchange
Humboldt Avenue	Closed (1)	Closed (1)	Closed (1)	Closed (1)	Closed (1)
Brookdale Drive	Full Access Interchange	Partial Access Interchange (2)	Partial Access Interchange (2)	Full Access Interchange	Closed (1)
73rd Avenue	Closed (1)	Partial Access Interchange (3)	Partial Access Interchange (3)	Closed (1)	Full Access Interchange
70th Avenue	Closed (1)	Closed (1)	Closed (1)	Full Access Interchange	Closed (1)
66th Avenue	Full Access Interchange	Full Access Interchange	Closed (1)	Closed (1)	Closed (1)

(1) No access to/from Hwy 252 and intersecting local street. Could include local road over or under Hwy 252 using bridges for local connectivity across Hwy 252 or dedicated multi-use trail bridges for pedestrians and bicyclists.

(2) Includes access between Hwy 252 and Brookdale Drive to and from the north. Connects to 73rd Avenue with north and south frontage roads parallel to Hwy 252.

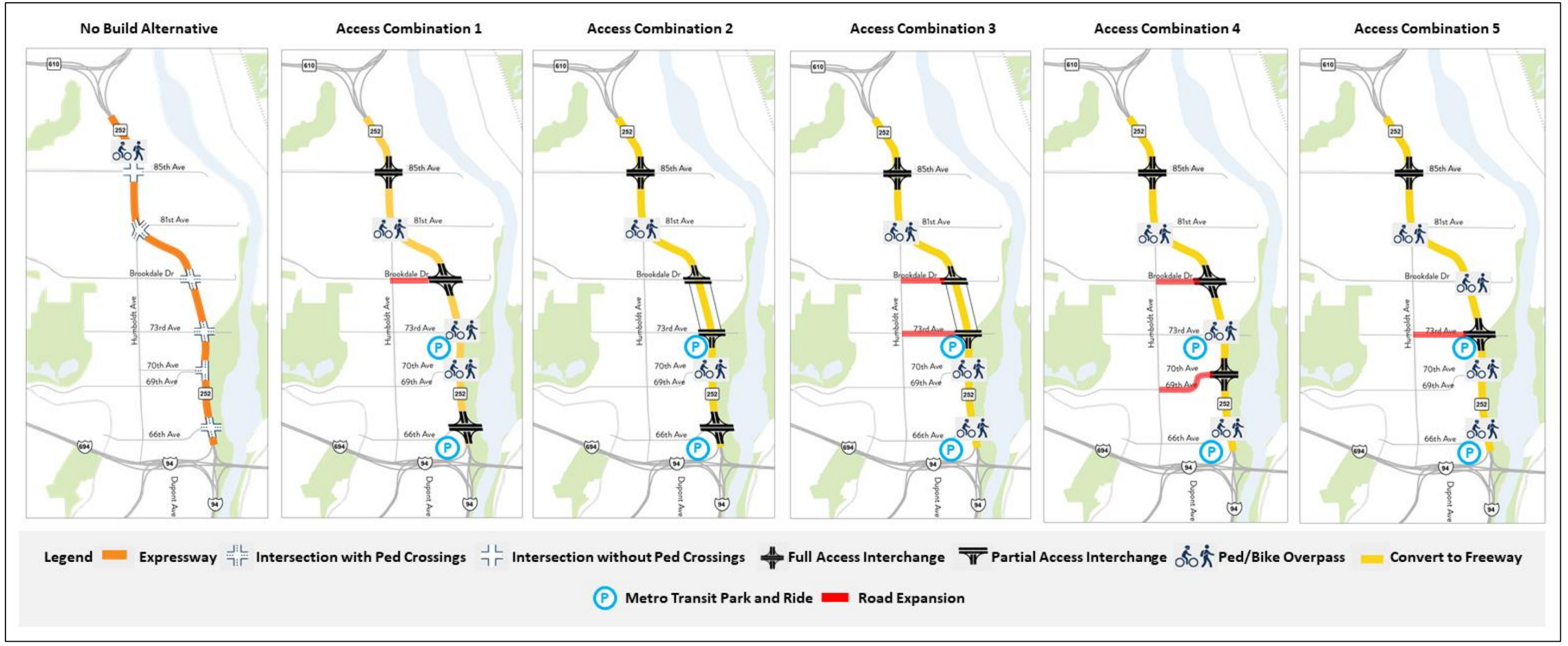
(3) Includes access between Hwy 252 and 73rd Avenue to and from the south. Connects to Brookdale Drive with north and south frontage roads parallel to Hwy 252.

7.5.4 Hwy 252 and I-94 Design Options

The following list summarizes Hwy 252 and I-94 design options to be studied further in the Draft EIS. These design options will be integrated into the 10 Hwy 252 and I-94 corridor alternatives described above.

- Southbound Hwy 252/I-94 lane configuration "flip" south of the Hwy 252/I-94/I-694 system interchange.
- Hwy 252 grade separated overpasses at non-access locations. This could include dedicated pedestrian/bicycle overpass bridges or multi-modal grade separated crossings for vehicles and non-motorized uses (e.g., local road overpass bridge with trails and/or sidewalks for pedestrians and bicyclists).
- West River Road reconnection on the east side of Hwy 252 in Brooklyn Park.

Figure 7.47 Hwy 252 Access Combinations Retained for Further Evaluation in the Draft EIS



7.5.5 Hwy 252 Interchange Configurations

Section 3.1 of this SD summarizes public engagement during scoping. One of the common themes received through public engagement was regarding Hwy 252 and traffic noise. Concerns raised by area residents include increases in traffic noise levels with additional traffic on Hwy 252 as well as designs that elevate Hwy 252 over intersecting local roadways.

The scoping evaluation of Hwy 252 grade separated interchanges included designs with Hwy 252 over intersecting local roads and designs with the intersecting local roads over Hwy 252. An issue frequently cited by participants at engagement events was regarding traffic noise. A traffic noise analysis will be completed with preliminary design of alternatives in the Draft EIS (see Section 9.2.27 of this SD). Based on public feedback regarding traffic noise, interchange configurations with Hwy 252 over intersecting local roads and with Hwy 252 under intersecting local roads are recommended for further study in the Draft EIS.

Table 7.35 summarizes the Hwy 252 interchange configurations recommended for further study in the Draft EIS. The first part in developing the Draft EIS will include an evaluation of the interchange configurations to identify a preferred interchange configuration at each Hwy 252 access location. The preferred interchange configuration for each Hwy 252 access location will be integrated into the Hwy 252 access combinations described above in Section 7.5.3 of this SD. The Hwy 252 interchange configurations recommended for further study in the Draft EIS (see Table 7.35) apply to all Hwy 252 freeway elements.

Table 7.35 Hwy 252 Interchange Configurations Retained for Further Evaluation in the Draft EIS

Hwy 252 Interchange Location	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
85th Avenue	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under
Humboldt Avenue	Closed (1)	Closed (1)	Closed (1)	Closed (1)	Closed (1)
Brookdale Drive	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Split Diamond with 73rd Avenue	Split Diamond with 73rd Avenue	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Closed (1)
73rd Avenue	Closed (1)	Split Diamond with Brookdale Drive	Split Diamond with Brookdale Drive	Closed (1)	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under

Hwy 252 Interchange Location	Access Combination 1	Access Combination 2	Access Combination 3	Access Combination 4	Access Combination 5
70th Avenue	Closed (1)	Closed (1)	Closed (1)	Tight Diamond with Hwy 252 Over Tight Diamond with Hwy 252 Under	Closed (1)
66th Avenue	Folded Diamond with Hwy 252 Over Folded Diamond with Hwy 252 Under Braided CD Road (Full Access)	Folded Diamond with Hwy 252 Over Folded Diamond with Hwy 252 Under Braided CD Road (Full Access)	Closed (1)	Closed (1)	Closed (1)

(1) No access to/from Hwy 252 and intersecting local street. Could include highway overpass or underpass bridges for local connectivity across Hwy 252 or dedicated multi-use trail crossings for pedestrians and bicyclists.

7.5.6 Hwy 252 and I-94 Pedestrian and Bicycle Overpasses

Hwy 252 Pedestrian and Bicycle Overpasses

Pedestrian access is currently provided at all six at-grade intersections with Hwy 252. Minnesota Statute 160.264 obligates MnDOT to maintain pedestrian connections with any highway improvement project with a comparable facility or access. Therefore, all build alternatives recommended for study in the Draft EIS will include pedestrian accommodations at or adjacent to these six intersections. Dedicated multi-use trail bridges over Hwy 252 will be added where an existing intersection is closed and no vehicle access is provided to Hwy 252. Trails and sidewalks along local roads will be provided at Hwy 252 grade separations (i.e., interchanges, overpass bridges, underpasses) and on the adjacent roadway system.

85th Avenue Multi-Use Trail Bridge

An existing multi-use trail bridge crosses over Hwy 252 north of 85th Avenue in Brooklyn Park. This multi-use trail bridge was considered in the evaluation of 85th Avenue interchange concepts (see section 7.4.4 of this SD). The two 85th Avenue interchange concepts recommended for further study in the Draft EIS include removal of the 85th Avenue multi-use trail bridge. It is not feasible to maintain the existing 85th Avenue multi-use trail bridge and minimize right of way impacts to surrounding properties. Pedestrian and bicycle connectivity across Hwy 252 at 85th Avenue will be provided with sidewalks and trails along 85th Avenue with the proposed interchange concepts.

I-94 Pedestrian and Bicycle Overpasses

The I-94 pedestrian and bicycle overpasses recommended for further study in the Draft EIS includes new dedicated pedestrian and bicycle bridges at 62nd Avenue and 61st Avenue in Brooklyn Center and 34th Avenue in Minneapolis.

The *Minneapolis Pedestrian Master Plan* identifies challenges vehicular bridges can present for providing a safe and comfortable environment for non-motorized users, including insufficient sidewalk space and pedestrian-oriented lighting. Identified challenges on existing I-94 crossings include less than desirable sidewalk width and lack of pedestrian-oriented lighting. Existing I-94 overpass bridges will be evaluated for pedestrian, bicycle, and accessibility improvements in the Draft EIS.

7.5.7 Transit Service

The transit service element recommended for further study in the Draft EIS includes local and express bus service improvements. This transit service element will be integrated with all alternatives studied in the Draft EIS. The Draft EIS will further refine local and express bus service priorities. The Draft EIS also will review transit ridership and demand because of COVID-era impacts. Final service plans for local and express routes in the Hwy 252/I-94 corridor will be developed and implemented by Metro Transit in accordance with regional policy and are subject to change based on future transit demand.

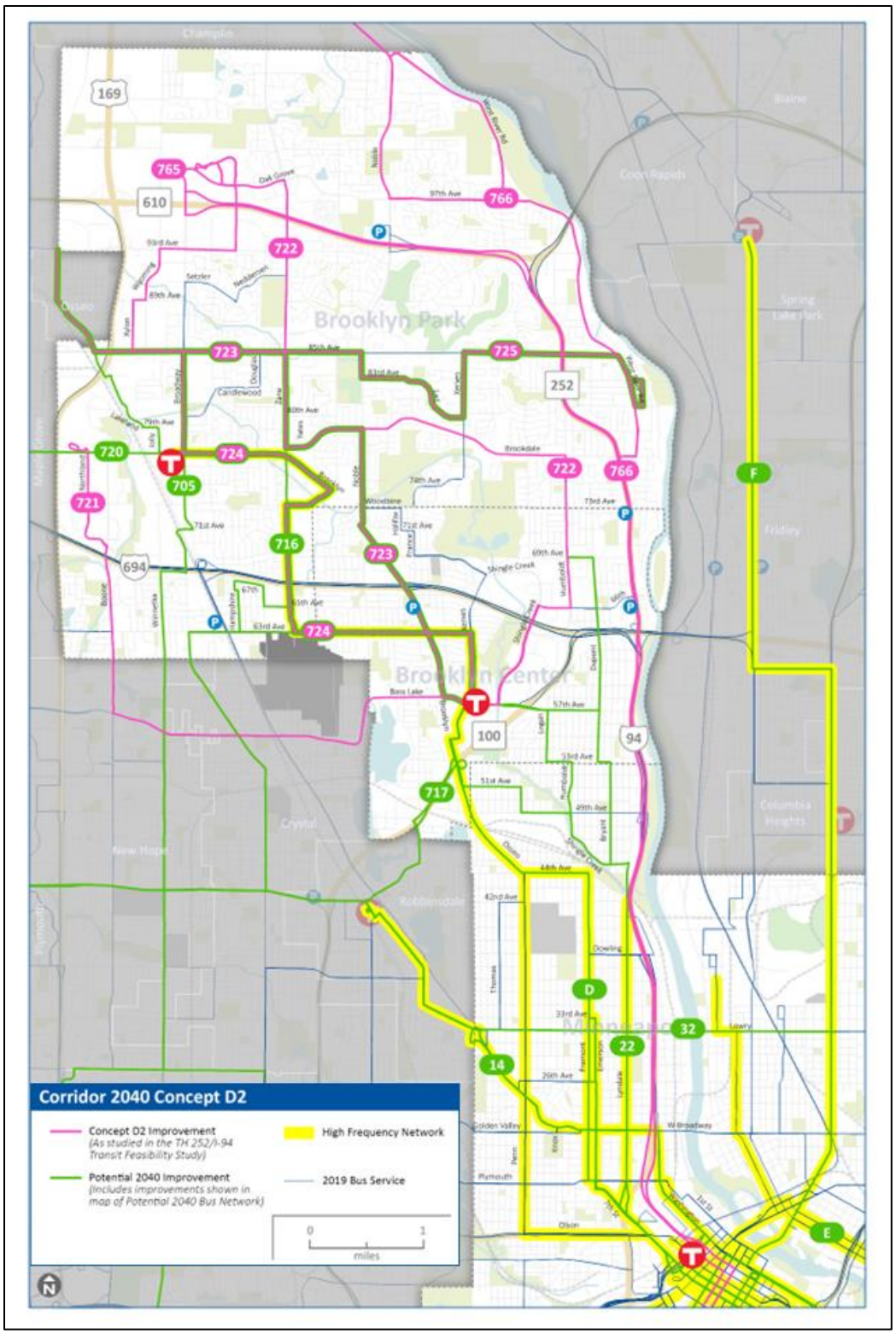
Table 7.36 summarizes potential local and express bus service improvements with the Hwy 252/I-94 Project. Figure 7.48 illustrates potential bus route service improvements with the Hwy 252/I-94 Project.

