

Executive Summary

ES.1 What is the Purpose of this Document?

The Federal Transit Administration (FTA), the lead federal agency, with Hennepin County Regional Railroad Authority (HCRRA) and the Metropolitan Council, has prepared this Draft Environmental Impact Statement (EIS) pursuant to 23 CFR 771 to evaluate the potential for significant impacts as a result of the proposed action. The project will pursue federal funding from the FTA and is required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA). The Metropolitan Council is the project sponsor and federal grant applicant for the project and will work in partnership with HCRRA.

The intent of the NEPA process is to ensure that potential environmental impacts are identified and considered in the decision-making process. The primary purpose of the Draft EIS is to assist decision-makers in the assessment of impacts associated with the Bottineau Transitway Project. The Draft EIS documents the purpose and need for the project, alternatives considered, and addresses the anticipated transportation, social, and environmental impacts, and defines appropriate mitigation measures.

In addition to NEPA, the provisions of other statutes, regulations, and executive orders affect the decision-making on federally assisted transportation projects. These mandates and considerations cover such concerns as air and water quality, historic preservation, parklands protection, habitat preservation, and environmental justice. FTA utilizes the NEPA process as the overarching umbrella under which the mandates and considerations of all laws affecting transit project development are considered.

The Draft EIS will also serve to comply with the requirements of the Minnesota Environmental Policy Act (MEPA).

ES.2 Will the Public Have an Opportunity to Comment on the Draft EIS?

The Draft EIS serves as the primary document to facilitate review by federal, state, and local agencies and the general public of the proposed project. This Draft EIS will be circulated for review to interested parties, including private citizens, community groups, the business community, elected officials, and public agencies in accordance with federal and state requirements. Public hearings will be held to provide a forum for agency and citizen participation and comment. Responses to comments received during circulation of the Draft EIS will be responded to by the FTA and the Metropolitan Council as the project sponsor and state lead agency for preparation of the Final EIS. Both the comments and responses will be documented in the Final EIS.

Comments on the Draft EIS will be accepted from April 11 through May 29, 2014. Comments on the Draft EIS may be submitted through email, mail, or in person at one of the public hearings that will be held on the Bottineau Transitway. Public hearings to receive comments on the Draft EIS are scheduled as follows:

Wednesday, May 7, 2014

Golden Valley City Hall
6:00 – 7:00 PM Public Open House
7:00 PM Formal Public Hearing

Tuesday, May 13, 2014

Brooklyn Park City Hall
4:30 – 5:30 PM Public Open House
5:30 PM Formal Public Hearing

Thursday, May 8, 2014

University of Minnesota Urban Research and Outreach-Engagement Center (UROC)
4:30 – 5:30 PM Public Open House
5:30 PM Formal Public Hearing

Wednesday, May 14, 2014

Crystal Community Center
5:00 – 6:00 PM Public Open House
6:00 PM Formal Public Hearing

The address to which written comments should be sent is:

Hennepin County
Housing, Community Works, & Transit
701 Fourth Avenue South, Suite 400
Minneapolis, MN 55415
bottineau@co.hennepin.mn.us.

The Draft EIS and supporting documents are available on the project website at http://bottineautransitway.org/2012_deis_documents.htm. Hard copies can be reviewed at the Metropolitan Council and HCRRA offices during regular business hours and at city halls and libraries in Minneapolis, Golden Valley, Robbinsdale, Crystal, New Hope, Brooklyn Park, Osseo, and Maple Grove, Minnesota.

ES.3 What is the Proposed Project?

The Bottineau Transitway is a proposed project that will provide for transit improvements in the highly traveled northwest area of the Twin Cities. The Bottineau Transitway is located in Hennepin County, Minnesota, extending approximately 13 miles from downtown Minneapolis to the northwest serving north Minneapolis and the suburbs of Golden Valley, Robbinsdale, Crystal, New Hope, Osseo, Brooklyn Park, and Maple Grove. The transitway is anticipated to serve a broader area to the northwest, including the communities of Dayton, Rogers, and Hassan Township. (Hassan Township was annexed into the City of Rogers on January 1, 2012. Future reference of Rogers in this document includes Hassan Township).

The Draft EIS evaluates a No-Build alternative, an Enhanced Bus/Transportation System Management (TSM) alternative, and four Build alternatives. The alternatives are described below.

ES.4 What is the Purpose and Need for the Project?

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

The Bottineau Transitway 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.

Due to continued increase in travel demand coupled with few highway capacity improvements planned for regional roadways in this area, congestion is expected to worsen by 2030. While transit investment is recognized regionally as one of the key strategies for managing congestion, transit would offer many other benefits to address the needs of Bottineau Transitway-area residents and businesses. Residents and businesses in the Bottineau Transitway project area need improved access to the region's activity centers to fully participate in the region's economy. Access to jobs in downtown Minneapolis and northbound reverse commute transit options to serve jobs in the growing suburban centers are crucial to continued economic vitality. Current transit options in the Bottineau Transitway project area offer a limited number of travel-time competitive alternatives to the single-occupant vehicle. Without major transit investments, it will be difficult to effectively meet the transportation needs of people and businesses in the corridor, manage highway traffic congestion in the project area, and achieve the region's 2030 goal, as identified in the Metropolitan Council's *2030 Transportation Policy Plan (TPP)* as doubling transit ridership by 2030.

Five factors contribute to the need for the Bottineau Transitway project:

- Growing travel demand resulting from continuing growth in population and employment
- Increasing traffic congestion and limited fiscal resources
- People who depend on transit

- Limited transit service to suburban destinations (reverse commute opportunities) and time-efficient transit options
- Regional objectives for growth stated in the Regional Development Framework

ES.5 What Alternatives are Considered in the Draft EIS?

ES.5.1 No-Build Alternative

The No-Build alternative reflects existing and committed improvements to the regional transit network for the horizon year of 2030 contained in the *TPP*.

