

Attachment A

Project Mitigation Measures and Responsible Parties by Environmental and Transportation Category

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Record of Decision

Project Mitigation Measures and Responsible Parties by Environmental and Transportation Category

This attachment to the BLRT Extension project ROD describes the mitigation measures that will be undertaken by FTA and the Council as part of the BLRT Extension project. Where there are differences, the list of mitigation measures in Attachment A of the ROD supersedes the list in the Final EIS.

The mitigation measures identified for the BLRT Extension project in the ROD must be implemented by FTA and the Council if the BLRT Extension project proceeds with FTA financial assistance. These mitigation measures are now incorporated into the definition of the BLRT Extension project. The Council is prohibited from withdrawing or substantially changing any of the mitigation measures identified in the Final EIS and ROD without written approval by FTA. In addition, any changes to the BLRT Extension project that are inconsistent with the ROD must be evaluated in accordance with 23 CFR Parts 771.129 and 771.130, and, if required therein, they must be approved by FTA in writing before the Council can proceed with the change.

Upon FTA's signing of the ROD, FTA will require that the Council establish a mitigation monitoring program to monitor and track mitigation measures. The mitigation monitoring program will provide a means for FTA and the Council to track progress in accomplishing the mitigation measures. The mitigation monitoring program will also describe the timing of the mitigation measures and the close-out procedures. The mitigation monitoring program will consist of these activities:

- The Council will maintain and update the status of the mitigation measures in this attachment.
- The Council will add mitigation measures to the list resulting from consultations and coordination; permits and/or approvals issued by federal, state, county, or city agencies; and new information that becomes available and known during Engineering or construction phases.
- The Council will track the status of implementation of each mitigation measure.
- FTA and the Council will conduct quarterly reviews of the mitigation monitoring program.

The table of mitigation measures in this attachment will assist the Council in meeting its responsibilities by providing a summary list of the mitigation measures stipulated in the BLRT Extension project's environmental record. However, the Final EIS and other parts of the ROD provide the details about each item listed in this table and reflect the specifics of the mitigation measures. The Council will incorporate these mitigation measures into the BLRT Extension project's design, specifications, and contract documents as appropriate. Using its monitoring program, the Council will track the implementation and completion of each mitigation measure during the appropriate Engineering, construction, and/or operational action periods.

The table of mitigation measures in this attachment includes a column titled "Timing." That column indicates when the mitigation measures will be implemented during Engineering, construction, and/or operations (i.e., after construction).



Within this attachment and the Final EIS, several conventions are used for the names or titles of plans or other documents:

- Names or titles of plans or other documents that are capitalized and italicized are existing
 documents prepared and published by the Council or another party (e.g., the Visual Quality
 Guidelines for Key Structures).
- Names or titles of plans or other documents that are capitalized and not italicized are standalone documents that will be prepared by the Council or another party as part of mitigation for the BLRT Extension project (e.g., Construction Mitigation Plan).
- Names or titles of plans or other documents that are lowercase and not italicized will be elements of a larger standalone plan or document (e.g., construction staging plan, which will be part of the Construction Mitigation Plan).



