7.0 Environmental Justice

7.1 Introduction and Regulatory Overview

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 1994), requires the U.S. Department of Transportation (DOT) and the Federal Transit Administration (FTA) to make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and/or low-income populations (collectively "EJ populations"). Environmental justice at FTA includes incorporation of environmental justice and non-discrimination principles into transportation planning and decision-making processes and project-specific environmental reviews. Furthermore, U.S. DOT order 5610.2(a) sets forth steps to prevent disproportionately high and adverse effects to minority or low-income populations through Title VI analyses and environmental justice analyses conducted as part of Federal transportation planning and National Environmental Policy Act (NEPA) provisions.

The NEPA requires federal agencies such as FTA to consider the environmental effects of projects proposed for federal funding if there is a potential for significant environmental effects. Agencies must consider whether a federally funded project will have an EJ impact regardless of the NEPA class of action. Consistent with the NEPA, the Executive Order, and the USDOT Order, FTA and the Hennepin County Regional Railroad Authority (HCRRA) have considered three principles of environmental justice throughout the development of the Bottineau Transitway Project:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects of the Bottineau Transitway Project, on minority and low-income populations;
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

The environmental justice analysis presented in this chapter is based on the framework outlined in FTA *Circular 4703.1* (August 2012) for execution of an EJ analysis within the NEPA environmental review process and consists of:

- An explanation of the methodology used to identify EJ populations using socioeconomic data and a description of the EJ populations within the study area affected by the project;
- Documentation of the Bottineau Transitway Project’s engagement with EJ populations during the NEPA process;
- Definition of the burdens and benefits of the Bottineau Transitway Project, as described by EJ populations; and
- Determination of impacts to EJ populations.
7.2 Methodology for the Bottineau Transitway EJ Analysis

7.2.1 Study Area

A geographic information systems (GIS) platform was used to draw a half-mile buffer around each Bottineau Transitway alternative. For the analysis of minority populations, each census block that intersects with the half-mile buffer or is completely within the half-mile buffer was included in the study area. For the analysis of low-income populations, each census block-group that intersects with the half-mile buffer or is completely within the half-mile buffer was included in the study area.

7.2.2 Data Sources

Decennial census data were used as a primary source for mapping and locating minority populations in the Bottineau Transitway. The U.S. Census, mandated by Article I, Section 2 of the Constitution, takes place every 10 years and counts every resident in the United States. The census also collects information on homeownership, sex, age, race, and ethnicity. Year 2010 U.S. Census data were used to quantify minority populations at the block level, which is the smallest geographic unit for which race and ethnicity data are available.

American Community Survey (ACS) 2007-2011 data were used as a primary source for mapping low-income populations in the Bottineau Transitway. The ACS is an ongoing survey that provides data on age, sex, race, family and relationships, income and benefits, health insurance, education, veteran status, disabilities, where people work and how they get there, and where people live and how much people pay for some essentials. The purpose of the ACS is to provide an annual data set that enables communities, state governments, and federal programs to plan investments and services. In general, ACS estimates are period estimates that describe the average characteristics of population and housing over a period of data collection. The ACS is administered continually and, unlike the census, is a random sampling of people from all counties and county-equivalents in the United States. ACS 2007-2011 5-Year Estimates were used to quantify low-income populations at the block group level, which is the smallest geographic unit for which low-income population data are available.

7.2.3 Identifying Minority and Low-Income Populations

As defined in FTA Circular 4703.1, 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 proposed project. Minority includes persons who are American Indian and Alaska Native, Asian, Black, or African American, Hispanic or Latino, and Native Hawaiian and other Pacific Islander.

2010 Census data were used to map the percentage of minorities in each census block in the Bottineau Transitway study area. In addition, the presence of minority populations in the corridor were further recognized and documented through engagement work by the Corridors of Opportunity grantee organizations, extensive public engagement in the corridor as part of the NEPA process, interviews and outreach as part of the Bottineau Transitway Health Impact Assessment (HIA), and data analysis, outreach, and research as part of Bottineau Station Area Pre-Planning. Please see Section 7.4.1 for more information on these efforts.

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1 One half-mile is the industry standard for the maximum distance that a transit user will walk to a station. FTA uses one half-mile catchment areas around transitway stations to measure population and employment in the station areas. Use of the half-mile buffer for this EJ analysis is consistent with corridor demographic measurements throughout the Draft EIS.

2 US Census Explore the form: http://www.census.gov/2010census/about/interactive-form.php

3 About the American Community Survey: http://www.census.gov/acs/www/about_the_survey/american_community_survey/

As defined in FTA Circular 4703.1, a **low-income person** is one whose median household income is at or below the Department of Health and Human Services poverty guidelines. A low-income population is any readily identifiable group of low-income 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 proposed project.

ACS data were used to map the percentage of low-income residents in each census block in the Bottineau Transitway study area. Similarly to minority populations, engagement work by the Corridors of Opportunity grantee organizations, extensive public engagement in the corridor as part of the NEPA process, interviews and outreach as part of the Bottineau Transitway HIA, and data analysis, outreach, and research as part of Bottineau Station Area Pre-Planning, contributed to discerning and documenting low-income populations in the Bottineau Transitway. Please see Section 7.4.1 for more information on these engagement efforts.

### 7.3 Environmental Justice Populations in the Study Area

**Figure 7.3-1** maps the percentage of minority populations in the Bottineau Transitway study area. For broader context and reference, the Bottineau Transitway study area was compared with Hennepin County, the Twin Cities Metropolitan Area, and the state of Minnesota. The Bottineau Transitway study area has a higher percentage of minority populations than the state of Minnesota, the seven-county Twin Cities Metropolitan Area, and Hennepin County, as shown in **Table 7.3-1** below.

<table>
<thead>
<tr>
<th></th>
<th>Total Population</th>
<th>Non-Minority Population</th>
<th>Minority Population</th>
<th>Percent Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minnesota</strong></td>
<td>5,303,925</td>
<td>4,405,142</td>
<td>898,783</td>
<td>16.9%</td>
</tr>
<tr>
<td><strong>Seven-County</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twin Cities Metropolitan Area</td>
<td>2,846,567</td>
<td>2,173,221</td>
<td>673,346</td>
<td>23.7%</td>
</tr>
<tr>
<td><strong>Hennepin County</strong></td>
<td>1,152,425</td>
<td>826,670</td>
<td>325,755</td>
<td>28.3%</td>
</tr>
<tr>
<td><strong>Bottineau Transitway</strong></td>
<td>74,099</td>
<td>35,266</td>
<td>38,833</td>
<td>52.4%</td>
</tr>
</tbody>
</table>

1 Minority populations living within a half mile of the corridor are included in this table.

Source: 2010 U.S. Census, block-level data

Minority populations were further analyzed to identify individual minority statistics. While census data identify African Americans, Asian Americans, and Latino populations shown in **Figures 7.3-2** through **7.3-4**, community engagement and Corridors of Opportunity grantee organizations have facilitated a more nuanced understanding of study area populations. A significant part of the African American population in the study area is comprised of new immigrants primarily from Somalia and Ethiopia, and Hmong and Lao are distinct Asian American communities in the corridor. Further discussion of minority populations, Corridors of Opportunity, and community engagement is in Section 7.4.

**Figure 7.3-5** maps the percentage of low-income residents in the Bottineau Transitway study area. The Bottineau Transitway also has a higher percentage of low-income populations than the state of Minnesota, the seven-county Twin Cities Metropolitan Area, and Hennepin County, as shown in **Table 7.3-2**.

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Table 7.3-2. Low-Income Population by State, Region, County, and Bottineau Transitway

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Population for whom Poverty is Determined</th>
<th>Population Living Above the Poverty Line</th>
<th>Population Living Below the Poverty Line</th>
<th>Percent in Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>5,155,949</td>
<td>4,590,795</td>
<td>565,154</td>
<td>10.9%</td>
</tr>
<tr>
<td>Seven-County Twin Cities Metropolitan Area</td>
<td>3,084,447</td>
<td>2,775,636</td>
<td>308,811</td>
<td>10.0%</td>
</tr>
<tr>
<td>Hennepin County</td>
<td>1,124,293</td>
<td>986,035</td>
<td>138,258</td>
<td>12.3%</td>
</tr>
<tr>
<td>Bottineau Transitway¹</td>
<td>98,951</td>
<td>80,966</td>
<td>17,985</td>
<td>18.1%</td>
</tr>
</tbody>
</table>

¹ Low-income populations living within a half mile of the corridor are included in this table.

Source: 2007-2011 American Community Survey 5-Year Estimates, block group-level data
Figure 7.3-1. Minority Population in the Bottineau Transitway Study Area by Block

Bottineau Transitway
Minority Population by Block Within 1/2 mile of Alignments

Alignment/Station alternatives
- Half-mile radius around alignments
- No Population in Census Block

Minority Rate by Block
- 0 - 10% Minority
- 10.1% - 30% Minority
- Over 30% Minority

Data: 2010 U.S. Census, Summary File 1
Figure 7.3-2. African American Population in the Bottineau Transitway Study Area by Block
Figure 7.3-3. Asian American Population in the Bottineau Transitway Study Area by Block
Figure 7.3-4. Hispanic American Population in the Bottineau Transitway Study Area by Block

Bottineau Transitway
Hispanic Population by Block Within 1/2 mile of Alignments

Alignment/Station alternatives
- Half-mile radius around alignments
- No Population in Census Block

Hispanic Rate by Block
- 0% - 10% Hispanic
- 10.1% - 30% Hispanic
- Over 30% Hispanic

Data: 2010 U.S. Census, Summary File 1
Figure 7.3-5. Low-Income Population in the Bottineau Transitway Study Area by Block Group

Bottineau Transitway
People in Poverty by Block Group
Within 1/2 mile of Alignments
7.4 Public Engagement

7.4.1 Project Engagement Efforts

Engagement efforts throughout the Bottineau Transitway Draft EIS process built upon local knowledge of the project and processes as well as outreach efforts carried out through the Alternatives Analysis phase of project development. Station area pre-planning and Bottineau Transitway HIA outreach efforts coincided with outreach on the Draft EIS and provided additional opportunities for residents and businesses in the corridor to learn more about the project. Committee meetings, interviews, focus groups, and data gathered as part of station area pre-planning and the HIA provided additional information to the HCRRRA, Metropolitan Council, and FTA regarding low-income and minority populations in the study area.