Table 7.36 Potential Local and Express Bus Service Improvements with Hwy 252/I-94 Project

Bus Route	Description
Route 721	Frequency improvement
Route 722	Frequency improvement to Target North Campus
Route 723	Span improvement
Route 724	Frequency improvement
Route 725	New route
Route 765	Frequency improvement
Route 766	Frequency improvement

Preliminary design of alternatives in the Draft EIS will be coordinated with Metro Transit to ensure that highway designs facilitate transit improvements and do not preclude future investment along Hwy 252 and I-94 by Metro Transit. Potential local and express bus stop locations will be integrated into all Hwy 252 and I-94 project layouts. This could include bus stops along Hwy 252 interchange ramps. Alternatives that do not include managed lanes will be designed to include bus-shoulder lanes. The alternatives will be compared in the Draft EIS based on their ability to accommodate transit service and operations on Hwy 252 and I-94.

Figure 7.48 Potential Local and Express Bus Service Improvements with Hwy 252/I-94 Project



7.5.8 Project Phasing

The build alternatives recommended for further study in the Draft EIS include three elements for Hwy 252. This includes Element 5, Element 6, and Element 7. These three elements include reconstruction of Hwy 252 as four-lane freeway including bus shoulders, six-lane freeway including bus shoulders, or six-lane freeway including managed lanes. It is possible that the Hwy 252/I-94 Project will be constructed in phases, depending on project cost and funding availability. The following list identifies example potential phasing scenarios.

- A first phase could include construction of Hwy 252 as a four-lane freeway facility. Preliminary traffic modeling completed as part of this SD suggests that a Hwy 252 four-lane freeway would approach capacity in approximately 5 to 10 years. A Hwy 252 four-lane freeway would provide transit advantages with bus-only shoulders. Constructing Hwy 252 as a four-lane freeway first would not require constructing any improvements on I-94 and would not preclude future construction of a Hwy 252 six-lane freeway with or without managed lanes.

  This phase could be possible if the Hwy 252/I-94 EIS process clears a Hwy 252 six-lane freeway as the ultimate vision for the corridor. Project approvals (e.g., Interstate Access Request) would be required to demonstrate acceptable Interstate operations for this interim condition.

- MnDOT may not be able to remove all existing traffic signals on Hwy 252 in one single project. Under this scenario, MnDOT would construct one interchange location first (e.g., 85th Avenue interchange and access modifications at Humboldt Avenue), with construction of other Hwy 252 interchanges in subsequent projects.

- MnDOT may also not be able to implement all improvements on I-94 in one single project. One potential phasing scenario for I-94 could include implementation of managed lanes on I-94 in one or both directions first, followed by construction of the direct connection to downtown Minneapolis in a future construction project. Project approvals (e.g., Interstate Access Request) would be required to demonstrate acceptable Interstate operations for this interim condition.

These examples represent three potential concepts for project phasing. Additional project phasing concepts will be identified and evaluated as part of the Draft EIS process. The Draft EIS and Final EIS will include a discussion of potential phasing options for implementing the Hwy 252/I-94 Project.

Chapter 8 Cost and Funding Source

Planning-level construction cost estimates have been prepared for the build alternatives to be studied in the Draft EIS. Depending on the build alternative, construction costs are estimated to range from approximately $240 million to $300 million (year 2021 dollars). Acquisition of properties and relocation of residences and businesses can also represent a substantial project cost. Right of way acquisition costs have not been estimated as part of the scoping process. Right of way cost estimates will be developed for the build alternatives with the Draft EIS.

The Draft EIS will include more detailed preliminary cost estimates for the build alternatives.

Funding for the Hwy 252/I-94 Project will include local, state, and federal sources. Table 8.1 lists project funding secured to date. Local, state, and federal sources will be considered if additional funding is required.

Table 8.1 Hwy 252/I-94 Funding Programs and Sources

Funding Program	Recipient	Funding Source (Local/State/Federal)	Funding Amount	Location
Corridors of Commerce	MnDOT	State	$119 million	Project-wide
Regional Solicitation	Hennepin County	Federal	$7 million	Hwy 252 and 85th Avenue
Regional Solicitation	Brooklyn Park	Federal	$10 million	Hwy 252 and Brookdale Drive
Regional Solicitation	Brooklyn Center	Federal	$1.9 million	Hwy 252 and 70th Avenue
Regional Solicitation	Brooklyn Center	Federal	$7 million	Hwy 252 and 66th Avenue
Minnesota Highway Freight Program	Brooklyn Center	Federal	$10 million	Hwy 252 and 66th Avenue

Chapter 9 Social, Economic, and Environmental (SEE) Issues

Federal and state regulations require a broad range of social, economic, and environmental (SEE) to be addressed as part of the environmental review process. Detailed analysis is typically not necessary during scoping; however, a general assessment of each issue has been made to determine the level of analysis needed in the Draft EIS. The Draft EIS will use the analysis of SEE impacts, among other factors, to identify a preferred alternative and mitigation measures. This chapter of the SD focuses on the level of analyses and methodologies necessary for examining project issues and making decisions.

The scoping alternatives evaluation described in Section 7.3 and Section 7.4 of this SD included a select range of SEE issues. The SEE issues included in the scoping alternatives evaluation focused on those topic areas that relate to substantive environmental regulations (e.g., Section 4(f) resources) and the project objectives (e.g., number of properties affected, number of residential and commercial relocations). All of the SEE issues identified in Section 9.2 of this SD will be evaluated in the Draft EIS.

9.1 Issues Identification Process

Compilation of information and assessment of relative importance of SEE issues during scoping was performed using a variety of sources, including agency correspondence, literature review, Geographic Information Systems (GIS) and other mapped data, and on-site reviews of existing conditions. Regulatory agencies and local units of government provided input through Technical Advisory Committee meetings and Cooperating/Participating Agency meetings. Additionally, public meetings during the EA phase and the EIS scoping process provided an opportunity for public input on potential social, economic, and environmental impacts related to the project.

The following sections present the level of analysis proposed for SEE issues in the Draft EIS based on the information obtained and assessment of potential impacts performed during scoping. The rationale for studying these issues is also provided. Each SEE issue listed in the following sections includes the following information, as appropriate, for the proposed level of analysis:

- A general overview of project study area conditions as it relates to specific issue/topic areas. This includes references to source material and key considerations for the analysis of impacts.
- Identification of the potential level of detail and general approach or methods to be used in the Draft EIS impact evaluation process.

9.2 Issues Requiring Analysis in the EIS

The following sections summarize SEE issues to be studied in the Draft EIS and the methodologies to be used in the Draft EIS. There are several SEE issues that are expected to influence the

identification of a preferred alternative for the Hwy 252/I-94 Project. These issues will receive greater levels of attention and coordination with the public, local units of government, and regulatory agencies as part of the Draft EIS development. Other SEE issues are of moderate concern for the Hwy 252/I-94 Project. Major substantive differences among alternatives that would affect the decision regarding a preferred alternative are not anticipated with these SEE issues. The Draft EIS will identify impacts, including analysis in accordance with federal and state requirements where appropriate, for each of these issues.

9.2.1 Accessibility

As a public agency, MnDOT must meet the requirements of the Americans with Disabilities Act (ADA). Accessibility requirements will be incorporated into the preliminary design for alternatives to be studied in the Draft EIS, including pedestrian and transit facilities (e.g., sidewalks and bus stops).

9.2.2 Active Transportation (Walking, Biking, Rolling)

One of the purposes of the Hwy 252/I-94 Project is to improve non-motorized safety and mobility for area residents. Chapter 4 of this SD summarizes existing conditions along Hwy 252 and I-94 for non-motorized users. The alternatives to be studied in the Draft EIS include measures to improve pedestrian and bicycle safety and mobility. This includes sidewalks and/or shared use paths on both sides of local roadways crossing Hwy 252 and grade separated pedestrian and bicycle crossings of Hwy 252 and I-94. The Draft EIS will evaluate the impact of alternatives on existing facilities for walking and biking and will describe the pedestrian and bicycle facility recommendations for each alternative.

Coordination with local units of government regarding walking and biking will occur as part of the Draft EIS. A pedestrian and bicycle stakeholder group consisting of local and regional agency partners was convened as part of the Scoping process. This stakeholder group identified pedestrian and bicycle design recommendations for the alternatives to the studied in the Draft EIS. Coordination with the pedestrian and bicycle stakeholder group will occur as part of the Draft EIS.

9.2.3 Air Quality Analysis

MnDOT convened an air quality working group during the EA phase of the Hwy 252/I-94 Project. The air quality working group includes staff from FHWA, MnDOT, Hennepin County, Minnesota Pollution Control Agency (MPCA), and Minnesota Department of Health. The purpose of the air quality working group is to provide technical assistance on air quality modeling for the project. Coordination with the air quality working group will be reconvened as part of the Draft EIS.

National Ambient Air Quality Standards

Motorized vehicles affect air quality by emitting airborne pollutants. Changes in traffic volumes, travel patterns, and roadway locations affect air quality as the number of vehicles and the congestion levels in each area change. The adverse impacts on air quality have been analyzed by addressing criteria pollutants, a group of common air pollutants regulated by the Environmental Protection

Agency (EPA) based on criteria (information on health and/or environmental effects of pollution). The criteria pollutants identified by the EPA are ozone, particulate matter, carbon monoxide, nitrogen dioxide, lead, and sulfur dioxide. Potential impacts resulting from these pollutants are assessed by comparing the projected concentrations to National Ambient Air Quality Standards (NAAQS). A qualitative discussion of NAAQS pollutants will be presented in the Draft EIS.

Particulate Matter

The Hwy 252/I-94 Project is in Hennepin County. A portion of Ramsey County was a maintenance area for the course particulate matter (PM_{10}) NAAQS. The Ramsey County PM_{10} maintenance area was not within the Hwy 252/I-94 study area. The 20-year maintenance period for this area in Ramsey County ended on September 24, 2022. Therefore, a PM_{10} hot spot analysis and conformity determination is no longer considered in the NEPA analysis for transportation projects in Minnesota.

Carbon Monoxide

Carbon monoxide (CO) is the traffic-related pollutant that has previously been of concern in the Twin Cities Metropolitan Area. In 1999, the EPA re-designated all of Hennepin, Ramsey, Anoka, and portions of Carver, Scott, Dakota, Washington, and Wright Counties as a maintenance area for CO. This means the area was previously classified as a nonattainment area but has now been found to be in attainment. The 20-year maintenance period for the Twin Cities Metropolitan Area ended in November 2019 and a CO maintenance plan/project-level conformity analysis is no longer required.

