11 Evaluation of Alternatives

This chapter summarizes the evaluation of the No-Build Alternative and Build Alternative for the Project. This summary focuses on information that distinguishes the No-Build and Build Alternatives from each other and is most relevant for Project decision making. The results are intended to demonstrate that the Build Alternative is the preferred alternative under the NEPA and MEPA.

11.1 Evaluation Framework and Methods

The Project purpose and need is presented in Chapter 1. The project development and evaluation process respond to the requirements of NEPA, MEPA, and the FTA New Starts process.

The purpose statement below was developed during the environmental review phase of the Project that resulted in the 2016 Final EIS and ROD and specifically defines the fundamental reasons why the Project is being proposed:

The purpose of the Project is to provide transit service, which will satisfy the long-term regional mobility and accessibility needs for businesses and the traveling public.

Additionally, the Project will invest in an area that has experienced a history of systemic racism and disinvestment, provide improved connectivity and access for communities in the area, and advance local and regional equity. The Project is needed to effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports economic development goals and objectives of local, regional, and statewide plans. The six factors informing project need are listed below and described in more detail in Section 11.4 of Chapter 1:

- Factor 1: Growing Travel Demand
- Factor 2: Reducing Local Pollution with a Balanced Transportation Network
- Factor 3: Increased Reliance on Transit
- Factor 4: Improved Transit Service in BIPOC Communities
- Factor 5: Changing Travel Patterns from the COVID-19 Pandemic
- Factor 6: Regional Objectives for Growth

Chapter 2 and Appendix A-2 discuss the process used to develop and evaluate alignment and design options, and how that process resulted in the identification of the Build Alternative. This chapter focuses on evaluating the balance between benefits and impacts that would occur under the No-Build Alternative and Build Alternative, to demonstrate why the Build Alternative is the preferred alternative.

11.2 Build and No-Build Alternative Differentiators

The discussion below describes the No-Build Alternative and Build Alternative and summarizes the differentiating adverse impacts and benefits of each, according to the resource topics addressed in this Supplemental Draft EIS, and how they address the Project purpose and need. This chapter highlights the impacts and benefits that distinguish the alternatives from each other. This information is summarized in Table 11-1 through Table 11-3, which summarize the comprehensive analysis conducted as part of the Supplemental Draft EIS process.

11.2.1 No-Build Alternative

The No-Build Alternative reflects existing and committed improvements to the regional transit network for the horizon year of 2040. Primary among these are the other regional transitway projects (Green Line Extension LRT, Gold and Purple Line BRT) and associated bus service changes in these transitways, as well as the reconstruction of Highway 252 and I-94. The purpose of the No-Build Alternative is to provide a benchmark against which the Project Build Alternative can be compared.

11.2.1.1 Relation to Purpose and Need/Goals and Objectives

The No-Build Alternative would not meet the purpose and need for the Project. It would not effectively address the long-term regional transit mobility and local accessibility needs, nor would it provide efficient, travel-time competitive transit service to support the land use and economic development goals of local, regional, and statewide plans. The No-Build Alternative would not satisfy the six Project need factors listed in Section 11.1. In particular, the benefits to EJ communities that have experienced a history of disinvestment would not be realized.

11.2.1.2 Summary of Differentiating Impacts and Benefits

The No-Build Alternative has only minor adverse impacts related to the committed improvements included in it. However, the No-Build Alternative does not provide measurable transportation benefits compared to existing conditions nor does it address the Project's purpose and need and perpetuates issues of lacking transportation options for BIPOC communities.

11.2.2 Build Alternative

The Build Alternative would provide LRT service between the Cities of Brooklyn Park and Minneapolis via W Broadway Ave (in the City of Brooklyn Park), CR 81 (in the Cities of Crystal and Robbinsdale), W Broadway Ave, 21st Ave N, Washington Ave N, 10th Ave N, N 7th Street, and N 6th Ave (in the City of Minneapolis).

11.2.2.1 Relation to Purpose and Need/Goals and Objectives

The Build Alternative meets the Project purpose and need in that it would effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports the economic development goals of local, regional, and statewide plans. The alternative satisfies all six Project need factors outlined in Section 11.1 of this chapter and described in detail in Chapter 1 of this Supplemental Draft EIS.

