1.0 Purpose and Need

This chapter gives an overview of the Bottineau Transitway Project, including its location and setting within the local communities and the region, and the context of previous planning studies. It also describes the needs driving the study of the Bottineau Transitway, the purpose of the project, and the parameters under which the project will be evaluated.

1.1 Project Description

Project Location

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

Figure 1.1-1 illustrates the project area. Key transportation facilities within the project area include the highways shown as well as the Burlington Northern Santa Fe Railway (BNSF), Canadian Pacific Railway (CP), Crystal Airport, County State Aid Highway (CSAH) 81 (Bottineau Boulevard), CSAH 103 (West Broadway Avenue), and CSAH 2 (Penn Avenue).

Project Setting

The character of the Bottineau Transitway project area transitions from a moderately dense urban setting in north Minneapolis to a less dense suburban setting starting in Robbinsdale, Golden Valley, and Crystal, and extending through Brooklyn Park and Maple Grove at the north end of the corridor. The project area includes a variety of land use patterns that have been influenced by the Bottineau Transitway's development over a long period of time and its transportation-oriented past. Low-density, auto-oriented land uses have heavily influenced the corridor's existing development patterns, which primarily reflect highway-oriented regulations and traditional suburban development forms. Additionally, the presence of the existing railway lines has also influenced the development patterns and settings in the project corridor (e.g., development set back from the railroad right-of-way).

Development in north Minneapolis and Robbinsdale reflects West Broadway Avenue's past as a commercial streetcar corridor, with strips of auto-oriented commercial activity developed more recently. Residential neighborhoods are located along CSAH 81 in Minneapolis, Robbinsdale, Crystal, and Brooklyn Park. In Brooklyn Park south of 73rd Avenue and northern Crystal, development adjacent to CSAH 81 includes highway-oriented commercial activity and the Crystal Airport. Large industrial, commercial, and mixed-use development is prevalent in the Maple Grove area of the corridor. In Brooklyn Park north of 73rd Avenue, development adjacent to West Broadway Avenue includes mixed commercial and retail, commercial office/corporate campus (Target North Campus), residential, and institutional use (North Hennepin Community College, programmed Hennepin County Library).

As illustrated in Figure 1.1-2, several activity centers are located along the corridor, including downtown Minneapolis, Theodore Wirth Regional Park, North Memorial Medical Center, downtown Robbinsdale, the Crystal Shopping Center, the Brooklyn Park commercial strip, Hennepin Technical College, North Hennepin Community College, and the Arbor Lakes commercial area in downtown Maple Grove. In addition, large commercial developments with substantial employment concentrations are anticipated by 2030 in both Maple Grove (in the former Gravel Mining Area) and in Brooklyn Park (surrounding the Target North Campus north of TH 610).

Regional Transit System

The Bottineau Transitway project area is presently served by a mix of express and local bus service provided by Metro Transit, the region's largest transit provider, and Maple Grove Transit, a suburban transit provider serving Maple Grove. Key existing transit facilities within the corridor, illustrated in Figure 1.1-3, include the Maple Grove Transit Station, Starlite Transit Center, the 63rd Avenue Park-and-Ride in Brooklyn Park, and the Robbinsdale Transit Center at Hubbard Marketplace in Robbinsdale. Additional infrastructure in the corridor includes bus-only shoulders on most of I-94 in both directions between Minneapolis and northern Maple Grove.

The majority of transit service in the project area consists of urban local routes serving north Minneapolis, with some lower-frequency suburban local service in southern and northern suburban communities in the corridor. The remainder of the project area is mainly served by peak-only, peak-direction suburban express routes. Currently, no bus routes operate on CSAH 81 or serve mid-length trips in the general northwest-southeast direction in the project area, particularly during off-peak periods.

The Metropolitan Council's *2030 Transportation Policy Plan (TPP*) envisions further development of the region's local and express bus networks, with additional investment in park-and-ride facilities to support the latter. In addition, the *2030 TPP* shows the Twin Cities region moving toward a regional system of transitways to meet mobility needs and increase transit system ridership. A transitway is a combination of infrastructure and transit service improvements that allows transit customers to avoid congestion on roadways and connect to regional activity centers, and that boosts the potential for transit-oriented development.

The Bottineau Transitway will connect north Minneapolis and the region's northwest suburbs with the region's system of transitways that consist of existing light rail transit (LRT) on the Blue Line (Hiawatha) and Green Line (Central Corridor and the planned Southwest line), bus rapid transit (BRT) on the Red Line (Cedar Avenue) and Orange Line (I-35W South), the Northstar Commuter Rail, and express bus routes as shown in Figure 1.1-4. Development of a Bottineau Transitway will include bus service revisions focused on maintaining and enhancing overall transit service in the corridor.