Projects may still be subject to anti-backsliding regulations under the Clean Air Act (CAA). Due to these anti-backsliding requirements, a project may require a CO hot spot analysis if it is a federally funded project, if intersection volumes exceed the benchmark annual average daily traffic (AADT) of 82,300 vehicles, or if a project includes one or more of the intersections on MnDOT's top 10 intersection list.[49]

The Hwy 252/I-94 Project is a federally funded project and includes three intersections on MnDOT's top 10 intersection list: Hwy 252 and 66th Avenue; Hwy 252 and 85th Avenue; and Hwy 252 and Brookdale Drive. Additionally, air quality has been identified through public engagement and feedback as an area of concern. MnDOT previously communicated and committed to preparing a CO hot-spot analysis for the Hwy 252/I-94 Project. Therefore, CO hot-spot modeling will be completed for alternatives to be carried forward into the EIS. The CO hot-spot modeling will occur as part of the final build alternatives evaluation step in the Draft EIS. Results of the CO hot-spot modeling will be included in the Draft EIS.

[49] MnDOT's top 10 hotspot list includes seven intersections with the greatest entering traffic volumes in the Twin Cities carbon monoxide attainment area and three MPCA monitoring locations (two intersections in St. Paul and one intersection in Minneapolis).

Mobile Source Air Toxics

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. Environmental Protection Agency (EPA) regulate 188 air toxics, also known as hazardous air pollutants. The EPA assessed this expansive list in its rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are part of EPA's Integrated Risk Information System (IRIS).[50] In addition, EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-cancer hazard contributors from the 2011 National Air Toxics Assessment (NATA).[51] These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules.

The FHWA developed a tiered approach with three categories for analyzing MSAT in NEPA documents, depending on specific project circumstances:

- No analysis for projects with no potential for meaningful MSAT effects.
- Qualitative analysis for projects with low potential MSAT effects.
- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

According to FHWA guidance for MSAT analysis, for a project to fall into the third category (quantitative MSAT analysis), the project should:

1. Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location, involving a significant number of diesel vehicles for new projects or accommodating with a significant increase in the number of diesel vehicles for expansion projects; or
2. Create new capacity or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000 or greater by the design year; and also
3. Be proposed to be in proximity to populated areas.

The Hwy 252/I-94 Project is in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis with projected AADTs on Hwy 252 and I-94 less than 140,000 for the alternatives to be carried forward into the EIS. The Hwy 252/I-94 Project does not meet all the criteria for the third category; however, air quality has been identified through public engagement and feedback as an area of

[50] https://www.epa.gov/iris

[51] https://www.epa.gov/national-air-toxics-assessment

concern. MnDOT previously communicated and committed to preparing a quantitative MSAT analysis for the Hwy 252/I-94 Project. Therefore, a quantitative assessment of MSAT emissions will be prepared and presented in the Draft EIS. The quantitative assessment of MSAT emissions will occur as part of the final build alternatives evaluation step in the Draft EIS.

9.2.4 Critical Areas

The Mississippi River Corridor Critical Area (MRCCA) is a joint state, regional and local program that provides coordinated land use planning and management for the 72-mile stretch of the Mississippi River through the Twin Cities Metropolitan Area. The MRCCA shares a boundary with the Mississippi National River and Recreation Area (MNRRA), a unit of the National Park Service (NPS). There are no federal land use or zoning regulations associated with the MNRRA.[52]

Portions of the project study area are in the MRCCA. The western MRCCA boundary follows West River Road through Brooklyn Park to 73rd Avenue, and along Hwy 252/West River Road from 73rd Avenue to 66th Avenue in Brooklyn Center. The MRCCA boundary follows Hwy 252 south of 66th Avenue and I-94 through Brooklyn Center and Minneapolis. The Draft EIS will assess the compatibility of alternatives with the general development standards for public facilities listed in Minnesota Rules 6106.0130 and will identify potential measures for minimizing impacts. Coordination with the DNR regarding compliance with MRCCA rules will occur as part of the Draft EIS.

The EIS process will determine if there are any Section 4(f) resources within the MNRRA boundaries and evaluate them accordingly.

9.2.5 Construction

Impacts on the physical and natural environment are expected during the construction phase of the project, including potential impacts related to water quality, air quality (e.g., dust, construction emissions), erosion, construction noise, vibrations, and traffic delays due to detours and construction operations. The Draft EIS will describe construction phase impacts for each alternative, including a qualitative discussion of potential air quality impacts resulting from congestion and traffic detours during construction. Measures to minimize construction phase impacts will be identified in the EIS.

The Draft EIS also will describe potential construction phasing, including full closures and/or construction under traffic. This analysis will describe potential mitigation strategies for traffic management during construction.

[52] Minnesota Department of Natural Resources. 2022. Mississippi River Corridor Critical Area Program, Background and Purpose – MRCCA accessed 5 July 2022 and available at https://www.dnr.state.mn.us/waters/watermgmt_section/critical_area/background-and-purpose.html.

9.2.6 Cultural Resources

A preliminary cultural resources investigation (records search) was completed by MnDOT Cultural Resources Unit (CRU) in 2019 to identify known cultural resources in the project study area. This preliminary investigation relied on background research using site and survey files from the Minnesota State Historic Preservation Office (SHPO) and Office of State Archaeologist (OSA). Copies of the preliminary investigation reports are available from the MnDOT Project Manager (see contact information in Section 1.1 of this SD).

Based on this preliminary review, three properties previously listed or determined eligible for the National Register of Historic Places (NRHP) are in the project study area:

- LaVoris Chemical Company Building, 918 3rd St. North Minneapolis
- Brooklyn Center Water Tower, 6900 Dupont Avenue North, Minneapolis
- Minneapolis Grand Rounds Historic District, Victory Memorial Segment, Webber Parkway

A detailed Phase I cultural resource assessment will be completed for potential historic structures and archaeological sites in the Area of Potential Effect (APE) for alternatives to be carried forward into the EIS. Phase II evaluations will be prepared for potential historic structures and archaeological sites as warranted to determine eligibility for the NRHP. A summary of the findings from these reports will be included in the Draft EIS. The Draft EIS will include a draft determination of effects for the alternatives on any properties eligible for or listed in the NRHP. The Final EIS will include the Section 106 finding for the preferred alternative and a Memorandum of Agreement, if necessary, outlining mitigation measures for adverse effects to historic resources.

NRHP eligible or listed properties are also Section 4(f) resources. If the project results in a Section 4(f) use of NRHP eligible or listed properties, then the necessary Section 4(f) evaluation will be appended to the EIS.

9.2.7 Cumulative Effects

The purpose of a cumulative effects analysis is to consider impacts from several projects that may be neither significant nor adverse when examined individually, but may accumulate and become significant and adverse when added together. The NEPA implementing regulations at 40 CFR 1508.1(g)(3) defines cumulative effects as follows:

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

Based on preliminary information gathered as part of this Scoping process, resources with potential for cumulative effects include environmental justice, floodplains, right of way acquisition, traffic noise, water quality/quantity, and wetlands. The Draft EIS will identify resources with potential for cumulative effects.

The Draft EIS will, for a selected subset of resources in the project area, include an analysis of incremental impacts based on the following methodology.

- Describe the past impacts to those resources that led to their current state or condition.
- Declare the impacts that would occur to each selected resource from a given build alternative (i.e., present effects).
- Declare reasonably foreseeable impacts from other projects/activities in the project study area.

This analysis will inform the alternatives evaluation by identifying how the combined effect of past, present, and reasonable foreseeable effects will affect the health of each resource. The cumulative effect analysis for any EJ populations will be contained within the standalone EJ analysis in the Draft EIS; however, the two cumulative effects analyses will be complimentary.

Section 2.8.1 of this SD describes other reasonably foreseeable projects, including programmed transportation improvement projects; development of the Upper Harbor Terminal site in Minneapolis; and the METRO Blue Line LRT Extension in Minneapolis, Crystal, Robbinsdale, and Brooklyn Park. The assessment of potential cumulative impacts will include consideration of applicable regulations that would require measures to avoid, minimize, and/or mitigate for potential impacts, as well as identification of other potential mitigation measures where applicable.

9.2.8 Economics and Business Impacts

The economic impact analysis in the Draft EIS will include a review of impacts to business access and potential commercial relocations with each alternative. The Draft EIS will include an estimate of fiscal impacts to local governments from the loss of property tax revenue because of right of way acquisition for each alternative. Temporary impacts to businesses during construction will be addressed in the Construction Impacts section of the Draft EIS.

9.2.9 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, dated February 11, 1994, directed " each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States… The proposed project has federal funding and federal permit requirements and is considered a federal project for purposes of compliance with the Executive Order."

FHWA Order 6640.23A FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations establishes policies and procedures for the FHWA to use in complying with Executive Order 12898. FHWA issued Order 6640.23A on June 14, 2012.

Environmental Justice Study Area

The environmental justice (EJ) study area is the geographic area where the proposed project has potential for human health or environmental effects. The EJ study area was identified following MnDOT guidance for environmental justice analysis and uses a ¼-mile buffer from Hwy 252 and I-94. The EJ study area is expanded out to approximately ½-mile from Hwy 252 in Brooklyn Park and Brooklyn Center and includes Humboldt Avenue to the west and the Mississippi River to the east. This EJ study area was identified based on potential traffic changes on local roads with Hwy 252 access alternatives. Figure 9.1 and Figure 9.2 in the "Identification of Minority and Low-Income Population" section illustrate the EJ study area.

The EJ study area may be adjusted during the Draft EIS, if necessary, based on preliminary engineering and Draft EIS studies. The Draft EIS will explain changes to the EJ study area.

Identification of Minority and Low-Income Populations

Environmental Justice (EJ) populations include minority and low-income populations.

Minority is defined in the DOT Order on Environmental Justice (Order 5610.2(a)) as including "Black or African American, Hispanic, Asian American, American Indian/Alaskan Native and Native Hawaiian or Pacific Islander." Minority Population means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

Low-income population is defined in the DOT Order as meaning "any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity."

FHWA defines a low-income individual as a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines. Because the HHS poverty guidelines vary by household size and the census does not report income by household size, this data is not readily available from census data; however, because the HHS guidelines are based on poverty level, the census reporting of persons with incomes below the poverty level is the best data available as a proxy for the FHWA definition.

The EJ study area for the Hwy 252/I-94 Project was investigated for the presence of readily-identifiable:

- minority and/or low-income populations residing in the EJ study area,
- community facilities in the EJ study area that serve minority and/or low-income populations, and
- businesses in the EJ study area that are readily-identifiable as serving EJ populations.

The investigation included a review of demographic data, field review, and consultation with knowledgeable local representatives as described below.

Demographic Data

The review of demographic data for this Scoping Document used the 2015-2019 American Community Survey (ACS) five-year dataset. Block group level demographic data was compared to Hennepin County. The US Census released the 2016-2020 ACS five-year datasets in March 2022. The EJ analysis in the Draft EIS will include an update of demographic data based on the most recent, readily-available information.

Figure 9.1 illustrates minority populations by block group in the EJ study area from 2015-2109 ACS data. The percent minority population for Hennepin County from 2015-2019 ACS data is approximately 28 percent. Figure 9.1 identifies block groups with a minority population that is meaningfully greater than the Hennepin County percentage (i.e., more than 10 percent greater than the Hennepin County percentage).

- More than ⅔ of the block groups in the EJ study area have more than 50 percent minority population.
- Nearly all the block groups in the EJ study area along I-94 in Minneapolis have more than 50 percent minority populations. Nearly all the block groups in the EJ study area along Hwy 252 in Brooklyn Center have more than 50 percent minority populations.
- Almost 90 percent of the block groups in the EJ study area have a percent minority population that is meaningfully greater than the Hennepin County percentage.

Figure 9.2 illustrates low-income populations in the EJ study area from 2015-2019 ACS data. The percent low-income population for Hennepin County from 2015-2019 ACS data is approximately 10 percent. Figure 9.2 identifies block groups with a low-income population that is meaningfully greater than the Hennepin County percentage (i.e., more than 10 percent greater than the Hennepin County percentage).

- None of the block groups in the EJ study area exceed a 50 percent low-income population. One block group includes a low-income population of approximately 46 percent.
- Almost ½ of the block groups in the EJ study area include a percentage of low-income populations that is meaningfully greater than the Hennepin County percentage.

Field Review and Consultation

A field review and consultation with local representatives knowledgeable about community demographics identified the following facilities in the EJ study area that may be affected by the Hwy 252/I-94 Project:

- Multiple businesses at Hwy 252 and 85th Avenue in Brooklyn Park are minority-owned and serve EJ and non-EJ populations.

- Monroe Elementary School is in the southwest quadrant of Hwy 252 and Brookdale Drive and serves neighborhoods in Brooklyn Park along Hwy 252 to north of Hwy 610.
- Evergreen Park Elementary School is west of Hwy 252 along Dupont Avenue and serves neighborhoods in Brooklyn Park and Brooklyn Center on the east and west sides of Hwy 252.
- Housing Link affordable housing data was reviewed along a ½-mile buffer of Hwy 252 and I-94, including the EJ study area. Affordable housing properties are within the EJ study area. Most of these properties are along the I-94 portion of the project in Minneapolis. Two affordable housing properties are along Humboldt Avenue in Brooklyn Center.
- Multiple places of worship are in the EJ study area. More than 30 places of worship were identified within and adjacent to the EJ study area. These places of worship are within EJ areas and serve minority and/or low-income populations.
- Businesses and properties along I-94 in Minneapolis include minority owners. These businesses are within EJ areas and may have minority or low-income employees and/or customers.