ES.5.2 Enhanced Bus/TSM Alternative

The Enhanced Bus/TSM alternative was defined as enhancements and upgrades to the existing transportation system in the project corridor, attempting to meet the project's purpose and need as much as possible without a major transit capital investment. The purpose of the Enhanced Bus/TSM alternative is to provide a comparable transit service to the Build alternatives without the significant capital investment of building a transitway. Service improvements proposed in the Enhanced Bus/TSM alternative focus on serving the same travel markets that were addressed in the Build alternatives.

ES.5.3 Alternative A-C-D1

Alternative A-C-D1 (see [Figure ES-1](#)) originates in Maple Grove at Hemlock Lane/Arbor Lakes Parkway and follows the future Arbor Lakes Parkway and Elm Creek Boulevard to the Burlington Northern Santa Fe (BNSF) railroad corridor located on the west side of Bottineau Boulevard. It enters the railroad corridor separate from the freight rail tracks and continues parallel to the freight rail tracks through the cities of Brooklyn Park, Crystal, Robbinsdale, and Golden Valley. At Trunk Highway (TH) 55, the alignment turns and follows TH 55 to Target Field Station in downtown Minneapolis. Alternative A-C-D1 includes up to 10 new stations; it is assumed that either the Golden Valley Road or Plymouth Avenue/Theodore Wirth Regional Park station option would be chosen due to the proximity of these two stations and their similarity in transit markets served. Four stations are assumed to include park-and-ride lots: Hemlock Lane would have an approximate 6.4 acre park-and-ride; Revere Lane 2.7 acres; the existing 63rd Avenue park-and-ride facility would remain at 6.5 acres, although the vehicle capacity would increase through expansion of the existing structure; and the size of the Robbinsdale park-and-ride is to be determined.

One potential operations and maintenance facility (OMF) site has been identified for Alignment A. The OMF location is a parcel located within the Maple Grove gravel mining operations area west of US 169.

Alternative A-C-D1 includes five new bridge structures: an 820-foot long structure over US 169, a 970-foot long structure over the BNSF railroad, a 500-foot structure over the CP (Canadian Pacific) rail tracks, a 400-foot crossing over TH 100 to accommodate BNSF freight track, and a 125-foot crossing of the Hennepin Energy Recovery Center (HERC) driveway. Eight existing bridges would be modified at TH 100 (widening of existing BNSF freight track bridge to accommodate light rail transit (LRT)), 36th Avenue, Golden Valley Road, Theodore Wirth Parkway, Plymouth Avenue, TH 55, I-94, and the railroad bridge north of TH 55.

ES.5.4 Alternative A-C-D2

Alternative A-C-D2 also originates in Maple Grove and follows the same alignment as Alternative A-C-D1 into Robbinsdale. Once in Robbinsdale, the alignment exits the BNSF railroad corridor near 34th Avenue and joins West Broadway Avenue where it enters Minneapolis. It then travels on Penn Avenue to TH 55 to Target Field Station in downtown Minneapolis as illustrated in [Figure ES-1](#).

Alternative A-C-D2 includes 11 new stations and the same park-and-ride locations and general OMF location as identified in Alternative A-C-D1.

Alternative A-C-D2 includes eight new bridge structures: an 820-foot long structure over US 169, a 970-foot long structure over the BNSF railroad, a 500-foot structure over the CP rail tracks, a 400-foot crossing over TH 100 to accommodate BNSF freight track, a 50-foot long structure at Halifax and 34th Avenues, a 720-foot long structure between France Avenue and North Memorial Medical Center, a 2,000-foot long structure between the North Memorial Medical Center (NMMC) and Lowry Avenue, and a 125-foot crossing of the HERC driveway. Three existing bridges would be modified at TH 100 (widening of existing BNSF freight track bridge to accommodate LRT), 36th Avenue, and at I-94.

ES.5.5 Alternative B-C-D1

Alternative B-C-D1 begins in Brooklyn Park just north of TH 610 near the Target North Campus, follows West Broadway Avenue, and crosses Bottineau Boulevard at 73rd Avenue to enter the BNSF railroad corridor. Adjacent to the freight rail tracks, it continues in the railroad corridor through the cities of Crystal, Robbinsdale, and Golden Valley. At TH 55, the alignment turns to the east and follows TH 55 to Target Field Station in downtown Minneapolis, as illustrated in [Figure ES-1](#).

Alternative B-C-D1 includes up to 10 new stations; it is assumed that either the Golden Valley Road or Plymouth Avenue/Theodore Wirth Regional Park station option would be chosen due to the proximity of these two stations and their similarity in transit markets served. Three of these stations would also include park-and-ride lots: the 93rd Avenue station would have an approximate 11.2-acre park-and-ride; the existing 63rd Avenue park-and-ride facility would remain at 6.5 acres, although the vehicle capacity would increase through expansion of the existing structure; and the size of the Robbinsdale park-and-ride is to be determined.

Two potential OMF site options have been identified for Alignment B. The locations of the two potential OMF sites are at the park-and-ride station at 93rd Avenue and the northwest quadrant of the intersection of Winnetka Avenue (County State Aid Highway (CSAH) 103) and 101st Avenue.

Alternative B-C-D1 includes four new bridges: a 300-foot long structure over TH 610, a 500-foot structure over the CP rail tracks, a 400-foot crossing over TH 100 to accommodate BNSF freight track, and a 125-foot crossing of the HERC driveway. Eight existing bridges would be modified (see Alternative A-C-D1 for complete listing of the eight bridges that would require modification).