Table 11-1 Build/No-Build Alternative Evaluation Summary – Transportation

Section	Topic	No-Build Alternative	Build Alternative
3.1	Transit Conditions	The No-Build Alternative would not address the Project's need factor to provide improved transit service to BIPOC communities	The Build Alternative represents a significant investment in the regional transit system, provides another transportation option to transit dependent populations, enhances the overall transit system in the Twin Cities metro area, and is consistent with regional growth objectives.
3.2	Pedestrian Conditions	The current pedestrian environment, which includes several areas with high PLTS, would not change under the No-Build Alternative.	The Build Alternative would reduce PLTS for most of the intersections in the Project area, creating a more comfortable pedestrian environment, and would provide improved pedestrian access to LRT station locations.
3.3	Bicycle Conditions	The current bicycling environment, which includes an extensive network of existing and planned bicycle routes would not be impacted by the No-Build Alternative, but transit-integrated improvements to the network would not occur.	The Build Alternative incorporates multi-use paths in each city along the Project Alignment and reduces or eliminates several vehicle/bicycle conflicts along the Project Alignment. Bicycle access to LRT stations is incorporated into Project design.
3.4	Vehicle Traffic	Traffic conditions would not be altered under the No-Build Alternative. Traffic volume projections for 2040 indicate that several intersections in the Cities of Brooklyn Park and Minneapolis would be over capacity in peak periods.	The Build Alternative would introduce additional traffic capacity issues beyond No-Build conditions at three intersections in the City of Brooklyn Park during the morning peak, and at three intersections in the City of Minneapolis during the afternoon peak. Design and signal operation modifications would be considered to reduce the impact on traffic operations at these locations.
3.5	Vehicle Parking	The No-Build Alternative would not impact on-street or off-street parking.	The Build Alternative would result in the loss of off-street parking in the Cities of Brooklyn Park, Crystal, and Robbinsdale. Parking losses would also occur in the City of Minneapolis; most of those losses would be on-street parking. Off-street parking losses would be mitigated through acquisition negotiations with affected property owners. Mitigation for on-street parking loss would be coordinated with the affected Project cities and with community input.

Section	Topic	No-Build Alternative	Build Alternative
3.6	Freight Rail Conditions	The No-Build Alternative would not affect freight rail infrastructure or operations.	The Build Alternative would not affect freight rail infrastructure or operations, other than the need for coordination during construction of the 63rd Ave Station pedestrian bridge, implementation of traffic signal integration with rail crossing warning systems in the Cities of Brooklyn Park and Crystal and construction on the CR 81 bridge over the CPKC in the City of Crystal.
3.7	Aviation	The No-Build Alternative would not affect aviation in the Project area.	Coordination with the FAA has confirmed that the Build Alternative would not affect operations at the Crystal airport.

Table 11-2 Build/No-Build Alternative Evaluation Summary – Community and Social

Section	Topic	No-Build Alternative	Build Alternative
4.1	Land Use Plan Compatibility	The No-Build Alternative would not advance regional growth objectives or as robustly work towards transit-related goals of Project cities and county plans.	The Build Alternative is consistent with regional growth objectives and would address the transit-related goals included in Project cities and county plans.
4.2	Community Amenities, Character, and Cohesion	The No-Build Alternative would not impact community amenities or affect community character and cohesion.	The Build Alternative would result in both impacts and benefits to community amenities, character, and cohesion. Minor impacts to community amenities would occur in the Cities of Brooklyn Park, Crystal, and Robbinsdale. The challenge of fitting the Project into the denser urban environment in the City of Minneapolis would result in the relocation of six community amenities. Noise impacts in certain locations along the Project Alignment could affect community character; mitigation strategies could reduce these impacts. However, improved transit, pedestrian, and bicycle conditions would improve community cohesion and improve the accessibility of community amenities. Additional mitigation measures will be considered in the Supplemental Final EIS.

Section	Topic	No-Build Alternative	Build Alternative
4.3	Acquisitions and Relocations	No acquisitions or relocations would occur under the No-Build Alternative.	The Build Alternative would require property acquisitions in each of the four Project cities. Most of the building acquisitions would occur in the City of Minneapolis. 36 relocations are currently estimated; 27 of those would occur in the City of Minneapolis. All acquisitions and relocations would be mitigated through compensation and relocation assistance. Additional Project commitments specific to EJ communities will be considered in the Supplemental Final EIS.
4.4	Cultural Resources	The No-Build Alternative would not result in adverse effects to historic properties or archaeological resources.	The identification of properties eligible for the NRHP and assessment of effects on those properties is underway. Determinations of effect will be documented in the Supplemental Final EIS, and mitigation commitments will be documented in an amendment to the existing Section 106 MOA. Note that compliance with Section 106 requirements during the Build Alternative planning process affords the opportunity to identify and protect historic resources.
4.5	Visual/Aesthetics	The No-Build Alternative would not affect the visual character of the Project area.	The Build Alternative would generally have a neutral impact on most of the visual character of the Project area. Adverse visual impacts would occur at the northern terminus of the Project where the OMF would be constructed. Mitigation could include screening, lighting design, and context-sensitive design elements for the OMF.
4.6	Economic Effects	The No-Build Alternative would not impact economic conditions in the Project area. However, opportunities for long-term earnings and employment growth afforded by improved transportation access and associated TOD would not be realized.	The Build Alternative would result in economic growth through improved access to housing, employment, and businesses. Induced development (TOD) around LRT stations could result in increased property values and associated taxes, which could displace current residents and business owners. These impacts would be minimized through the implementation of anti-displacement measures and policies.