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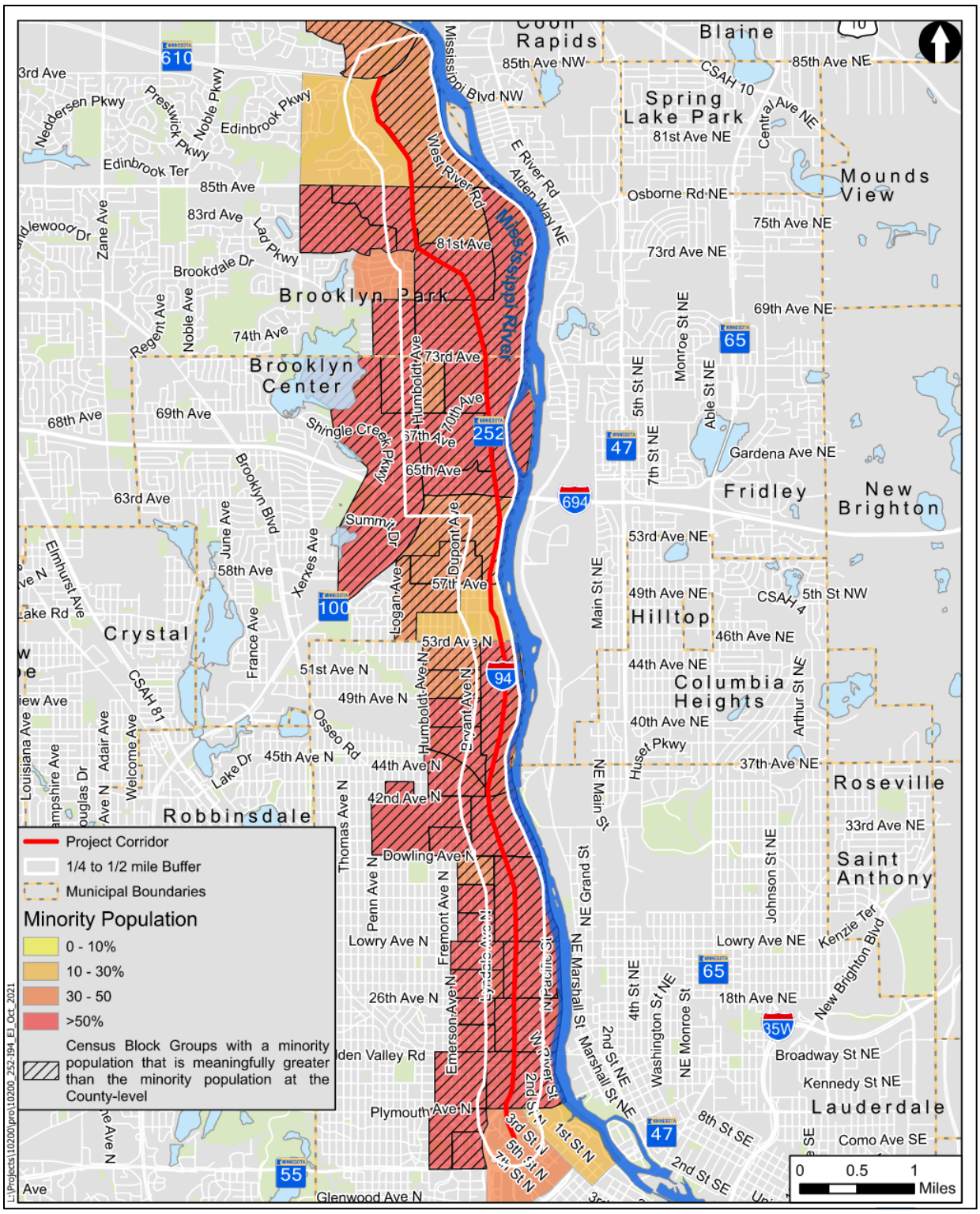
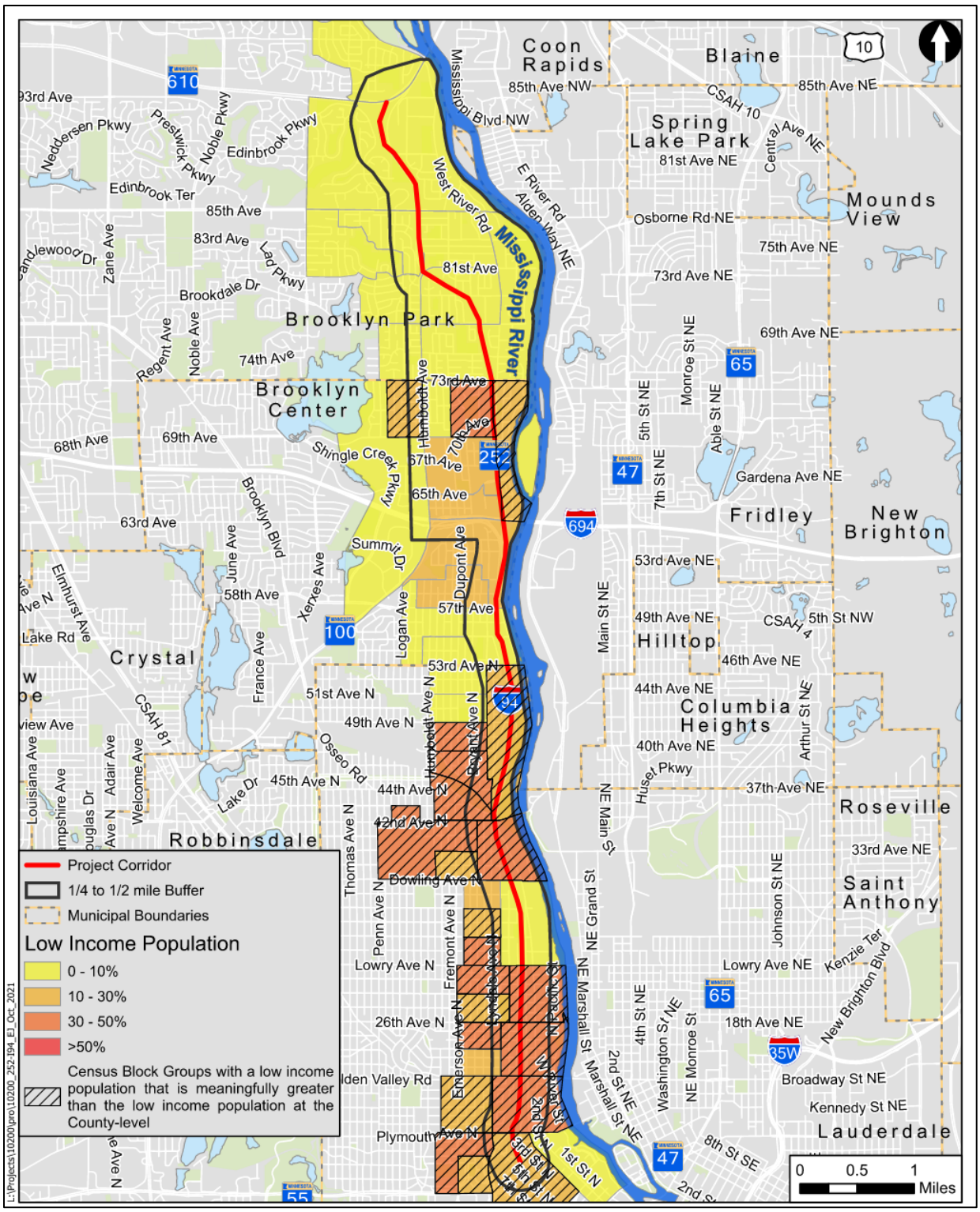
Figure 9.1 Minority Populations in the Project Study Area



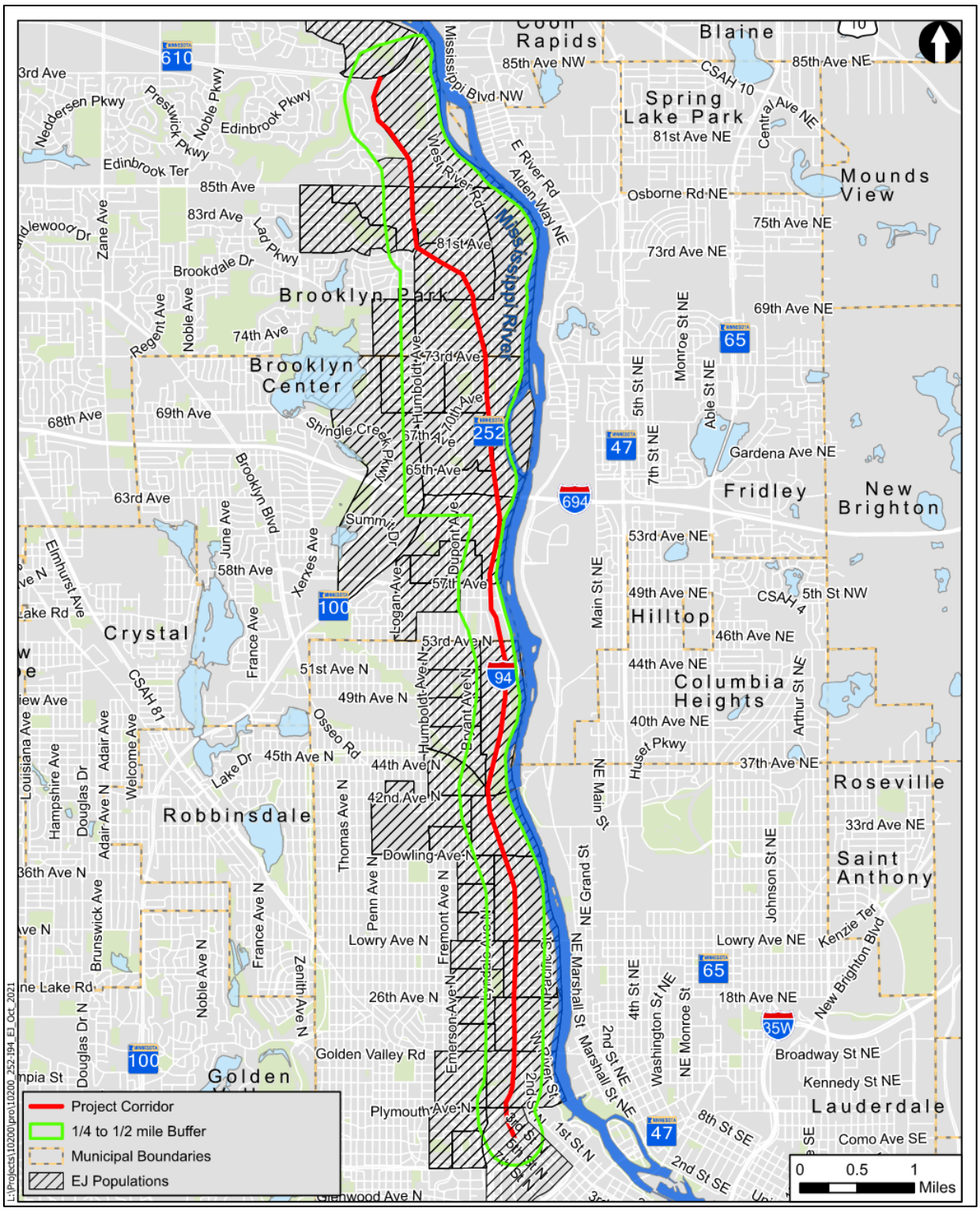
Source: U.S. Census. American Community Survey Five-Year Estimates, 2015-2019.

Figure 9.2 Low-Income Populations in the Project Study Area



Source: U.S. Census. American Community Survey Five-Year Estimates, 2015-2019.

Figure 9.3 EJ Populations in the Project Study Area



EJ Populations Summary

Based on the demographic data collection described above, there are identifiable EJ populations in the EJ study area for the Hwy 252/I-94 Project. Figure 9.3 illustrates EJ populations in the project study area. A majority of the project study area is populated by low income and minority populations.

Public Engagement with EJ Populations in Scoping

Section 3.1 of this SD describes public engagement activities completed during the scoping process. Notification of public engagement activities was distributed to residents and businesses in the project study area, including potentially affected EJ populations. Virtual and in-person open house meetings were held as part of the Scoping process. Opportunities for public input will be on-going through the EIS phase, including the project website, email, and other forms of communication.