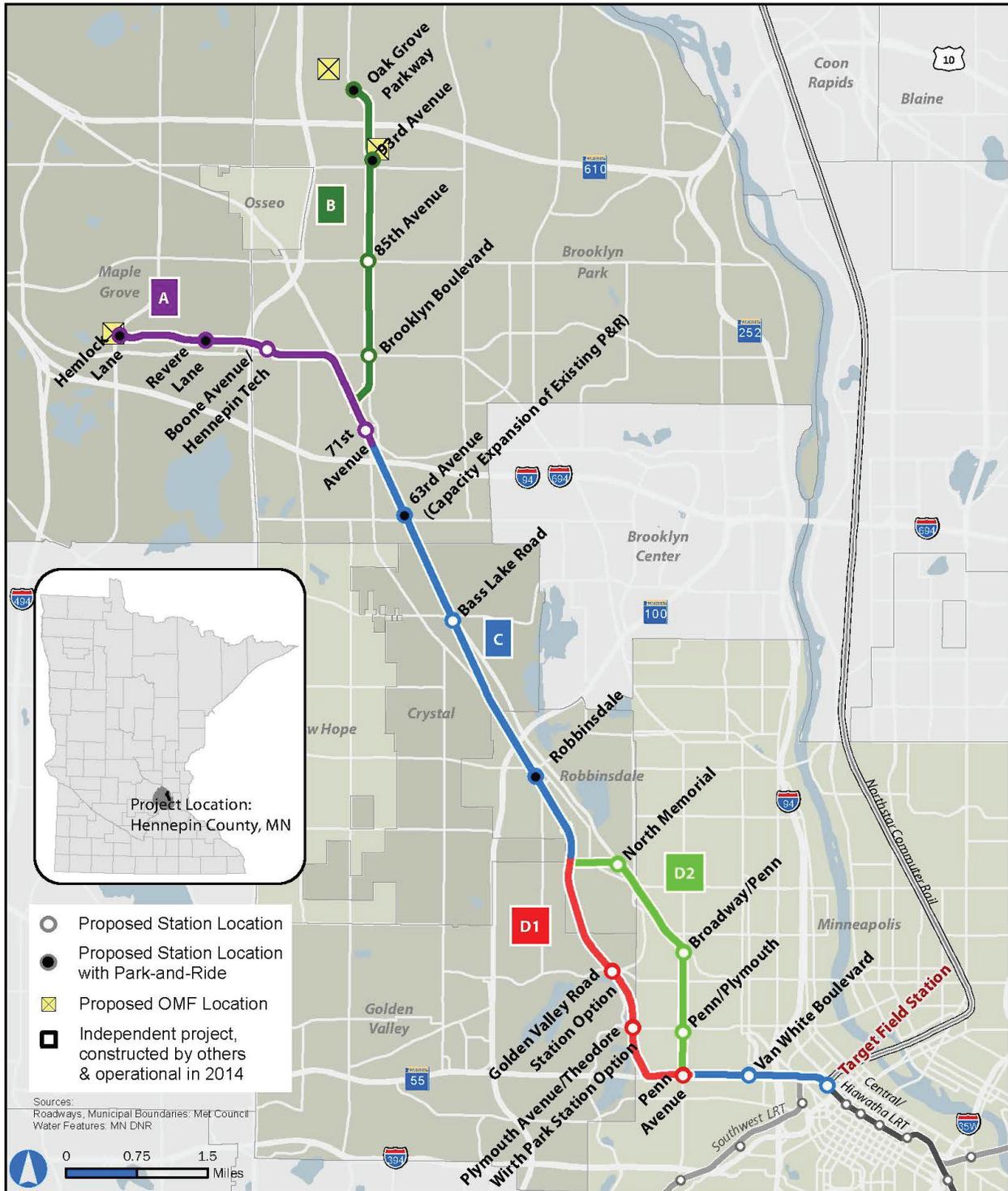
ES.5.6 Alternative B-C-D2

Alternative B-C-D2 originates in Brooklyn Park, following the same alignment as Alternative B-C-D1 through the cities of Crystal and Robbinsdale. Once in Robbinsdale, the alignment exits the BNSF railroad corridor near 34th Avenue and joins West Broadway Avenue where it enters Minneapolis. It then travels on Penn Avenue to TH 55 to the Target Field Station in downtown Minneapolis as illustrated in [Figure ES-1](#).

Alternative B-C-D2 includes 11 new stations and the same three park-and-ride locations and OMF location options as identified in Alternative B-C-D1.

Alternative B-C-D2 includes seven new bridge structures: a 300-foot long structure over TH 610, a 500-foot structure over the CP rail tracks, a 400-foot crossing over TH 100 to accommodate BNSF freight track, a 50-foot long structure at Halifax and 34th Avenues, a 720-foot long structure between France Avenue and NMMC, a 2,000-foot long structure between NMMC and Lowry Avenue, and a 125-foot crossing of the HERC driveway. Three existing bridges would be modified: TH 100 (widening of existing BNSF freight track bridge to accommodate LRT), 36th Avenue, and at I-94.

Figure ES-1. Bottineau Transitway Build Alternatives



ES.6 How was the Locally Preferred Alternative (LPA) Selected?

An LPA is the transitway alternative that the corridor's cities, Hennepin County, and the Metropolitan Council recommend for detailed study through engineering and environmental review. The LPA specifies both the type of transit that will be used (mode) and the location (alignment). Other elements of the project, including termini and final station locations, are established formally during subsequent engineering based on additional information, including opening year travel demand forecasts.

The multi-step process to formally recommend and select an LPA for the Bottineau Transitway began following the technical analysis and Scoping decisions previously described. At their meeting on June 26, 2012, following a Policy Advisory Committee (PAC) public hearing and recommendation, and passage of resolutions of support from the cities of Minneapolis, Robbinsdale, Crystal, and Brooklyn Park, and a HCRRA-sponsored LPA public hearing, HCRRA passed a resolution recommending Alternative B-C-D1 as the LPA for the Bottineau Transitway. The City of Golden Valley followed with its resolution in December 2012. On May 8, 2013, the Metropolitan Council formally adopted amendments to the *2030 TPP* – the region's long-rang transportation plan – to include the Bottineau Transitway LPA as Alternative B-C-D1. This action, which concludes the LPA process, followed a public comment period and input from the Council's Transportation Advisory Board (TAB). This LPA process will not be the only time cities will have input into the approval of the project. The cities will be required to review preliminary engineering plans and provide municipal approval for portions of the project within their jurisdiction. In a letter dated September 27, 2013, the FTA and the Federal Highway Administration (FHWA) concurred with the amendment to the *TPP* dated May 22, 2013.

ES.7 What are the Potential Impacts of the Bottineau Transitway?