Figure 1.1-1. Bottineau Transitway Project Area

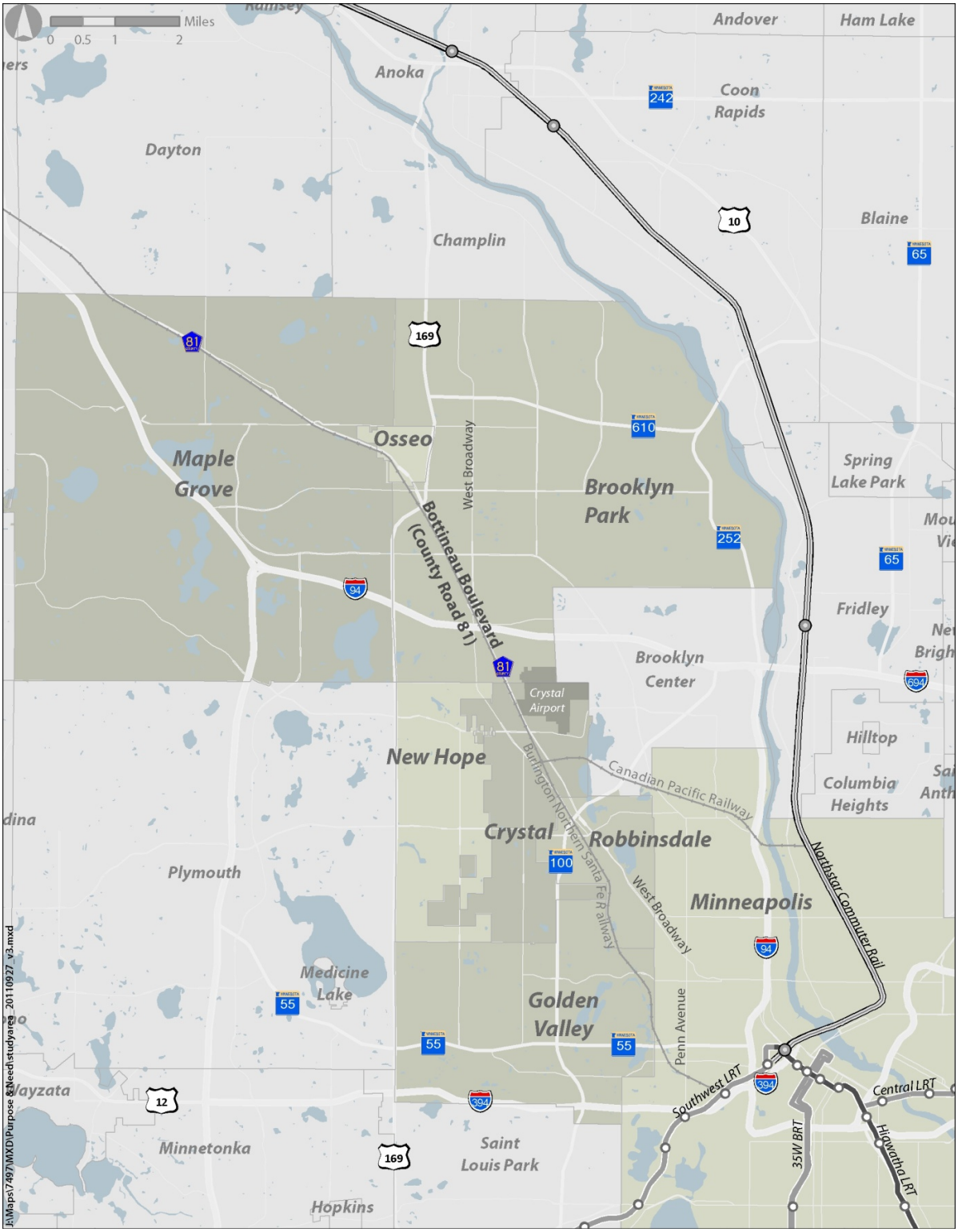


Figure 1.1-2. Bottineau Transitway Project Area Activity Centers

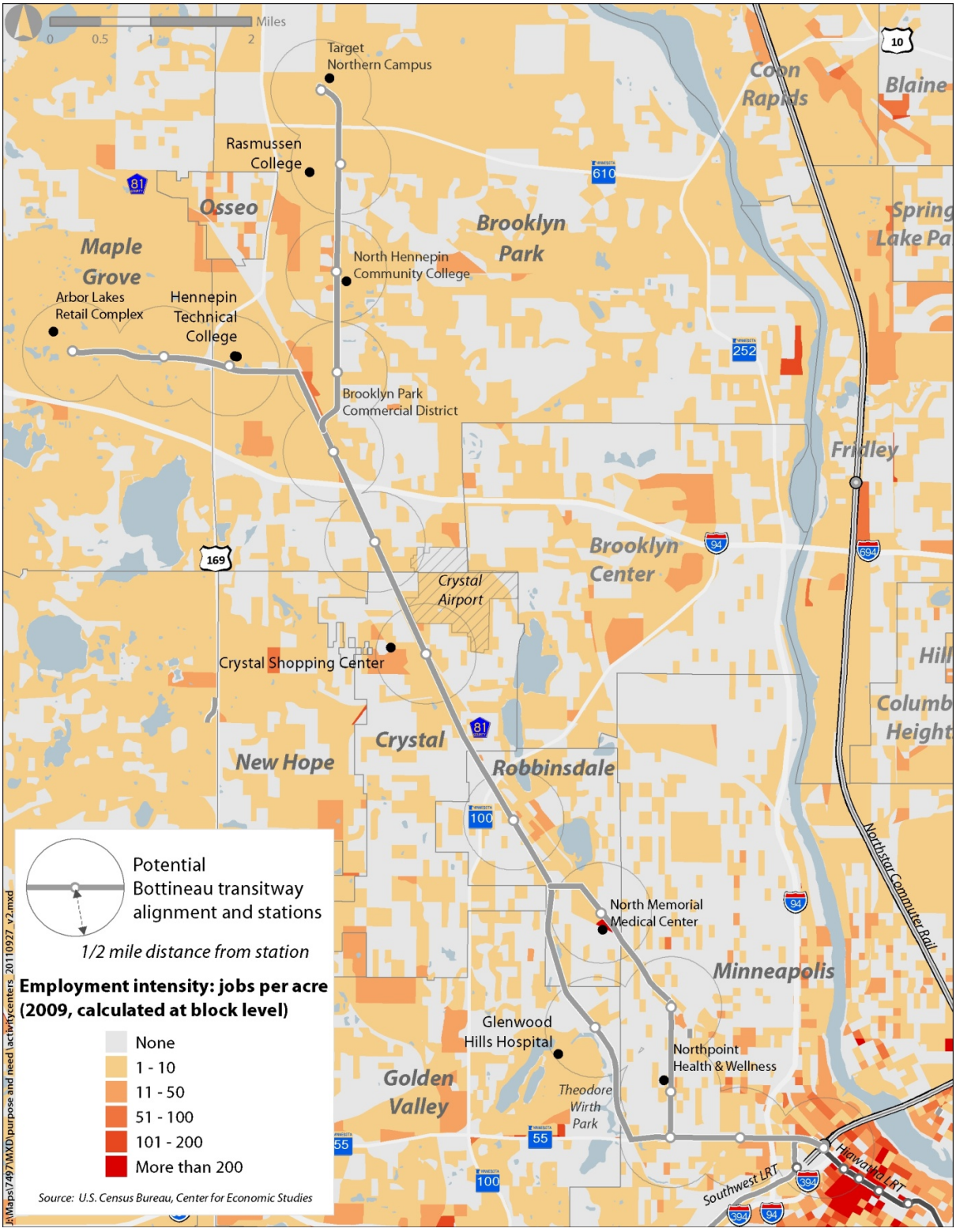


Figure 1.1-3. Existing Project Area Transit Services and Facilities

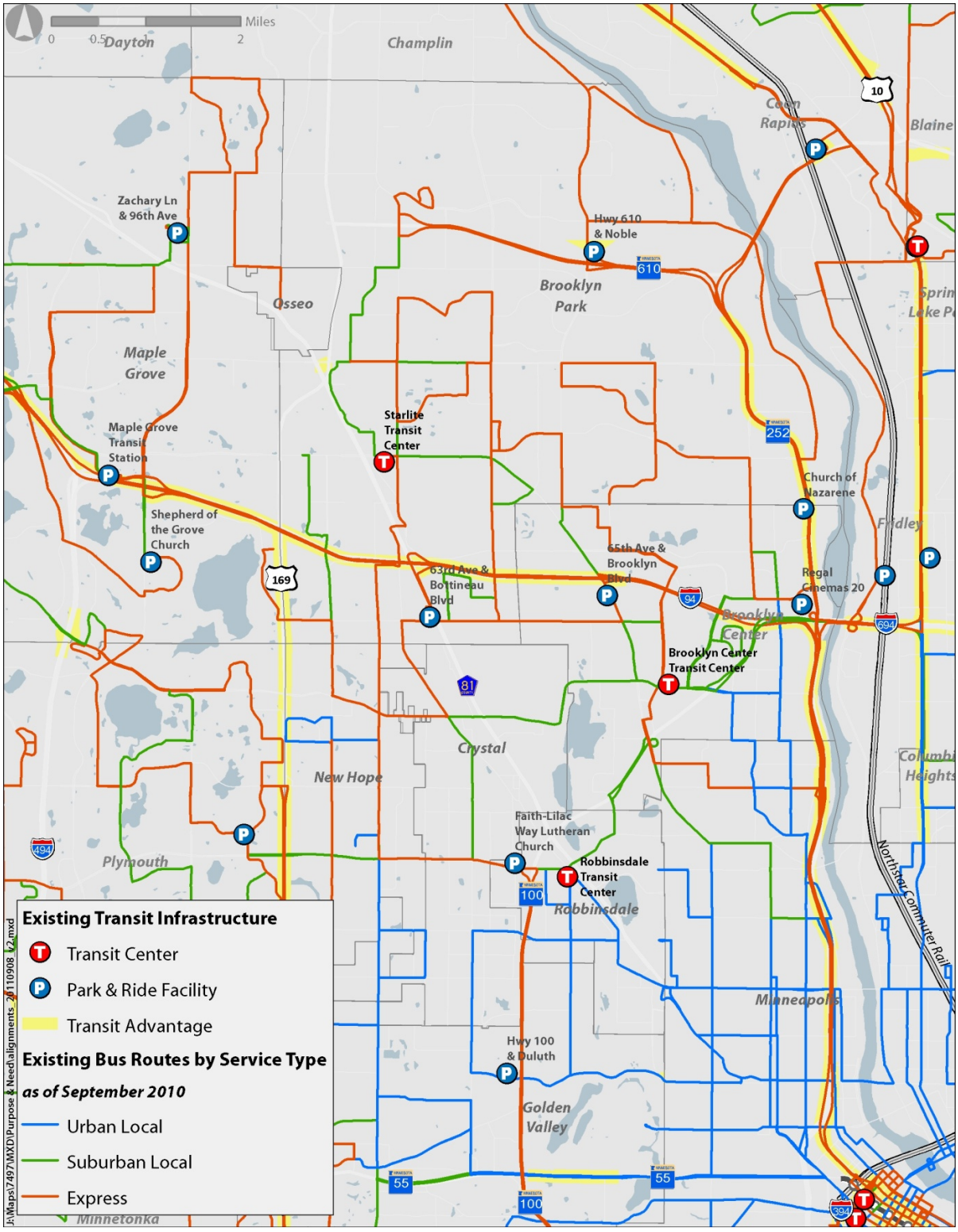
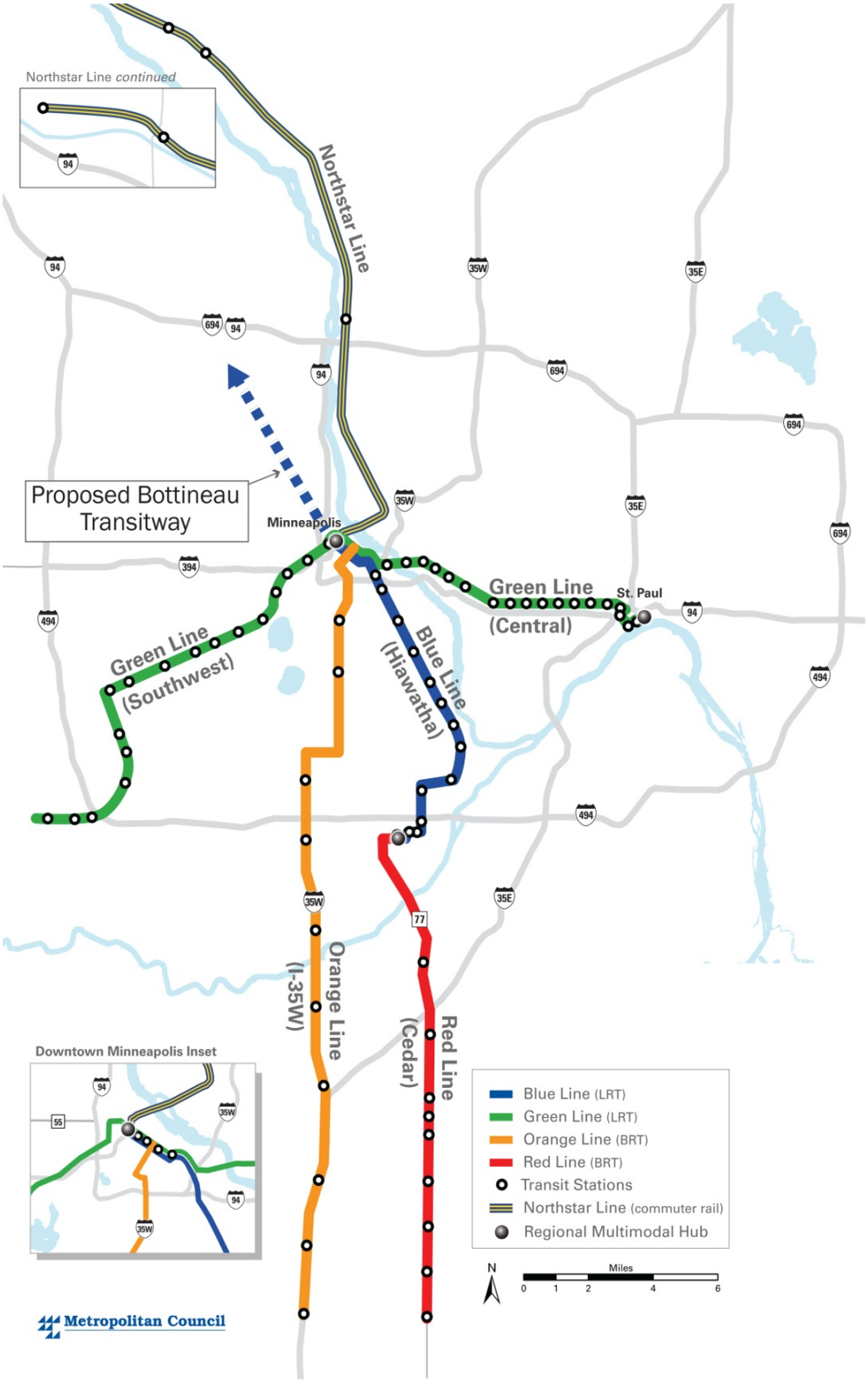