Section 3.1.4 of this SD describes the Equity Health Assessment (EHA). The EHA includes targeted engagement focused on listening to historically underserved and overburdened populations living in Minneapolis, Brooklyn Center, and Brooklyn Park, including minority populations; low-income populations; the elderly; and people with a disability. Section 3.1.4 of this SD summarizes the results of the EHA targeted engagement, including focus area priorities and key takeaways (see also *EHA Report #2: Priorities* in Appendix F). The EHA engagement does not replace and is not part of the EJ engagement required under NEPA. Public engagement with potentially affected EJ populations will be completed as part of the Draft EIS.

The following foundations and organizations participated in public engagement and outreach to residents in the project study area.

- CAPI USA
- Lao Assistance Center of Minnesota
- Stairstep Foundation

Public outreach with a special effort for engagement with potentially affected EJ populations was completed during scoping. The purpose of this outreach was to inform potentially affected EJ populations of the Hwy 252/I-94 Project and to gather feedback. More than 40 targeted engagement activities with EJ populations were held in Spring/Summer 2021 and Spring 2022. Table 9.1 summarizes EJ public engagement activities in the cities of Brooklyn Park, Brooklyn Center, and Minneapolis.

Table 9.1 Summary of Public Engagement with EJ Populations

Event Number	Date	Location/Event	Type of Engagement	Number of Attendees
City of Brooklyn Park EJ Engagement				
1	June 19, 2021	Juneteenth	Pop Up	100
2	June 26, 2021	Dragon Foods	Pop Up	10

Event Number	Date	Location/Event	Type of Engagement	Number of Attendees
3	July 9, 2021	Zanewood Summer Splash	Pop Up	14
4	July 13, 2021	Concert in the Park	Pop Up	30
5	July 20, 2021	Music on the Lawn	Pop Up	3
6	July 31, 2021	River Park Grand Opening	Pop Up	20
7	August 3, 2021	Riverview National Night Out	Pop Up	23
8	August 4, 2021	Farmers Market	Pop Up	8
9	August 14, 2021	Tater Daze	Pop Up	15
10	September 10, 2021	CAPI	Pop Up	12
11	September 29, 2021	Farmers Market	Pop Up	21
12	October 9, 2021	Dragon Foods	Pop Up	41
13	October 10, 2021	Festival Foods	Pop Up	56
14	October 30, 2021	Spooktacular	Pop Up	250
15	April 23, 2022	Festival Foods	Pop Up	70
16	May 12, 2022	Zanebrook Shopping Center	Pop Up	7
City of Brooklyn Center EJ Engagement				
17	July 1, 2021	Farmers Market	Pop Up	15
18	July 31, 2021	Hmong Celebrate Your Parks Day	Pop Up	5
19	August 3, 2021	Melrose National Night Out	Pop Up	10
20	August 14, 2021	BC Health Fair	Pop Up	30
21	September 11, 2021	Unity Block Party	Pop Up	11
22	September 12, 2021	Lutheran Church Fall Festival	Pop Up	11
23	September 15, 2021	NorthPort Park	Pop Up	26
24	September 25, 2021	Arts in Autumn	Pop Up	23
25	November 6, 2021	Mujeres Latinas Expo	Pop Up	14
26	May 1, 2022	St. Alphonsus	Pop Up	49
27	May 3, 2022	MN Action Now	Pop Up	4
City of Minneapolis EJ Engagement				
28	June 15, 2021	Juneteenth Event	Pop Up	5
29	June 25, 2021	Northside Market	Pop Up	25
30	June 26, 2021	Cub Foods	Pop Up	4
31	August 6, 2021	North Market	Pop Up	16
32	August 6, 2021	Cub Foods	Pop Up	23
33	September 1, 2021	North Commons Park	Pop Up	20

Event Number	Date	Location/Event	Type of Engagement	Number of Attendees
34	September 2, 2021	Heritage Park	Pop Up	16
35	September 11, 2021	Open Streets Broadway	Pop Up	42
36	September 18, 2021	Northside Cub Foods	Pop Up	47
37	October 7, 2021	North Market	Pop Up	15
38	October 29, 2021	Trunk or Treat	Pop Up	N/A
39	April 30, 2022	Cub Foods	Pop Up	31
40	May 9, 2022	Folwell Park	Pop Up	7
41	May 11, 2022	North Commons Park and Neighborhood	Door Knocking	11
42	May 12, 2022	Folwell Park	Pop Up	4
43	May 14, 2022	YMCA	Pop Up	14
44	May 18, 2022	Bethune Park	Pop Up	17

More than 140 comments were recorded by project staff at pop-up events. These comments were reviewed by the project team and catalogued into comment themes. The following list identifies the comment themes from pop-up events.

- Improve safety
- Provide facilities for walking and biking
- Improve road quality and address congestion
- First time learning about the project/requests for more information
- Concerns regarding displacement/residential relocations
- General concerns regarding project impacts on the environment

Environmental Justice in the EIS

The Draft EIS will identify and address the net effects to minority populations and low- income populations, and any potential measures that could be taken to alleviate or minimize these impacts for each build alternative. The Draft EIS also will identify benefits of the build alternatives. Additional outreach activities to EJ populations will be completed as part of the EIS process. The Draft EIS will include a preliminary finding if the alternatives under consideration would result in disproportionately high and adverse effects on EJ populations. The Final EIS will summarize the EJ information from the Draft EIS, with particular emphasis on analyses specific to the preferred alternative. This EJ analysis for the preferred alternative will address any possible disproportionately high and adverse effects because of design refinements and will include measures to mitigate these effects. The Final EIS will include the formal EJ finding.

9.2.10 Erosion Control and Slope Stability

The Mississippi River is east of and parallel to Hwy 252 and I-94 and receives stormwater runoff from the corridor. The Mississippi River bluff impact and shore impact zones are in the general project study area; the closest location is at Hwy 252 and 66th Avenue in Brooklyn Center. The bluff impact and shore impact zones are narrow at this location, and alternatives would not encroach into the bluff impact or shore impact zones.

The project will result in some potential for erosion as existing ground cover will be disturbed. The Draft EIS will address soils that may be susceptible to erosion during construction of the project; however, the type of potential erosion and stability impacts are not expected to differ among the alternatives. The Draft EIS will address the potential for impacts and opportunities for mitigation.

9.2.11 Excess Materials

Construction of a build alternative could require the disposal of excess materials outside of the project construction limits. Excess materials would be predominately soil materials, which pose little environmental hazard. Excess materials also could include demolition of existing highway pavement, demolition of existing bridge structures, and/or demolition of buildings. All demolition and construction material removed from the construction area will be recycled and/or disposed of in compliance with federal and state solid waste management regulations.

The Draft EIS will provide a general discussion of appropriate handling of excess materials if appropriate. This topic is expected to have little influence on the identification of a preferred alternative.

9.2.12 Fish and Wildlife

Information on fish and wildlife in this Scoping Document is based on input from the DNR early notification memorandum response in 2019 with the EA process. Land in the project study area generally provides habitat for wildlife species common to suburban and urban environments. The Mississippi River provides habitat for a variety of fish species as well as rare species, including mussel species (see Section 7.3.22 of this SD). No other unique fish and/or wildlife resources or habitats have been identified in the project study area. The Draft EIS will compare the potential for alternatives to impact vegetation and water quality as it relates to habitat for fish and wildlife. The Draft EIS will identify potential mitigation measures for any identified impacts.

9.2.13 Floodplains

A 100-year floodplain and floodway are along the Mississippi River, east of Hwy 252 and I-94. Small areas of mapped 100-year floodplains are along Hwy 252 near 85th Avenue in Brooklyn Park and are associated with existing aquatic resources (e.g., stormwater ponds, wetlands). Figure 9.6 in Section 9.2.34 of this SD illustrates floodplains in the project study area.

The Draft EIS will include a floodplain assessment for alternatives that result in a floodplain encroachment. Potential measures to avoid and minimize floodplain impacts will be described in the Draft EIS, and potential mitigation measures to provide compensatory storage will be identified.

9.2.14 Geotechnical and Earthborn Vibrations

Earthborn vibrations may occur because of highway-related construction activities (e.g., pavement breaking, roadway grading, compaction, pile driving). The Draft EIS will provide a general discussion of likely construction vibrations, including a description of methods to avoid, minimize, or mitigate vibrations.

9.2.15 Greenhouse Gas Analysis

In 2019, MnDOT worked with other state agencies to explore ways to reduce greenhouse gas (GHG) emissions from the transportation sector. This process resulted in the *Pathways To Decarbonizing Transportation in Minnesota* report, which contains a number of actions that MnDOT committed to take and recommendations for other state agencies and the Governor to consider. MnDOT committed to analyze GHG emissions from transportation projects as part of the environmental review process beginning in January 2020.

The CEQ released its draft guidance for GHG analysis for federal undertakings on January 9, 2023. The GHG analysis is a voluntary MnDOT procedure and applies to state and federally funded projects. The GHG analysis also is not a selection criterion for identifying a preferred alternative but is for disclosure purposes only.

Construction GHG emissions will result from production and transportation of construction materials and from fuel used in construction equipment. There would likely be a negligible difference in operational GHG emissions among alternatives proposed for study in the Draft EIS because vehicle miles traveled is relatively similar among Hwy 252 and I-94 elements (see Section 7.3.1 of this SD). The alternatives proposed for study in the Draft EIS are projected to change traffic volumes compared to the 2040 No Build Alternative. These alternatives would reduce congestion and improve vehicle mobility. Improvements in vehicle mobility attracts trips to the Hwy 252/I-94 corridor and results in increases in daily vehicle miles traveled compared to the 2040 No Build Alternative. Therefore, GHG emissions for alternatives would likely be greater than the 2040 No Build Alternative.

The Draft EIS will include a background discussion of climate change and GHG emissions. The GHG analysis will be prepared following MnDOT guidance using the Minnesota Infrastructure Carbon Estimator (MICE) tool for construction and maintenance emissions and the EPA's MOVES model for operational emissions. GHG emissions will be expressed in terms of carbon dioxide equivalent (CO2e). This metric combines the climate effects of various GHGs as if they were all carbon dioxide (CO_2).

The Draft EIS will include the GHG emissions analysis (construction/maintenance from MICE tool, operational emissions from MOVES model) as part of the final build alternatives evaluation

step in the Draft EIS. The Final EIS will include the GHG emissions analysis results for the preferred alternative.

9.2.16 Hazardous Materials, Contaminated Properties

MnDOT prepared a Limited Phase I Environmental Site Assessment (ESA) for the Hwy 252/I-94 corridor in 2019. The purpose of the Limited Phase I ESA was to identify known or potentially contaminated properties in the project study area that could impact soil or groundwater encountered during construction. The Limited Phase I ESA identified properties as having known or potential environmental conditions. The 2019 Limited Phase I ESA identified more than 150 high and medium risk sites within a 500-foot buffer of the Hwy 252/I-94 corridor.

Copies of the 2019 Limited Phase I ESA are available from the MnDOT Project Manager (see contact information in Section 1.1 of this SD).

An updated Phase I ESA will be prepared with the Draft EIS. Findings of the Phase I ESA will be summarized in the Draft EIS. The Phase I ESA will be used to determine the potential for alternatives to impact contamination sources and/or properties and if Phase II investigations will be completed. The Draft EIS will address how alternatives can avoid areas of potential contamination and will assess risks for causing direct or indirect impacts to human health or sensitive environmental resources due to encountering contaminated materials.

9.2.17 Indirect Impacts

The NEPA implementing regulations at 40 CFR 1508.1(g)(2) defines indirect effects as follows:

Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

The Draft EIS will compare alternatives with respect to indirect impacts that may occur as a result of changes in traffic volumes, traffic patterns, and/or access to Hwy 252. Indirect impacts such as potential for changes in land use or development resulting from changes in access (e.g., Hwy 252 access combinations and access type) will be assessed through coordination with local units of government.

9.2.18 Intermodal Transportation

The Draft EIS will identify existing transportation resources within or near each of the alternatives. The impacts of each alternative on these resources will be evaluated and potential mitigation measures, where applicable, will be defined.

Aviation

There are no airport facilities in the project study area. The nearest public use airport is the Crystal Airport (MIC). The Cystal Airport is approximately three miles west of I-94 along County State Aid Highway (CSAH) 81 in the City of Crystal. This topic will not be addressed in the Draft EIS.

Rail

There is one freight rail corridor in the project study area. This rail corridor crosses over I-94 north of 42nd Avenue. The Draft EIS will identify any impacts of alternatives on this rail bridge and on rail operations.

Trucks

Truck percentages on Hwy 252 currently vary from 2.1 percent to 2.3 percent of daily traffic volumes. Truck percentages on the project segment of I-94 vary from 3.9 percent to 4.4 percent of daily traffic volumes. Table 9.2 summarizes existing (2021) heavy commercial annual average daily traffic (HCAADT) volumes on Hwy 252 and I-94. The Draft EIS will assess the likely impacts of the alternatives on truck traffic and travel patterns.