All transportation projects have the potential to cause direct, indirect, or cumulative impacts to natural and human environments. [Table ES-1](#) lists the issue areas evaluated in the Draft EIS and summarizes the adverse impacts and benefits of each alternative.

Table ES-1. Summary of Impacts

Draft EIS Section	Topic	No-Build Alternative	Enhanced Bus/TSM Alternative	Alternative A-C-D1	Alternative A-C-D2	Alternative B-C-D1 (Preferred Alternative)	Alternative B-C-D2	
3.1	Transit Conditions	Operating Phase (Long-Term) Impacts	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> 18,300 average weekday project boardings (Route 731/732) 7,350 new transit riders (compared to No-Build) End-to-end travel time of 48:44/50:50 (Route 731/732) (southern terminus at 5th and Marquette/Nicollet) 	<ul style="list-style-type: none"> 27,600 average weekday project boardings 15,750 new transit riders (compared to No-Build)¹ 9,460 transportation system daily user benefit hours (compared to TSM) End-to-end travel time of 29:20 (southern terminus at 5th and Marquette/Nicollet) 	<ul style="list-style-type: none"> 27,200 average weekday project boardings 15,150 new transit riders (compared to No-Build)¹ 9,000 transportation system daily user benefit hours (compared to TSM) End-to-end travel time of 33:19 (southern terminus at 5th and Marquette/Nicollet) 	<ul style="list-style-type: none"> 27,000 average weekday project boardings 14,500 new transit riders (compared to No-Build)¹ 8,520 transportation system daily user benefit hours (compared to TSM) End-to-end travel time of 32:47 (southern terminus at 5th and Marquette/Nicollet) 	<ul style="list-style-type: none"> 26,000 average weekday project boardings 13,800 new transit riders (compared to No-Build)¹ 7,940 transportation system daily user benefit hours (compared to TSM) End-to-end travel time of 36:46 (southern terminus at 5th and Marquette/Nicollet)
		Construction Phase Impacts	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Intermittent impacts to bus operations within the construction area (e.g., temporary stop relocations or closures, route detours, or suspensions of service on segments of routes operating on streets where LRT is being constructed) As project planning and engineering advances, transit routes will be reevaluated and transitway construction will be planned to minimize disruption to transit service. 			
3.2	Freight Rail Conditions	Operating Phase (Long-Term) Impacts	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No direct impact to freight rail operations in Alignments A, C, and D1. Potential impact to CP Rail in Alignments C and D1.² 	<ul style="list-style-type: none"> No direct impact to freight rail operations in Alignment A and C. Potential impact to CP Rail in Alignment C. 	<ul style="list-style-type: none"> No direct impact to freight rail operations in Alignments B, C, and D1. Potential impact to CP Rail in Alignments C and D1. 	<ul style="list-style-type: none"> No direct impact to freight rail operations in Alignments B and C. Potential impact to CP Rail in Alignment C.
		Construction Phase Impacts	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Operational impact during construction associated with track relocation in Alignments A, C, and D1 	<ul style="list-style-type: none"> Operational impact during construction associated with track relocation in Alignments A and C. Minor impact at the north end of Alignment D2. 	<ul style="list-style-type: none"> Operational impact during construction associated with track relocation in Alignments B, C, and D1 	<ul style="list-style-type: none"> Operational impact during construction associated with track relocation in Alignments B and C. Minor impact at the north end of Alignment D2.
3.3	Vehicular Traffic	Operating Phase (Long-Term) Impacts	<ul style="list-style-type: none"> Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> CSAH 81 at Penn Avenue Penn Avenue at TH 55 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> Penn Avenue at TH 55 	<ul style="list-style-type: none"> Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> CSAH 81 at Penn Avenue Penn Avenue at TH 55 	<ul style="list-style-type: none"> Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> Penn Avenue at TH 55 	<ul style="list-style-type: none"> Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> CSAH 81 at Penn Avenue Penn Avenue at TH 55
		Construction Phase Impacts	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Disruptions to traffic operations, including lane closures, short-term intersection and roadway closures, and detours that would cause localized increases in congestion 			

Table ES-1. Summary of Impacts (continued)

Draft EIS Section	Topic		No-Build Alternative	Enhanced Bus/TSM Alternative	Alternative A-C-D1	Alternative A-C-D2	Alternative B-C-D1 (Preferred Alternative)	Alternative B-C-D2
3.4	Pedestrians and Bicycles	Operating Phase (Long-Term) Impacts	■ None	■ None	■ 9 crossings closed	■ 17 crossings closed	■ 12 crossings closed	■ 20 crossings closed
		Construction Phase Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Temporary closures or detours ■ Construction traffic and debris can pose obstacles or issues ■ Safe access for non-motorized users, as a result of detours, closures, and other inconveniences during the construction phases, would be included in phasing plans. 			
3.5	Parking	Operating Phase (Long-Term) Impacts	■ None	■ None	■ None	■ 270 on-street parking spaces lost	■ None	■ 270 on-street parking spaces lost
		Construction Phase Impacts	■ None	■ None	■ None	■ All on-street parking restricted or closed	■ None	■ All on-street parking restricted or closed
3.6	Aviation	Operating Phase (Long-Term) Impacts	■ None	<ul style="list-style-type: none"> ■ Additional bus service would run on the existing Bottineau Boulevard located adjacent to the Crystal Airport ■ No physical improvements to Bottineau Boulevard within the Crystal Airport Runway Protection Zone (RPZ) 	<ul style="list-style-type: none"> ■ The proposed LRT alignment would be within the existing 100 foot BNSF right-of-way, which is currently within the controlled activity area (17,860 square feet) and the central portion of the Crystal Airport Runway 6L Runway Protection Zone (RPZ) (25,470 square feet). 			
		Construction Phase Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Construction of Alignment C would impact the Runway 6L RPZ. ■ Construction operations and phasing in the RPZ would be coordinated with the MAC and FAA during the project's final design phase to mitigate impacts. 			
4.1	Land Use Plan Compatibility	Operating Phase (Long-Term) Impacts	<ul style="list-style-type: none"> ■ A key goal of city and regional plans would not be fulfilled 	<ul style="list-style-type: none"> ■ The intent of regional and local comprehensive plans to support and develop transit in the corridor would be partially fulfilled 	<ul style="list-style-type: none"> ■ Compatible with the local land use planning policies of Maple Grove, Brooklyn Park, Crystal, Robbinsdale, Golden Valley, and Minneapolis ■ Compatible with regional land use planning policies 			
		Construction Phase Impacts	■ None	■ None	■ None	■ None	■ None	■ None