Figure 1.1-4. Regional Transitway System



1.2 Project Background

Early Planning Efforts

Transportation and land use studies along the Bottineau Transitway date back to the late 1980s. Previous studies include regional system studies, corridor studies, and site-specific studies. The Bottineau Transitway (previously identified as the Northwest Transitway) has consistently been included in regional transportation system plans. Many different alignments and modes, including BRT, LRT, and commuter rail, have been considered and evaluated in corridor-specific plans and studies. Previous studies provide a valuable base of information for the Bottineau Transitway Environmental Impact Statement (EIS) process. Figure 1.2-1 summarizes the studies conducted to date in the corridor.

The region's current long-range transportation plan, the *2030 TPP*, identifies the Bottineau Transitway as one of the corridors to be developed by 2030 as LRT, Busway, Highway BRT, or Commuter Rail. The recommendation for the Bottineau Transitway is based on findings from the Metropolitan Council's *2030 Transit Master Study* (August 2008) and reinforces the transit travel demand in the Bottineau (Northwest) Transitway, consistently identified in previous regional transportation system plans including the *Regional Transit Board LRT Plan* (1990), *Transit 2020 Master Plan* (February 2000), *2025 Transportation Policy* Plan (adopted January 2001, amended January 2002), and *2030 Transportation Policy Plan* (adopted December 2004).

Environmental Review Process

Hennepin County Regional Railroad Authority (HCRRA) is the local public agency responsible for completing this Draft EIS, and is required to comply with the requirements of the Minnesota Environmental Policy Act (MEPA) (Minn. Stat. 116D.04 and 116D.045). The project will also pursue federal funding from the Federal Transit Administration (FTA) and as a result, the FTA is required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA). The Metropolitan Council is the project sponsor and federal grantee and will lead the process for preliminary engineering, and final design and construction if the project proceeds. FTA, as the federal lead agency, the HCRRA, as the state lead agency, and the Metropolitan Council, as the local project sponsor have prepared this Draft EIS to satisfy both NEPA and MEPA.

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

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

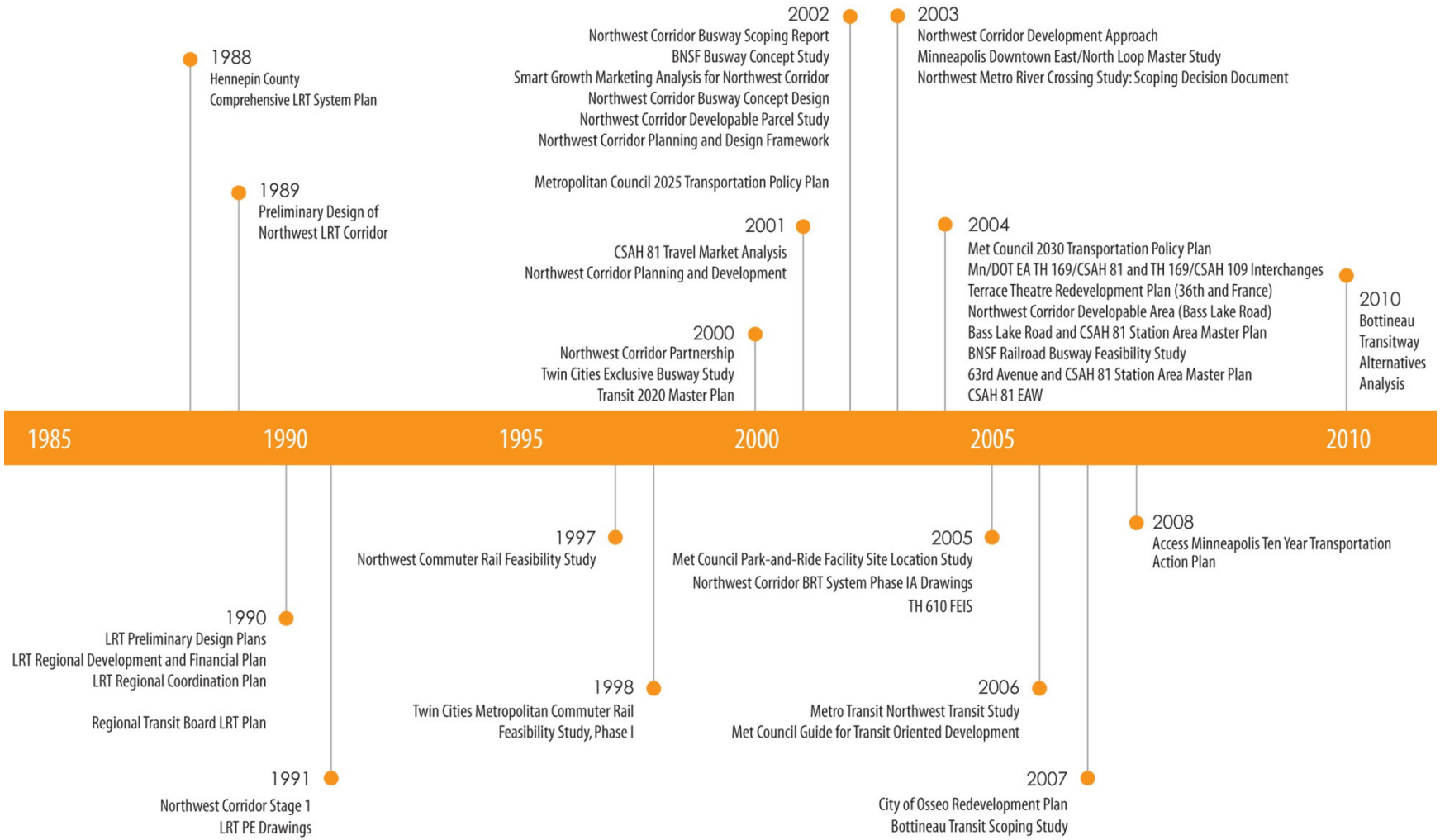
NEPA also requires engaging the public in the environmental review process. In addition, Moving Ahead for Progress in the 21st Century (MAP-21) requires the development of a coordination plan to outline how the environmental process for Bottineau Transitway will engage the public, Tribal governments, and local, state, and federal agencies with an interest in the project. Certain state, local and tribal agencies were also invited to have a more formal role in the environmental review process as cooperating and/or participating agencies. A complete discussion of the public and agency engagement process, including

the identification of cooperating and participating agencies for the Bottineau Transitway Project, can be found in Chapter 9 Consultation and Coordination.

As a cooperating agency, the United States Army Corps of Engineers (USACE) has the ability to adopt the Draft EIS for its own NEPA compliance and have a more formal role and input into project development. This helps the USACE determine whether the proposed project is in compliance with the Clean Water Act (CWA), which allows them to issue a permit. USACE has its own process for determining the Least Environmentally Damaging Preferred Alternative (LEDPA), known as the NEPA/404 merger process. As part of this process, USACE evaluates the project and issues four points of concurrence on the project: #1 Purpose and Need and Alternative Screening Criteria; #2 Alternatives to be Evaluated in Detail; #3 Preferred Alternative and LEDPA; and #4 Permit Application and Compensatory Mitigation.

To date, USACE has provided concurrence with Points #1, #2, and #3 (see letters in Appendix D). Specific to Point #1, in a letter dated June 19, 2013, USACE reviewed and concurred with the purpose and need statement for use in NEPA documentation for the Bottineau Transitway Project. USACE also concurred on the array of alternatives considered for the Bottineau Transitway Project, and the alternatives that had been carried forward for further review (Point #2). In a letter dated October 1, 2013, USACE issued concurrence on the identification of the selected alternative (Concurrence Point #3).