Throughout project development and the NEPA process, the project has used several avenues of communication and outreach to engage minority and low-income communities affected by the project. First, project staff has reached out to established neighborhood groups, community leaders, and private organizations comprised of and connected to low-income and minority communities in the Bottineau Transitway such as:

- Corridors of Opportunity grantee organizations: As part of the Metropolitan Council Corridors of Opportunity Initiative and in an effort to engage underrepresented communities (low-income, communities of color, immigrant communities, persons with disabilities) in project planning throughout the region, the Metropolitan Council awarded grants to ten community-based non-profit organizations that engage and involve underrepresented communities in the Bottineau Transitway. Each of these organizations has worked in unique ways to engage their communities in participation, decision-making, and leadership roles related to Bottineau Transitway planning and implementation. Details on each of the Corridors of Opportunity grantee organizations and their connection to the Bottineau Transitway Project are in Section 7.4.2.  

- Community Advisory Committee: The Community Advisory Committee (CAC) is an established long-standing forum for community input and dissemination of project information. The Bottineau Transitway CAC has been meeting on a regular basis since 2008 and includes resident representatives from each city and key business and institutional representatives. Area residents and interested advocacy group representatives often attend CAC meetings to obtain information and provided input. Recently, representatives from each Corridors of Opportunity grantee organization have joined the CAC in an effort to maintain the connection and stream of information between the grantee organizations and the project long after the grant period has ended. Meetings are open to the public and meeting dates, locations, and materials are available on the project website. Members of the public who do not sit on the CAC often attend the meetings to receive project information and talk with staff. The public is also welcome to sign up for an email distribution list to receive CAC announcements and meeting materials.

- Project staff has been active participants in Bottineau Transitway events sponsored by several community and neighborhood organizations. See Table 7.4-1 for details.

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6 Corridors of Opportunity is a broad-based initiative to accelerate the build out of a regional transit system for the Twin Cities while advancing economic development and ensuring that people of all incomes and backgrounds share in resulting opportunities. Corridors of Opportunity is funded by a three year $5 million Sustainable Communities grant from the Federal Department of Housing and Urban Development, in partnership with the Department of Transportation and the Environmental Protection Agency. Since grant funds will expire at the end of 2013, the Initiative has created a Community Engagement Steering Committee to evaluate and recommend improvements to existing community engagement structures so that best practices continue beyond the life of Corridors of Opportunity to future transitway projects.

7 The Bottineau CAC was convened in April 2008, however many CAC members are familiar with corridor issues as they served on advisory committees for the reconstruction of Bottineau Boulevard and the Bottineau Bus Rapid Transit initiative in the mid-2000s.
Second, project staff routinely communicate project information, decisions, and upcoming opportunities for participation in a number of ways:

- Via the project’s e-mail based list serve, which has nearly 950 recipients;
- Distributing hardcopy newsletters, posters, and flyers to community gathering places along the corridor;
- Specifically notifying Corridors of Opportunity grantee organizations of all project meetings;
- Providing requested Bottineau Transitway informational materials and exhibits;
- On one occasion, distributing flyers door-to-door in several Minneapolis neighborhoods to announce a meeting regarding alignment options in those neighborhoods.

Finally, in addition to traditional open houses, project staff has provided many opportunities for public input to the project, such as:

- Project staff is accessible and available to the general public via email, phone, and have attended dozens of one-on-one meetings with individuals, business owners and managers, and organizations and agencies in the corridor.
- Project staff participates in Corridors of Opportunity grantee organization-led events such as meetings and tours and often attend neighborhood association meetings to provide information and updates.
- During the Draft EIS Scoping phase, HCRRA was interested in providing an opportunity for more extensive community discussion regarding the potential benefits as well as the potential impacts of the Bottineau Transitway. A roundtable event was held in September, 2011, at the Brookdale Library in Brooklyn Center to share outcomes from similar transit projects throughout the country as well as to provide a forum for smaller group interaction about the potential for economic development and other benefits in the Bottineau Transitway. Representatives of neighborhood associations, community organizations, foundations, and business groups, as well as people with known interest in the project were invited to attend. Representation included each city along the alternatives under consideration.
- To specifically engage nearby residents in refining the D2 alignment, a public open house was held in October 2011 at the Urban Research & Outreach-Engagement Center (UROC) in Minneapolis. HCRRA distributed flyers door-to-door in the surrounding neighborhoods and posted announcements at key community locations to ensure nearby residents received information about the meeting. The purpose of this open house was to share detailed information on the benefits and costs of the various Alignment D2 options under consideration (D2A, D2B, and D2C) and to obtain community input as to which of these options should be evaluated in the Draft EIS. A survey was provided to attendees and also made available online for those unable to attend the open house. A total of 83 survey responses were received, which provided insight into the community’s perceptions of the positives and negatives the various D2 alignments.
- The Policy Advisory Committee (PAC), comprised of elected officials from Hennepin County and the corridor cities, the corridor legislative delegation, a Metropolitan Council member, and senior staff from Metro Transit, MnDOT, and several large employers and schools in the corridor, meets on a regular basis. Noticed on the project website and open to the public, PAC meetings allow for direct input to committee members and are public forums for receipt of technical, financial, and political information about the project.
- Comment cards and project email are available for written input during the scoping process and throughout project development.
- Public hearings/meetings were held during the Draft EIS scoping period by HCRRA, as well as during the Locally Preferred Alternative selection process by the PAC, HCRRA, Metropolitan Council, and
corridor cities.

- Project staff receives reports from Corridors of Opportunity grantees African Career Education and Resource, Inc., Northside Transportation Network, and the Harrison Neighborhood Association documenting the perspectives articulated by participants in their engagement activities.

- Project staff preparing the Bottineau Transitway HIA conducted and documented one-on-one interviews with stakeholder organizations:
  - Lao Assistance
  - Summit Academy
  - Asian Economic Development Association
  - Northwest Hennepin Human Services Council
  - Healthy Together Northwest Network
  - North Point Health and Human Services Center
  - Harrison Neighborhood Association
  - Neighborhood Hub, Jordan Neighborhood
  - Transportation Equity Partnership
  - Redeemer Center for Life

- Bottineau Transitway HIA Advisory Committee met six times throughout preparation of the HIA and provided input on the scope of the document and important health issues in the corridor as they relate to the Bottineau Transitway.

- The Bottineau Transitway website www.bottineautransitway.org provides staff contact information and a corridor email address for people to submit comments on the project and requests for information. The website also includes general project information, a project library with maps and studies, notices of upcoming meetings and past meeting materials, information on project committees and decision-making, land use and economic development information, descriptions of other efforts in the corridor such as Corridors of Opportunity, links to relevant transit data/studies and frequently asked questions.

All of these outreach activities and engagement efforts contribute to HCRRRA, Metropolitan Council, and FTA’s understanding of the communities in the corridor and how the Bottineau Transitway will affect them. HCRRRA used suggestions and information gathered during public outreach activities to identify issues and concerns to be studied in the Draft EIS. More specifically, results from the survey regarding Alignment D2 options administered online and to attendees of the October 2011 open house assisted in the narrowing of D2 options and the identification of additional issue areas that would be studied in the Draft EIS.
7.4.2 Corridors of Opportunity Grantee Organization Community Engagement Efforts

The Corridors of Opportunity Initiative awards grants to place-based organizations that work with underrepresented communities to educate and organize communities around transit corridor decision-making, planning, and implementation opportunities important to them.

Ten Corridors of Opportunity grantee organizations have engaged minority and low-income populations in the Bottineau Transitway. Organizing work is carried out independently from the Metropolitan Council, HCRRA, and FTA, but has enabled effective dissemination of project information, and enhanced agencies’ understanding of the communities in the corridor. These organizations and their engagement efforts related to the Bottineau Transitway are described in the following sections.

**African Career, Education, and Resource, Inc. (ACER)**

ACER is a volunteer-driven, community-based organization founded in 2008 in Brooklyn Park to close the resource and information disparities within Minnesota’s communities of African descent and help those communities achieve societal and economic independence. ACER’s efforts have been focused on Alignments A, B, and C affecting Maple Grove, Osseo, Brooklyn Park, New Hope, Crystal, Brooklyn Center, and Robbinsdale.

ACER has used their two $30,000 Corridors of Opportunity grants to organize a range of events that engaged their members and networks in Bottineau Transitway planning: community forums, a tour of the Blue Line (Hiawatha) LRT, the Red Line (Cedar Avenue) BRT, and the Bottineau Transitway; a run-walk-bike event in the corridor; and an interactive panel with Bottineau Transitway staff. ACER also partnered with North Hennepin Community College and the Neighborhood Development Center to implement a 12-week Entrepreneur Training Program designed to match the entrepreneurial interests and goals of community members with the potential for business development and growth that may come with construction and operation of the Bottineau Transitway.

**La Asamblea de Derechos Civiles (La Asamblea)**

La Asamblea is a faith-based community organization in the Twin Cities and St. Cloud, MN. La Asamblea aims to bring Latino immigrants to the table to develop a collective vision around the transitway corridors and make their voice heard to ensure they benefit from decisions that affect their lives.

La Asamblea partnered with Saint Alphonsus Church in Brooklyn Park along the Bottineau Transitway to organize Latino immigrants from Catholic faith communities and host public forums, conduct community surveys, provide leadership training for community members, and organize meetings between residents and decision makers.

**Asian Economic Development Association (AEDA)**

Created by Asian business owners along University Avenue in St. Paul, AEDA is a nonprofit grassroots economic development organization focusing on several priority low-income Asian Minnesotan communities. AEDA provides access to resources, training, advocacy, and community-driven planning.

AEDA hired a community organizer and two culturally competent “Community Outreach Ambassadors” to organize and work with the Southeast Asian communities along the Bottineau Transitway to identify and address issues related to the development of transit in the study area.