Table ES-1. Summary of Impacts (continued)

Draft EIS Section	Topic		No-Build Alternative	Enhanced Bus/TSM Alternative	Alternative A-C-D1	Alternative A-C-D2	Alternative B-C-D1 (Preferred Alternative)	Alternative B-C-D2
4.2	Community Facilities/Community Character and Cohesion	Operating Phase (Long-Term) Impacts	■ None	■ None	■ None	■ Community character and cohesion would not be maintained	■ None	■ Community character and cohesion would not be maintained
		Construction Phase Impacts	■ None	■ None	■ Temporary impacts to community facilities, character, and cohesion			
4.3	Displacement of Residents and Businesses	Operating Phase (Long-Term) Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Full takes: 17 parcels (7.0 acres) ■ Partial takes: 28-30 parcels (13.9-14.3 acres) ■ 8 residential displacements ■ 2 commercial displacements 	<ul style="list-style-type: none"> ■ Full takes: 142 parcels (26.7 acres) ■ Partial takes: 50 parcels (15.8 acres) ■ 113 residential displacements ■ 5 commercial displacements 	<ul style="list-style-type: none"> ■ Full takes: 18 parcels (8.3 acres) ■ Partial takes: 55-57 parcels (8.5-8.9 acres) ■ 8 residential displacements ■ 3 commercial displacements 	<ul style="list-style-type: none"> ■ Full takes: 143 parcels (28 acres) ■ Partial takes: 77 parcels (10.4 acres) ■ 113 residential displacements ■ 6 commercial displacements
		Construction Phase Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Short-term impacts due primarily to activities requiring temporary construction easements ■ Temporary modification or closure of some existing property access 			
4.4	Cultural Resources ³	Operating Phase (Long-Term) Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ 0 adverse impacts ■ 14 potential adverse impacts 	<ul style="list-style-type: none"> ■ 1 adverse impact ■ 19 potential adverse impacts 	<ul style="list-style-type: none"> ■ 0 adverse impacts ■ 14 potential adverse impacts 	<ul style="list-style-type: none"> ■ 1 adverse impact ■ 19 potential adverse impacts
		Construction Phase Impacts	■ None	■ None	■ Noise, vibration, visual, and traffic impacts			
4.5	Visual/Aesthetics	Operating Phase (Long-Term) Impacts	■ None	■ Minimal	■ Moderate	■ High	■ Moderate	■ High
		Construction Phase Impacts	■ None	■ Minimal	■ Moderate	■ High	■ Moderate	■ High
4.6	Business Impacts	Operating Phase (Long-Term) Impacts	■ None	■ Limited direct impacts (from park-and-ride)	■ Limited direct impacts	■ Greater direct impacts (right-of-way, parking loss)	■ Limited direct impacts	■ Greater direct impacts (right-of-way, parking loss)
		Construction Phase Impacts	■ None	■ Temporary changes in access, on-street parking availability, and traffic flow	■ Access changes, temporary loss of parking, and nuisance impacts (e.g., noise and dust)	■ Greater construction impacts given land use and dependence of businesses on access and on-street parking	■ Access changes, temporary loss of parking, and nuisance impacts (e.g., noise and dust)	■ Greater construction impacts given land use and dependence of businesses on access and on-street parking
4.7	Safety and Security	Operating Phase (Long-Term) Impacts	■ None	■ None	■ None	■ None	■ None	■ None
		Construction Phase Impacts	■ None	<ul style="list-style-type: none"> ■ Temporary hazards to personal safety for workers; federal and state standards for safety of construction site personnel would be maintained ■ Public safety near open excavations and other construction activity is an issue to be resolved by the creation, proper timing, and placement of protective safety programs, public information efforts, and selected protective measures. 				
5.1	Utilities	Operating Phase (Long-Term) Impacts	■ None	■ None	■ Private and public utilities that run parallel or cross within the transitway corridor would be located during design to determine if they are in conflict with the transitway corridor and would require relocation to avoid conflict with LRT operations.			
		Construction Phase Impacts	■ None	■ None	■ Minimal utility service disruptions to facilitate utility relocations and during excavation and grading activities, placement of structural foundations, and work that requires large-scale equipment			

Table ES-1. Summary of Impacts (continued)

