

Bottineau Transitway

Draft Environmental Impact Statement



**BOTTINEAU TRANSITWAY
DRAFT ENVIRONMENTAL IMPACT STATEMENT**

Prepared by:
United State Department of Transportation (US DOT)
Federal Transit Administration (FTA)

And

Hennepin County Regional Railroad Authority, Minnesota

Metropolitan Council, Minnesota

In cooperation with
Federal Highway Administration (FHWA)
Federal Aviation Administration (FAA)
United States Army Corps of Engineers (USACE)
Minnesota Department of Transportation (MnDOT)

Pursuant to:

National Environmental Policy Act of 1969 (NEPA), as amended, 42 U.S.C. Section 4321 et seq.; Council of Environmental Quality (CEQ) regulations, 40 C.F.R. Section 1500 et seq., Implementing NEPA; Safe, Accountable, Flexible, Efficient Transportation Equity Act; A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59 (Aug. 10, 2005); Federal Transit Laws, 49 U.S.C. Chapter 53; Environmental Impact and Related Procedures, 23 C.F.R. Part 771, a joint regulation of the Federal Highway Administration and Federal Transit Administration implementing NEPA and CEQ regulations; Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. Section 470(f); Section 4(f) of the Department of Transportation Act of 1966, as amended, 49 U.S.C. Section 303; Section 6(f)(3) of the Land and Water Conservation Fund Act of 1965, 16 U.S.C. Section 4601 - 4 et seq.; Clean Air Act, as amended, 42 U.S.C. Section 7401 et seq.; Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. Section 4601 et seq.; Executive Order No. 12898 (Federal Actions to Address Environmental Justice in Minority and Low Income Populations); Executive Order No. 13166 (Improving Access to Services for Persons with Limited English Proficiency); Executive Order No. 11988 (Floodplain Management); other applicable Federal laws and procedures; and all relevant laws and procedures of the State of Minnesota.

FTA will issue a single Final Environmental Impact Statement and Record of Decision document pursuant to Pub. L. 112-141, 126 Stat. 405, Section 1319(b) unless FTA determines statutory criteria or practicability considerations preclude issue of the combined document pursuant to Section 1319.

3-24-2014

Date of Approval


Regional Administrator
Federal Transit Administration
Region V

3/25/14
Date of Approval


Executive Director
Hennepin County Regional Railroad Authority

3-25-2014

Date of Approval


Director, Metropolitan Transportation Services
Metropolitan Council

ABSTRACT

This Draft Environmental Impact Statement (Draft EIS) describes the transportation and environmental impacts associated with the construction and operation of a light rail transit (LRT) project to improve transit service in the Bottineau Transitway Corridor in Hennepin County, Minnesota. The study area is bounded roughly by MN 55 to the south, TH 610 to the north, I-94 to the northwest and Bottineau Boulevard (County Road 81) to the west, and West Broadway Avenue (County Road 103) to the east. The effects of the No-Build Alternative, Enhanced Bus/Transportation Systems Management Alternative, and LRT Alternatives are evaluated and compared across a range of subject areas related to both natural and man-made environments. All potentially significant environmental, social, economic, and transportation benefits and impacts of the proposed alternatives are evaluated including transportation systems, land use, socio-economic conditions, air quality, noise, vibration, visual, ecosystems, water resources, historic resources, archeological resources, parklands, geology, hazardous/regulated materials, safety/security, public involvement, financial analysis, and indirect and cumulative effects.

The proposed Bottineau Transitway Project is a 13-mile corridor of transportation improvements that extends from downtown Minneapolis to the northwest, serving north Minneapolis, Golden Valley, Robbinsdale, Crystal, New Hope, Osseo, Brooklyn Park, and Maple Grove. The Transitway is anticipated to also serve a broader area to the northwest, including the communities of Dayton, Rogers, and Hassan Township. It will integrate with the region's system of transitways, including the existing Blue Line (Hiawatha) LRT, the Green Line (Central Corridor and the planned Southwest line) LRT, bus rapid transit (BRT) on the Red Line (Cedar Avenue) and Orange Line (I-35W South), the Northstar Commuter Rail, and express bus routes.

The primary transportation needs of the community that the Bottineau Transitway project addresses include: 1) growing travel demand, 2) increasing traffic congestion, 3) people who depend on transit, 4) limited transit service to suburban destinations and time-efficient transit options, 5) regional objectives for growth.