**Asian Media Access**

Led by Asian Media Access, the Asian Pacific American Community Network (APA ComMNet) coalition has worked together since 2005 to challenge Asian American Pacific Islanders’ cultural and linguistic barriers with disabilities.
to engagement on state and local initiatives, and provide access to information and services for health and well-being issues in the AAPI community.

Asian Media Access received a $30,000 grant in 2011 to use media and technology for engaging communities, institutions, and businesses, especially under-represented Asians along the Bottineau Transitway. Asian Media Access produced a video to that featured Asian youth and their travels in the study area and informed people about the Bottineau Transitway alignment decision in their neighborhoods.

**Centro de Trabajadores Unidos en la Lucha (CTUL)**

CTUL is a low-wage Latino immigrant-led organization that organizes for fair wages and working conditions for all workers in the Twin Cities metro area. CTUL has partnered with thousands of low-wage immigrant workers regarding their rights in the workplace, and currently has around 160 members (all low-wage workers).

CTUL researches current working conditions in the corridors including job opportunities emerging from these projects, educates members on transit corridor development process, identifies and builds relationships with organizations interested in job development, educates workers on right to organize and fair wages, including building worker leadership, and trains members to participate in development processes.

**Cleveland Neighborhood Association**

The Cleveland Neighborhood Association serves the residents in the Cleveland Neighborhood of north Minneapolis, a diverse community of about 3,000 residents. The neighborhood is bordered by the commercial corridors of Penn, Lowry and Dowling Avenues and Victory Memorial Parkway. Nearly 800 of the residents are under the age of 18. Further, nearly a quarter of residents live below the Census-defined poverty level and about 20 percent are transit dependent (do not own a vehicle).

CNA has engaged transit-dependent, low-income, people of color in the Cleveland neighborhood by creating a “bus shelter workshop toolkit” to inform them about transit development (LRT, streetcars, bus, etc.) and connects them with the neighborhood organization to empower those residents to have a voice in the decision making process.

**Harrison Neighborhood Association on behalf of the Transit Equity Partnership (TEP)**

The TEP consists of three organizations: Harrison Neighborhood, Heritage Park Neighborhood, and Lao Assistance Center of Minnesota, controlled by underrepresented communities committed to creating a transit system that equitably benefits the diverse racial, cultural and economic groups in North Minneapolis.

The Harrison Neighborhood Association on behalf of TEP was awarded $45,000 grants in both 2011 and 2012 for their efforts to build a common understanding between diverse communities. The TEP has used workshops, presentations and community story-telling to build the capacity of grassroots leaders to engage and speak for themselves and their communities. The TEP has also worked with their constituencies to arrive upon positions that are reflective of the hopes and needs of the constituents and ensure that decision-makers are responsive to the community. The TEP works ensure a high level of community participation in the Bottineau Draft EIS using the gathered input and the positions developed and approved by community. This has been done in the following ways: (1) Training existing leaders and

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9 Harrison neighborhood is a racially diverse community consisting of 40% African American residents; 28% White; 17% Southeast Asian (Lao and Hmong); 9% Latino and 5% Somali and other. The median household income is a little more than $25,000.

10 Heritage Park is 35% Somali, 30% African American, 11% Native American, 6% Asian, 5% Ethiopian, 4% Latino, and 3% White. The median household income is approximately $16,000.

11 There are 25,000 Lao in Minnesota, 70% live in Hennepin County of which 30% live in North Minneapolis.
recently emerged leaders on how to advocate on behalf of the recently developed community position; (2) Forming a Van White Station Stakeholders group that will consist of the TEP, property owners and key organizations located in the ¼ mile of the Station with the purpose of implementing community equity goals; (3) Training and preparing resident leaders to advocate for their community in the Draft EIS process and in the County sponsored HIA process; (4) Developing community priorities and positions for the Bottineau line between Van White and Penn Avenue; and (5) Connecting local leaders to Corridor-wide efforts and processes.

**Masjid An-Nur**

Masjid An-Nur is located in North Minneapolis and is home to an organization called Al-Maa’uuun which serves approximately 500 families per month via its food shelf. Individuals who benefit from Al-Maa’uuun and Masjid An-Nur’s services are largely people of color, immigrants from West Africa, and/or Muslim.

Masjid An-Nur was awarded $10,000 in 2012 for a Bottineau Transitway awareness and education campaign for the North Minneapolis community served by Masjid An-Nur and Al-Maa’uuun.

**Minneapolis Interfaith Coalition on Affordable Housing (MICAH)**

MICAH organizes communities of faith throughout the metropolitan region around the vision that everyone, without exception, has a safe, decent, and affordable home.

MICAH works with three other organizations in the Bottineau Transitway study area: Zion Baptist Church, Bethesda Missionary Baptist Church, and Discussions that Encounter. MICAH held training for community members in the fall of 2012 regarding transitway development process, decision making, and the relationship between transit and changes to the built environment. MICAH also facilitated meetings between constituents and political policy makers to build relationships and support for issue priorities. Electronic and social media were also used.

**Northside Residents Redevelopment Council (NRRC)**

NRRC incorporated as a 501(c)3 in 1969 and stands as the oldest neighborhood organization in Minneapolis. NRRC’s active transportation committee, the Northside Transportation Network, was started in 2010 to focus on access to public transit for underrepresented populations.

NRRC and NTN were awarded a $30,000 grant in 2012 to facilitate extensive outreach to engage underrepresented communities in Bottineau Transitway planning. NTN hosts monthly meetings that are open to and well attended by community members and routinely include Bottineau Transitway Project updates and information from HCRA staff. NRRC and NTN have also hosted several community-wide open houses about the Bottineau Transitway. NRRC and NTN consistently notify their members and network about upcoming HCRA-sponsored meetings, need for input, and decision points.

*Figure 7.4-1* maps the locations of the Corridors of Opportunity grantee organizations working in the Bottineau Transitway.
Figure 7.4-1: Corridors of Opportunity Grantee Organizations Working in the Bottineau Transitway Study Area
7.4.3 Environmental Justice-Related Outreach Efforts and Outcomes

Table 7.4-1 presents Bottineau Transitway meetings held throughout the preparation of the Draft EIS. Meetings ranged from public open houses held by HCRRA that were widely advertised and open to the public, to individual meetings that HCRRA staff attended at the request of business owners and resident groups in the Corridor. Neighborhood organizations and Corridors of Opportunity grantee organizations sponsored a number of Bottineau Transitway meetings and events that were attended by HCRRA staff, also noted in Table 7.4-1.

Table 7.4-1. Environmental Justice-Related Outreach Efforts

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
<th>Meeting Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-7-2011</td>
<td>Public open house</td>
<td>Zanewood Community Center</td>
<td>Bottineau Transitway staff distributed project information and provided opportunities to talk to staff. For convenience and optimal attendance, informational open houses were held on six different evenings at six transit and ADA-accessible locations throughout the corridor.</td>
</tr>
<tr>
<td>6-9-2011</td>
<td>Public open house</td>
<td>Robbinsdale</td>
<td></td>
</tr>
<tr>
<td>6-14-2011</td>
<td>Public open house</td>
<td>Courage Center</td>
<td></td>
</tr>
<tr>
<td>6-15-2011</td>
<td>Public open house</td>
<td>Crystal</td>
<td></td>
</tr>
<tr>
<td>6-16-2011</td>
<td>Public open house</td>
<td>Hennepin Technical College</td>
<td></td>
</tr>
<tr>
<td>6-28-2011</td>
<td>Public open house</td>
<td>UROC North Minneapolis</td>
<td></td>
</tr>
<tr>
<td>9-15-2011</td>
<td>Roundtable discussions</td>
<td>Brookdale Library</td>
<td>HCRRA held a roundtable to provide a forum for smaller group interaction about the potential for economic development and other benefits in the Bottineau Transitway and balancing impacts/benefits in project decisions.</td>
</tr>
<tr>
<td>10-6-2011</td>
<td>Public open house</td>
<td>UROC North Minneapolis</td>
<td>HCRRA held a special public open house in North Minneapolis to discuss the D2 alignment options. HCRRA gained an understanding of the community’s perceived benefits and costs of the D2 alignments, which are reflected in this analysis.</td>
</tr>
<tr>
<td>1-23-2012</td>
<td>Public open house</td>
<td>Theodore Wirth Park</td>
<td>Scoping open houses were held on four evenings in four locations along the corridor to collect input that would define the scope of the Draft EIS.</td>
</tr>
<tr>
<td>1-24-2012</td>
<td>Public open house</td>
<td>Brooklyn Park</td>
<td></td>
</tr>
<tr>
<td>1-25-2012</td>
<td>Public open house</td>
<td>UROC North Minneapolis</td>
<td></td>
</tr>
<tr>
<td>1-31-2012</td>
<td>Public open house</td>
<td>Robbinsdale</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Meeting</td>
<td>Meeting Location</td>
<td>Meeting Characteristics</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>12-2-2011</td>
<td>Public open house</td>
<td>Heritage Park Neighborhood</td>
<td></td>
</tr>
<tr>
<td>12-3-2011</td>
<td>Public open house</td>
<td>Harrison Neighborhood</td>
<td></td>
</tr>
<tr>
<td>2-9-2012</td>
<td>Lao Open House</td>
<td>Harrison Neighborhood</td>
<td></td>
</tr>
<tr>
<td>3-22-2012</td>
<td>Northside Transportation Network Open House</td>
<td>City of Lakes Community Land Trust</td>
<td></td>
</tr>
<tr>
<td>3-24-2012</td>
<td>ACER-sponsored panel discussions and interactive tours</td>
<td>Hiawatha LRT, Cedar Ave. BRT, and Bottineau Corridors</td>
<td></td>
</tr>
<tr>
<td>4-9-2012</td>
<td>Public open house</td>
<td>Heritage Park Neighborhood</td>
<td></td>
</tr>
<tr>
<td>4-23-2012</td>
<td>Public open house</td>
<td>Heritage Park Neighborhood</td>
<td></td>
</tr>
<tr>
<td>5-9-2012</td>
<td>Harrison Neighborhood Developers Meeting</td>
<td>Harrison Community Center</td>
<td>Bottineau Transitway staff often attend meetings and events at the invitation of Corridors of Opportunity grantees to give updates on the project and hear from community members.</td>
</tr>
<tr>
<td>5-31-2012</td>
<td>Northside Transportation Network Open House</td>
<td>UROC</td>
<td></td>
</tr>
<tr>
<td>9-8-2012</td>
<td>ACER-sponsored run-walk-bike event to promote active living along the Bottineau Transitway corridor</td>
<td>Bottineau Transitway</td>
<td></td>
</tr>
<tr>
<td>9-20-2012</td>
<td>Hiawatha LRT tour for Robbinsdale residents</td>
<td>Hiawatha Corridor</td>
<td></td>
</tr>
<tr>
<td>9-20-2012</td>
<td>Northside Transportation Network</td>
<td>City of Lakes Community Land Trust</td>
<td></td>
</tr>
<tr>
<td>9-22-2012</td>
<td>Hiawatha LRT tour for Robbinsdale residents</td>
<td>Hiawatha Corridor</td>
<td></td>
</tr>
<tr>
<td>10-18-2012</td>
<td>Northside Transportation Network</td>
<td>City of Lakes Community Land Trust</td>
<td></td>
</tr>
<tr>
<td>11-29-2012</td>
<td>Northside Transportation Network Open House</td>
<td>UROC</td>
<td></td>
</tr>
<tr>
<td>2-28-2013</td>
<td>Northside Transportation Network</td>
<td>City of Lakes Community Land Trust</td>
<td></td>
</tr>
</tbody>
</table>
## Community Advisory Committee Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
<th>Meeting Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-5-2011</td>
<td>CAC Meeting</td>
<td>Crystal City Hall</td>
<td>CAC members represent communities, businesses, and institutions in the Bottineau Transitway study area. The CAC meets regularly and is a conduit for integrating the values and perspectives of citizens, communities, businesses, and institutions into the Bottineau Transitway development process.</td>
</tr>
<tr>
<td>7-21-2011</td>
<td>CAC Meeting</td>
<td>Brookdale Library</td>
<td></td>
</tr>
<tr>
<td>10-27-2011</td>
<td>CAC Meeting</td>
<td>Crystal City Hall</td>
<td></td>
</tr>
<tr>
<td>11-17-2011</td>
<td>CAC Meeting</td>
<td>Brookdale Library</td>
<td></td>
</tr>
<tr>
<td>12-15-2011</td>
<td>CAC Meeting</td>
<td>Brookdale Library</td>
<td></td>
</tr>
<tr>
<td>2-9-2012</td>
<td>CAC Meeting</td>
<td>Crystal City Hall</td>
<td></td>
</tr>
<tr>
<td>4-19-2012</td>
<td>CAC Meeting</td>
<td>Crystal City Hall</td>
<td></td>
</tr>
<tr>
<td>5-24-2012</td>
<td>CAC Meeting</td>
<td>Crystal City Hall</td>
<td></td>
</tr>
<tr>
<td>12-6-2012</td>
<td>CAC Meeting</td>
<td>Crystal City Hall</td>
<td></td>
</tr>
<tr>
<td>2-21-2013</td>
<td>CAC Meeting</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
</tbody>
</table>