Draft EIS Section	Topic	No-Build Alternative	Enhanced Bus/TSM Alternative	Alternative A-C-D1	Alternative A-C-D2	Alternative B-C-D1 (Preferred Alternative)	Alternative B-C-D2	
5.2	Floodplains	Operating Phase (Long-Term) Impacts	■ None	■ None	■ 17,250 cubic yards of floodplain fill	■ 6,250 cubic yards of floodplain fill	■ 18,700 cubic yards of floodplain fill	■ 7,700 cubic yards of floodplain fill
		Construction Phase Impacts	■ None	■ None	■ None	■ None	■ None	■ None
5.3	Wetlands	Operating Phase (Long-Term) Impacts	■ None	■ None	■ 8.6 acres of wetland fill	■ 3.2 acres of wetland fill	■ 9.4 to 10.2 acres of wetland fill	■ 4.0 to 4.8 acres of wetland fill
		Construction Phase Impacts	■ None	■ None	■ Temporary impacts due to construction of retaining walls, grading, and soil disturbance			
5.4	Geology, Soils, and Topography	Operating Phase (Long-Term) Impacts	■ None	■ None	■ None	■ None	■ None	■ None
		Construction Phase Impacts	■ None	<ul style="list-style-type: none"> ■ Areas of poorly drained soils within the potential area of disturbance may require soil correction for construction of track, pavement, or other structures. ■ Excavated soils would need to be removed or reused in areas that do not require consolidated soils. 				
5.5	Hazardous Materials Contamination	Operating Phase (Long-Term) Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ No hazardous or regulated materials would be produced by the project ■ No permanent storage tanks would be installed ■ Acquiring land with known contamination which cannot be easily remediated or contained would be avoided to the extent possible 			
		Construction Phase Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ 27 low contamination risk sites ■ 7 medium contamination risk sites ■ 1 high contamination risk site 	<ul style="list-style-type: none"> ■ 53 low contamination risk sites ■ 17 medium contamination risk sites ■ 1 high contamination risk site 	<ul style="list-style-type: none"> ■ 33 low contamination risk sites ■ 0 medium contamination risk sites ■ 1 high contamination risk site 	<ul style="list-style-type: none"> ■ 59 low contamination risk sites ■ 16 medium contamination risk sites ■ 1 high contamination risk site
5.6	Noise ⁴	Operating Phase (Long-Term) Impacts	■ No significant impacts	■ No significant impacts	<ul style="list-style-type: none"> ■ Moderate Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment A: 5-10 receptors ■ Alignment C: 350-355 receptors ■ Alignment D1: 25-35 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment A: 0 receptors ■ Alignment C: 15-20 receptors ■ Alignment D1: 0-5 receptors 	<ul style="list-style-type: none"> ■ Moderate Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment A: 5-10 receptors ■ Alignment C: 350-355 receptors ■ Alignment D2: 305-310 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment A: 0 receptors ■ Alignment C: 15-20 receptors ■ Alignment D2: 5-10 receptors 	<ul style="list-style-type: none"> ■ Moderate Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment B: 55-60 receptors ■ Alignment C: 350-355 receptors ■ Alignment D1: 25-35 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment B: 5-10 receptors ■ Alignment C: 15-20 receptors ■ Alignment D1: 0-5 receptors 	<ul style="list-style-type: none"> ■ Moderate Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment B: 55-60 receptors ■ Alignment C: 350-355 receptors ■ Alignment D2: 305-310 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts <ul style="list-style-type: none"> ■ Alignment B: 5-10 receptors ■ Alignment C: 15-20 receptors ■ Alignment D2: 5-10 receptors
		Construction Phase Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Temporary noise impacts from construction of new tracks and stations, utility relocation, grading, excavation, track work, demolition, and installation of systems components ■ Impacts may occur in residential areas and at other noise-sensitive land uses located within several hundred feet of the alignment; potential for impact greatest at locations near pile-driving operations, pavement breaking, and nighttime construction work 			

Table ES-1. Summary of Impacts (continued)

Draft EIS Section	Topic		No-Build Alternative	Enhanced Bus/TSM Alternative	Alternative A-C-D1	Alternative A-C-D2	Alternative B-C-D1 (Preferred Alternative)	Alternative B-C-D2
5.7	Vibration	Operating Phase (Long-Term) Impacts	■ None	■ None	■ 51 impacted receptors	■ 51 impacted receptors	■ 51 impacted receptors	■ 51 impacted receptors
		Construction Phase Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Temporary vibration impacts from construction of new tracks and stations, utility relocation, grading, excavation, track work, demolition, and installation of systems components ■ Impacts may occur in residential areas and at other vibration-sensitive land uses located within several hundred feet of the alignment; potential for impact greatest at locations near pile-driving operations, pavement breaking, and nighttime construction work 			
5.8	Biological Environment (Wildlife Habitat and Endangered Species)	Operating Phase (Long-Term) Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ 10.7-acres loss of wildlife habitat ■ Potential impact to Blanding's turtle habitat 	<ul style="list-style-type: none"> ■ 3-acres loss of wildlife habitat ■ No endangered species impacts 	<ul style="list-style-type: none"> ■ Loss of wildlife habitat <ul style="list-style-type: none"> ■ 101st Avenue OMF location option: 30.9 acres ■ 93rd Avenue OMF location option: 13.9 acres ■ Potential impact to Blanding's turtle habitat 	<ul style="list-style-type: none"> ■ Loss of wildlife habitat <ul style="list-style-type: none"> ■ 101st Avenue OMF location option: 23.2 acres ■ 93rd Avenue OMF location option: 6.2 acres ■ No endangered species impacts
		Construction Phase Impacts	■ None	■ None	■ Temporary and limited impacts in active construction areas			
5.9	Water Quality and Stormwater	Operating Phase (Long-Term) Impacts	■ None	■ 60% impervious surface increase ⁵	■ 38% impervious surface increase ⁵	■ 29% impervious surface increase ⁵	■ 31% impervious surface increase ⁵	■ 23% impervious surface increase ⁵
		Construction Phase Impacts	■ None	■ Soil disturbance and runoff could potentially erode slopes and drainage ways, form gullies, and deposit sediment in adjacent water bodies				
5.10	Air Quality	Operating Phase (Long-Term) Impacts	■ None	<ul style="list-style-type: none"> ■ The project would not cause exceedences of carbon monoxide concentrations or other criteria pollutants ■ MSAT emissions would likely be lower than present levels in the design year 				
		Construction Phase Impacts	■ None	■ Higher concentrations of air pollutants	<ul style="list-style-type: none"> ■ Increased emissions and higher concentrations of air pollutants near homes and businesses as a result of increased traffic due to detours ■ Higher concentrations of air pollutants 			
5.11	Energy	Operating Phase (Long-Term) Impacts	■ Annual direct energy consumption: 224.214 trillion BTUs	■ Annual direct energy consumption: 224.163 trillion BTUs	■ Annual direct energy consumption: 224.092 trillion BTUs	■ Annual direct energy consumption: 224.096 trillion BTUs	■ Annual direct energy consumption: 224.112 trillion BTUs	■ Annual direct energy consumption: 224.116 trillion BTUs
		Construction Phase Impacts	■ None	■ Limited short-term energy use for construction of the park-and-ride facility	<ul style="list-style-type: none"> ■ Energy would be required for construction of the Build alternatives, for the production of the raw materials used in construction, and for the operation of construction equipment. ■ Energy use would be localized and temporary. 			