Category	Mitigation Measures	Responsible Party	Timing
Transit Conditions	Operating-Phase (Long-Term): No mitigation is required because no long-term adverse impacts will occur. Route modifications to bus service in order to integrate with the BLRT Extension project will be conducted in accordance with Title VI requirements. Construction-Phase (Short-Term): Issue construction updates and post them on the BLRT Extension project website Provide advance notice of roadway closures, driveway closures, and utility shutoffs Conduct public meetings Establish a 24-hour construction hotline Prepare materials with information about construction Address property access issues Assign staff to serve as liaisons between the public and contractors during construction Post information at bus stops and regional transit centers indicating temporary stop closures and/or detour details Publish information in advance of bus detours on Metro Transit's website and in its on-board information brochure	Council (Metro Transit)	Construction
Freight Rail Conditions	 Construction-Phase (Short-Term): Development and implementation of freight rail operation coordination plans Work with affected freight rail owners and operators to sequence construction to reduce effects on freight traffic Use flaggers to allow freight rail operations to continue 	Council	Engineering and Construction
Vehicular Traffic	 Operating-Phase (Long-Term): Implement identified avoidance measures (roadway and intersection improvements) that will prevent adverse impacts resulting from the BLRT Extension project Construction-Phase (Short-Term): Mitigation for construction-phase (short-term) effects will include development and implementation of the Construction Mitigation Plan, which includes a Construction Communication Plan and a construction staging plan Contractors will need to comply with the requirements of MnDOT, Hennepin County, and all municipalities affected by construction activities related to the closing of roads Contractors will be required to comply with all guidelines in the Minnesota Manual on Uniform Traffic Control Devices and will develop appropriate traffic-control plans 	Council	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
Pedestrians and Bicyclists	 Construction-Phase (Short-Term): Mitigation for construction-phase (short-term) effects will include development and implementation of the Construction Communication Plan; implementation of this plan will provide advance notice of pedestrian and bicycle facility closures and detour options 	Council	Engineering and Construction
Parking	 Operating-Phase (Long-Term): Loss of off-street parking spaces will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act) Coordinate mitigation for loss of on-street parking spaces with local jurisdictions to identify whether suitable replacement locations are necessary The BLRT Extension project will add 1,670 new park-and-ride spaces The Council will complete an annual Regional Park-and-Ride System Report to survey use of and travel patterns to park-and-ride facilities, including addressing potential spillover parking Construction-Phase (Short-Term): Mitigation for construction-phase (short-term) effects will include development and implementation of a Construction Mitigation Plan to address temporary parking loss during construction 	Council (Metro Transit)	Engineering, Construction, Operations
Aviation	■ No adverse impacts identified, therefore no mitigation is required	Not Applicable	Not Applicable
Land Use Plan Compatibility	■ No adverse impacts identified, therefore no mitigation measures will be needed	Not Applicable	Not Applicable



Category	Mitigation Measures	Responsible Party	Timing
Community Facilities/ Community Character and Cohesion	 Construction-Phase (Short-Term): Develop and implement the Construction Mitigation Plan and a Construction Communication Plan. Specific mitigation measures included in the Construction Communication Plan will be site-specific and could include: Issuing construction updates and posting them to the BLRT Extension project website Providing advance notice of roadway closures, driveway closures, and utility shutoffs Conducting public meetings Establishing a 24-hour construction hotline Preparing materials with applicable construction Addressing property access issues Assigning staff to serve as liaisons between the public and contractors during construction Develop and implement a construction staging plan, which will be reviewed with the appropriate jurisdictions and railroads. Components of the staging plan include traffic management plans and a detailed construction timeline Restoration and, as applicable, enhancement of affected BLRT Extension project area park facilities 	Council	Engineering and Construction
Displacement of Residents and Businesses	 Operating-Phase (Long-Term): Non-residential displacements (to be conducted in accordance with the provisions of the Uniform Act and Minnesota Statute 117): Relocation advisory services Minimum 90 days' written notice to vacate prior to requiring possession Reimbursement for moving and re-establishment expenses 	Council	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
Cultural Resources	 Implement Section 106 MOA, which includes the following mitigation measures: Design the BLRT Extension project to the Secretary of the Interior's Standard for the Treatment of Historic Properties for the Minneapolis—Golden Valley and Robbinsdale segments Consult with the Minnesota Historic Preservation Office and the MOA concurring parties on the BLRT Extension project design in the segments listed above Pre-construction design review at the 30-percent, 60-percent, 90-percent, and 100-percent phases Development of a Construction Protection Plan Implementation of noise mitigation measures for the Sacred Heart Catholic Church, Hennepin County Library — Robbinsdale Branch, and West Broadway Avenue Residential Historic District National Register of Historic Places nomination forms for Floyd B. Olson Memorial Statue and Wayman African Methodist Episcopal Church Interpretation of historic properties Historic property treatment plans 	FTA, Council, and Minnesota Historic Preservation Office	Engineering and Construction
Visual/Aesthetics	 Operating-Phase (Long-Term): Follow design guidelines for key BLRT Extension project elements Design and implement landscaping at appropriate locations throughout the BLRT Extension project corridor Minimize operational lighting at night (while maintaining safety and security of LRT facilities) Provide visual screening as appropriate for certain BLRT Extension project facilities Construction-Phase (Short-Term): Minimize visual disruption from construction activities, including minimizing light disturbance Restore areas disturbed during construction 	Council	Engineering and Construction
Economic Effects	■ No adverse impacts identified, therefore no mitigation is required	Not Applicable	Not Applicable
Safety and Security	 Operating-Phase (Long-Term): Metro Transit will provide security at and around the transit stations Transit rider, pedestrian, and bicycle safety features will be incorporated into design and maintained and enforced over time Construction-Phase (Short-Term) Coordinate with emergency service providers to provide schedule for construction activities and identify detour routes to minimize delay for emergency response vehicles 	Council	Engineering, Construction, and Operations