Figure 1.2-1. Summary of Previous Bottineau (Northwest) Corridor Studies



1.3 Project Purpose

The purpose statement below specifically defines the fundamental reasons why the Bottineau Transitway project is being proposed.

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

1.4 Project Need

This section outlines the foundation for the statement of the project purpose defined in Section 1.3. More specifically, this section identifies the problems or "needs" that the Bottineau Transitway project is intended to address and the underlying causes of the defined "needs."

The Bottineau Transitway project is needed to effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports economic development goals and objectives of local, regional, and statewide plans.

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

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

- Growing travel demand resulting from continuing growth in population and employment
- Increasing traffic congestion and limited fiscal resources
- People who depend on transit
- Limited transit service to suburban destinations (reverse commute opportunities) and time-efficient transit options
- Regional objectives for growth stated in the Regional Development Framework

Growing Travel Demand

To illustrate patterns of growth in communities served by the Bottineau Transitway, communities are grouped into Corridor Communities and Contributing Communities, as represented in Figure 1.4-1 and the following tables. Corridor Communities are those adjacent to the proposed alignments, and include Minneapolis; Southern Corridor Communities of Robbinsdale, Golden Valley, Crystal, and New Hope; and Northern Corridor Communities of Brooklyn Park, Maple Grove, and Osseo. Contributing Communities are those which are not on the corridor, but are anticipated to contribute to travel demand and ridership. These include Dayton, Rogers, and Hassan Township. This breakdown of communities illustrates that each area has a distinct pattern and rate of growth. As illustrated in Table 1.4-1, between 1990 and 2010, the Bottineau Transitway communities of Brooklyn Park and Maple Grove experienced population increases, with greater growth in the outlying suburbs of Dayton and Rogers. According to the Metropolitan Council Regional Development Framework 2030 Forecasts, between 2010 and 2030,

communities served by the Bottineau Transitway are expected to grow by 140,000 people. Maple Grove and several communities to the north and west that may also potentially be served by the transitway (Osseo, Dayton, and Rogers) are projected to grow by more than 66,000 people, outpacing the overall population growth rate for Hennepin County and the Twin Cities Metropolitan Area between 2010 and 2030.

Employment in the Bottineau Transitway project area is also expected to increase in coming years according to the Regional Development Framework 2030 Forecasts (see Figure 1.4-2). Approximately half of all jobs in the Bottineau Transitway project area are located in downtown Minneapolis, which is currently the region's largest travel demand generator with nearly 65,000 jobs anticipated to be added by 2030. The remaining employment in the project area is dispersed throughout the corridor, mainly along regional highways. Large employment concentrations outside downtown Minneapolis are located at North Memorial Medical Center in Robbinsdale, the TH 610 development area (including the Target North Campus) in Brooklyn Park, and the Arbor Lakes commercial area in Maple Grove. Brooklyn Park, Maple Grove, and Osseo are expected to experience the highest growth in employment in the project area by 2030. These trends are shown in Table 1.4-2.

Growth in population and employment in the project area and beyond is expected to result in increased transportation demand. Significant growth in traffic volumes is anticipated within the project area, in the range of 15 to 20 percent along project area roadways.

Population growth in the collar counties (the 12 counties adjacent to the seven-county Twin Cities Metropolitan Area) coupled with employment growth in the Bottineau Transitway project area will result in a sizable increase in trips between these areas. In 2010, collar county residents from Sherburne and portions of Wright and Isanti Counties made an estimated 35,600 trips per day to destinations along the Bottineau Transitway project area. By 2030, this number is expected to increase by 66 percent, to nearly 60,000 trips per day, as illustrated in Table 1.4-3.

Figure 1.4-1. Corridor and Contributing Communities

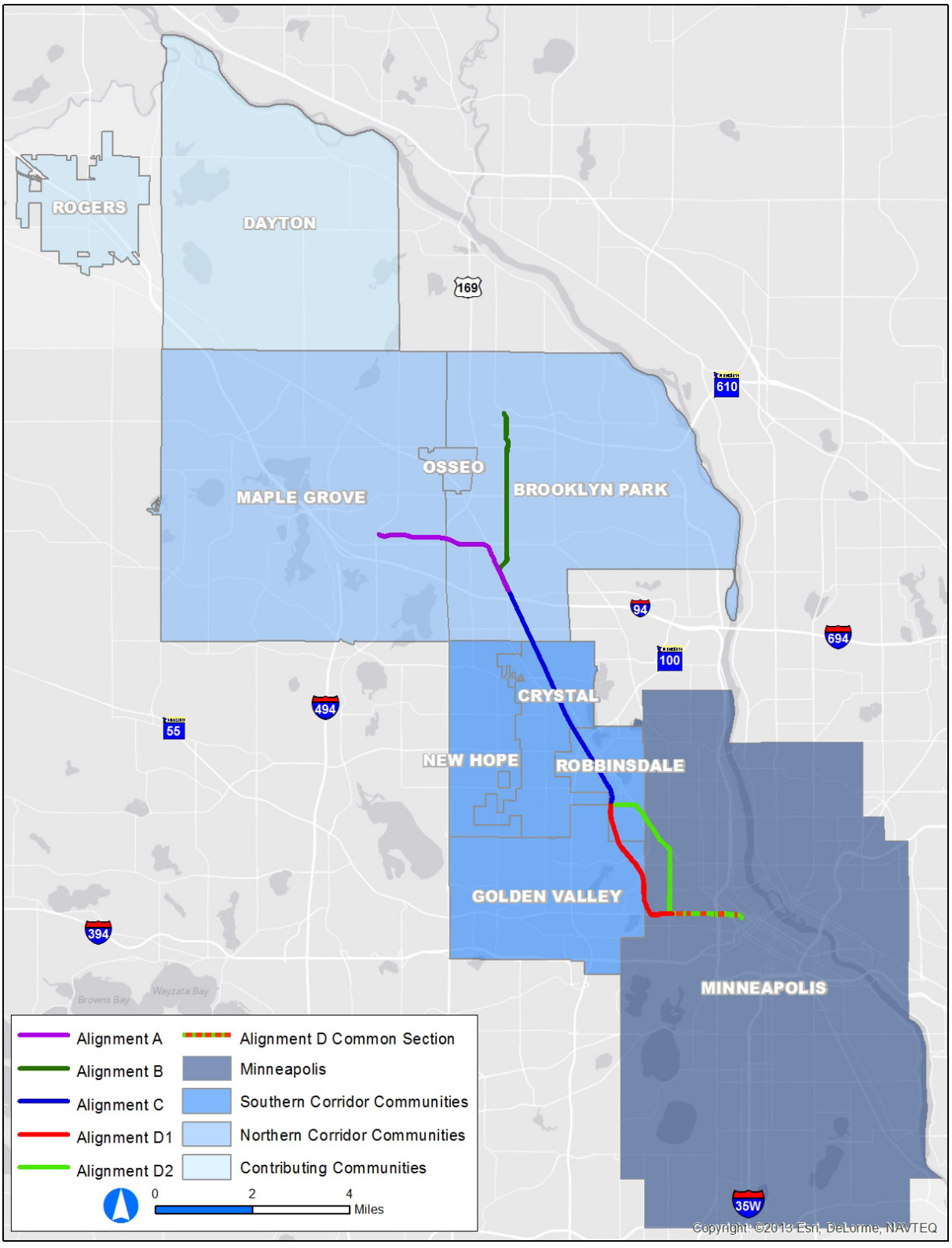


Table 1.4-1. Historic Population Change and Future Population Forecasts within Bottineau Project Area

	1990[1]	2000[1]	2010[1]	2020[2] Forecast	2030[2] Forecast	% Change 1990-2010	% Change 2010-2030
Corridor Communities	**547,212**	**580,780**	**599,170**	**669,950**	**701,000**	**9%**	**17%**
Minneapolis	368,383	382,618	382,578	425,800	441,100	4%	15%
Southern Corridor Communities	81,008	77,975	76,814	81,600	83,600	-5%	9%
Robbinsdale	*14,396*	*14,123*	*13,953*	*14,600*	*15,000*	*-3%*	*8%*
Golden Valley	*20,971*	*20,281*	*20,371*	*23,000*	*24,000*	*-3%*	*18%*
Crystal	*23,788*	*22,698*	*22,151*	*22,000*	*22,100*	*-7%*	*0%*
New Hope	*21,853*	*20,873*	*20,339*	*22,000*	*22,500*	*-7%*	*11%*
Northern Corridor Communities	97,821	120,187	139,778	162,550	176,300	43%	26%
Brooklyn Park	*56,381*	*67,388*	*75,781*	*84,000*	*89,000*	*34%*	*17%*
Maple Grove	*38,736*	*50,365*	*61,567*	*75,700*	*84,000*	*59%*	*36%*
Osseo	*2,704*	*2,434*	*2,430*	*2,850*	*3,300*	*-10%*	*36%*
Contributing Communities	**7,041**	**10,737**	**15,814**	**41,200**	**56,300**	**125%**	**256%**
Dayton[3]	4,392	4,686	4,617	26,200	35,100	5%	660%
Hassan Township[4]	1,951	2,463	2,600	0	0	33%	-100%
Rogers	698	3,588	8,597	15,000	21,200	1132%	147%
Project Area Total	**554,253**	**591,517**	**614,984**	**711,150**	**757,300**	**11%**	**23%**
Hennepin County	**1,032,431**	**1,116,200**	**1,152,425**	**1,308,415**	**1,394,660**	**12%**	**21%**
Twin Cities Metropolitan Area	**2,288,721**	**2,642,056**	**2,849,567**	**3,432,293**	**3,728,175**	**25%**	**31%**

[1] US Census Bureau
[2] Metropolitan Council Regional Development Framework 2030 Forecasts; revised 2009
[3] A small portion (less than one percent in 2000) of the City of Dayton lies within Wright County; hence, it is not included in the population figures reported in this table.
[4] Population projections for Hassan Township are zero in 2020-2030 due to anticipated annexation of township land to the City of Rogers.