## Media Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-21-2012</td>
<td>Two radio appearances on KMOJ FM 89.9, “African Roots Connection”</td>
<td>KMOJ studios</td>
<td>Promote the project and engage targeted community members</td>
</tr>
</tbody>
</table>

## Public Hearings

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10-2012</td>
<td>Public Hearing</td>
<td>Brooklyn Park City Hall</td>
<td>Policy Advisory Committee LPA decision</td>
</tr>
</tbody>
</table>

## Environmental Justice Event

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-23-2012</td>
<td>EJ Forum</td>
<td>Hallie Q. Brown Center</td>
<td>Bottineau Transitway staff participated in planning and executing a regional EJ policy forum that involved EJ community organizations and residents, as well as representatives from the US Environmental Protection Agency.</td>
</tr>
<tr>
<td>10-23-2012</td>
<td>EJ Stakeholder meeting</td>
<td>Central Corridor Resource Center</td>
<td></td>
</tr>
</tbody>
</table>

## Health Impact Assessment Outreach

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-31-2012</td>
<td>Bottineau HIA Advisory Committee</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
<tr>
<td>7-24-2012</td>
<td>Bottineau HIA Advisory Committee</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
<tr>
<td>11-2-2012</td>
<td>Bottineau HIA Advisory Committee</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
<tr>
<td>2-13-2013</td>
<td>Bottineau HIA Advisory Committee</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
<tr>
<td>4-10-2013</td>
<td>Bottineau HIA Advisory Committee</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
<tr>
<td>6-7-2013</td>
<td>Bottineau HIA Advisory Committee</td>
<td>NorthPoint Health and Wellness Center</td>
<td></td>
</tr>
</tbody>
</table>

The HIA Advisory Committee met six times throughout preparation of the HIA and provided input on the scope of the document and important health issues in the corridor as they relate to the Bottineau Transitway investment.
### Public Forums

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
<th>Meeting Location</th>
<th>Meeting Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-14-2012</td>
<td>Brooklyn Park City Council</td>
<td>Brooklyn Park City Hall</td>
<td>Bottineau Transitway staff responded to questions and heard discussion at and City Council and Parks and Recreation Board meetings. Meetings are open to the public and agendas and minutes are posted online.</td>
</tr>
<tr>
<td>11-28-2012</td>
<td>Golden Valley City Council</td>
<td>Golden Valley City Hall</td>
<td></td>
</tr>
<tr>
<td>12-18-2012</td>
<td>Golden Valley City Council</td>
<td>Golden Valley City Hall</td>
<td></td>
</tr>
<tr>
<td>2-27-2013</td>
<td>Minneapolis Parks and Recreation Board Meeting</td>
<td>MPRB Headquarters</td>
<td></td>
</tr>
<tr>
<td>3-2-2013</td>
<td>Minneapolis Parks and Recreation Board Meeting</td>
<td>MPRB Headquarters</td>
<td></td>
</tr>
</tbody>
</table>

### One On One Meetings With Corridor Stakeholders

<table>
<thead>
<tr>
<th>Date</th>
<th>One-on-one with Plymouth Christian Youth Center staff</th>
<th>Plymouth Christian Youth Center</th>
<th>Share information/updates on the Bottineau Alternatives Analysis process, expected environmental review process timeline, and expected station area planning process/timeline; discuss the project as it relates to the business or organization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-14-2011</td>
<td>One-on-one with Estes staff</td>
<td>Estes Funeral Home</td>
<td></td>
</tr>
<tr>
<td>9-21-2011</td>
<td>One-on-one with Food Bank staff</td>
<td>North Minneapolis</td>
<td></td>
</tr>
<tr>
<td>9-26-2011</td>
<td>One-on-one with Urban League staff</td>
<td>Urban League, Minneapolis</td>
<td></td>
</tr>
<tr>
<td>11-15-2012</td>
<td>City of Lakes Community Land Trust</td>
<td>Northside Transportation Network-sponsored meeting</td>
<td></td>
</tr>
<tr>
<td>1-18-2012</td>
<td>Brooklyn Park Property Owners’ Coalition</td>
<td>The Willows Apartments</td>
<td></td>
</tr>
</tbody>
</table>

1 The Bottineau Transitway HIA was published in December 2013 and is available at [http://www.hennepin.us/bottineauhia](http://www.hennepin.us/bottineauhia).

As shown in Table 7.4.1, outreach efforts for the Bottineau Transitway project spanned many different types of meetings held in locations throughout the corridor. The outcome of the public engagement efforts as a whole are that people who live and work in the corridor are aware of the project, have provided insightful comments to both staff and elected officials to influence major project decisions, and are connected to the project so that they can continue to participate through future design and construction phases.

Corridors of Opportunity grantee organizations as well as neighborhood organizations and advocacy groups have facilitated participation in the project by many members of environmental justice communities, some of whom would not have learned about or participated in the Bottineau Transitway project through more conventional approaches. As a result, Bottineau Transitway project staff have developed relationships with member environmental justice communities and are plugged into a network of people, organizations, and events that have been and will continue to be effective at disseminating project information and soliciting project input from low-income and minority communities.

The diversity of project meetings, materials, and information sources has resulted in involvement of environmental justice communities in many different ways:
Corridors of Opportunity organizations, neighborhood organizations, and advocacy groups have organized their own meetings and events regarding the Bottineau Transitway and have used their contacts and networks to attract new participants and make the most of opportunities related to the transitway investment.

Members of environmental justice communities serve on the Community Advisory Committee for the project and have become knowledgeable and invested stakeholders in the project. They are informed and help to share project information within their communities.

Throughout the Draft EIS, members of environmental justice communities have met with staff to resolve individual property or business issues related to the project.

Project staff consistently hold Bottineau Transitway public meetings and open houses in environmental justice communities, and members of environmental justice communities attend these meetings. Staff have become acquainted with people who live and work in the corridor and have gained a nuanced view of people’s issues and concerns.

Finally, some members of environmental justice communities stay up to date on the project by monitoring the project website and subscribing to the project email list.

Input received and information disseminated at individual and committee meetings, open houses, tours, and public hearings have affected the Bottineau Transitway in a number of significant ways:

- Changes were made to the design of the project. For example, in response to concerns identified with the D2 alignment on West Broadway and Penn Avenues in North Minneapolis, several additional D2 alignments (D2A, D2B, D2C) were developed and evaluated.
- Community members aided in defining the scope of the Draft EIS through robust participation in the scoping process.
- Community members have access to Bottineau Transitway information in many places in their communities, as well as online.
- The corridor communities reached consensus on the Locally Preferred Alternative for the project in December, 2012 and the Metropolitan Council amended the region’s Transportation Policy Plan to include the LPA in May, 2013.

### 7.5 Environmental Justice Impacts Analysis

#### 7.5.1 Operating Phase (Long-Term) Impacts

A multi-step process was used to identify the potential for disproportionately high and adverse effects on Environmental Justice populations.