Category	Mitigation Measures	Responsible Party	Timing
Utilities	 Operating-Phase (Long-Term)Evaluate utilities in areas adjacent to LRT electrification components for potential corrosion concerns; protective measures (such as cathodic protection) will be taken to protect utilities from corrosion if warranted Construction-Phase (Short-Term): Relocate all conflicting utilities to avoid utility impacts to and to maintain utility service, in accordance with the BLRT Extension project Utility Relocation and Management Plan Include measures to minimize stray current and reduce amount of corrosion due to stray current Prior to construction, determine necessary improvements to the electrical transmission systems along the BLRT Extension project corridor through consultation with Xcel Energy; necessary improvements will likely involve upgrading existing transmission facilities Utility location excavations and pre-construction surveys will be performed Utility location excavations and pre-construction surveys will be performed Utility contractors will be required to notify affected businesses and residences of any planned disruption of service due to construction activities; temporary service will be provided as appropriate If previously unidentified lines are encountered, work will be discontinued, and appropriate utility companies and agencies will be contacted to identify the line(s); businesses and residents will be notified before line(s) are disturbed Any wells, known or discovered during construction, within the permanent right-of-way will be abandoned and sealed according to state and local regulations Wells outside, but near, the BLRT Extension project right-of-way will be avoided For those locations where impacts to wells will interfere with the necessary supply of potable water or with monitoring groundwater conditions at a site, well replacement or other water supply provisions will be considered Minnesota	Council	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
Floodplains	 Operating-Phase (Long-Term): Develop appropriate plans and obtain applicable permits for floodplains, as well as implement BMPs Bassett Creek Floodplain: A floodplain mitigation area has been identified in Theodore Wirth Regional Park between the Bassett Creek main stem and the BLRT and BNSF rail corridor Mitigation will include excavating adjacent ground below the elevation of the Bassett Creek 100-year floodplain to provide compensatory floodplain storage for the fill placed in the floodplain Grimes Pond Floodplain: Some excavation of adjacent ground below the Grimes Pond 100-year floodplain elevation will provide compensatory floodplain storage for the fill placed in the floodplain Impacts to floodplains associated with Grimes Pond were reduced with a design that elevates the LRT tracks on a structure rather than on an embankment 	Council with USACE and other appropriate jurisdictions and regulatory agencies	Engineering and Construction
Wetlands and Other Aquatic Resources	 Operating-Phase (Long-Term): The OMF was designed to avoid wetland impacts The BLRT Extension project design accommodates the trackage on an elevated structure in the segment that bisects Grimes Pond/North Rice Pond Compensatory wetland mitigation will be accomplished through a combination of on-site wetland mitigation and purchases of private wetland credits from existing mitigation banks in suitable major watersheds and bank service areas. An estimated 12 to 14 acres of compensatory wetland mitigation credit will be required Construction-Phase (Short-Term): Appropriate BMPs will be implemented to protect wetlands and other aquatic resources that are downslope or downstream from areas disturbed as a result of earthmoving Minimization of impact through use of BMPs followed by restoration to pre-construction conditions will be required for wetland areas disturbed during construction Temporary disturbance of WCA-jurisdictional wetlands for longer than 180 days could require additional mitigation 	Council with USACE and other appropriate jurisdictions and regulatory agencies	Construction and Operations