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.

Transportation and land use studies along the Bottineau Corridor date back to the late 1980s. Previous studies include regional system studies, corridor studies, and site-specific studies. The Bottineau Transitway has consistently been included in regional transportation system plans. Many different alignments and modes, including BRT, LRT, and commuter rail have been considered and evaluated in corridor-specific plans and studies. The region's current long-range transportation plan, the *2030 Transportation Policy Plan (TPP)* (adopted November 2010) identifies the Bottineau Transitway as one of the corridors to be developed by 2030 as LRT, Busway, Highway BRT or Commuter Rail. The recommendation for the Bottineau Transitway is based on findings from the Metropolitan Council's *2030 Transit Master Study* (August 2008), and reinforces the transit travel demand in the Bottineau Transitway, consistently identified in previous regional transportation system plans. These include the *Regional Transit Board LRT Plan* (1990), the *Transit 2020 Master Plan* (February 2000), the *2025 Transportation Policy Plan* (adopted January 2001, amended January 2002), and the *2030 Transportation Policy Plan* (adopted December 2004).

Comments on this document may be submitted in writing or made verbally at public hearings for the project. The public is encouraged to submit comments during the public review period from April 11 through May 29, 2014. Public Hearings will be held at the following locations:

Wednesday, May 7, 2014

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

Tuesday, May 13, 2014

Brooklyn Park City Hall
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:

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Housing, Community Works & Transit
701 Fourth Avenue South, Suite 400
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Glossary of Terms

Access or Accessibility: In transportation, “access” or accessibility refers to the ease with which people can reach multiple destinations. People in places that are highly accessible can reach many other activities or destinations quickly and easily.

Activity center is a destination where people gather. Activity centers include concentrated work locations, shopping areas, recreation areas, sports stadiums, educational institutions, government centers, museums, and so forth.

Alignment is the horizontal location of a railroad or transit system as described by curved and tangent track.

Archaeological site: Any place where evidence of past human life is found. Sites can range in size from small locations of artifacts to entire villages and cities.

Area of Potential Effect (APE): According to 36 CFR 800.16(d), this is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist.

Best management practices (BMPs) are the most efficient and effective means to achieve a desired goal, such as preventing pollution.

Biota are plants and animals

Capital cost is the one-time cost to build a project.

Capital investment is money invested in a business venture with an expectation of income.

Compensatory mitigation measures are actions required to offset the use of a Section 4(f) resource when impacts are unavoidable; such as photo-documentation of a historic building.

Competitive transit option offers a significant travel-time advantage that would attract people who could drive but chose to use transit while adequately serving transit-dependent riders.

Contaminated site is a location where a substance has been released to the environment and its presence creates a risk to human health or natural ecosystems.

Cultural resource(s) are defined as the buildings, structures, districts, objects and sites that are listed on or eligible for listing on the National Register of Historic Places (NRHP or National Register).

Cumulative Impacts: The CEQ regulations (40 CFR 1508.7) define cumulative impacts as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

Cut: An area requiring excavation.

Earnings: Income earned based on new spending.

Economic activity: The sales of goods and services

Employment: Job creation based on new spending.

Express routes connect a number of areas with the central business district or other major destinations. These services typically operate during the morning and afternoon-evening peak travel hours. Express routes often use freeways or major arterials and make fewer stops along the way to make more predictable, faster trips.

Facilitate: Assist, make easier

Fixed guideway or guideway refers to transit service routes that are exclusive or controlled, either entirely or in part. Vehicles operating on fixed guideways may be railways (including light rail), portions of bus service operated on exclusive or controlled rights-of-way, or high-occupancy-vehicle (HOV) lanes.

General fund appropriations are the use of money placed into the State's general fund (the general fund consists of monies that are not restricted for specific uses).

Grade separation is a bridge or tunnel that separates transportation facilities such as a highway or railroad so that they will not disrupt each other's traffic flow when they cross.

Ground-borne vibration: The effects of ground-borne vibration include discernible movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for normal transportation projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

Headway is the time between buses or trains arriving at stops along a given transit route.

Historic district is a group of related buildings, properties, or sites that have been designated as historically or architecturally significant.

Historic property(ies) means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.