Table 9.2 Hwy 252 and I-94 Existing Heavy Commercial Annual Average Daily Traffic Volumes

From	To	Heavy Commercial Annual Average Daily Traffic Volumes Trucks Per Day Existing (2021) Conditions
Hwy 610	85th Avenue	1,200
85th Avenue	Brookdale Drive	1,250
Brookdale Drive	73rd Avenue	1,100
73rd Avenue	66th Avenue	1,200
66th Avenue	I-694	1,350
I-694	53rd Avenue	4,850
53rd Avenue	49th Avenue	4,650
49th Avenue	Dowling Avenue	9,000
Dowling Avenue	West Broadway Avenue	5,000
West Broadway Avenue	Hwy 55	4,750

Source: Minnesota Department of Transportation. Traffic Mapping Application. Official 2021 Heavy Commercial Annual Average Daily Traffic (HCAADT) available at https://www.dot.state.mn.us/traffic/data/tma.html.

9.2.19 Irreversible and Irretrievable Commitment of Resources

The Draft EIS will consider, for each alternative where applicable, the commitment of resources that would be permanently dedicated to public use, and not be able to be reversed or retrieved including physical, natural, human, and financial resources.

9.2.20 Land Use

The current land use along Hwy 252 and I-94 includes residential, commercial, industrial, institutional, park and recreational uses. Section 7.3.19 of this SD identifies park and recreational properties in the project study area.

The Draft EIS will examine the compatibility of the alternatives with the existing land uses and with future land use plans for affected properties. Coordination with local units of governments (cities of Brooklyn Park, Brooklyn Center, and Minneapolis) will be necessary.

9.2.21 Relationship of Local Short-Term Uses Versus Long-Term Productivity

The Draft EIS will discuss the short-term impact and their relationship to the long-term gains in productivity resulting from the proposed project for each alternative.

9.2.22 Right of Way Acquisition and Relocations

This section of the Draft EIS will address several aspects of right of way related to the Hwy 252/I-94 Project, including:

- Temporary easements during project construction.
- Total land area to be acquired, including a breakdown by ownership type and land use type (e.g., residential, commercial, industrial, etc.).
- Potential relocation of residents or businesses.
- Measures to mitigate adverse impacts.

There will be temporary right of way impacts associated with any of the alternatives. Permanent right of way acquisition and relocations are anticipated along Hwy 252. Improvements along I-94 are expected to stay within the existing right of way; however, limited right of way acquisition may be needed. No relocations are anticipated along the I-94 portion of the project. The Draft EIS will include an evaluation of design options to avoid and minimize right of way impacts to adjacent properties. All right of way acquisition and relocations will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

9.2.23 Section 4(f) Resources

Section 4(f) provides protections for publicly owned parks, trails, recreational areas, and wildlife and waterfowl refuges, and historic properties determined eligible or listed on the National Register of Historic Places (NRHP). Because federal-aid funds will be used to complete the Hwy 252/I-94 Project, the use of Section 4(f) resources must be evaluated in accordance with Section 4(f) of the Department of Transportation Act. The following sections provide additional information regarding Section 4(f) resources in the project study area.

Section 4(f) Resources in Project Study Area

Parks and Trails

Section 4(f) resources in the project study area include local and regional parks and local and regional trails. Figure 9.4 and Figure 9.5 illustrate parks and trail facilities in the project study area. Officials with jurisdiction (OWJ) over these resources include the cities of Brooklyn Park and Brooklyn Center, Anoka-Hennepin School District #11, Minneapolis Park and Recreation Board, and Three Rivers Park District.

An existing multi-use trail bridge crosses Hwy 252 at 85th Avenue in Brooklyn Park. This trail bridge and connecting trails are in MnDOT right of way under a limited use permit (LUP 2748-019). MnDOT's limited use permit with the City of Brooklyn Park includes a termination clause that allows MnDOT to terminate the permit upon proper notice to the City. It is anticipated that the trail bridge and approach trails will not be considered Section 4(f) resources due to the nature of the limited use permit (i.e., does not establish a long-term public interest). FHWA will make a final determination regarding the 85th Avenue trail bridge and approach trails in the Draft EIS.

Wildlife and Waterfowl Refuges

There are no publicly owned wildlife and waterfowl refuges in the project study area.

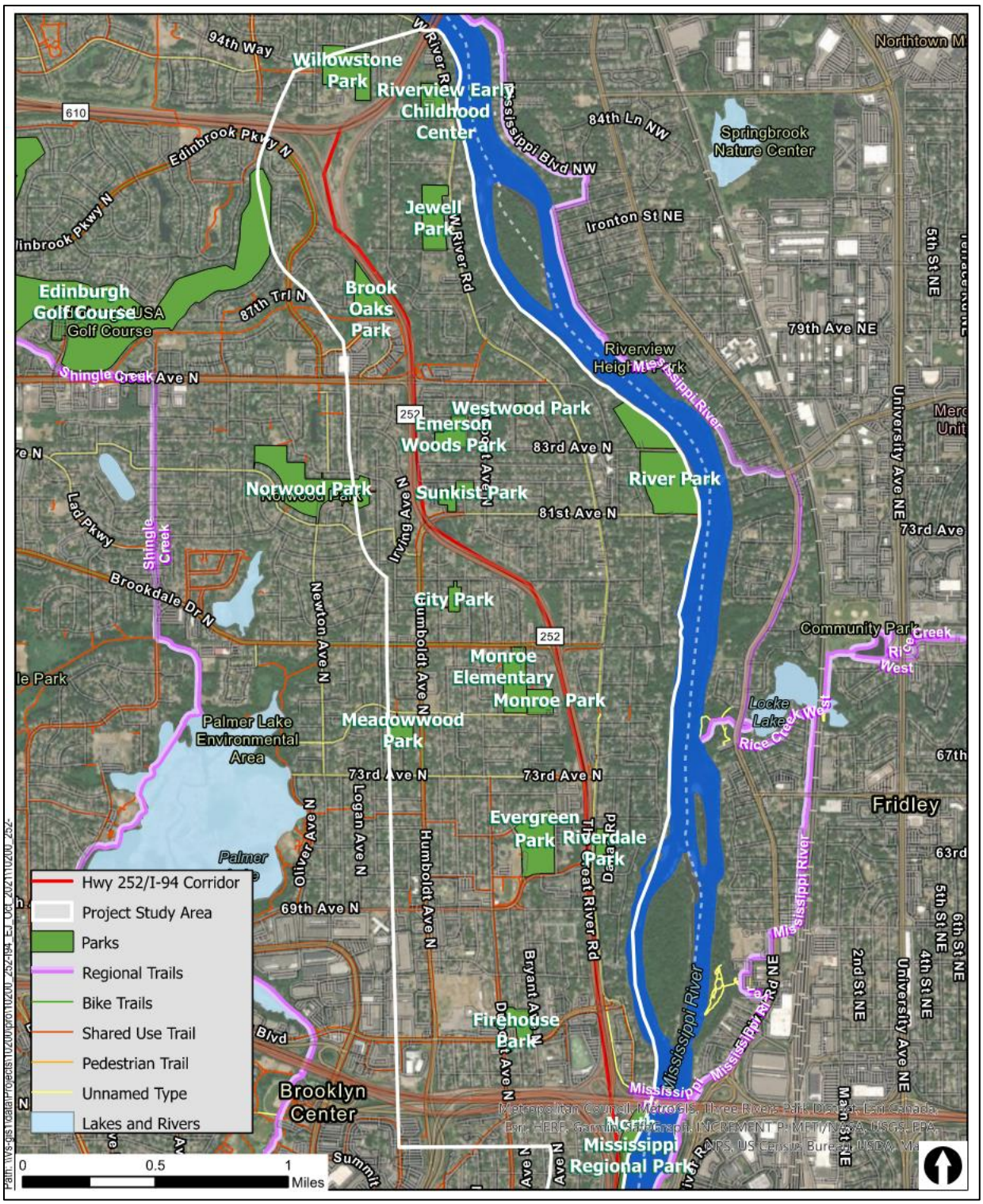
Historic Properties

Section 4(f) requires consideration of historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public. For purposes of Section 4(f), a historic site is significant only if it is listed on or has been determined eligible for the NRHP. Section 9.2.6 of this SD identifies three historic sites listed on or determined eligible for the NRHP in the project study area.

Section 4(f) Evaluation in the EIS

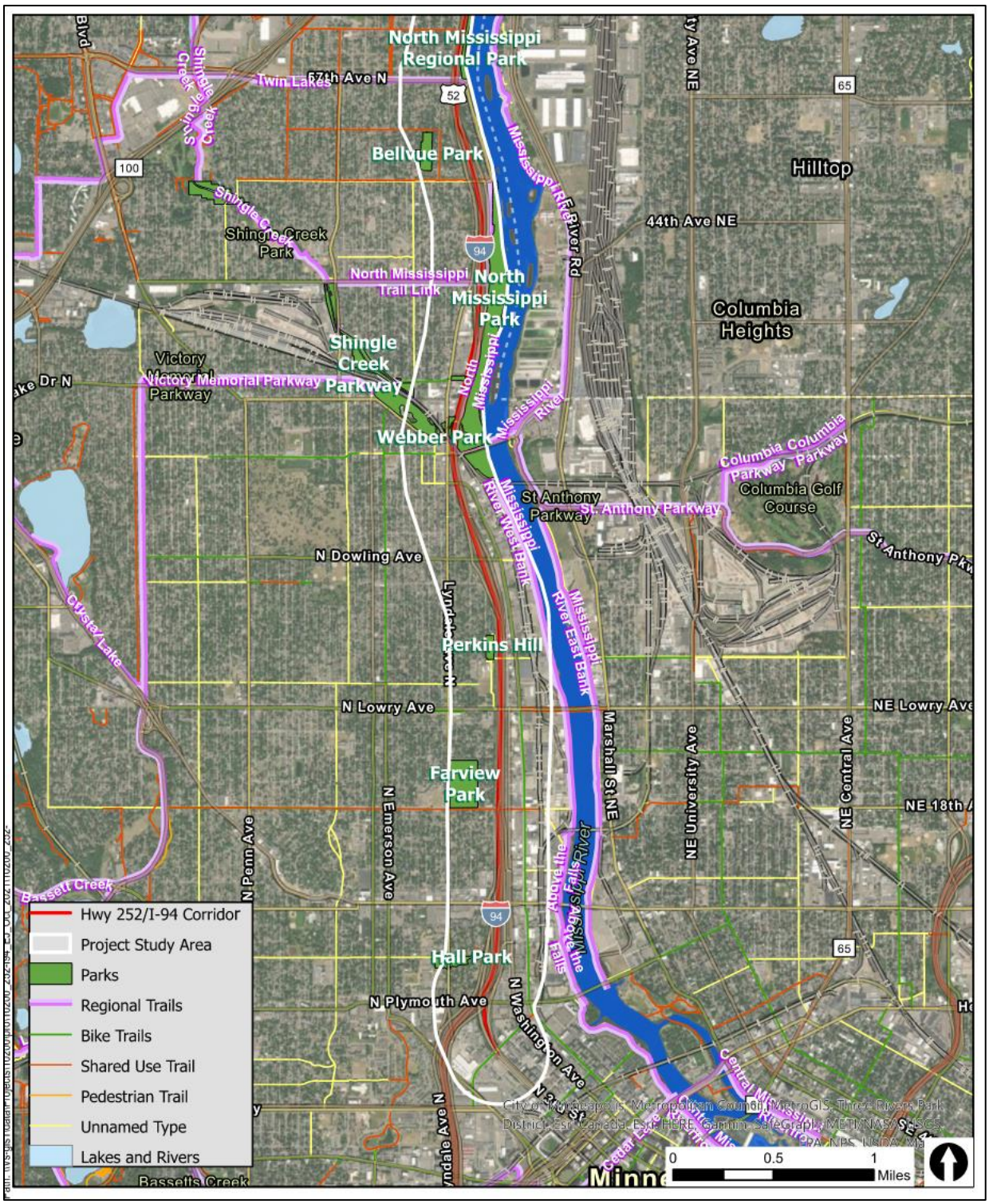
Evaluation of alternatives will be performed consistent with the federal Section 4(f) requirements regarding potential use of Section 4(f) resources. Coordination with FHWA and officials with jurisdiction (OWJ) will be conducted to determine the applicability of Section 4(f), to determine the appropriate Section 4(f) path (e.g., temporary occupancy, de minimis, programmatic, or individual evaluation), to assess potential use, and identify mitigation measures. The Draft EIS will document avoidance and minimization efforts and potential mitigation measures, consistent with Section 4(f) documentation requirements.