Category	Mitigation Measures	Responsible Party	Timing
Geology, Soils, and Topography	 Construction-Phase (Short-Term): Construction activity will follow appropriate standards and applicable permitting requirements of MPCA, MnDOT, and Hennepin County for grading and erosion control Dewatering permits, if required, will be obtained from DNR A Spill Prevention, Control, and Countermeasures Plan developed for the BLRT Extension project by the construction contractor will include measures to avoid impacts to potential karst features For areas of poor soils, the BLRT Extension project design will incorporate geotechnical elements (load transfer platforms and lightweight fill) to provide a stable base for project components and to avoid differential settlement of soils 	Council	Engineering and Construction
Hazardous Materials Contamination	 Construction-Phase (Short-Term): Conduct a Phase II Environmental Site Assessment, in which a subsurface investigation will be conducted and soil and groundwater samples will be collected and then analyzed by a certified laboratory Develop a Response Action Plan to address proper handling of contaminated soil and groundwater encountered during construction A Construction Contingency Plan will be developed as part of the Response Action Plan that will include proper handling and treating of contaminated soil and/or groundwater that could not be avoided during construction The construction contractor will develop a Spill Prevention, Control, and Countermeasures Plan to minimize the impact to surface water or groundwater in the event of a spill Perform assessments for asbestos and other regulated materials prior to demolition of structures; develop a plan for management of asbestos and regulated materials 	Council	Engineering, Construction and Operations



Category	Mitigation Measures	Responsible Party	Timing
Noise	Operation-Phase (Long-Term): The BLRT Extension project will include the infrastructure required to make all at-grade freight rail and LRT crossings Quiet Zone ready Interior testing to determine appropriate mitigation: Olson Memorial Highway to Oak Park Avenue North (northbound [NB]) Oak Park Avenue North to Plymouth Avenue North (NB) Plymouth Avenue North to 16th Avenue North (NB) 16th Avenue North to Golden Valley Road (NB) 34th Avenue North to 36th Avenue North (southbound [SB]) A2nd Avenue North to MN-100 (NB) Noise barrier: Golden Valley Road to 26th Avenue North (NB) 26th Avenue North to 31½ Avenue North (NB) 31½ Avenue North to 34th Avenue North (NB) 31½ Avenue North to 36th Avenue North (SB) 36th Avenue North to 38th Avenue North (NB) 36th Avenue North to 38th Avenue North (NB) 36th Avenue North to 40½ Avenue North (NB) Noise barrier and interior testing to determine appropriate mitigation: 38th Avenue North to 40th Avenue North (SB) Wayside device and noise barrier: 40½ Avenue North to 42nd Avenue North (NB) Wayside device and interior testing to determine appropriate mitigation: 40th Avenue North to 42nd Avenue North (SB) MN-100 to 47th Avenue North (SB) Wayside device, noise barrier, and interior testing to determine appropriate mitigation: MN-100 to 47th Avenue North (NB)	Council	Engineering, Construction, and Operations
	47th Avenue North to BNSF freight tracks (NB)		