Section	Topic	No-Build Alternative	Build Alternative
4.7	Safety and Security	The No-Build Alternative would not introduce LRT infrastructure into the Project area.	The Build Alternative would be designed and constructed in accordance with relevant codes, standards and guidance and would not adversely impact safety and security in the Project. Public transportation is one of the safest mobility options and the Build Alternative would include many features that would improve vehicle, bike, and pedestrian safety for the traveling public. The actions outlined in Metro Transit's Safety & Security Action Plan to make transit safer and more welcoming would be applied to the Project.

Table 11-3 Build/No-Build Alternative Evaluation Summary – Physical and Environmental

Section	Topic	No-Build Alternative	Build Alternative
5.1	Utilities	The No-Build Alternative would not affect utilities.	The Build Alternative would require the relocation of both underground and aboveground utilities in the Project area. Utility impacts would be addressed on a case-by-case basis, and relocation requirements would be coordinated with utility owners. Utility relocation affords owners the opportunity to repair and/or upgrade old utilities and therefore better serve their customers.
5.2	Floodplains	The No-Build Alternative would not affect floodplains.	The Build Alternative would potentially impact about 12.2 acres of floodplain. As design advances, opportunities to minimize this impact would be explored, and mitigation would be developed in the form of replacement flood storage areas. Replacement flood storage areas would be integrated into the landscape and may not only address project impacts but also improve overall flood management of affected basins.

Section	Topic	No-Build Alternative	Build Alternative
5.3	Wetlands and Other Aquatic Resources	The No-Build Alternative would not affect wetlands and other aquatic resources.	The Build Alternative is estimated to impact a total of about 8.56 acres of wetland and stormwater basins. Mitigation for these impacts would be coordinated with USACE and WCA LGUs. A Section 404 permit was issued, and a WCA wetland replacement plan was approved in 2018 under the 2016 Final EIS and ROD; the permit would be modified to reflect current impacts and replacement wetland mitigation. The Project as currently defined has less impact on wetlands than the defined project in the 2016 Final EIS and ROD.
5.4	Geology, Soils, and Topography	The No-Build Alternative would not impact geology, soils, or topography.	The Build Alternative would not have long-term impacts on geology, soils, or topography. During construction, areas of poor soils may need to be modified using typical geotechnical methods to provide a stable base for Project elements.
5.5	Hazardous Materials Contamination	The No-Build Alternative would not affect contaminated properties.	A total of 152 high risk known or potentially contaminated sites were identified within 500–550 feet of the Project Alignment. A Phase II ESA will be conducted and documented in the Supplemental Final EIS to confirm the presence, extent, and magnitude of soil and/or groundwater contamination that could be affected by the Project. While contamination presents a risk that needs to be managed during construction, implementing the Build Alternative would afford an opportunity to remove contaminated materials and potentially reduce exposure risks after construction.
5.6	Noise	The No-Build Alternative would not impact noise-sensitive receptors.	The Build Alternative would result in moderate noise impacts at two institutions and 29 residential properties (244 dwelling units), the majority (18 residences with 211 dwelling units) of which would be in the City of Minneapolis. Severe impacts would result at 15 properties (173 dwelling units), all within the City of Minneapolis. Noise mitigation will be considered in the Supplemental Final EIS.