Figure 9.4 Section 4(f) Resources in the Project Study Area in Brooklyn Park and Brooklyn Center



Note: Figure 9.4 does not illustrate locations of known historic properties eligible or listed in the NRHP. See Section 7.2.2 (Cultural Resources) for historic properties in the project study area.

Figure 9.5 Section 4(f) Resources in the Project Study Area in Brooklyn Center and Minneapolis



Note: Figure 9.5 does not illustrate locations of known historic properties eligible or listed in the NRHP. See Section 7.2.2 (Cultural Resources) for historic properties in the project study area.

9.2.24 Social and Neighborhood Impacts

Communities in the project study area include the cities of Brooklyn Park, Brooklyn Center, and Minneapolis. The Hwy 252 and I-94 corridor bisects neighborhoods in these communities, acts as a barrier to east-west non-motorized travel, and separates neighborhoods from amenities on either side of Hwy 252 and I-94. The Draft EIS will compare alternatives for potential impacts to community facilities, emergency services, places of worship, schools, and recreation areas.

The Draft EIS also will assess neighborhood connectivity and cohesion. The Draft EIS will evaluate how alternatives impact or provide opportunities to increase access to/from community facilities. The Draft EIS will identify barriers to neighborhood cohesion and will describe potential mitigation measures.

9.2.25 Surface Water/Water Quality and Quantity

The existing drainage system in the project study area includes roadside ditches and storm sewers for conveying stormwater runoff. Stormwater basins are located along Hwy 252 and in the I-94/ I-694/Hwy 252 system interchange area and provide rate control and treatment of stormwater runoff; however, there are portions of Hwy 252 and I-94 where runoff is conveyed without treatment. Stormwater runoff from Hwy 252 discharges directly to the Mississippi River. Stormwater runoff from I-94 discharges to Shingle Creek and the Mississippi River.

A preliminary drainage design was identified for Hwy 252 and I-94 as part of the previous EA process. This drainage design identified stormwater basins for water quality treatment and rate control consistent with regulatory requirements in place at that time. The alternatives to be studied in the Draft EIS will increase impervious surfaces in the Hwy 252 and I-94 corridor. The Draft EIS will compare alternatives for potential surface water quality and quantity impacts. The Draft EIS will identify preliminary stormwater management for each alternative and the feasibility of providing mitigation based on current regulatory requirements.

The project corridor is primarily within the jurisdictional boundary of the West Mississippi Watershed Management Commission and the Shingle Creek Watershed Management Commission. A segment of I-94 near the southern terminus of the project is in the Mississippi Watershed Management Organization boundary. MnDOT will follow the standards of watershed management commissions and organizations. The preliminary drainage design for alternatives will be coordinated with West Mississippi Watershed Management Commission, Shingle Creek Watershed Management Commission, and Mississippi Watershed Management Organization as part of the Draft EIS.

Groundwater and Surface Water

Water supply sources for communities in the project study area include surface water and groundwater sources. Drinking water supply management areas (DWMSA) and wellhead protection areas (WHPA) in the Hwy 252/I-94 project study area are listed below.

- The Minneapolis, St. Paul, and St. Cloud Priority DWMSA includes Hwy 252 and I-94 to 42nd Avenue in Minneapolis. The surface water source is the Mississippi River.

- Hwy 252 and the I-94/I-694/Hwy 252 interchange bisect moderately vulnerable DWMSA. This DWMSA includes a City of Brooklyn Center WHPA. The water source is groundwater.
- Hwy 252 bisects the City of Brooklyn Center Groundwater Emergency Response Area. An emergency response area is an area where groundwater can reach a public water supply well within one year.
- A high vulnerability DWMSA is approximately 1,700 feet east of the Hwy 252 corridor along the Mississippi River in Brooklyn Park. The water source is groundwater.

The Draft EIS will evaluate potential impacts to surface water and groundwater drinking sources. Preliminary drainage design of alternatives will account for drinking water sources, including the feasibility of providing infiltration of stormwater runoff and design measures to avoid interactions with groundwater.

I-94 Flooding

Stormwater runoff discharges from I-94 to Shingle Creek and the Mississippi River. A network of storm sewer pipes conveys the stormwater runoff from I-94 to Shingle Creek and the Mississippi River. There are three existing outfalls (i.e., discharge points) to Shingle Creek and seven existing outfalls to the Mississippi River in the project study area. Several low points along the project segment of I-94 experience flooding under existing conditions. This flooding occurs with rainfall events (e.g., 10-year storm event and greater).

MnDOT identified potential options to address the existing I-94 flooding as part of previous design studies during the EA phase of the project. These options include reconstructing the existing pipe and outfall to the Mississippi River at Dowling Avenue, reconstruction of two pipes and outfalls to Shingle Creek, upsizing pipes within existing I-94 right of way, and stormwater pond construction within existing I-94 right of way. Other options could construction of new pipes to the Mississippi River, including work within North Mississippi Regional Park and North Mississippi Park. The Draft EIS will further evaluate stormwater management along the I-94 corridor and identify potential mitigation strategies to address I-94 flooding for the build alternatives.

9.2.26 Threatened and Endangered Species

Federally-Listed Species

A list of federally threatened, endangered, proposed and candidate species, and designated and proposed critical habitat for Hennepin County was requested in March 2022 through the Information for Planning and Consultation (IPaC) web application maintained by the U.S. Fish and Wildlife Service (USFWS). Table 9.3 lists Federally-listed threatened and endangered species for Hennepin County.

Table 9.3 Federally-Listed Threatened and Endangered Species, Hennepin County, Minnesota

Species	Status	Habitat
Northern long-eared bat (*Myotis septentrionalis*)	Endangered (1)	Hibernates in caves and mines, swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.
Higgins Eye (pearlymussel) (*Lampsilis higginsii*)	Endangered	Mississippi River
Snuffbox mussel (*Epioblasma triquetra*)	Endangered	Mississippi River
Winged Mapleleaf (*Quadrula fragosa*)	Endangered	Mississippi River
Monarch Butterfly (*Danaus plexippus*)	Candidate	Grassland habitats where milkweed and flowers are present.
Rusty patched bumble bee (*Bombus affinis*)	Endangered	Grasslands with flowering plants from April through October, underground and abandoned rodent cavities or clumps of grasses above ground as nesting sites, and undisturbed soil for hibernating queens to overwinter.

Source: US Fish and Wildlife Service, Information for Planning and Consultation (IPaC) web application accessed May 4, 2022 and available at https://ipac.ecosphere.fws.gov/.

(1) The US Fish and Wildlife Service re-classified the northern long-eared bat as endangered under the Endangered Species Act on November 30, 2022.

The Draft EIS will evaluate the potential impacts of the alternatives on federally-listed threatened and endangered species and critical habitat and will identify potential conservation measures for any identified impacts. The U.S. Fish and Wildlife Service (USFWS) will be consulted regarding the review of and potential impacts to federally-listed threatened and endangered species.

State-Listed Rare Plant or Animal Species, Native Plant Communities, or Other Natural Features

The Minnesota Natural Heritage Information System (NHIS) was previously reviewed to identify any rare plant or animal species, native plant communities, or other significant natural features are known to occur within an approximate one-mile radius of the project study area. Resource occurrences are primarily associated with the Mississippi River and its banks. The Mississippi River includes rare species, including native mussel species. The Mississippi River banks contain colonial waterbird nesting sites and bald eagle nests.

The Draft EIS will evaluate the potential impacts of the alternatives on state-listed plant and animal species and will identify potential conservation measures for any identified impacts. The DNR will be consulted regarding the review of state-listed threatened and endangered species.

9.2.27 Traffic Noise

Public feedback received during the Scoping process identified traffic noise and traffic noise impacts as a substantial concern with the Hwy 252/I-94 Project. The alternatives to be studied in the Draft EIS meet the definition of a Type 1 Project; therefore, a traffic noise analysis of the alternatives will be prepared with the Draft EIS. This traffic noise analysis will follow MnDOT and FHWA requirements and guidance in place at the time the Draft EIS is prepared.

The traffic noise analysis in the Draft EIS will use a two-part process. The first part of the traffic noise analysis will be completed with the evaluation of Hwy 252 interchange alternatives. This analysis will consider traffic noise impacts for interchange alternatives with Hwy 252 over the intersecting local roadways versus interchange alternatives with local roadways over Hwy 252. The second part of the traffic noise analysis will be completed for the entirety of the Hwy 252/I-94 build alternatives, from the northern terminus at Hwy 610 in Brooklyn Park to the southern terminus at North 3rd Street/North 4th Street in Minneapolis. The traffic noise analysis process for the Hwy 252/I-94 build alternatives is summarized below.

The Draft EIS will identify existing noise levels and future traffic noise levels under the No Build Alterative. Traffic noise levels for the alternatives will be modeled using forecast traffic volumes and preliminary design and will be compared to Federal Noise Abatement Criteria (NAC) based on activity category. The Draft EIS will compare traffic noise impacts of the alternatives and will identify noise abatement measures (i.e., noise walls) that meet MnDOT requirements. Construction noise will be addressed in the Construction Impacts section of the Draft EIS. The noise wall solicitation process for the preferred alternative, if required, will be completed following publication of the Draft EIS. The outcome of the noise wall solicitation process will be described in the Final EIS. The Final EIS will describe traffic noise impacts of the preferred alternative and proposed mitigation measures.

Existing noise walls and earthen berms are along Hwy 252 and I-94. Existing noise walls vary in height from less than 10 feet tall to approximately 20 feet tall. Some of these noise walls are more than 40 years old and are in poor condition. The Hwy 252/I-94 Project provides an opportunity to rehabilitate these existing walls if the noise analysis indicates that replacement with taller noise walls is determined not to be feasible or reasonable. Noise wall rehabilitation, if included with the project, will be described in the Draft EIS and/or Final EIS.

Noise Advisory Committee

MnDOT will establish a Noise Advisory Committee (NAC) during the development of the Draft EIS. The purpose of the NAC is to provide two-way communication between MnDOT and the public to provide a greater understanding of the traffic noise analysis process. Invitations to participate in the NAC will be extended to interested individuals along Hwy 252 and I-94. NAC meetings are anticipated to follow a public open house meeting format and will occur at certain milestones in the noise analysis process.

9.2.28 Traffic Operations

The Draft EIS will evaluate and compare the alternatives (including the No Build Alternative) for capacity and operations based on forecast traffic demand. This analysis will include microsimulation modeling of Hwy 252 and I-94, including operations of the Hwy 252/I-94/I-694 system interchange. The Draft EIS will consider spot improvements on Hwy 252 and I-94 that may further improve safety and operations. In addition, intersection control at ramp terminal intersections with Hwy 252 interchanges will be evaluated.

Managed Lane Analysis

The alternatives identified for study in the Draft EIS include a six-lane freeway alternative with general purpose lanes and a six-lane freeway alternative with managed lanes. General purpose lanes are open to all traffic at all times of the day. Managed lanes include E-ZPass lanes, HOV lanes, and transit-only lanes (see Section 7.1.2 of this SD). E-ZPass lanes are restricted to high-occupancy vehicles, transit vehicles, motorcycles, and toll paying single-occupancy vehicles during the morning and afternoon peak periods. E-ZPass lanes have no restriction on use during off-peak hours and operate as general purpose lanes. The Draft EIS will include microsimulation modeling of Hwy 252 and I-94 with general purpose lanes and managed lanes during peak and off-peak periods. This microsimulation modeling will consider person throughput and trip reliability (i.e., number of reliable person trips) for Hwy 252 and I-94. Microsimulation modeling results will also be used to identify the user experience (e.g., level of service, travel times) in the general purpose lanes versus the managed lanes.

9.2.29 Traffic Safety

One of the purposes of the Hwy 252/I-94 Project is to improve vehicle safety. Chapter 4 of this SD and the *Purpose and Need Statement* in Appendix H includes a crash analysis for Hwy 252 and I-94. Reducing injuries and fatalities associated with crashes along Hwy 252 and I-94 is one of the objectives identified for the project.

The Draft EIS will evaluate and compare the alternatives (including the No Build Alternative) for vehicle safety based on forecast traffic demand. This analysis will include an evaluation of mainline, intersection (non-mainline), and network crash costs. As noted above, the Draft EIS also will consider spot improvements on Hwy 252 and I-94 that may further improve vehicle safety.

9.2.30 Transit

As project design advances in the Draft EIS phase, MnDOT and Metro Transit are committed to working together to ensure that the highway project allows for improvements to local and express bus service. This coordination will include evaluation of highway design alternatives for impacts on transit operations and transit customers and may include additional infrastructure where feasible. The Draft EIS will further refine local and express bus service priorities and will review transit ridership and demand as a result of COVID-era impacts. Close coordination with Metro Transit will

ensure that highway designs could accommodate potential transit improvements and do not preclude future transit investments in the corridor.