Category	Mitigation Measures	Responsible Party	Timing
	 Construction-Phase (Short-Term): Contractors will prepare a detailed Noise Control Plan for the BLRT Extension project's construction duration. A noise control engineer or acoustician will work with the contractor to prepare a Noise Control Plan in conjunction with the contractor's specific equipment and methods of construction. Key elements of this plan will include: Contractor's specific equipment types Schedule and methods of construction Maximum noise limits for each piece of equipment with certification testing Prohibitions on certain types of equipment and processes during the nighttime hours without local agency coordination and approved variances Identification of specific sensitive sites where near construction sites Methods for determining construction noise levels Implementation of noise-control measures where appropriate Include a 24-hour construction hotline 		
Vibration	Operating-Phase (Long-Term): 36th Avenue North to 38th Avenue North: 700-foot-long ballast mat 38th Avenue North to 40½ Avenue North: 300-foot-long ballast mat 47th Avenue North to BNSF freight tracks: 300-foot-long ballast mat Construction-Phase (Short-Term): To mitigate vibration impacts from construction activities, the following measures will be applied, where feasible: Limit high-vibration activities at night Include limits on vibration in the construction specifications, especially at locations where high-vibration activities will occur Minimize the use of impact and vibratory equipment, where possible and appropriate Use truck haul routes that minimize exposure to sensitive receptors and minimize damage to roadway surfaces, where appropriate Perform pre-construction surveys to document the existing conditions of the structures in the vicinity of sites where high-vibration construction activities will be performed If a construction activity could exceed the damage criteria at any building, the contractor will be required to conduct vibration monitoring, and, if the vibration exceeds the limit, the activity must be modified or terminated	Council	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
Biological Environment (Wildlife Habitat and Endangered Species)	 Operating-Phase (Long-Term): Identify opportunities, where practicable, to facilitate wildlife crossings of the BLRT Extension project corridor through enhanced culvert crossings or other appropriate designs Threatened and endangered species, migratory birds: None required Habitat: Infestations of noxious and invasive species can be controlled throughout the operating phase of the BLRT Extension project through spot-spraying appropriate herbicides and the development and adherence to a vegetation management plan Mitigation for tree impacts within the LOD of the BLRT Extension project will be based on relevant city ordinances Mitigation for unavoidable impacts to aquatic habitat will be accomplished through a combination of on-site wetland mitigation and purchasing suitable wetland credits from an established wetland mitigation bank Mitigation for unavoidable impacts to notable terrestrial habitat will be accomplished through tree plantings in and around Theodore Wirth Regional Park and a few selected areas throughout the LOD of the BLRT Extension project, as well as vegetation restoration in temporarily disturbed areas 	Council	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
	 Construction-Phase (Short-Term): To minimize wildlife habitat impacts, the BLRT Extension project will use a bridge to cross Grimes Pond and ponds north of Golden Valley Road; will implement pre-treatment BMPs for stormwater; on-site mitigation areas will be designed that will minimize impacts to forested areas and existing aquatic resources Threatened and endangered species: Seasonal restrictions are placed on removing a tree that is less than 0.25 mile from a known hibernaculum entrance or less than 150 feet from a known maternity roost tree Implement DNR recommendations to avoid direct impacts to the Blanding's turtle Migratory birds: Bald eagle nest surveys will be conducted during the final design of the BLRT Extension project to determine whether any nests are present at that time; if so, the standard guidelines will be followed, which include limiting construction activity within at least 330 feet from the nest site, and limiting clearing of vegetation within 660 feet of the nest site during the nesting season (late January to July) In compliance with the Migratory Bird Treaty Act, perform bridge work before May 15 or after September 1 Habitat: Temporary construction access roads and construction staging areas will be restored to the preconstruction grade and replanted with suitable vegetation Tree impacts in the BLRT Extension project LOD will be minimized to the extent practicable 		
Water Quality and Stormwater	 Operating-Phase (Long-Term): Long-term mitigation measures will include designing and constructing permanent BMPs, such as detention and infiltration facilities, which will control and treat stormwater runoff caused by an increase in impervious surfaces as a result of the BLRT Extension project Construction-Phase (Short-Term): A National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit from MPCA will be required, and the NPDES Construction Stormwater Permit application must be submitted to MPCA at least 30 days prior to the start of construction A Stormwater Pollution Prevention Plan, which must be submitted at the time of the permit application, will be developed and implemented during construction Short-term mitigation measures will include developing erosion- and sediment-control plans to control runoff and reduce erosion and sedimentation during construction, and limiting the amount of sediment carried into lakes, streams, wetlands, and rivers by stormwater runoff 	Council with USACE and other appropriate jurisdictions and regulatory agencies	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
Air Quality/ Greenhouse Gas Emissions	Construction-Phase (Short-Term): Where applicable and prudent, implement EPA-recommended measures to reduce short-term construction impacts to air quality BMPs will be implemented during construction to control dust, including: Minimize land disturbance during site preparation Use watering trucks to minimize dust Cover trucks while hauling soil/debris off site or transferring materials Stabilize dirt piles if they are not removed immediately Use dust suppressants on unpaved areas Minimize unnecessary vehicle and machinery idling Revegetate any disturbed land post-construction Traffic-control measures will be developed in subsequent stages of the BLRT Extension project to address detours and the flow of traffic	Council	Construction
Energy	■ No adverse impacts identified, therefore no mitigation is required	Not Applicable	Not Applicable
Environmental Justice Finding	 Operating-Phase (Long-Term): The Council will identify relocation sites by working with the business owners through the right-of-way acquisition process Relocation sites shall be considered based on the business owners' preferences to retain their client base and/or continue to serve a similar population Relocation expenses shall be provided consistent with state and federal requirements Continue outreach efforts to EJ populations during Engineering, construction, and start of operations for the BLRT Extension project 	Council	Engineering and Construction