Table ES-1. Summary of Impacts (continued)

Draft EIS Section	Topic		No-Build Alternative	Enhanced Bus/TSM Alternative	Alternative A-C-D1	Alternative A-C-D2	Alternative B-C-D1 (Preferred Alternative)	Alternative B-C-D2
7.6	Environmental Justice	Operating Phase (Long-Term) Impacts	■ None	■ None	■ No disproportionately high or adverse impacts	■ Potentially high or disproportionate impacts (ped/bike, parking, community facilities, displacements, visual)	■ No disproportionately high or adverse impacts	■ Potentially high or disproportionate impacts (ped/bike, parking, community facilities, displacements, visual)
		Construction Phase Impacts	■ None	■ None	■ No disproportionately high or adverse impacts	■ Potentially high or disproportionate impacts (traffic disruptions, access, parking, noise, dust, visual)	■ No disproportionately high or adverse impacts	■ Potentially high or disproportionate impacts (traffic disruptions, access, parking, noise, dust, visual)
8.7	Section 4(f)	Operating Phase (Long-Term) Impacts	■ None	■ None	<ul style="list-style-type: none"> ■ Direct use of Theodore Wirth Regional Park ■ <i>De minimis</i> use of Grand Rounds Historic District 	<ul style="list-style-type: none"> ■ Direct use of Minneapolis Public Schools Athletic Field ■ Direct use of Homewood District 	<ul style="list-style-type: none"> ■ <i>De minimis</i> use of Rush Creek Regional Trail⁶ ■ Direct use of Theodore Wirth Regional Park ■ <i>De minimis</i> use of Grand Rounds Historic District 	<ul style="list-style-type: none"> ■ <i>De minimis</i> use of Rush Creek Regional Trail⁶ ■ Direct use of Minneapolis Public Schools Athletic Field ■ Direct use of Homewood District
		Construction Phase Impacts	■ None	■ None	■ Temporary occupancy of Sochacki Park, Mary Hills Nature Area, Theodore Wirth Regional Park	■ None	■ Temporary occupancy of Sochacki Park, Mary Hills Nature Area, Theodore Wirth Regional Park	■ None
10.1	Financial Considerations	Project capital cost (\$2017)	■ N/A	■ N/A	■ \$1,002 million ⁷	■ \$1,124 million ⁷	■ \$1,002 million	■ \$1,118 million
		Operations and maintenance cost (in 2013 dollars over No-Build)	■ N/A	■ \$17.3 million	■ \$32.8 million	■ \$34.2 million	■ \$32.5 million	■ \$33.7 million

¹ Maple Grove Transit currently provides excellent transit service to its commuter express market. There is some uncertainty as to whether or not commuter express riders would chose to move from express bus service to LRT service.

² Potential impacts to CP Rail include relocation of an existing diamond crossing where CP Rail and BNSF Railway cross each other north of TH 100 and reconstruction of an existing turnout that provides a connection between CP Rail and BNSF Railway north of TH 55.

³ Following the provisions of the Section 106 review process, ways to avoid, minimize, and mitigate adverse effects to historic properties will continue to be explored through consultation with the SHPO, Section 106 consulting parties, other interested parties, and the public. The Advisory Council on Historic Preservation (ACHP) may also join in this consultation. Measures for avoidance, minimization, and mitigation will be stipulated in a Section 106 Agreement signed by the FTA, the SHPO, the ACHP (if participating), and other consulting parties. FTA will execute a Section 106 agreement prior to the Final EIS/Record of Decision (ROD). The project will be implemented in accordance with the stipulations in the Section 106 agreement.

⁴ Noise mitigation is considered depending on the need, feasibility, reasonableness, and effectiveness of potential options. The FTA states that in considering potential noise impact, severe impacts should be mitigated if at all practical and effective. At the moderate level, more discretion should be used, and other project specific factors should be included in considering the need for mitigation. These factors include the existing noise level, predicted increase over the existing noise levels, the types and number of noise sensitive land uses affected, the noise sensitivity of the properties, the acoustic effectiveness of mitigation options, and the cost effectiveness of mitigation the noise.

⁵ Percent over existing; impacts represent the total area that is located within the potential area of disturbance of the project.

⁶ 101st Avenue OMF site option only

⁷ The capital cost estimates for Alignment A assume significant cooperation from current landowners to prepare the corridor for transit service. Alignment A requires construction of a new roadway, Arbor Lakes Parkway, separate from the transitway project and through the gravel mining area in Maple Grove, in a way that would accommodate LRT and provide access to the future development.

ES.8 What was the Result of the Evaluation of Alternatives?

Based on the information in [Table ES-1](#) and the analysis of each alternative, each alternative was rated on how well it performs with respect to purpose and need and project goals, adverse impacts, benefits, and overall performance. One of three ratings was assigned:

- Good: Good performance against goals and objectives and/or minor adverse impacts
- Fair: Fair performance against goals and objectives and/or moderate adverse impacts
- Poor: Poor performance against goals and objectives and/or severe adverse impacts

Summary rating results are shown in [Table ES-2](#). If a “poor” rating is assigned to any of the first three categories (purpose and need, adverse impacts, benefits), then the overall performance is automatically rated as “poor.” In other words, a “poor” rating in one area cannot be overcome by “fair” or “good” performance in other areas with respect to the overall rating.

ES.8.1 No-Build Alternative

The overall performance of the No-Build alternative is **poor**. It does not meet the project purpose and need. While it has only minor adverse impacts related to the committed improvements included, the No-Build alternative does not provide measurable transportation benefits compared to existing conditions nor does it address the Bottineau Transitway transportation goals and objectives. It would not satisfy four of the five project goals.

ES.8.2 Enhanced Bus/TSM Alternative

The overall performance of the Enhanced Bus/TSM alternative is **poor**. While the alternative has only minor adverse impacts, it provides relatively little benefit and does not meet the project purpose and need. For these reasons, the Enhanced Bus/TSM alternative is not recommended as the environmentally preferred alternative for the Bottineau Transitway.