First, impact categories were selected including land use, traffic, parking, community character and facilities (including parks), right-of-way and relocations, visual quality, safety and security, noise, vibration, air quality, traction power substations (TPSS), and operations and maintenance facilities (OMFs). These categories were selected because the impacts in these categories tend to be localized and have the potential for high or disproportionate impact to environmental justice populations. Other categories evaluated in this Draft EIS were not considered because they either presented no impacts, or their effects would be experienced by all populations living in the study area, regardless of race, ethnicity, or socioeconomic status.
Each Bottineau Transitway alternative was then evaluated in each category, as shown in Table 7.5-1. The evaluation is based on the results documented in Chapter 3 Transportation Analysis,\textsuperscript{12} Chapter 4 Community and Social Analysis,\textsuperscript{13} and Chapter 5 Physical and Environmental Analysis.\textsuperscript{14} Categories with potential effects were then carried forward to another level of analysis to determine whether those effects were high or disproportionate to environmental justice populations.

7.5.1.1 No-Build Alternative

The No-Build alternative would not result in disproportionately high and adverse effects to environmental justice populations. However, the positive effects of the project would also not be realized, such as improved transit travel times, frequency of service, and improved transfers, as well as quality pedestrian access to high speed transit that connects to the largest job concentrations in the region, many educational institutions, health services, and healthy food sources.

7.5.1.2 Enhanced Bus/TSM Alternative

The Enhanced Bus/TSM alternative would include a transit center and park-and-ride facility near Oak Grove Parkway and West Broadway Avenue, north of TH 610. The facility would be located in an area that is currently undeveloped and would not result in adverse effects to environmental justice populations. The Enhanced Bus/TSM alternative would expand and enhance transportation opportunities for all populations along the Bottineau Transitway. There are no high and adverse effects to environmental justice populations in the Enhanced Bus/TSM alternative.

7.5.1.3 Build Alternatives: Potential Impacts Analysis

Potential effects, as documented in Chapter 3 Transportation Analysis,\textsuperscript{15} Chapter 4 Community and Social Analysis,\textsuperscript{16} and Chapter 5 Physical and Environmental Analysis,\textsuperscript{17} are identified by alternative below in Table 7.5-1. Categories with no effects are not carried forward for further analysis. Categories with potential effects are considered for their potential for Disproportionately High and Adverse Effects on EJ communities in Table 7.5-2.

<table>
<thead>
<tr>
<th>Impact Categories</th>
<th>Potential Effects by Alternative</th>
<th>Analyze for Potential High &amp; Adverse Effects to EJ populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A-C-D1</td>
<td>A-C-D2 (Preferred Alternative) B-C-D1</td>
</tr>
<tr>
<td>Land Use</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Vehicular Traffic</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Facilities</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Parking</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Community Facilities/Community</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

\textsuperscript{12} Please see Chapter 3 for a full analysis of vehicular traffic, pedestrian and bicycles, and parking impacts.
\textsuperscript{13} Please see Chapter 4 for a full analysis of land use, community facilities/community character, displacement of residents and businesses, visual/aesthetics, and safety and security impacts.
\textsuperscript{14} Please see Chapter 5 for a full analysis of noise, vibration, and air quality impacts.
\textsuperscript{15} Please see Chapter 3 for a full analysis of vehicular traffic, pedestrian and bicycles, and parking impacts.
\textsuperscript{16} Please see Chapter 4 for a full analysis of land use, community facilities/community character, displacement of residents and businesses, visual/aesthetics, and safety and security impacts.
\textsuperscript{17} Please see Chapter 5 for a full analysis of noise, vibration, and air quality impacts.
Impact Categories | Potential Effects by Alternative | Analyze for Potential High & Adverse Effects to EJ populations
---|---|---
Character and Cohesion
Displacement of Residents and Businesses | Yes | Yes | Yes | Yes | Yes
Visual/Aesthetics | Yes | Yes | Yes | Yes | Yes
Safety and Security | No | No | No | No | No
Noise | Yes | Yes | Yes | Yes | Yes
Vibration | Yes | Yes | Yes | Yes | Yes
Air Quality | No | No | No | No | No
TPSS | No | No | No | No | No
OMF | N/A | N/A | No | No | No

Note: N/A = Not Applicable

The following categories will not be carried forward for further analysis, as they do not have any potential effects.

**Land Use**

As determined in the Land Use Plan Compatibility Technical Report (SRF Consulting Group, 2012), all Build alternatives would be compatible with land use planning policy documents. Since no adverse impacts resulting from the Bottineau Transitway alignments were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**Vehicular Traffic**

No adverse impact to traffic operations is anticipated as a result of the Bottineau Transitway. Analysis assumptions and results are documented in the Traffic Technical Report (Kimley-Horn and Associates, 2012). Since no adverse impacts resulting from the Bottineau Transitway were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**Safety and Security**

Safety and security measures would be implemented for all alignments and all stations along the Bottineau Transitway. Adherence to design guidelines as well as appropriate lighting, fencing, and other measures would maintain the safety of commuters, students, and children. A greater level of security may be provided at specific locations if an assessment of security threats to facilities or data showing higher levels of criminal activity at certain facilities determined that additional security measures were warranted.

No adverse effects to environmental justice populations are anticipated because a similar level of safety and security would be provided for all alignments and stations. Since no adverse impacts resulting from the Bottineau Transitway were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**Air Quality**

Under each of the proposed alternatives (No-Build, Enhanced Bus/TSM, and Build alternatives) emissions would likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual Mobile Source Air Toxics (MSATs) emissions by 72 percent between
1999 and 2050. On a regional basis, EPA's vehicle and fuel regulations coupled with fleet turnover will, over time, cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today. The magnitude of the EPA-projected reductions is so great (even after accounting for traffic growth) that MSAT emissions in the study area are likely to be lower in the under a wide variety of future conditions. Additional discussion of this analysis is provided in the Air Quality Technical Report (SRF Consulting Group, 2012).

No adverse air quality impacts are anticipated for the Bottineau Transitway Project. Since no adverse impacts were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

TPSS

There are 27 potential TPSS locations along the proposed alignments. The majority of the TPSS stations would be located on the east side of the proposed LRT track with some being associated with the LRT platforms and stations.

TPSS stations have the potential to cause noise impact when they are located close to noise-sensitive receptors. The primary noise sources associated with substations are magnetostriction of the transformer core, which causes low-frequency tonal noise (hum), and cooling fans, which typically generate broadband noise. The potential for noise impact from substations would be evaluated in a later phase of the project when details relating to their design and specific locations become available. However, it should be noted that noise impact from substations can often be avoided by including noise limits in the procurement documents.

TPSS stations do not require a large area and could be constructed at locations that would avoid or minimize impacts to environmental justice populations. Since no adverse impacts resulting from the Bottineau Transitway alignments were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

OMF

Three potential OMF location options have been identified, one along Alignment A in Maple Grove and two along Alignment B in Brooklyn Park. Only one OMF would be constructed as part of the Bottineau Transitway Project. The OMF at Hemlock Lane in Maple Grove and the OMF at 101st Avenue in Brooklyn Park are located in undeveloped areas where no environmental justice populations have been identified. The OMF at 93rd Avenue in Brooklyn Park is located north of a residential development where a minority population (not low-income) has been identified in the southeast quadrant of West Broadway Avenue and 93rd Avenue. Although there may be a potential for adverse operational impacts for relatively few residential properties, they are not anticipated to be severe.

Since no high and adverse impacts resulting from the operation of any of the OMFs were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

7.5.1.4 Build Alternatives: Potential Disproportionately High and Adverse Impacts Analysis

As Table 7.5-2 shows, the potential for high and disproportionate impacts to EJ communities would occur only along the D-2 alignment of the Bottineau Transitway. Specifically, on-street operations on Penn Avenue would result in high and disproportionate impacts on parking, community facilities/ community character and cohesion, visuals and aesthetics, and displacement of residents and businesses. These impacts were identified by a technical analysis of each impact category described below, as well as through intense public outreach and discussion regarding D-2 alignment options. As noted in Section 7.4.1, HCRRA administered a survey of residents in the area to better understand community impacts of the D-2 alignment. The results of the survey show a high level of concern in the adjacent low-income and
minority community with neighborhood access to front doors of residences and businesses, closing of intersections, pedestrian and bicycle access, property impacts and acquisitions, and displaced traffic on neighborhood streets. The technical analysis described for each impact category below further explains the rationale for identification of these impacts. These impacts are compared to the impacts borne by non-environmental justice populations.

Table 7.5-2. Operating Phase: Disproportionately High and Adverse Impacts by Alternative

<table>
<thead>
<tr>
<th>Impact Categories</th>
<th>Potentially High or Disproportionate Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A-C-D1</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Facilities</td>
<td>No</td>
</tr>
<tr>
<td>Parking</td>
<td>No</td>
</tr>
<tr>
<td>Community Facilities/Community Character and Cohesion</td>
<td>No</td>
</tr>
<tr>
<td>Displacement of Residents and Businesses</td>
<td>No</td>
</tr>
<tr>
<td>Visual/Aesthetics</td>
<td>No</td>
</tr>
<tr>
<td>Noise</td>
<td>No</td>
</tr>
<tr>
<td>Vibration</td>
<td>No</td>
</tr>
</tbody>
</table>

**Pedestrian and Bicycle Facilities**

As determined in the Transportation Technical Report (Kimley-Horn and Associates & SRF Consulting Group, 2012) and documented in Chapter 3 of this Draft EIS, none of the alternatives would affect bicycle facilities. While the Bottineau Transitway would result in closure of pedestrian crossings for safety and operational reasons, impacts to pedestrian facilities are expected to be minor, generally requiring a diversion of \( \frac{1}{8} \) mile or less. The exception is along the D2 alignment, where a number of street-crossing closures on West Broadway and Penn Avenues, as well as the interruption to the street grid system in north Minneapolis, collectively contribute to decreased walkability and accessibility to and within the neighborhoods surrounding this area of the alignment.

**Preliminary Finding**

The closing of a number of street-crossings as well as interruption to the street grid system in north Minneapolis would result in a disproportionately high and adverse impact to the surrounding low-income and minority populations along Alignment D2.

**Parking**

The net loss of 270 existing on-street parking spaces is anticipated along Alignment D2 to accommodate the Bottineau Transitway. As shown in Table 7.5-3 no loss of on-street parking is anticipated for any other alignments. Further discussion of parking is provided in the Transportation Technical Report (Kimley-Horn and Associates & SRF Consulting Group, 2012).