Table 1.4-2. Historic Employment Change and Future Employment Forecasts within Bottineau Transitway Project Area

	1990[5]	2000	2010[6]	2020[7] Forecast	2030[7] Forecast	% Change 1990-2010	% Change 2010-2030
Corridor Communities	**362,993**	**415,394**	**402,023**	**489,950**	**538,850**	**11%**	**34%**
Minneapolis	278,438	308,127	282,3728	332,500	346,500	1%	23%
Southern Corridor Communities	55,570	56,454	55,008	62,500	65,800	-1%	20%
Robbinsdale	*6,813*	*7,109*	*6,846*	*7,600*	*8,100*	*0%*	*18%*
Golden Valley	*28,589*	*30,142*	*33,157*	*33,100*	*34,500*	*16%*	*4%*
Crystal	*6,019*	*5,638*	*3,929*	*7,300*	*8,100*	*-35%*	*106%*
New Hope	*14,149*	*13,565*	*11,076*	*14,500*	*15,100*	*-22%*	*36%*
Northern Corridor Communities	26,462	44,313	55,852	74,950	98,550	111%	76%
Brooklyn Park	*16,592*	*23,692*	*23,922*	*29,100*	*32,000*	*44%*	*34%*
Maple Grove	*7,750*	*18,309*	*30,181*	*42,900*	*63,500*	*289%*	*110%*
Osseo	*2,120*	*2,312*	*1,749*	*2,950*	*3,050*	*-18%*	*74%*
Contributing Communities	**2,523**	**6,500**	**8,818**	**20,000**	**28,000**	**250%**	**218%**
Dayton	498	1,086	921	8,000	12,500	85%	1257%
Hassan Township	250	721	1,616	0	0	546%	-100%
Rogers	1,775	4,693	6,281	12,000	15,500	254%	147%
Project Area Total	**362,993**	**415,394**	**402,050**	**489,950**	**538,850**	**11%**	**34%**
Hennepin County	**723,105**	**877,375**	**804,970**	**1,035,320**	**1,116,360**	**11%**	**39%**
Twin Cities Metropolitan Area	**1,272,773**	**1,606,994**	**1,543,896**	**2,023,150**	**2,205,730**	**21%**	**43%**

[5] Metropolitan Council
[6] MnDEED 2010 Quarter 2 Employment Estimates
[7] Metropolitan Council Regional Development Framework 2030 Forecasts; revised 2009. Brooklyn Park and Crystal forecasts revised 2011.
[8] Metropolitan Council Revision, August 2011

Table 1.4-3. Collar County Travel Demand for Trips Ending in the Bottineau Transitway Project Area

Zone	2010 Average Weekday Person Trips	2030 Average Weekday Person Trips	2010-2030 Increase	2010-2030 Percent Increase
Downtown Minneapolis	4,500	5,000	500	11%
North Minneapolis	1,300	1,300	0	0%
Robbinsdale, Golden Valley, Crystal, New Hope	7,700	8,800	1,100	14%
Brooklyn Park	4,700	10,100	5,400	115%
Maple Grove	17,400	33,800	16,400	94%
Project Area Total	35,600	59,000	23,400	66%

Source: MnDOT Collar County Travel Demand Model[9]

Growth in population and employment in the project area and beyond is expected to result in growing travel demand. As illustrated in Figure 1.4-3, significant growth in traffic volumes is anticipated within the project area, particularly in the northern suburbs of Brooklyn Park, Maple Grove, and Dayton. The figure illustrates expected growth in traffic volumes on highways and arterial roadways crossing the reference lines. Traffic volumes on the combination of all roadways in the project area just north of TH 610 (Line 1) are expected to grow by 57 percent or approximately 130,000 daily trips by 2030. In addition, volumes are projected to increase by 110,000 daily trips or 26 percent on the combination of all roadways in the project area between the proposed TH 610 and the I-94/I-494 split by 2030 (Line 2). Although projected increases are smaller than for other communities, traffic volumes are also expected to increase by 15 percent (110,000 daily trips) and 21 percent (65,000 daily trips) near Crystal (Line 3) and north Minneapolis (Line 4), respectively.

The roadway system configured within the area's natural and built environment focuses high mobility demand on a limited number of facilities including I-94, I-694, I-494, TH 100, and US 169. Although TH 610 and its planned connection between US 169 and I-94 would increase capacity for some of the east-west demand in the project area, it is not expected to address the increasing northwest-southeast oriented mobility needs in the project area travelshed or relieve demand on I-94. No other major highway improvements are planned in the next 20 years for the metropolitan highway system within the project area.

Increasing Traffic Congestion

Growing travel demand is expected to increase traffic congestion on the region's highways and in downtown Minneapolis. In the past, the region responded to increased demand by constructing new roadways or expanding existing ones. In recent years, however, roadway expansion in the Twin Cities Metropolitan Area has not kept pace with mounting travel demand and is not anticipated to keep pace in the future.

State policy, outlined in the Minnesota Department of Transportation's (MnDOT) *Statewide Multimodal Transportation Plan* and different modal investment plans under the Minnesota GO vision, and regional policy, outlined in the *2030 TPP*, both recognize the importance of a balanced approach to meeting travel demand that invests in maintaining the existing transportation system and favors projects such as the Bottineau Transitway.

Specifically, the *Statewide Multimodal Transportation Plan* includes overarching key objectives of "Transportation in Context" and "Critical Connections" that highlight the importance of a multimodal

[9] The collar county model is a modified version of the Twin Cities regional travel demand model developed by MnDOT to better estimate travel demand in portions of the Twin Cities area. The better estimations were developed by including additional refinements to the roadway network and trip making analysis of the 12 counties that surround the seven-county metro area.

system. Key strategies in support of these objectives include working with other regional and local agencies to:

- Improve accessibility and safety for everyone traveling on, along, and across roads.
- Define priority networks for all modes based on connectivity and accessibility.
- Improve the connections between transit services to provide greater transportation options for travel within and between cities.
- Define priority networks for all modes based on connectivity and accessibility.

The need to optimize mobility through strategies that manage highway traffic congestion in the project area is relevant to the Bottineau Transitway Project. The Bottineau Transitway project area contains several major regional highways that experience congestion today. Due to continued increase in travel demand coupled with few highway capacity improvements planned for regional roadways in this area, congestion is expected to worsen by 2030. Because many regional highways are already experiencing congestion and this situation is expected to worsen, many local arterial roadways paralleling the regional highway system are likely to absorb increases in traffic by 2030 as the regional system nears capacity. Figure 1.4-3 illustrates the projected increase in traffic volumes on highways and arterials between 2005 and 2030 in the Bottineau Transitway project area.

In recent years, MnDOT, the Metropolitan Council, and Metro Transit have cooperated to provide transit investments along the roadway system as one of the key strategies for managing congestion. In the case of I-94 in the Bottineau Transitway project area, as well as other freeways in the Twin Cities Metropolitan Area, transit advantages in the form of bus-only shoulders and ramp meter bypass lanes have been implemented. As the I-94 corridor approaches capacity, even minor fluctuations in traffic demand could have a major impact on the performance and level of congestion of the facility overall. With no planned roadway capacity improvements along the I-94 corridor in the project area, transit investments will play an increasingly important role in effectively managing traffic congestion in the project area.

Policy direction at the local level has also concluded that continual roadway expansion is unsustainable. Specifically, the *Access Minneapolis Ten Year Transportation Action Plan (2007)* indicates that about half of downtown trips currently are walk, bike, or transit trips. It also states, “One of the downtown transportation targets of the City’s *Sustainability Plan* is to increase the use of alternative transportation modes in downtown to 67% by 2013.” It goes on to state, “The new transportation strategy for downtown places particular emphasis on walking, biking, transit (bus, light rail, and commuter rail), and pedestrians, while also retaining automobile access. This approach ensures that automobile access is always accommodated but gives appropriate priority to walking, biking, and transit, which must take on a rising share of travel in and through the downtown as growth continues to occur.”