Impervious surfaces are those that keep water from being absorbed into the ground. They include asphalt and concrete for roads, parking lots, sidewalks, etc.

Indirect Effects are those that are caused by the proposed action that occur later in time and/or proximity while being reasonably foreseeable.

Infrastructure is defined as the fundamental facilities and systems serving a country, state, or city. Transportation infrastructure includes things like roads, bridges, highways, bus systems, LRT systems, etc.

Intermodal: With respect to the FTA Standard Cost Category, “Intermodal” refers to a location where different modes of transportation connect, such as between commuter rail and light rail, or bus and light rail.

Intersection operations define how well intersections function to move traffic and pedestrians.

Jurisdictional determination is the process of identifying and locating jurisdictional Waters of the United States (including wetlands) regulated by the U.S. Army Corps of Engineers (COE) under Section 404 of the Clean Water Act.

Land use is the human modification of the natural environment or wilderness into built environment, such as fields, pastures, and settlements.

Level of service (LOS) is a quality measure used by traffic engineers to describe traffic, generally in terms of speed and travel time, maneuverability, comfort, and convenience. LOS ratings range from A (best) to F (worst). The Highway Capacity Manual provides LOS measures, thresholds, and estimation procedures for automobiles, transit, bicycles, and pedestrians.

Limited stop routes are a combination of local and express service. Stops may be several blocks to a mile or more apart.

Linked trip is a trip from origin to destination. One linked trip could include several unlinked trips, such as driving to a park and ride, riding a commuter train, and taking a bus to the final destination; this sequence represents one linked trip, but is made up of three unlinked trips and includes two transit system boardings.

Low Income person is one whose median household income is at or below the Department of Health and Human Services poverty guidelines.

Major activity center is a place of significant employment, retail, or entertainment activity.

Memorandum of Agreement (MOA) is a document written between parties to cooperatively work together on an agreed upon project or meet an agreed upon objective.

Minnesota Environmental Quality Board (EQB) brings together the Governor’s Office (as chair), five citizens, and the heads of nine state agencies that play a vital role in Minnesota’s environment and development. The board develops policy, creates long-range plans, and reviews proposed projects that would significantly influence Minnesota’s environment. The **EQB Monitor** is a biweekly publication of the Environmental Quality Board that lists descriptions and deadlines for Environmental Assessment Worksheets, Environmental Impact Statements, and other notices. The EQB Monitor is posted on the Environmental Quality board home page at <http://www.eqb.state.mn.us/>

Minority Populations are any readily identifiable group or groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons such as migrant workers or Native Americans who will be similarly affected by the project.

Mitigate: To reduce the impact of an action.

Mixed use development is the practice of allowing more than one type of use in a building or set of buildings.

Mobility, in transportation, is the ability of people and goods to move freely within the transportation system.

Multimodal refers to a variety of modes (forms or types) of transportation such as personal automobile, bus, transit, pedestrian, etc.

National Register of Historic Places (NRHP) is the official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

New Starts is the federal funding program for new transit systems or extensions of existing transit systems; these funds are granted under Section 5309 (B) of the United States Code.

Noise is any disagreeable or undesired sound or other audible disturbance.

Operating conditions: Time of day, number of trains in operation, weather, special events, etc.

Operation and maintenance costs are the cost of running the light rail system, repairing any non-functioning parts of the system, and conducting routine maintenance of the light rail system

Parcel is a tract or plot of land.

Passenger mile is one passenger transported one mile.

Passenger miles is a measure of service utilization which represents the cumulative sum of the distances ridden by each passenger. It is normally calculated by summation of the passenger load times the distance between individual bus stops. For example, ten passengers riding in a transit vehicle for two miles equals 20 passenger miles.

Peak periods are when light rail would be most used, generally during rush hour.

Pedestrian facilities are sidewalks, recreational trails, etc.

Person trip is a trip by one or more persons in any mode of transportation. Each person is considered as making one person trip. For example, four persons traveling together in one auto make four person-trips.

Pollutant loads: The amount of pollution entering water resources.

Preventative maintenance is activity performed on a given schedule to prevent breakdowns of the light rail system or its components.

Programmatic Agreement (PA) is a document that spells out the terms of a formal, legally binding agreement between a state Department of Transportation (DOT) and other state and/or federal agencies. A PA establishes a process for consultation, review, and compliance with one or more federal laws, most often with those federal laws concerning historic preservation.