Metro Transit submitted a request to MnDOT during the scoping process to include bus-shoulder lanes on Hwy 252/I-94 from Hwy 610 to downtown Minneapolis with alternatives that do not include managed lanes. Alternatives studied in the Draft EIS that do not include managed lanes will include bus-only shoulder lanes. The bus-only shoulder lanes will operate in the outside (right-hand) shoulder, the same as the existing bus-only shoulders on Hwy 252 and I-94. The performance of bus-only shoulders with alternatives that do not include managed lanes will be described in the Draft EIS.

9.2.31 Utilities

Known utilities in the project study area include electric transmission and distribution, telephone, fiber optic lines, natural gas, sanitary sewer, and water. Coordination with public and private utilities will occur as part of the Draft EIS. Impacts to utilities and services is not expected to differ among alternatives. The Draft EIS will describe impacts to utilities, potential disruptions in utility service during construction, and opportunities for utility owners to improve utilities in conjunction with the Hwy 252/I-94 Project.

9.2.32 Vegetation/Cover Types

The dominant vegetation in the Hwy 252 and I-94 corridor includes landscape vegetation with many weed trees present. Neighboring properties include areas of landscape trees, shrubs, and other plantings. Natural prairie remnants or rare/endangered plant species have not been identified in existing highway right of way. Areas of noxious weed infestations, including Canada thistle, leafy spurge and spotted knapweed, are present.

The Draft EIS will identify areas where vegetation would be removed for the alternatives and will include a discussion of potential mitigation measures.

9.2.33 Visual Quality

Visual resources are the objects which comprise the environment. Visual impacts caused by a highway project are seen by both people traveling on a highway and the neighbors adjacent to the highway. Affected visual resources are defined as those elements within the area of visual effect, or viewshed, of the highway. The Draft EIS will include an evaluation of potential impacts to visual resources using the Visual Impact Assessment (VIA) process. The VIA for the Hwy 252/I-94 Project will follow the U.S. Department of Transportation's Federal Highway Administration's *Guidelines for the Visual Impact Assessment of Highway Projects* (2015). The purpose of the VIA is to adequately assess and consider both beneficial and adverse visual impacts of the Hwy 252/I-94 Project. The VIA includes four phases: establishment, inventory, analysis, and mitigation.

9.2.34 Wetlands

MnDOT completed a Level 2 wetland delineation along Hwy 252 and I-94 in 2018. This wetland delineation identified wetlands, wet ditches, and other aquatic resources within highway right of way from Hwy 610 in Brooklyn Park to North 4th Street in Minneapolis. A Wetland Conservation Act (WCA) notice of decision, approving the delineated wetland boundaries and types, was distributed to members of the Technical Evaluation Panel in Summer 2019. This wetland delineation identified four wetlands, 12 wet ditches, and 18 other aquatic resources. Figure 9.6 illustrates delineated wetlands and other aquatic resources in the project study area.

The Draft EIS will include additional wetland information for portions of project alternatives beyond the existing highway right of way. Supplemental wetland delineations will be prepared as necessary. The Draft EIS will include estimates of potential wetland impacts for each alternative based on delineated wetland boundaries and preliminary construction limits. The Draft EIS will identify potential measures to avoid and minimize wetland impacts for each alternative. Coordination with the US Army Corps of Engineers (USACE), DNR (for any public waters if impacted), and Board of Soil and Water Resources (BWSR) will occur as part of the Draft EIS. Coordination with USACE in the EIS will consider the Least Environmentally Damaging and Practicable Alternative (LEDPA) decision.

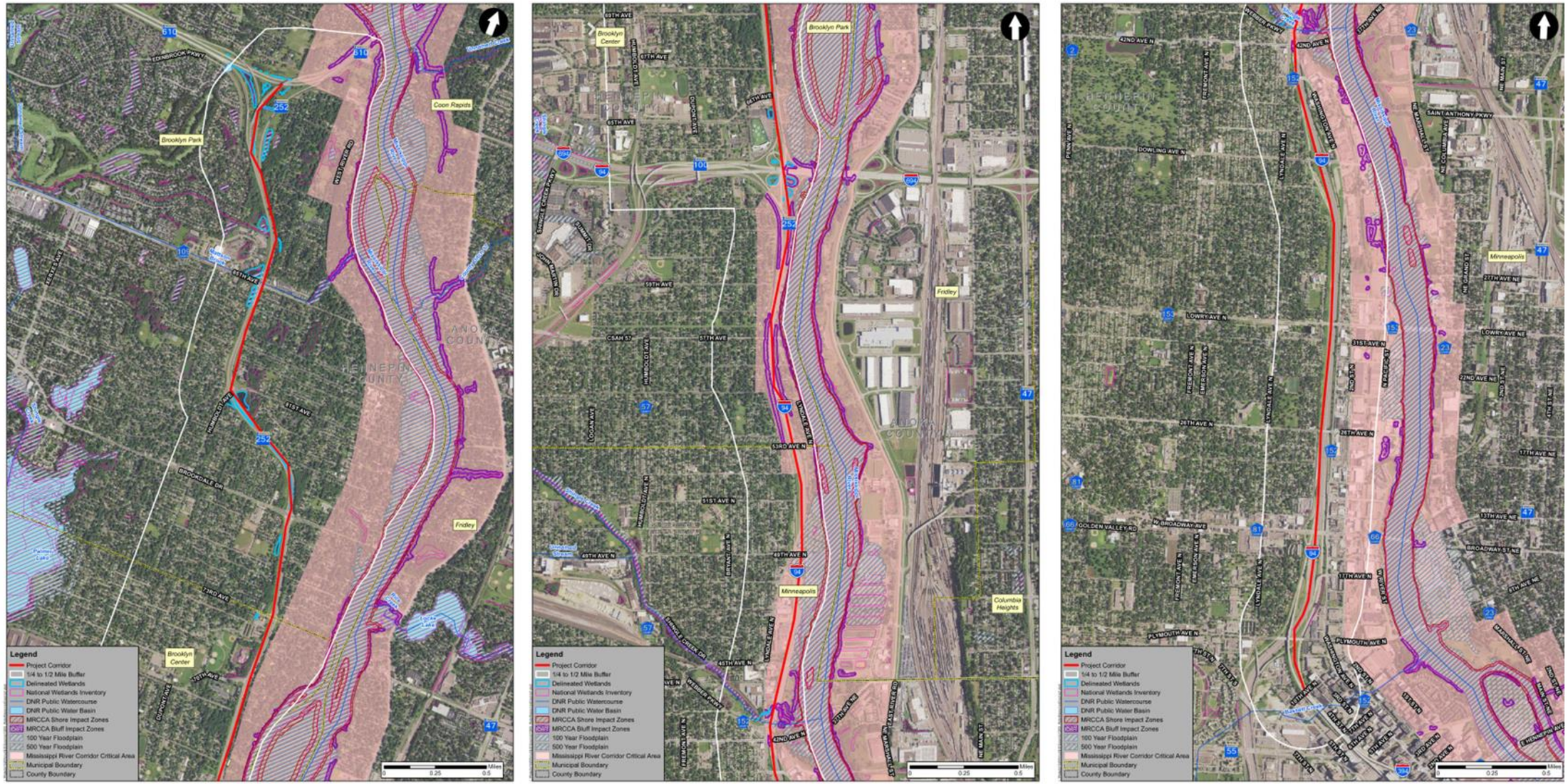
Three DNR public water watercourses are in the project study area. Coordination with the DNR will occur as part of the Draft EIS for any public water watercourse impacts.

- Mattson Brook. Mattson Brook crosses Hwy 252 at 85th Avenue in Brooklyn Park. Mattson Brook is identified as an altered natural watercourse at this location and is conveyed under the road through a culvert. The DNR has previously indicated that a public waters work permit is not required for work at this location.

- Shingle Creek. I-94 crosses over Shingle Creek north of Webber Parkway. The alternatives to be studied in the Draft EIS do not include reconstruction of the I-94 bridges over Shingle Creek. A pipe and outfall to Shingle Creek may be needed to address I-94 flooding. Additional stormwater modeling will occur for the build alternatives with the Draft EIS to identify stormwater discharges to Shingle Creek.

- Mississippi River: The Mississippi River parallels the Hwy 252 and I-94 corridor. Stormwater runoff from Hwy 252 and I-94 is conveyed and discharges to the Mississippi River. The alternatives to be studied in the Draft EIS do not include work in the Mississippi River. An existing storm sewer pipe at Dowling Avenue may need to be increased in size to address I-94 flooding. This pipe includes an outfall to the Mississippi River. Additional stormwater modeling will occur for the build alternatives with the Draft EIS to identify stormwater discharges to the Mississippi River.

Figure 9.6 Wetlands and Other Aquatic Resources in the Project Study Area



9.3 Issues Not Addressed in the EIS

The following issues were determined not relevant to the Hwy 252/I-94 project study area and will not be studied in the EIS:

- Coastal Zones and Coastal Barriers. The project study area is not located within a coastal zone or coastal barrier; therefore, this issue will not be addressed in the EIS.
- Farmlands. The project study area is located entirely within the Minneapolis-St. Paul urbanized area and is exempt from the Farmland Protection Policy Act (FPPA); therefore, this issue will not be addressed in the EIS.
- Geology and Soils. There are no known karst/sinkholes or rock slopes in the project study area. Rock excavation and rock fall management is not anticipated; therefore, this issue will not be addressed in the EIS.
- Section 6(f)/Land and Water Conservation Fund (LWCF) Resources. The project has been reviewed for potential Section 6(f) involvement. The project is not expected to cause the conversion of any land acquired or developed with fundings from the LWCF to other than outdoor recreation use; therefore, this issue will not be addressed in the EIS.
- Stream and Water Body Modification. The project is not expected to change or diminish the course, current, or cross section of public waters, by any means, including filling, excavating, or placing of materials in or on the beds of public waters; therefore, this issue will not be addressed in the EIS.
- Wild and Scenic Rivers. There are no state or federally designated wild or scenic rivers in the project study area; therefore, this issue will not be addressed in the EIS.

Chapter 10 Permits and Approvals

10.1 Permits and Approvals

Table 10.1 lists permits and approvals that may be required for the Hwy 252/I-94 Project.

Table 10.1 Agency Permits and Approvals That May Be Required

Agency	Permit/Approval
Federal Highway Administration (FHWA)	• EIS Notice of Intent (NOI) • EIS Approval (1) • EIS Record of Decision (1) • Section 4(f) Determination (if required) • Section 106 National Historic Preservation Act Determination (1) • Section 7 Endangered Species Act Determination (1) • Interstate Access Modification Request
US Army Corps of Engineers (USACE)	Section 404 Permit (Regional General Permit)
US Fish and Wildlife Service (USFWS)	Section 7 Endangered Species Act Consultation (if required)
Minnesota Department of Transportation (MnDOT)	• Scoping Document Approval • Scoping Decision Document Approval • EIS Approval • EIS Adequacy Determination • Wetland Conservation Act (WCA) Approvals
Minnesota Department of Natural Resources (DNR)	• Public Waters Work Permit (if required) • Groundwater Appropriation Permit (for dewatering, if needed)
Minnesota Pollution Control Agency (MPCA)	• Section 401 Water Quality Certification • NPDES Construction Stormwater Permit
Minnesota State Historic Preservation Office (SHPO)	Section 106 Consultation
Metropolitan Council	Controlled Access Approval
Mississippi Watershed Management Organization (WMO)	Plan review and coordination
Shingle Creek and West Mississippi Watershed Management Commissions	Plan review and coordination
City of Brooklyn Park	Municipal Consent
City of Brooklyn Center	Municipal Consent
City of Minneapolis	Municipal Consent

(1) Cooperating agencies may adopt NEPA documents and determinations for other Federal environmental review laws to fulfill their environmental review obligations.

10.2 Permitting Timetable

FHWA, in consultation with MnDOT and Cooperating and Participating Agencies, will develop a schedule, or Permitting Timetable, for the Hwy 252/I-94 Project. The Permitting Timetable will identify actions and associated milestones for the environmental review process and subsequent agency authorizations. The Permitting Timetable will be presented to agencies for review following the publication of the NOI in the *Federal Register*. The Draft EIS will include the Permitting Timetable. FHWA and MnDOT will coordinate with agencies throughout the project development process for Hwy 252/I-94 to make updates to the Permitting Timetable as appropriate. The *Agency Coordination Plan* in Appendix G provides additional information regarding the Permitting Timetable.

Per 23 USC 139(d)(10), the aforementioned permits and authorizations are anticipated to be completed by no later than 90 days after the issuance of the ROD as described in 23 USC 139(d)(10). However, for this project, MnDOT has requested in accordance with 23 USC 139(d)(10)(C)(ii) that those permits and authorizations follow a different timeline because the construction date is not expected until 2028 or later.