Table 7.5-3. Number of Parking Spaces Lost by Alignment

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Net Number of Parking Spaces Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>B (part of the Preferred Alternative)</td>
<td>0</td>
</tr>
<tr>
<td>C (part of the Preferred Alternative)</td>
<td>0</td>
</tr>
</tbody>
</table>
Preliminary Finding

The loss of on-street parking spaces would result in a disproportionately high and adverse impact to the surrounding low-income and minority population along Alignment D2. The loss of 270 parking spaces is disproportionate to other alignment options, given that other alignments would not lose any existing on-street parking. Public comments provided during the Scoping process indicated high level of concern regarding the loss of existing street parking. The public has expressed concerns that loss of nearby parking would be particularly detrimental to the elderly and people with disabilities.

Community Facilities/Community Character and Cohesion

No high and adverse effects to community facilities or community character and cohesion are anticipated for Alignments A, B, C, D1, and the D Common Section. The effects of access changes, right-of-way acquisitions, increased noise, and changes in visual character would be confined to limited areas and are not expected to affect the overall character, nor do they present a substantial physical or social barrier affecting community cohesion. Therefore, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

Changes in community character are expected for neighborhoods surrounding Alignment D2. The Willard-Hay neighborhood would experience a change in community character due to the removal of residential properties and loss of on-street parking, as well as visual changes to NorthPoint Health and Wellness Center, a funeral chapel, an athletic field, and a church.

Changes in access across Penn Avenue, which would be necessary to maintain pedestrian safety, are expected to affect community cohesion. The closure of nine crossings along Penn Avenue, as well as the interruption to the street grid system in north Minneapolis, would collectively contribute to decreased walkability and accessibility to and within the neighborhoods surrounding this area of Alignment D2.

Preliminary Finding

Changes in community character due to removal of residential properties and community facilities, access changes, and the loss of on-street parking would result in a disproportionately high and adverse impact on the low-income minority community surrounding Alignment D2. Changes in community character and cohesion resulting from the other alignments would be notably less and would not be considered high and adverse.

Displacement of Residents and Businesses

Table 7.5-4 summarizes residential and commercial displacements for each alignment.

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Residential</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>B (part of the Preferred Alternative)</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>C (part of the Preferred Alternative)</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>D1 (part of the Preferred Alternative)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
The greatest number of residential displacements is anticipated along Alignment D2. Most of the residential displacements are anticipated on the west side of Penn Avenue between McNair Avenue and TH 55. As a significant percentage of the population in this area has been identified as low-income, it is assumed that much of the replacement housing would need to be affordable to low-income households and include both ownership as well as rental units. Investigation of currently available housing, using MLS (Multiple Listing Service), indicates that it may be challenging to find affordable properties for displaced homeowners and tenants along Alignment D2. Adequate housing is expected to be available for displaced residents along Alignments A, B, and C.

A search of the MLS was conducted to assess the future potential for identifying suitable replacement properties for residents and businesses whose properties may be acquired for the Bottineau Transitway. The number of displaced properties was compared with the number of comparable properties available, assuming similar properties may be available at the time of construction. MLS search results were also used to assess the availability of suitable residential or commercial properties in or near the community where displacements are anticipated to occur.\(^1\)

The greatest number of commercial displacements is anticipated for Alignment D2, with three displacements. Adequate commercial properties are expected to be available for commercial relocations along Alignments B, C, and D2.

**Preliminary Finding**

Alignment D2 would result in a disproportionately high and adverse impact on the surrounding low-income minority community. Displacement resulting from the other alignments is notably less and is relatively consistent among comparable alignment choices and therefore is not considered high and adverse.

**Visual/Aesthetics**

Each alignment was analyzed to assess the degree of effect to existing visual features. In many areas, construction of the transitway would occur within existing railroad and highway rights-of-way and would have minimal to moderate effects. In some instances, transitway design requires the acquisition of adjacent properties or significant structures that would have a higher degree of effect. Further discussion of visual/aesthetic resources is provided in the Visual Quality Technical Report (SRF Consulting Group, 2012).

Minimal effects are anticipated along Alignment A, as much of the gravel mining area in Maple Grove is undeveloped. Minimal to moderate effects are expected for Alignments B, C, and D1 as described in detail in Chapter 4. Removal of approximately 100 residential properties along Alignment D2 would result in disproportionately high and adverse visual effects.

**Preliminary Finding**

Alignment D2 would result in a disproportionately high and adverse impact on the surrounding low-income minority community due to the removal and replacement of approximately 100 residential properties with LRT tracks in the center with a through lane, parking lane, boulevard, and sidewalk on

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\(^1\) This MLS exercise was conducted only to assess the ability to relocate displaced residents and businesses. Should the Bottineau Transitway project proceed to construction, displaced residents and businesses would receive individual relocation assistance in accordance with the Uniform Relocation Act. Please refer to Chapter 4 Section 3 for greater detail.
either side. Visual impacts resulting from the other alignments are notably less and are not considered high and adverse.

**Noise**

No noise impacts are expected along Alignment A or the Alignment D Common Section. Of the four alignments with noise impacts (Alignments B, C, D1, and D2), the greatest number of severe unmitigated noise impacts are anticipated along Alignment C and vary depending on whether Alignment A or B is included in the alternative definition. Section 5.6 Noise provides more detail relative to potential noise mitigation measures associated with each alignment.

**Preliminary Finding**

With recommended mitigation, no severe noise impacts are anticipated for the Bottineau Transitway. No high and adverse impacts are anticipated because severe noise impacts would be mitigated.

**Vibration**

Ground borne vibration (GBV) impacts associated with the operation of the transitway are predicted to occur at 51 residences along Alignment C and would therefore occur for all alternatives. No residual impacts\(^{19}\) are predicted to occur if the recommended mitigation measures are implemented.

**Preliminary Finding**

With recommended mitigation, no severe GBV impacts are anticipated for the Bottineau Transitway. No high and adverse impacts are anticipated because vibration impacts would be mitigated.

### 7.5.2 Construction Phase Impacts

Like the process for identifying operating effects, a multi-step process was used to identify the potential for disproportionately high and adverse effects on Environmental Justice populations.

First, a range of impact categories were selected including land use, traffic, parking, community character and facilities (including parks), right-of-way and relocations, business impacts, visual quality, safety and security, noise, vibration, air quality, traction power substations (TPSS), and operations and maintenance facilities (OMFs). These categories were selected because the impacts in these categories tend to be localized and have the potential for high or disproportionate impact to environmental justice populations. Other categories evaluated in this Draft EIS were not considered because they either presented no impacts, or their effects would be experienced by all populations living in the study area, regardless of race, ethnicity, or socioeconomic status.

Each Bottineau Transitway alternative was then evaluated in each category, as shown in Table 7.5-5. The evaluation is based on the results documented in Chapter 3 Transportation Analysis,\(^{20}\) Chapter 4 Community and Social Analysis,\(^{21}\) and Chapter 5 Physical and Environmental Analysis.\(^{22}\) Categories with potential effects were then carried forward to another level of analysis to determine whether those effects were high or disproportionate to environmental justice populations.

#### 7.5.2.1 No-Build Alternative

The No-Build alternative would not result in construction phase impacts and would not result in disproportionately high and adverse effects to environmental justice populations.

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19 Residual impacts refers to the number of impacts remaining after the recommended mitigation is implemented.

20 Please see Chapter 3 for a full analysis of vehicular traffic, pedestrian and bicycles, and parking impacts.

21 Please see Chapter 4 for a full analysis of land use, community facilities/community character, displacement of residents and businesses, visual/aesthetics, and safety and security impacts.

22 Please see Chapter 5 for a full analysis of noise, vibration, and air quality impacts.
7.5.2.2 **Enhanced Bus/TSM Alternative**

Construction phase impacts would occur at the location of a transit center and park-and-ride facility near Oak Grove Parkway and West Broadway Avenue, north of TH 610. The facility would be located in an area that is currently undeveloped and would not result in disproportionately high and adverse effects to environmental justice populations.

7.5.2.3 **Build Alternatives: Potential Impacts Analysis**

Potential effects, as documented in Chapter 3 Transportation Analysis, Chapter 4 Community and Social Analysis, and Chapter 5 Physical and Environmental Analysis, are identified by alternative below in Table 7.5-5. Categories with no effects are not carried forward for further analysis. Categories with potential effects are considered for their potential for Disproportionately High and Adverse Effects on EJ communities in Table 7.5-6.

<table>
<thead>
<tr>
<th>Impact Categories</th>
<th>A-C-D1</th>
<th>A-C-D2</th>
<th>B-C-D1 (Preferred Alternative)</th>
<th>B-C-D2</th>
<th>Analyze for Potential High &amp; Adverse Effects to EJ populations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Vehicular Traffic</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Facilities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Parking</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Community Facilities/Community Character and Cohesion</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Displacement of Residents and Businesses</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>Business Impacts</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Visual/Aesthetics</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Safety and Security</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Noise</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Vibration</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Air Quality</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>TPSS</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>OMF</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable

The following categories will not be carried forward for further analysis, as they do not have any potential effects:

**Land Use**

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Please see Chapter 3 for a full analysis of vehicular traffic, pedestrian and bicycles, and parking impacts.

Please see Chapter 4 for a full analysis of land use, community facilities/community character, displacement of residents and businesses, visual/aesthetics, and safety and security impacts.

Please see Chapter 5 for a full analysis of noise, vibration, and air quality impacts.
No short-term impacts to conformance with land use policies have been identified. Since no adverse impacts resulting from the Bottineau Transitway alignments were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**Displacements of Residents and Businesses**

Residential and commercial displacements are addressed under Operational Phase Impacts.

**Visual/Aesthetics**

Construction activities would occur along all alignments. Anticipated visual construction phase effects would be similar to the appearance of most typical roadway and infrastructure projects including the temporary presence of heavy equipment, traffic control measures, and construction activity. Travelers on routes that intersect the transitway would encounter the construction of both grade-separated and at-grade crossings. Where the transitway passes along residential neighborhoods, the construction activity could be perceived as visually disruptive in areas such as parks and residential neighborhoods.