Railway turnouts and crossovers are mechanical installations enabling trains to move from one track to another.

Receptors (noise and vibration) are places or areas that may be affected by changes in noise and vibration. Generally they are residential areas, churches, schools, recreation areas, hospitals, etc.

Redevelopment is a tool created by state law to assist local governments in eliminating blight from a designated area, as well as to achieve the goals of development, reconstruction, and rehabilitation of residential, commercial, industrial and retail districts.

Regional long-range transit plan for the Twin Cities metro area is the 2030 Transportation Policy Plan. This plan contains policies and plans to guide development of the transportation system in the area through the year 2030.

Restrictive covenant is a clause in a deed or lease to real property that limits what the owner of the land or lease can do with the property. Restrictive covenants allow surrounding property owners, who have similar covenants in their deeds, to enforce the terms of the covenants in a court of law. They are intended to enhance property values by controlling development.

Restructured local service means changing local bus routes to more appropriately serve transit travel patterns.

Reverse commute: Reverse commuters live in cities and travel to the suburbs to work. This is the opposite of regular commuters who live in the suburbs and work in the city.

Ridership: The number of passengers using a particular form of public transportation.

Right-in/right-out intersections do not permit left turns or through movements.

Riparian areas are the banks of rivers, creeks, or lakes. Plants that grow in these areas are also referred to as riparian.

Scoping: NEPA scoping is a formal process to identify issues and alternatives for analysis in the NEPA document, which is either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS).

Section 106 Agreement means the document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

Sensitive noise and vibration receptors are places or areas that may be affected by changes in noise and vibration. Generally they are residential areas, churches, schools, recreation areas, hospitals, etc.

Side platforms are passenger platforms located to the outside of the tracks or guideways, as distinguished from center platforms located between the tracks or guideways.

Socioeconomics: Income, education, race, ethnicity, health, age, etc.

Solicit: Request

Stakeholder is a person or entity that has some interest in a project. For example, stakeholders can be community residents, businesses, construction and design contributors, funding sources and/or government agencies.

Stormwater ponds are ponds that collect and temporarily store runoff water during storms to prevent flooding.

Streetscape is the appearance or view of a street.

Study area: The geographic boundaries of the area being studied for the proposed Bottineau Transitway.

System linkage is a transit system's ability to get riders to work, recreation, shopping, and other destinations using a combination of lines or methods.

Terminus: End of the line

Traction power substations (TPSS) are LRT power sources; these are enclosed structures surrounded by security fencing.

Transit-oriented development (TOD) is a development or neighborhood designed to provide easy access to public transportation. TODs are generally located within one-quarter to one-half mile of a transit facility—walking distance—and are designed for a relatively high population. TODs typically include a mix of residential and commercial/office uses built around or adjacent to a light rail station or bus stop.

Travel demand forecasts are estimations of the number of people that would ride the light rail line.

Travel demand model is a computer generated travel demand estimate, created using either actual or projected population and employment data, to help predict how roadway or transit changes might affect local traffic.

Travel demand, projected travel demand is an estimate of how many vehicles will use local roads and area highways in the future.

Unit costs are the dollars per item or measurement of various project components. For example steel rail unit costs may be given in dollars per linear foot; parking ramps may be in dollars per parking space.

Unlinked trip is a trip taken by an individual on one specific mode. A “linked trip” may involve two or more unlinked trips.

User benefits represent the changes in mobility for individual travelers that are induced by a project.

Vehicle miles traveled (VMT) is the number of miles traveled by vehicles in one year.

Vibration is an oscillation wherein the quantity is a parameter that defines the motion of a mechanical system.

Visually sensitive receptors are people whose view of a project area may be changed by the project. These include trail users, residents of nearby homes, or users of adjacent open spaces.

Water resources are wetlands, floodplains, streams, rivers, etc.

Zoning is a device of land use planning used by local governments to separate one set of land use from another.

Zoning district is an area within the limits of a city within which uniform regulations and requirements govern the use, placement, spacing, and size of land and structures.