Figure 1.4-2. 2010 to 2030 Employment Forecast

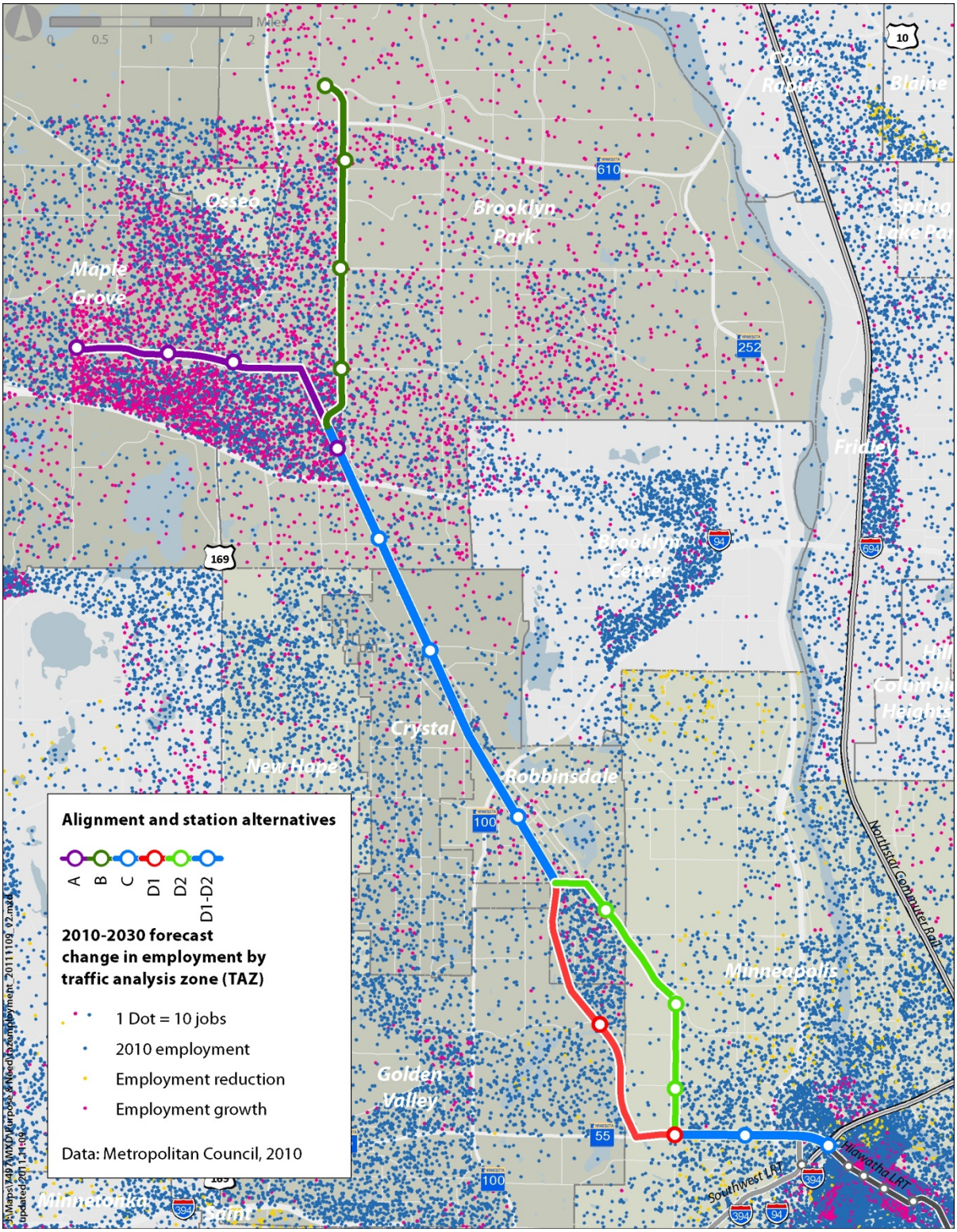


Figure 1.4-3. 2005-2030 Traffic Volume Growth Across Corridor Screenlines

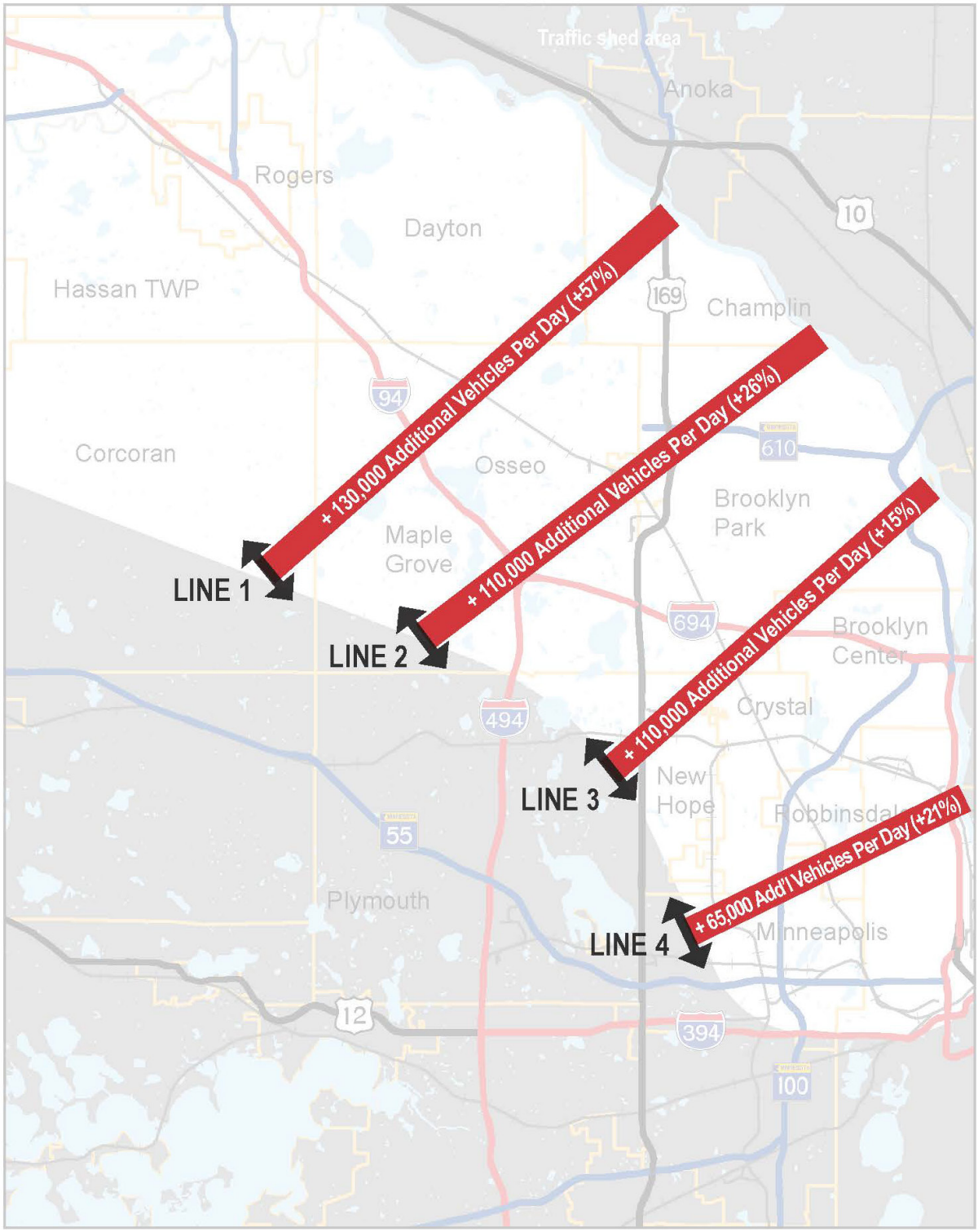
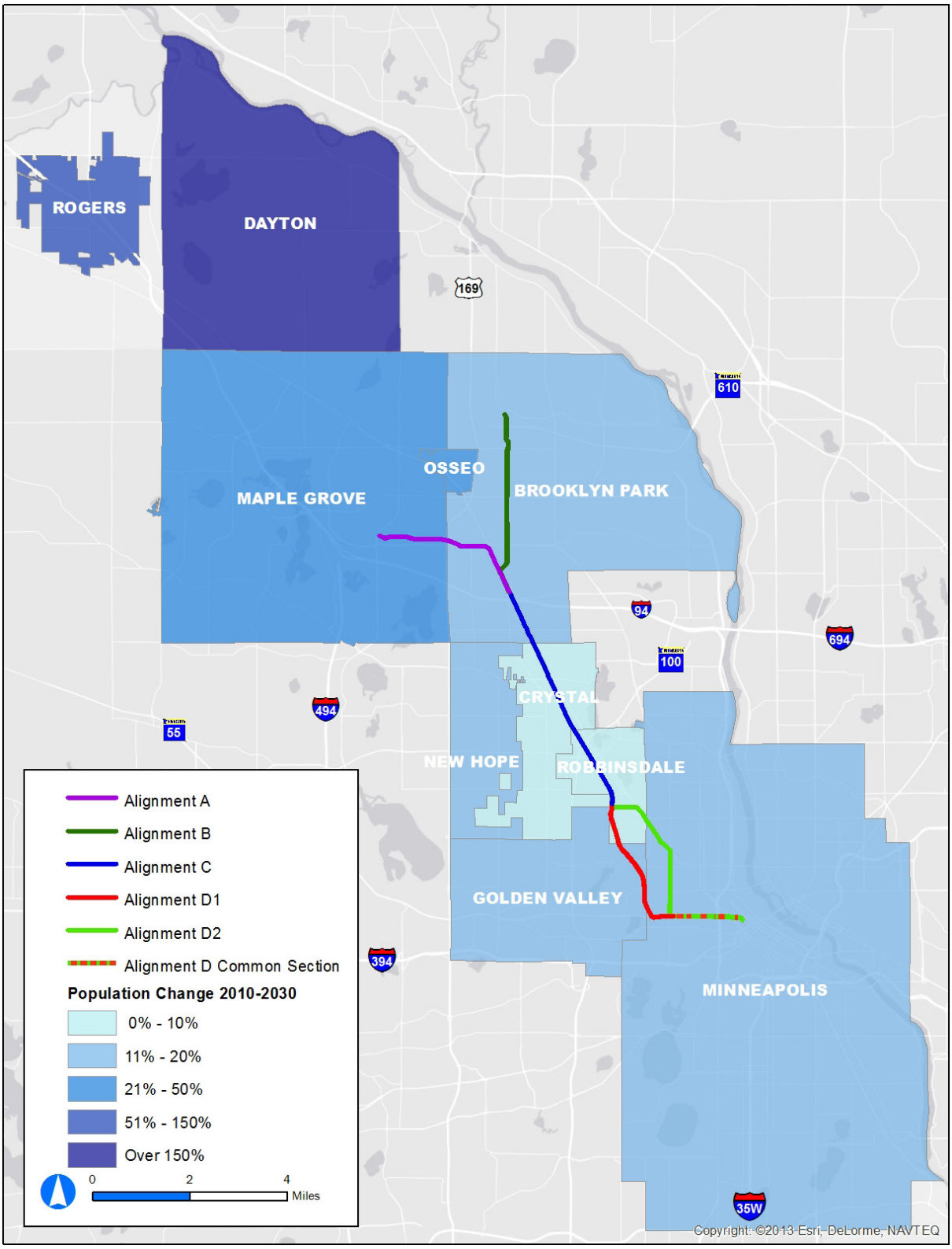