*Preliminary Finding*

As construction-related visual impacts anticipated are typical of any transportation construction projects, these short-term impacts are not expected to be disproportionately high and adverse. Because these impacts would occur equally among all Bottineau Transitway alignments, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**Safety and Security**

Worker safety and public safety during construction would be implemented for all alignments. Public safety is particularly important in construction areas with pedestrians, bicyclists, area business staff, and spectators. Because safety and security would be addressed equally among all alignments, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**Air Quality**

The construction of each of the alignments under consideration would affect traffic volumes and operations along roadways in and around the study area. During construction, some intersections may need to temporarily operate with reduced capacities or be temporarily closed. Under these conditions, traffic would be expected to detour to parallel roadway facilities near the study area. This increased traffic may result in increased emissions and higher concentrations of air pollutants near homes and businesses. These emissions levels would not be expected to result in localized concentrations that would exceed any state or federal air quality standards.

In addition to traffic-related emissions increases, construction activities can also result in higher concentrations of air pollutants. Construction equipment powered by fossil fuels emits the same air pollutants as highway vehicles. Exposed earthen materials can also produce increased particulate matter when they are moved or disturbed by wind. It is not expected that concentrations of these air pollutants would exceed any state or federal standards, in part due to the Best Management Practices that would be implemented.

*Preliminary Finding*

No adverse impacts are anticipated as traffic emissions levels and construction-related air pollutants are not expected to exceed state or federal air quality standards. Since no adverse impacts resulting from the Bottineau Transitway alignments were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**TPSS**
Installation of TPSS stations would result in temporary noise and vibration impacts associated with construction activities. The impacts would be localized and not of extended duration, and loud construction activities such as pile driving are not anticipated.

Impacts are expected to be localized and minor. Since no adverse impacts resulting from the Bottineau Transitway alignments were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

**OMF**

Three OMF location options have been identified, one along Alignment A in Maple Grove and two along Alignment B in Brooklyn Park. Only one OMF would be constructed as part of the Bottineau Transitway project. Since no adverse impacts resulting from the construction of any of the OMFs were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

### 7.5.2.4 Build Alternatives: Potential Disproportionately High and Adverse Impacts Analysis

High and disproportionate impacts to EJ communities during construction of the Bottineau Transitway would occur only along the D-2 alignment. Specifically, construction of the on-street transitway on Penn Avenue would result in high and disproportionate impacts on vehicular traffic, parking, community facilities/community character and cohesion, and visuals and aesthetics. These impacts were identified by a technical analysis of each impact category described below.

**Table 7.5-6. Construction Phase: Disproportionately High and Adverse Impacts by Alternative**

<table>
<thead>
<tr>
<th>Impact Categories</th>
<th>Potentially High or Disproportionate Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A-C-D1</td>
</tr>
<tr>
<td>Vehicular Traffic</td>
<td>No</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Facilities</td>
<td>No</td>
</tr>
<tr>
<td>Parking</td>
<td>No</td>
</tr>
<tr>
<td>Community Facilities/Community Character and Cohesion</td>
<td>No</td>
</tr>
<tr>
<td>Business Impacts</td>
<td>No</td>
</tr>
<tr>
<td>Noise</td>
<td>No</td>
</tr>
<tr>
<td>Vibration</td>
<td>No</td>
</tr>
</tbody>
</table>

**Vehicular Traffic**

Short-term impacts to traffic are anticipated during construction. No high and adverse effects associated with vehicular traffic are anticipated for Alignments A, B, C, D1, or the D Common Section. Alignment D2 is expected to impact vehicular traffic to a greater degree as this is the only alignment where the transitway would be substantially constructed within active street right-of-way and displacing vehicular traffic. Analysis assumptions and results are documented in the Traffic Technical Report (Kimley-Horn and Associates, 2012).

**Preliminary Finding**

Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 are anticipated due to the high level of disruptions to traffic flow and access anticipated during construction of this alignment.

**Pedestrian and Bicycle Facilities**
For all alignments, temporary closures or detours are anticipated to affect bicycle and pedestrian facilities. 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. Depending on how construction activities would impact sidewalk areas, special facilities (such as handrails, fences, barriers, ramps, walkways, and bridges) may be required to maintain bicyclist and pedestrian safety.

If crosswalks are temporarily closed, pedestrians would be directed to use alternate crossings nearby. Every effort would be made not to close adjacent crosswalks at the same time to allow for continued pedestrian movement across streets. All sidewalks and crosswalks would be required to meet minimum standards for accessibility and be free of slipping and tripping hazards. Sidewalk closures would be discouraged but, if required, would be done in such a way as to minimize impacts.

Preliminary Finding
Given measures to mitigate construction impacts, no adverse effects are anticipated. Since no adverse impacts resulting from the Bottineau Transitway alignments were identified, there is no potential for any high and adverse impacts to be disproportionately borne by environmental justice populations.

Parking
No high and adverse effects associated with parking are anticipated for Alignments A, B, C, D1, or the D Common Section. Similar to vehicular traffic, short-term impacts to on-street parking are anticipated during construction and are expected to be high and adverse for Alignment D2 due to the level of street disruption.

Preliminary Finding
Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 are anticipated due to loss of parking and access anticipated during construction of this alignment.

Community Facilities/Community Character and Cohesion
No high and adverse effects associated with community facilities, character, or cohesion are anticipated for Alignments A, B, C, D1, or the D Common Section. Construction of the Bottineau Transitway along Alignment D2 is expected to require traffic detours that would result in traffic increases through residential areas. Additional construction impacts would include noise, dust, and visual impacts.

Preliminary Finding
Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 are anticipated due to the high level of disruptions to traffic flow and access, as well as noise, dust, and visual impacts associated with construction of this alignment.

Business Impacts
No high and adverse effects to businesses are anticipated for Alignments A, B, C, D1, or the D Common Section. Construction of the Bottineau Transitway along Alignment D2 is expected to require short-term impacts to on-street parking and traffic detours that could result in reduced convenience for customers and reduced traffic to businesses. Additional construction impacts would include noise, dust, and visual impacts.

Preliminary Finding
Disproportionately high and adverse effects to businesses that are owned by or serve environmental justice populations proximate to Alignment D2 are anticipated due to the high level of disruptions to on-street parking, traffic flow and access, as well as noise, dust, and visual impacts associated with construction of this alignment.
Noise

Temporary noise impacts could result from activities associated with the construction of new tracks and stations, utility relocation, grading, excavation, track work, demolition, and installation of systems components. Such impacts may occur in residential areas and at other noise-sensitive land uses located within several hundred feet of the alignment. The potential for noise impact would be greatest at locations near pile-driving operations for bridges and other structures, pavement breaking, and at locations close to any nighttime construction work.

Estimates suggest that the potential for noise impacts related to track construction would be minimal for commercial and industrial land uses. For residential land use, the potential for temporary noise impact related to track construction would be limited to locations within about 125 feet of the corridor. However, the potential for noise impact from nighttime track construction could extend to residences as far as 400 feet from the tracks.

Preliminary Finding

Construction activities would be carried out in compliance with all applicable local noise regulations. Noise control measures would be implemented for all alignments. No high and adverse impacts are anticipated because noise impacts would be mitigated.

Vibration

Temporary vibration impacts could result from activities associated with the construction of new tracks and stations, utility relocation, grading, excavation, track work, demolition, and installation of systems components. Such impacts may occur in residential areas and at other vibration-sensitive land uses located within several hundred feet of the alignment. The potential for vibration impact would be greatest at locations near pile-driving for bridges and other structures, pavement breaking, and at locations close to vibratory compactor operations.

Preliminary Finding

With the incorporation of appropriate mitigation measures, impacts from construction-generated vibration would be minimized and would be implemented for all alignments. No high and adverse impacts are anticipated because vibration impacts would be mitigated.

7.5.3 Offsetting Project Benefits

7.5.3.1 Increased Transit Service

Community members have identified providing affordable, accessible, and equitable transportation to low-income and minority residents so that they can have access to financial opportunities (jobs), educational opportunities, health services, and healthy food sources as one of the benefits of the Bottineau Transitway Project. The Bottineau Transitway HIA also identified that reliable, accessible public transportation could decrease reliance on automobiles, reducing household transportation costs and making the combined costs of housing and transportation more affordable in this corridor.

The Bottineau Transitway would provide significant increase in safe, reliable, and efficient transportation options for minority and low-income populations located along all proposed alignments. Table 7.5-7 summarizes the daily hours of user benefits that would accrue to new and existing (as accounted for in the Enhanced Bus/TSM alternative) transit riders as a result of each alternative. User benefits reflect travel time savings compared to the Enhanced Bus/TSM alternative, including factors such as walk access, service frequency, travel speed, and connections at transfer points. See the Transportation

26 Benefits list generated from the Scoping Summary Report; 30 comments were received regarding providing transportation to low-income and minority residents.
Research indicates that transit provides a positive role in promoting social equity. A recent study by the University of Minnesota Center for Transportation Studies investigated the role of transitways in improving job accessibility for socio-economically disadvantaged workers. The study found that low-income workers use transit considerably more than their higher-wage counterparts do and that their transit use patterns differ. Analysis of the Blue Line, which was completed in 2004, demonstrated positive changes in low-wage transit employment accessibility. Study results revealed that low-wage workers, as well as low-wage employers, relocated closer to light rail.

Increased transit service would provide minority and low-income populations along the Bottineau Transitway access to parks and recreational amenities and networks. It would also support public transit “trip chaining,” a series of trips using one or several modes of transportation (e.g., Bottineau Transitway, to regional trail, to destination).

### 7.5.3.2 Operational Phase Economic Benefits

Each of the Bottineau Transitway alternatives is anticipated to create jobs and additional earnings as a result of Operations and Maintenance (O&M) expenditures. Although these O&M expenses would originate from local sources, they represent spending that would not take place except for the implementation of this service. The expansion of transit service associated with the alternatives creates an expansion of economic activity in the counties of the Minneapolis-St. Paul-Bloomington Metropolitan Statistical Area (MSA), thus generating recurring net economic impacts (long-term). Other potential sources of federal funding for maintenance exist as grants and could be applied to preventative maintenance in later years. If future federal funds are received and applied to maintenance activities, they could generate additional net economic effects to the local and state economies through increased employment and earnings. Community members also identified economic development, increased business investments, and revitalization in north Minneapolis and Brooklyn Park as a potential benefit of the Bottineau Transitway project.