Acronyms

| | |
|-----------|---|
| AA | Alternatives Analysis |
| AASHTO | American Association of State Highway Officials |
| ACER | African Career, Education, and Resource, Inc. |
| ACHP | Advisory Council on Historic Preservation |
| ADA | Americans with Disabilities Act |
| AEDA | Asian Economic Development Association |
| ALP | Airport Layout Plan |
| ACS | American Community Survey |
| ANSI | American National Standards Institute |
| APE | Area of Potential Effect |
| ARCC | Advise, Review, and Communicate Committee |
| AREMA | American Railway Engineering and Maintenance-of-Way Association |
| ASTM | American Society for Testing and Materials |
| ATF | Across the Fence |
| BMP | Best Management Practice |
| BNSF | Burlington Northern Santa Fe (Railroad) |
| BRT | Bus Rapid Transit |
| BTU | British Thermal Unit |
| CAA | Clean Air Act |
| CAC | Community Advisory Committee |
| CCLRT | Central Corridor Light Rail Transit |
| CEI | Cost Effectiveness Index |
| CEQ | Council on Environmental Quality |
| CET | Community Engagement Team |
| CFR | Code of Federal Regulations |
| CP | Canadian Pacific Railway |
| CPI | Consumer Product Index |
| CPTED | Crime Prevention Through Environmental Design |
| CR | County Road |
| CRU | Cultural Resource Unit |
| CSAH | County State-Aid Highway |
| CTIB | Counties Transit Improvement Board |
| CTUL | Centro de Trabajadores Unidos En La Lucha |
| CWR | Continuously Welded Rail |
| DOT | U.S. Department of Transportation |
| Draft EIS | Draft Environmental Impact Statement |
| EIS | Environmental Impact Statement |
| EO | Executive Order |

| | |
|-----------|--|
| EPA | U.S. Environmental Protection Agency |
| EQB | Environmental Quality Board |
| FAA | Federal Aviation Administration |
| FFGA | Full Funding Grant Agreement |
| Final EIS | Final Environmental Impact Statement |
| FLSC | Fire Life Safety Committee |
| FTA | Federal Transit Administration |
| GBN | Ground-Borne Noise |
| GBV | Ground-Borne Vibration |
| GIS | Geographic Information Systems |
| HCM | Highway Capacity Manual |
| HCRRRA | Hennepin County Regional Railroad Authority |
| HERC | Hennepin Energy Recovery Center |
| HHS | U.S. Department of Health and Human Services |
| HIA | Health Impact Assessment |
| LEDPA | Least Environmentally Damaging Preferred Alternative |
| I-35W | Interstate 35W |
| I-394 | Interstate 394 |
| I-94 | Interstate 94 |
| LAWCON | Land and Water Conservation Fund Act |
| LOS | Level of Service |
| LPA | Locally Preferred Alternative |
| LRT | Light Rail Transit |
| LRV | Light Rail Vehicle |
| MAC | Metropolitan Airports Commission |
| MAP-21 | Moving Ahead for Progress in the 21 st Century Act |
| MEPA | Minnesota Environmental Protection Act |
| MICAH | Metropolitan Interfaith Council on Affordable Housing |
| MLS | Multiple Listing Service |
| MN MUTCD | Minnesota Manual on Uniform Traffic Control Devices |
| MnDOT | Minnesota Department of Transportation |
| MnDOT-CRU | Minnesota Department of Transportation Cultural Resources Unit |
| MnEQB | Minnesota Environmental Quality Board |
| MNOSHA | Minnesota Occupational Safety and Health Administration |
| MOA | Memorandum of Agreement |
| MOT | Maintenance of Traffic |
| MP | Mile Post |
| MPCA | Minnesota Pollution Control Agency |
| mph | Miles Per Hour |
| MPRB | Minneapolis Park and Recreation Board |