Figure 1.4-4. 2010-2030 Population Change within the Bottineau Transitway Project Area



Needs of People Who Depend on Transit

The Bottineau Transitway project area is home to a large number of people who depend on transit to meet their transportation needs. Based on US Census information, 14 percent of households in the project area do not own a vehicle. This is nearly double the metropolitan area average of eight percent, as shown in Table 1.4-4. Figure 1.4-5 illustrates the distribution of households with no vehicles and highlights the presence of areas in north Minneapolis and portions of suburban communities in the corridor where these percentages are the highest. In some areas of north Minneapolis, the number of zero-car households exceeds 50 percent; in areas of New Hope and Brooklyn Park, the number exceeds 22 percent. The high proportion of people without access to vehicles underscores the need for transit access in these parts of the Bottineau Transitway project area.

In addition, seniors represent an important market segment for public transportation. In the project area communities of Golden Valley, Robbinsdale, Crystal, and New Hope, seniors make up a larger share of the population compared to the makeup of the overall regional population, as shown in Table 1.4-4 and Figure 1.4-5. Moreover, senior populations are expected to grow in the Bottineau Transitway communities during the next 20 years by as much as 125 percent.

Table 1.4-4. Transit-Dependent Population as a Share of Community Population[10]

	Occupied Housing Units	Zero Vehicles Available	Percent Zero-Vehicle	Total Population	Population Over 65	Percent over 65
Corridor Communities	**245,541**	**33,859**	**14%**	**599,170**	**54,222**	**9%**
Minneapolis	165,253	28,947	18%	382,578	30,511	8%
Southern Corridor Communities	31,918	2,663	8%	76,814	12,675	17%
Robbinsdale	*6,062*	*611*	*10%*	*13,953*	*1,724*	*12%*
Golden Valley	*8,818*	*504*	*6%*	*20,371*	*4,142*	*20%*
Crystal	*8,821*	*477*	*5%*	*22,151*	*3,035*	*14%*
New Hope	*8,217*	*1,071*	*13%*	*20,339*	*3,774*	*19%*
Northern Corridor Communities	48,370	2,249	5%	139,778	11,036	8%
Brooklyn Park	*24,740*	*1,669*	*7%*	*75,781*	*5,928*	*8%*
Maple Grove	*22,466*	*424*	*2%*	*61,567*	*4,532*	*7%*
Osseo	*1,164*	*156*	*13%*	*2,430*	*576*	*24%*
Contributing Communities	**4,840**	**120**	**2%**	**14,884**	**1,250**	**8%**
Dayton	1,579	17	1%	4,671	420	9%
Hassan Township	756	22	3%	1,616	112	7%
Rogers	2,505	81	3%	8,597	718	8%
Project Area Total	**250,381**	**33,979**	**14%**	**614,054**	**55,472**	**9%**
Hennepin County	**469,770**	**46,244**	**10%**	**1,152,425**	**130,814**	**11%**
Twin Cities Metropolitan Area	**1,097,513**	**82,321**	**8%**	**2,849,567**	**306,750**	**11%**

[10] Zero-vehicle data from 2005-2009 American Community Survey Five-Year Estimates; population and age data from 2010 Census.

Limited Transit Service to Suburban Destinations (reverse commute opportunities) and Time-Efficient Transit Options

Currently, the dominant commute pattern in the Bottineau Transitway project area is inbound from suburban areas during the morning peak period to serve traditional employment destinations in downtown Minneapolis.

For suburban commuters originating beyond the I-694/I-494 beltway, Maple Grove Transit provides a travel-time competitive transit option during commuter peak periods serving Maple Grove travel markets via park-and-ride facilities, and several Metro Transit services deliver suburban commuters from southern corridor communities to downtown Minneapolis jobs via large suburban park-and-rides on the Brooklyn Park end of the corridor. Express buses in the project area benefit from a robust system of transit advantages, consisting of ramp meter bypass lanes and bus-only shoulders, to ensure travel time reliability and short trip times during periods of congestion on the highway system.

Even within the peak commute period, however, there are limited travel-time competitive transit options for some project area travel markets, specifically inside the I-694 ring (including the communities of Crystal, New Hope, Robbinsdale, and north Minneapolis neighborhoods). This limits transit's ability to compete with automobile travel times, leaving a significant gap in travel options for residents of this area.

Although the dominant commute pattern in the Bottineau Transitway project area today is oriented toward downtown Minneapolis, a notable reverse commute pattern exists from Minneapolis and the southern corridor communities of Robbinsdale, Golden Valley, and Crystal to developing areas such as Brooklyn Park, Maple Grove, and Rogers. As illustrated in Figure 1.4-2, job concentrations exist throughout the project area. This reverse commute pattern of job distribution is expected to continue to grow between now and 2030, as the suburban employment nodes gain jobs.

Although project area communities are served by a network of local and express bus routes, fast and convenient transit options to access schools and jobs are limited. Direct bus service from Minneapolis to suburban communities in the Bottineau Transitway is provided on two limited-stop and express routes. Residents of Minneapolis and the southern corridor communities do have other transit options for accessing activity centers in the northern corridor communities of Maple Grove and Brooklyn Park via three transit centers located within the project area (Starlite Transit Center, Brooklyn Center Transit Center, and Robbinsdale Transit Center). Unfortunately, these suburban local routes stop frequently, often require transfers, and travel at lower speeds on arterial streets, resulting in long overall travel times.

Although regional plans call for improved local and express bus services in the future, the overall configuration of transit service in the project area is not expected to change significantly. Future service will continue to focus on a network of park-and-rides served by peak period, inbound express routes and a suburban local network comprised of infrequent services operating out of suburban transit centers. Demand for mid-length and reverse commute trips on transit within the project area will not be met by 2030 bus plans.[11]

[11] Transit Operations Plans Report (Connetics Transportation Group, 2012)