ES.8.3 Build Alternatives

A-C-D1

Alternative A-C-D1 would deliver a **fair** performance overall. Despite its good performance in most benefit areas and relatively minor adverse physical impacts, construction of the north end of the alternative in Maple Grove could be delayed or made more expensive, as much of the adjacent land is in active use for gravel mining. Infrastructure and land use development investments (including the future Arbor Lakes Parkway and land use development around station areas) outside of the transitway project are required for implementation of the transitway. This also puts Alternative A-C-D1 at a disadvantage with respect to short-term economic development benefit. These factors, combined with the availability of an alternative with similar levels of benefit without such short-term implementation challenges, are the reasons why Alternative A-C-D1 is not recommended as the environmentally preferred alternative for the Bottineau Transitway.

A-C-D2

Alternative A-C-D2 would deliver **poor** performance overall due to the severe adverse impacts it would have on properties and communities in north Minneapolis. While Alternative A-C-D2 has good transportation benefits, the adverse physical and community impacts described above demonstrate that it does not meet Goal 5 (Support Healthy Communities and Sound Environmental Practices). For these reasons, it is not recommended as the environmentally preferred alternative for the Bottineau Transitway.

B-C-D1

Overall, Alternative B-C-D1 would deliver **good** performance. This is due to its relatively minor adverse impacts and its strong benefits.

Alternative B-C-D1 is recommended as the environmentally preferred alternative based on its strong transportation benefits, its land use and short-term economic development potential at the north end (Brooklyn Park), its ability to be implemented, and its relatively moderate adverse impacts.

B-C-D2

Alternative B-C-D2 would deliver **poor** performance overall due to the severe adverse impacts it would have on properties in north Minneapolis combined with only fair transportation performance. For these reasons, this alternative is not the environmentally preferred alternative for the Bottineau Transitway.

Table ES-2. Summary Performance Ratings of Alternatives

Performance Category	No-Build	Enhanced Bus/TSM	LRT A-C-D1	LRT A-C-D2	LRT B-C-D1 (Preferred Alternative)	LRT B-C-D2
Purpose and Need	●	●	●	●	○	●
<i>Goal 1: Enhance Access to Regional Activity Centers</i>	●	●	○	○	○	○
<i>Goal 2: Enhance the Effectiveness of Transit Service within the Corridor</i>	●	●	●	●	○	●
<i>Goal 3: Provide a Cost-effective and Financially Feasible Transit System</i>	●	●	●	●	○	●
<i>Goal 4: Promote Sustainable Development Patterns</i>	●	●	○	○	○	○
<i>Goal 5: Support Healthy Communities and Sound Environmental Practices</i>	○	○	●	●	●	●
Adverse Impacts	○	○	●	●	●	●
Benefits	●	●	○	○	○	●
Overall Performance¹	●	●	●	●	○	●

RATINGS KEY:

- Good Performance and/or Minor Adverse Impacts
- Fair Performance and/or Moderate Adverse Impacts
- Poor Performance and/or Severe Adverse Impacts

1. Note: If a “poor” rating is assigned to any of the first three categories (purpose and need, adverse impacts, benefits), then the overall performance is automatically rated as “poor.” In other words, a “poor” rating in one area cannot be overcome by “fair” or “good” performance in other areas with respect to the overall rating.

ES.9 How was the Environmentally Preferred Alternative Identified?

The Draft EIS describes the transportation, economic, community, and environmental impacts associated with the construction and operation of the Bottineau Transitway Project. The effects of the No-Build, Enhanced Bus/TSM, and Build alternatives were evaluated across a range of subject areas related to the built and natural environment.

As described in Section ES.8, Alternative B-C-D1 meets the purpose and need of the Bottineau Transitway 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 in addition to technical analysis of issues identified during NEPA Scoping. The identification process considered the transitway alternatives in their component pieces (Alignments A, B, C, D1, and D2). Ultimately, the adverse physical and community impacts of Alignment D2 (LRT on Penn/Broadway Avenues) resulted in a decision not to advance Alternatives A-C-D2 and B-C-D2 in the process. The remaining decision, between Alternatives A-C-D1 and B-C-D1, focused on the differentiators between Alignment A (Maple Grove) and Alignment B (Brooklyn Park). Alignment B is the environmentally preferred alternative because it would provide transit service to the large existing and future populations of people in households with low incomes, provide transit service to many activities at North Hennepin Community College and the new Hennepin County library, provide transit access to more jobs than Alignment A, and does not have the same potential short-term implementation challenges experienced with Alignment A. Specifically, under Alignment A construction could be delayed or made more expensive as much of the adjacent land is in active use for gravel mining. While the area is zoned for future mixed-use development, there is no timeline established for this land use transition to occur. Infrastructure and land use development investments (including the future Arbor Lakes Parkway and land use development around station areas) outside of the transitway project are required for implementation of the transitway.

The US Army Corps of Engineers (USACE) has its own process for determining the Least Environmentally Damaging Preferred Alternative (LEDPA). In a letter dated June 19, 2013, the USACE issued concurrence on the purpose and need and array of alternatives considered for the Bottineau Transitway Project, as well as the alternatives evaluated in this Draft EIS (Concurrence Points #1 and #2 under the NEPA/404 merger process). In a letter dated October 1, 2013, USACE issued concurrence on the identification of the selected alternative (Concurrence Point #3).

Throughout the development of the environmentally preferred alternative, HCRRA, in cooperation with the Metropolitan Council, the affected communities, and the public, has refined the design and alignment, where feasible, to avoid, minimize, or mitigate adverse effects. However, 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 Bottineau Transitway is intended to serve; and the need to design the project to be compatible with future operations of other transportation facilities in the corridor. Consequently, the environmentally preferred alternative involves recognizing and understanding that there are trade-offs between the benefits and the effects of the Bottineau Transitway.

Where adverse effects of the environmentally preferred alternative remain, FTA, HCRRA, and the Metropolitan Council have identified mitigation measures intended to offset remaining effects to the natural and human environment. Mitigation measures are described in this Draft EIS and will be finalized in the Final EIS/Record of Decision (ROD).

ES.10 What are the Next Steps?

The 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 Draft EIS will be considered and addressed in the combined Final EIS/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.