| | |
|------------|---|
| MSAT | Mobile Source Air Toxics |
| N/A | Not Applicable |
| NC | Neighborhood Commercial |
| NCHRP | National Cooperative Highway Research Program |
| NEPA | National Environmental Policy Act |
| NFPA | National Fire Protection Association |
| NMMC | North Memorial Medical Center |
| NOA | Notice of Availability |
| NOI | Notice of Intent |
| NRHP | National Register of Historic Places |
| NTN | Northside Neighborhood Transportation Network |
| O&M | Operation and Maintenance |
| OCS | Overhead Contact System |
| OMF | Operations and Maintenance Facility |
| OSHA | Occupational Safety and Health Administration |
| PA | Programmatic Agreement |
| PAC | Policy Advisory Committee |
| PIP | Public Involvement Plan |
| RFFAs | Reasonably Foreseeable Future Actions |
| ROD | Record of Decision |
| ROW | Right-of-way |
| RPZ | Runway Protection Zone |
| SAFETEA-LU | Safe, Accountable, Flexible, and Efficient Transportation Equity Act—A Legacy for Users |
| SCC | Standard Cost Category |
| SEL | Sound Exposure Level |
| SEPP | Security and Emergency Preparedness Plan |
| SHPO | State Historic Preservation Office |
| SRF | SRF Consulting Group, Inc. |
| SSMP | Safety and Security Management Plan |
| TH | Trunk Highway |
| THPO | Tribal Historic Preservation Office |
| TMDL | Total Maximum Daily Load |
| TOD | Transit Oriented Development |
| TPP | Transportation Policy Plan |
| TPSS | Traction Power Substation |
| TSM | Transportation Systems Management |
| U.S. | United States |
| UROC | Urban Research and Outreach-Engagement Center |
| VMT | Vehicle Miles Traveled |

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

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

Tuesday, May 13, 2014

Brooklyn Park City Hall
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-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).