For the Minneapolis-St. Paul-Bloomington MSA, the effect of local O&M spending for the alternatives would result in an estimated range of $24.4 million to $25.7 million in local annual wages and salaries (2011 dollars). Implementation of any of the four alternatives, and their associated increased earnings, is anticipated to result in positive economic impacts to the local economy, both through direct hiring to fill transit jobs and indirectly as these transit workers spend their earnings, thus creating additional consumer demand and jobs to meet that demand.

### 7.5.3.3 Construction Economic Benefits

It is estimated that construction of the alternatives would generate $285 million to $323 million in additional employment earnings for households and payroll expansion and generate from 6,785 to 7,700 jobs. Table 7.5-7 provides a detailed summary of the user benefits in terms of hours.

<table>
<thead>
<tr>
<th>Daily User Benefit Hours</th>
<th>A-C-D1</th>
<th>A-C-D2</th>
<th>B-C-D1 (Preferred Alternative)</th>
<th>B-C-D2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily User Benefit Hours</td>
<td>9,460</td>
<td>9,000</td>
<td>8,520</td>
<td>7,940</td>
</tr>
</tbody>
</table>

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27 Impact of Twin Cities Transitways on Regional Labor Market Accessibility: A Transportation Equity Perspective. Dr. Yingling Fan, Andrew Guthrie, and Rose Teng, Center for Transportation Studies, University of Minnesota, 2010.

28 Benefits list generated from the Scoping Summary Report; 18 comments were received regarding spurring economic development.
person-year jobs for all industries in the Minneapolis-St. Paul-Bloomington MSA. Thus, due to its higher anticipated capital expenditures, Alternative A-C-D2 would demonstrate the greatest economic impacts to the local economy during construction activities of all four alternatives, with Alternative A-C-D1 resulting in the least economic benefit.

7.5.3.4 Avoidance, Minimization, and/or Mitigation Measures

Given that all high and disproportionate effects to environmental justice populations are associated with the D2 alignment, impacts to these populations could be avoided by selection of alternatives that do not include the D2 alignment. However, potential project benefits would also be lost to the same populations. The alternatives development process sought to minimize impacts to the greatest degree possible while preserving project benefits. For example:

■ Several D2 alignments (D2A, D2B, D2C) were considered to avoid, minimize, or mitigate effects from other D2 alignments that were identified by the community, and many changes were made to the design of these alternatives to avoid impacts to certain areas

■ The D2 alignment was reconfigured to improve access to North Memorial Hospital

■ Pedestrian access points at signalized crossings were added to the design of the D2 alignment along Penn Avenue

Further minimization efforts are not expected to substantially reduce the high and disproportionate benefits of the D2 alignment.

Potential mitigation measures related to parking, community character/cohesion, displacements, and visual/aesthetics will be addressed under the respective sections of the Draft EIS.

7.6 Environmental Justice Analysis Conclusions

7.6.1 Alternative A-C-D1

This alternative does not impose disproportionately high and adverse human health or environmental effects on EJ populations.

7.6.2 Alternative A-C-D2

7.6.2.1 Operations

Community Cohesion

Changes in community character due to removal of residential properties and community facilities, closure of nine street crossings along Penn Avenue and interruption to the street grid system in north Minneapolis, as well as the loss of on-street parking would result in a disproportionately high and adverse impact on the low-income minority community surrounding the D2 alignment of Alternative A-C-D2.

Displacement of Residents and Businesses

Most residential displacements are anticipated on the west side of Penn Avenue between McNair Avenue and TH 55 along the D2 alignment of Alternative B-C-D2. As a significant percentage (45-50 percent) of the population in this area has been identified as low-income, much of the replacement housing would need to be affordable to low-income households and include both ownership as well as rental units. Investigation of currently available housing, using MLS (Multiple Listing Service), indicates that it may be challenging to find affordable properties for displaced homeowners and tenants.29 Residential

29 A search of the MLS was conducted to assess the future potential for identifying suitable replacement properties for residents and businesses whose properties may be acquired for the Bottineau Transitway. The number of displaced properties was compared with the...
displacement would result in a disproportionately high and adverse impact on the low-income minority community surrounding the D2 alignment of Alternative A-C-D2.

Five commercial displacements are anticipated for Alternative A-C-D2; however, adequate commercial properties are expected to be available for commercial relocations in the corridor.

**Visual and Aesthetics**

Removal of approximately 100 residential properties along Alignment D2 would result in disproportionately high and adverse visual and aesthetic impacts to the low-income minority community surrounding the D2 alignment of Alternative A-C-D2.

### 7.6.2.2 Construction

**Vehicular Traffic**

Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 of Alternative A-C-D2 are anticipated due to the high level of disruptions to traffic flow and access anticipated during construction of Alignment D2 within active street right-of-way. Analysis assumptions and results are documented in the Traffic Technical Report (Kimley-Horn and Associates, 2012).

**Parking**

Similar to vehicular traffic, disproportionately high and adverse effects to environmental justice populations proximate to the D2 alignment of Alternative A-C-D2 are anticipated due to loss of parking and access anticipated during construction of this alignment.

**Community Facilities/Community Character and Cohesion**

Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 of Alternative A-C-D2 are anticipated due to the high level of disruptions to traffic flow and access, as well as noise, dust, and visual impacts associated with construction of this alignment.

### 7.6.3 Alternative B-C-D2 (Preferred Alternative)

This alternative does not impose disproportionately high and adverse human health or environmental effects on EJ populations.

### 7.6.4 Alternative B-C-D2

#### 7.6.4.1 Operations

**Community Cohesion**

Changes in community character due to removal of residential properties and community facilities, closure of nine street crossings along Penn Avenue and interruption to the street grid system in north Minneapolis, as well as the loss of on-street parking would result in a disproportionately high and adverse impact on the low-income minority community surrounding the D2 alignment of Alternative B-C-D2.

**Displacement of Residents and Businesses**

Most residential displacements are anticipated on the west side of Penn Avenue between McNair Avenue and TH 55 along the D2 alignment of Alternative B-C-D2. As a significant percentage (45-50 percent) of
the population in this area has been identified as low-income, much of the replacement housing would need to be affordable to low-income households and include both ownership as well as rental units. Investigation of currently available housing, using MLS (Multiple Listing Service), indicates that it may be challenging to find affordable properties for displaced homeowners and tenants. Residential displacement would result in a disproportionately high and adverse impact on the low-income minority community surrounding the D2 alignment of Alternative B-C-D2.

Six commercial displacements are anticipated for Alternative B-C-D2; however, adequate commercial properties are expected to be available for commercial relocations in the corridor.

**Visual and Aesthetics**

Removal of approximately 100 residential properties along Alignment D2 would result in disproportionately high and adverse visual and aesthetic impacts to the low-income minority community surrounding the D2 alignment of Alternative B-C-D2.

### 7.6.4.2 Construction

**Vehicular Traffic**

Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 of Alternative B-C-D2 are anticipated due to the high level of disruptions to traffic flow and access anticipated during construction of Alignment D2 within active street right-of-way. Analysis assumptions and results are documented in the Traffic Technical Report (Kimley-Horn and Associates, 2012).

**Parking**

Similar to vehicular traffic, disproportionately high and adverse effects to environmental justice populations proximate to the D2 alignment of Alternative B-C-D2 are anticipated due to loss of parking and access anticipated during construction of this alignment.

**Community Facilities/Community Character and Cohesion**

Disproportionately high and adverse effects to environmental justice populations proximate to Alignment D2 of Alternative B-C-D2 are anticipated due to the high level of disruptions to traffic flow and access, as well as noise, dust, and visual impacts associated with construction of this alignment.

The findings resulting from the environmental justice analysis for environmental justice populations living within the study area of the Bottineau Transitway project are summarized in **Table 7.6-1**.

### Table 7.6-1. Environmental Resource Impacts to Environmental Justice Populations by Alternative

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Analysis Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Build</td>
<td>No disproportionately high and adverse effects anticipated</td>
</tr>
<tr>
<td>Enhanced Bus/TSM</td>
<td>No disproportionately high and adverse effects anticipated</td>
</tr>
<tr>
<td>A-C-D1</td>
<td>No disproportionately high and adverse effects anticipated</td>
</tr>
</tbody>
</table>

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30 A search of the MLS was conducted to assess the future potential for identifying suitable replacement properties for residents and businesses whose properties may be acquired for the Bottineau Transitway. The number of displaced properties was compared with the number of comparable properties available, assuming similar properties may be available at the time of construction. MLS search results were also used to assess the availability of suitable residential or commercial properties in or near the community where displacements are anticipated to occur. This MLS exercise was conducted only to assess the ability to relocate displaced residents and businesses. Should the Bottineau Transitway project proceed to construction, displaced residents and businesses would receive individual relocation assistance in accordance with their needs and current market availability.
<table>
<thead>
<tr>
<th>Alternative</th>
<th>Analysis Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-C-D2</td>
<td>Disproportionately high and adverse effects anticipated:</td>
</tr>
<tr>
<td></td>
<td>■ Parking</td>
</tr>
<tr>
<td></td>
<td>■ Community Facilities/Community Character and Cohesion</td>
</tr>
<tr>
<td></td>
<td>■ Displacement of Residents and Businesses</td>
</tr>
<tr>
<td></td>
<td>■ Visual/Aesthetics</td>
</tr>
<tr>
<td></td>
<td>■ Vehicular Traffic (construction phase only)</td>
</tr>
<tr>
<td></td>
<td>■ Business Impacts (construction phase only)</td>
</tr>
<tr>
<td>B-C-D1 (Preferred Alternative)</td>
<td>No disproportionately high and adverse effects anticipated</td>
</tr>
<tr>
<td>B-C-D2</td>
<td>Disproportionately high and adverse effects anticipated:</td>
</tr>
<tr>
<td></td>
<td>■ Parking</td>
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