Section	Topic	No-Build Alternative	Build Alternative
5.7	Vibration and Ground-Borne Noise	The No-Build Alternative would have vibration impacts.	The Build Alternative would result in vibration impacts at two residential properties (28 dwelling units) in the City of Minneapolis. Vibration mitigation options would be evaluated as Project design advances and documented in the Supplemental Final EIS.
5.8	Biological Environment	The No-Build Alternative would not impact biological resources.	The Build Alternative would impact about 10 acres of forested habitat suitable for NLEB and tricolored bats and about 50 acres of meadow/prairie habitat suitable for monarch butterflies. Forested habitat would also be suitable for nesting of various migratory bird species. Mitigation for these impacts will be considered, including potential limitations on tree clearing timing to avoid nesting/roosting periods. Construction in wetland/water basin areas could affect the Blanding's turtle; BMPs to prevent turtles from entering construction zones would be implemented.
5.9	Water Quality and Stormwater	The No-Build Alternative would not affect existing water quality or stormwater management infrastructure.	The Build Alternative would result in an increase in impervious surface of 58.3 acres and require the installation of drainage systems and extension of multiple stormwater drainpipes. Stormwater treatment ponds, infiltration basins, and filtration basins and systems would be installed to provide rate control, volume control, and address water quality. Recent stormwater regulations are more restrictive than past regulations; the stormwater management improvements required for implementation of the Build Alternative would have a positive effect on water quality in the Project area.
5.10	Air Quality/GHG Emissions	The No-Build Alternative would not affect existing air quality or GHG emissions. The general downward trend of CO and MSATs would continue.	The Build Alternative would result in a regional reduction in GHG emissions and support the general downward trend of CO and MSAT emissions.
5.11	Energy	Regional transportation energy use would remain unaltered under the No-Build Alternative.	The reduction in VMT combined with the greater energy efficiency of LRT as a transportation mode would result in a reduction in regional transportation energy use.

11.2.3 Environmental Justice Differentiators

A critical component of the environmental impact assessment process for the Project is the continuing evaluation of impacts and benefits to EJ populations. As documented in Chapter 7, there are several resource categories where there are impacts borne by EJ populations. Mitigation strategies to be developed in collaboration with affected communities would work towards alleviating these impacts. The Project would also provide notable benefits to EJ populations through improved transit service, enhanced pedestrian and bicycle connectivity throughout the Project area, improved community connections and access to community amenities. Economic growth would be stimulated through direct and indirect investment (such as TOD); anti-displacement strategies are currently in development that will help direct that economic growth to benefit the existing EJ populations.

The Project would result in impacts to physical and environmental resources as well, but with the implementation of mitigation measures, these impacts would be minimized or eliminated. The importance of addressing the Project need factors, especially increased transit reliance and improving transit service to EJ populations, supports implementing the Build Alternative and realizing a much-needed investment in an area that has experienced a history of systemic racism and disinvestment.

11.3 Environmentally Preferred Alternative

The Supplemental Draft EIS has described the transportation, economic, community, and environmental impacts associated with the construction and operation of the Project. The effects of the No-Build and Build Alternatives have been evaluated across a range of subject areas related to the built and natural environment and are summarized in the Evaluation Summary tables above.

11.3.1 Balancing Benefits and Impacts

The Build Alternative meets the purpose and need of the Project and is the environmentally preferred alternative because it will cause the least damage to the biological and physical environment and it best protects, preserves, and enhances historic, cultural, and natural resources.

Identifying the environmentally preferred alternative included extensive public and stakeholder outreach. Ultimately, the adverse physical and community impacts of the Project alignment and design options (including routing on W Broadway Ave from Penn Ave to Lyndale Ave and routing on Lyndale Ave N) resulted in the development of the Build Alternative, which best balances community input and concerns, while balancing negative impacts across resource categories with maximizing benefits gained by improving transit mobility.

Throughout the development of the environmentally preferred alternative, Council and Hennepin County through engagement and coordination with the affected communities and the public, has refined the design and alignment, where feasible, to avoid, minimize, or mitigate adverse effects.

Some adverse effects cannot be overcome due to the design and safety standards that must be met for the Project, the developed character of the communities the Project is intended to serve, and the need to design the Project to be compatible with future operations of other transportation facilities in the Project area. Consequently, the environmentally preferred alternative involves recognizing and understanding that there are trade-offs between the benefits and the impacts of the Build Alternative while proposing a project that best serves the purpose and need.

Where adverse effects of the environmentally preferred alternative remain, FTA, the Council, and Hennepin County have identified potential mitigation measures intended to offset remaining effects to the natural and human environment. Mitigation measures are described in this Supplemental Draft EIS and will be finalized in the Supplemental Final EIS and Amended ROD.

11.4 Next Steps

The Supplemental Draft EIS will be distributed to appropriate local, regional, state, and federal agencies as well as the public for their review and comment. Public comment on the Supplemental Draft EIS will be considered and addressed in the combined Supplemental Final EIS and Amended ROD.

Local elected officials and the public have been and will continue to be involved in the Project throughout design and construction through public meetings, advisory committee and stakeholder meetings, and individual briefings.