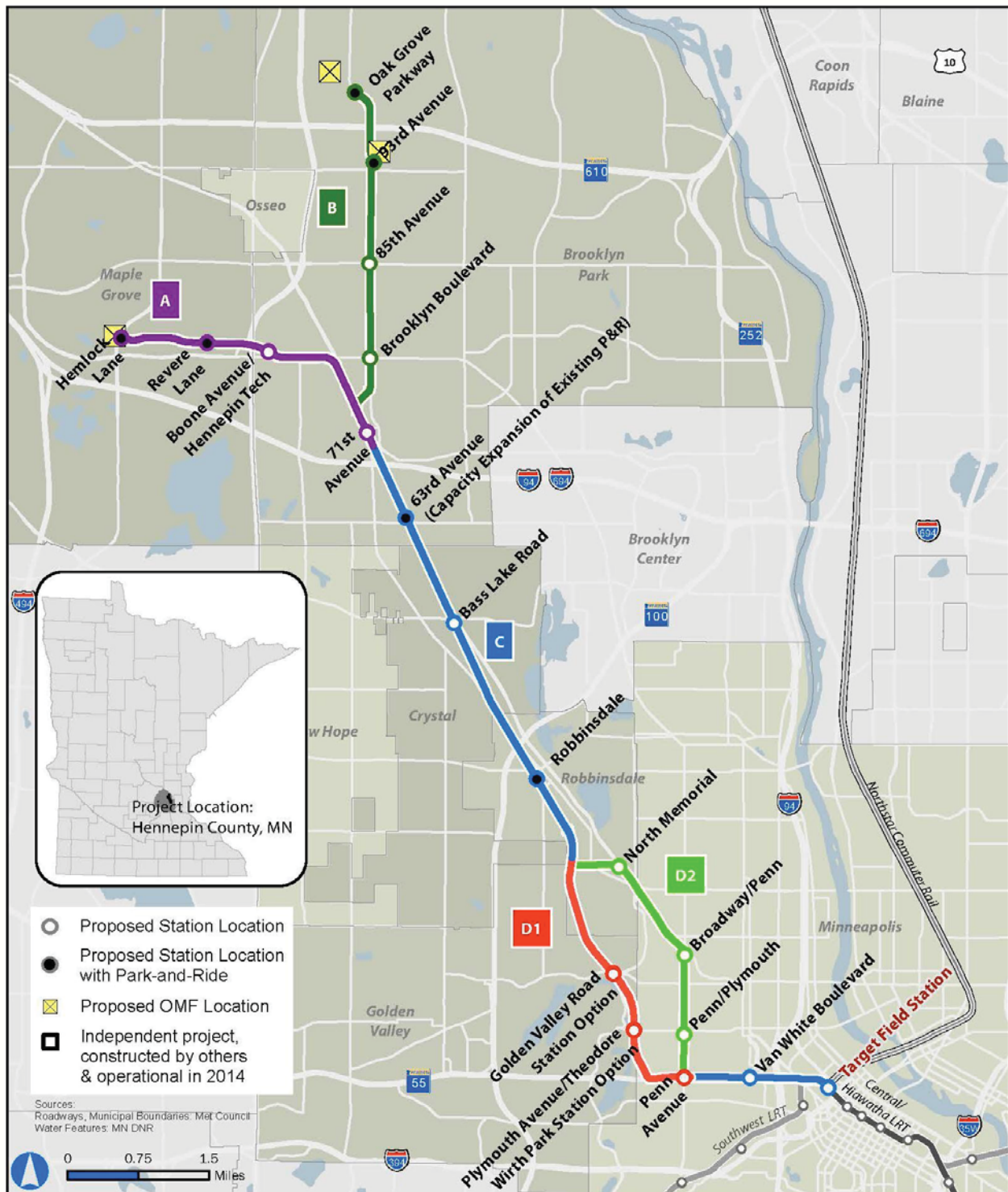
ES.5.6 Alternative B-C-D2

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-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-range 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 | ■ 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 | ■ 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 | ■ 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 | ■ 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 | 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 | ■ None | Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> ■ Penn Avenue at TH 55 | 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 | Intersections Expected to Operate at Level of Service E/F in 2030: <ul style="list-style-type: none"> ■ Penn Avenue at TH 55 | 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 | ■ 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 | ■ 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 | ■ 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) | ■ 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 | ■ 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 | ■ A key goal of city and regional plans would not be fulfilled | ■ The intent of regional and local comprehensive plans to support and develop transit in the corridor would be partially fulfilled | ■ 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 | ■ 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 | ■ 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 | ■ 27 low contamination risk sites ■ 7 medium contamination risk sites ■ 1 high contamination risk site | ■ 53 low contamination risk sites ■ 17 medium contamination risk sites ■ 1 high contamination risk site | ■ 33 low contamination risk sites ■ 0 medium contamination risk sites ■ 1 high contamination risk site | ■ 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 | ■ Moderate Mitigated Impacts ■ Alignment A: 5-10 receptors ■ Alignment C: 350-355 receptors ■ Alignment D1: 25-35 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts ■ Alignment A: 0 receptors ■ Alignment C: 15-20 receptors ■ Alignment D1: 0-5 receptors | ■ Moderate Mitigated Impacts ■ Alignment A: 5-10 receptors ■ Alignment C: 350-355 receptors ■ Alignment D2: 305-310 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts ■ Alignment A: 0 receptors ■ Alignment C: 15-20 receptors ■ Alignment D2: 5-10 receptors | ■ Moderate Mitigated Impacts ■ Alignment B: 55-60 receptors ■ Alignment C: 350-355 receptors ■ Alignment D1: 25-35 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts ■ Alignment B: 5-10 receptors ■ Alignment C: 15-20 receptors ■ Alignment D1: 0-5 receptors | ■ Moderate Mitigated Impacts ■ Alignment B: 55-60 receptors ■ Alignment C: 350-355 receptors ■ Alignment D2: 305-310 receptors ■ D Common Section: 15-20 receptors ■ Severe Mitigated Impacts ■ Alignment B: 5-10 receptors ■ Alignment C: 15-20 receptors ■ Alignment D2: 5-10 receptors |
| | | Construction Phase Impacts | ■ None | ■ 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 | ■ 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 | ■ 10.7-acres loss of wildlife habitat ■ Potential impact to Blanding's turtle habitat | ■ 3-acres loss of wildlife habitat ■ No endangered species impacts | ■ Loss of wildlife habitat ■ 101st Avenue OMF location option: 30.9 acres ■ 93rd Avenue OMF location option: 13.9 acres ■ Potential impact to Blanding's turtle habitat | ■ Loss of wildlife habitat ■ 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 | ■ 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 | ■ 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 | ■ 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 |  |  |  |  |  |  |
| Goal 1: Enhance Access to Regional Activity Centers |  |  |  |  |  |  |
| Goal 2: Enhance the Effectiveness of Transit Service within the Corridor |  |  |  |  |  |  |
| Goal 3: Provide a Cost-effective and Financially Feasible Transit System |  |  |  |  |  |  |
| Goal 4: Promote Sustainable Development Patterns |  |  |  |  |  |  |
| Goal 5: Support Healthy Communities and Sound Environmental Practices |  |  |  |  |  |  |
| 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.