Category	Mitigation Measures	Responsible Party	Timing
Section 4(f)/6(f) Evaluation	 Operating-Phase (Long-Term): Provision of replacement Section 6(f) property of equal value and recreational usefulness Enhancements to Theodore Wirth Regional Park: Relocation of the trail adjacent to Bassett Creek to a location outside BNSF right-of-way Construction of a stair from Plymouth Avenue down to a new bridge over Bassett Creek to enhance trail connections Construction of a new trail connection between Theodore Wirth Parkway and the trail in the Sochacki Park: Mary Hills Management Unit Construction of a trailhead incorporated into the Golden Valley Road Station park-and-ride Reconstruction of the Theodore Wirth Parkway bridge over the BNSF rail corridor (bridge is owned by the Minneapolis Park and Recreation Board) Reconstruction of the Theodore Wirth Parkway/Golden Valley Road intersection in a manner that will enhance pedestrian and bicycle traffic safety Coordination on design elements (stations and retaining walls) to minimize visual effects 	Council, FTA, NPS, and DNR	Construction



Category	Mitigation Measures	Responsible Party	Timing
	 Enhancements to Sochacki Park: Sochacki Management Unit: Removal of existing vegetation Removal and disposal of surface rubble in the restoration zone Addition of clean fill and topsoil in the restoration zone Development and implementation of a revegetation plan; includes potential thickening of vegetative buffer between the BLRT Extension project and the main park area Shore restoration and plantings at south edge of North Rice Lake Restoration of paved interior road Removal/replacement of northern parking lot Reconstruction/expansion of the interior paved parking lot Clearing, revegetation, and fencing of an area to be used as an off-leash dog area Providing utility services to a site adjacent to interior parking lot for future development of a bathroom/storm shelter/drinking fountain Ground preparation for a future education shelter Construction of a water education platform on North Rice Lake Redevelopment of a 10-foot-wide paved trail through the length of the park Construction of an off-road trail connection from the southern terminus of Sochacki Park: Mary Hills Management Unit to Theodore Wirth Regional Park passing under Golden Valley Road Construction-Phase (Short-Term): Restoration of temporarily disturbed park property to pre-construction or better condition 		
Joint Development	 Construction-Phase (Short-Term): Mitigation will include development and implementation of the Construction Mitigation Plan, which includes a Construction Communication Plan and a construction staging plan 	Council	Engineering and Construction