Figure 1.4-5. Percent of Households with Zero Vehicles

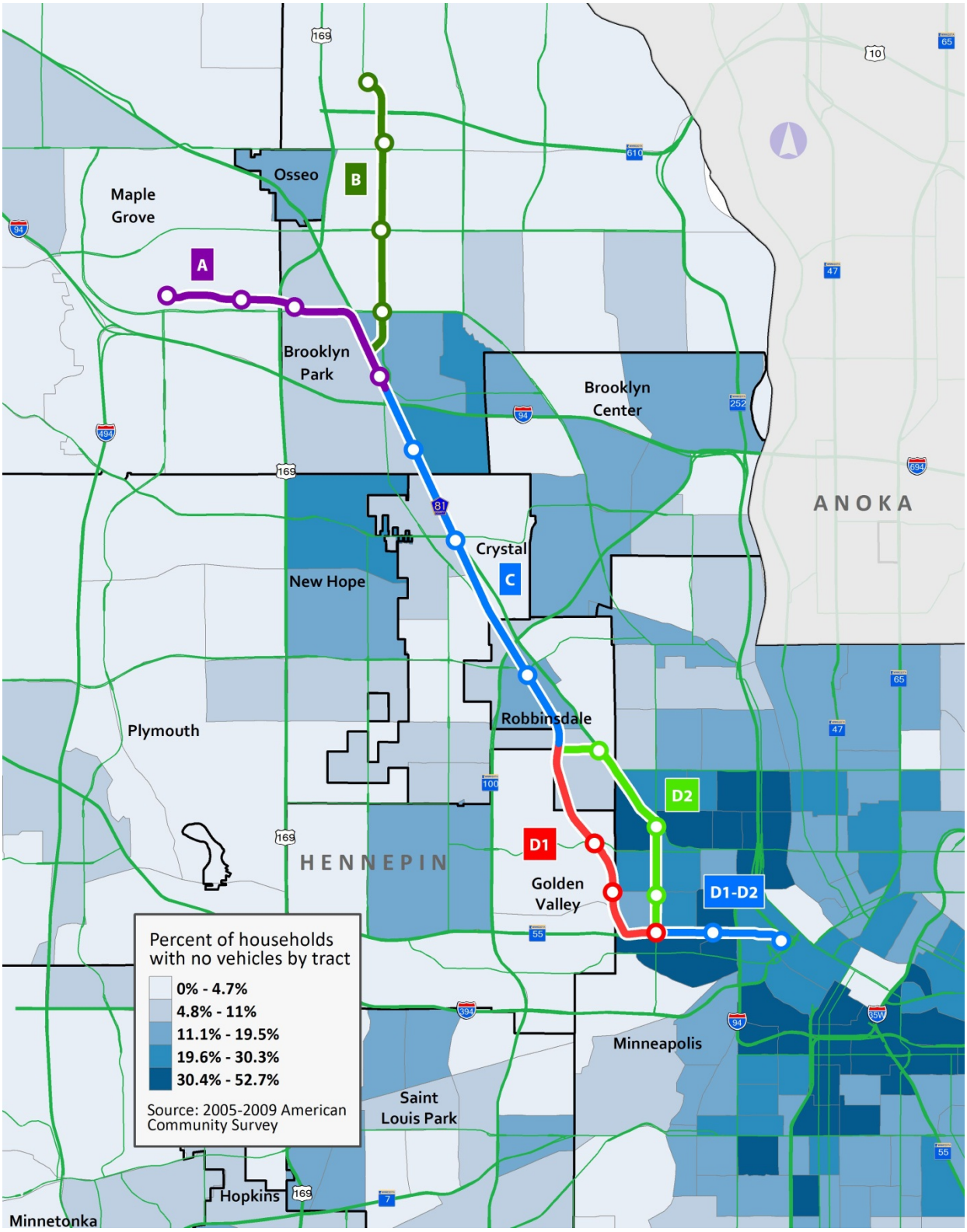
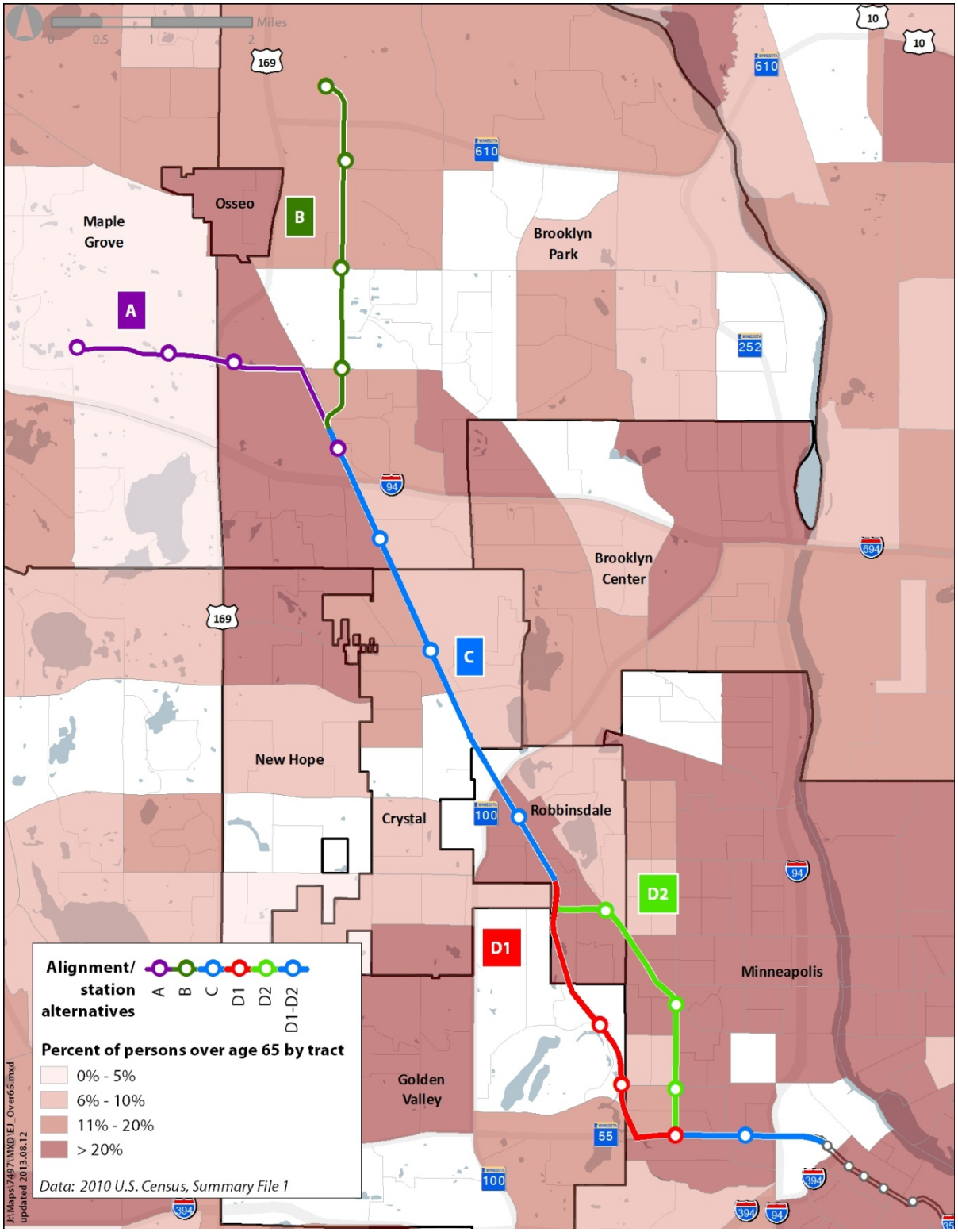


Figure 1.4-6. Percent of Population Over Age 65



Regional Objectives for Growth

The Twin Cities Metropolitan Area is working to ensure the orderly, economical development of its seven-county area and the efficient use of four regional systems: transportation, aviation, water resources (including wastewater collection and treatment), and regional parks and open space. The policies guiding the region's development are articulated in the *2030 Regional Development Framework*. Most recently updated in December 2006, the *2030 Regional Development Framework* established four policies for guiding growth in the region:

- Accommodate growth in a flexible, connected, and efficient manner
- Plan and invest in multi-modal transportation choices to slow the growth of traffic congestion and serve the region's economic needs
- Encourage expanded choices in housing locations and types and improved access to jobs and opportunities
- Conserve, protect, and enhance the region's vital natural resources

Bottineau Transitway, as part of a regional transitway system, would be a step toward achieving these goals.

1.5 Goals and Objectives

The establishment of goals and objectives articulates the desired benefits of the proposed Bottineau Transitway and establishes a foundation for the definition of evaluation measures including quantitative and qualitative criteria to be used in comparing the performance of the alternatives.

The following goals have been developed to serve as a framework to evaluate the alternatives under consideration for the Bottineau Transitway. Based on the purpose and need of the Bottineau Transitway, Goals 1 through 3 outlined below address the core purpose and need of the project. Goals 4 and 5 reflect broader community goals, and hence should be considered in the evaluation of alternatives that meet the first step in the screening evaluation process. These goals, along with the identified project needs, provide the basis for the analysis of alternatives discussed in Chapter 2.

Table 1.5-1 Bottineau Transitway Goals and Objectives

Goal 1: Enhance Regional Access to Activity Centers	
Objectives	
1	Maximize total transit riders
2	Improve service to people who depend on transit
3	Expand reverse commute and off-peak transit opportunities
4	Increase transit system linkages, access to regional destinations, and multimodal transportation opportunities
5	Maximize transit access to housing, employment, schools, community services, health care facilities, and activity centers
Goal 2: Enhance the Effectiveness of Transit Service within the Corridor	
Objectives	
6	Maximize new transit riders
7	Maximize passengers per hour of revenue service
8	Maximize traveler time savings

Goal 3: Provide a Cost-Effective and Financially Feasible Transit System	
Objectives	
9	Balance project costs and benefits
10	Minimize project capital and operating cost
11	Maximize long-term investment in the regional transit system
12	Maximize flexibility to efficiently expand the transit investment to accommodate transitway demand beyond 2030 weekday travel demand forecasts
Goal 4: Promote Sustainable Development Patterns	
Objectives	
13	Promote land development and redevelopment that supports sustainable transportation policies
14	Ensure compatibility with local and regional comprehensive plans
15	Support economic development and redevelopment efforts
Goal 5: Support Healthy Communities and Sound Environmental Practices	
Objectives	
16	Minimize impacts on wetlands/water/floodplains, parks, visual resources, noise/vibration, and historic/cultural resources
17	Minimize short- and long-term impacts to property, property access, and on-street parking
18	Maximize cohesion, preservation, and enhancement of Bottineau Transitway communities
19	Maximize pedestrian and bicycle connections to the Bottineau Transitway
20	Maximize health, environmental, and economic benefits to the Bottineau Transitway communities
21	Minimize disproportionately high and adverse impacts on the region's minority and/or low-income communities
22	Minimize area traffic impacts