TRANSPORTATION

5

Photo Credit: Dan Jones

White Bear Lake, classified by the Metropolitan Council as a Developed Community, has a nearly full array of transportation facilities. Through the annual Street Reconstruction Program approximately 2-4% of the existing transportation infrastructure is renewed on an ongoing basis. Each project allows the City to investigate deficiencies and improve conditions for the public. Based on public feedback, the system is generally working very well. Strong public interest in walkable and bikeable neighborhoods has resulted in a number of successful projects that placed additional emphasis on pedestrians and non-motorized traffic. This plan seeks to build off of those successes while also maintaining a high-quality system for all users. The plan for transportation facilities is based on public input, historic and projected traffic volumes, and other identified issues and needs of the community. This plan emphasizes a multi-modal transportation system that includes transit, highways and roads, and non-motorized transportation such as bicycles and pedestrians.

GUIDING PRINCIPLES

MULTI-MODAL TRANSPORTATION SYSTEM

Support a seamless transportation network that evokes a sense of place and provides a broad range of options, providing alternatives to automobiles and encouraging an increase in non-motorized transportation for people of all ages and abilities, while fostering public safety. Providing a diverse array of alternative transportation options including transit, pedestrian and bicycle not only encourages healthy lifestyles but can reduce the need to expand roadway facilities and reduce fuel consumption and pollution. Alternative modes of transportation will be supported and encouraged in all aspects of roadway design.

COORDINATION

Coordinate effectively between different governmental agencies to meet the needs of the City. In the case of White Bear Lake, this includes the Metropolitan Council, Minnesota Department of Transportation, Ramsey County and neighboring communities.

ROADWAY SAFETY AND DESIGN

Roadway improvements will provide a safe, efficient means of moving people and goods through the City by planning and implementing projects that meet the travel demands of all modes of transportation. A regular review of the City's transportation needs and planning for implementation through its Capital Improvement Plan are key factors for fostering a safe and efficient transportation system for all modes of travel.

LIVABILITY

Build a transportation system for everyone while addressing social, environmental and economic impacts while enhancing the experience

for all users. Incorporate context sensitive design concepts to all transportation projects where feasible. Context sensitive design elements will encourage healthy living, promote alternative energy sources, reduce congestion, protect the environment, enhance user experience and encourage system resiliency.

METROPOLITAN COUNCIL 2040 TRANSPORTATION POLICY PLAN (TPP)

This plan has been prepared to be consistent with the TPP. The TPP is a regional plan that evaluates the existing transportation system, identifies transportation challenges to the region, and sets regional goals, objectives, and priorities to meet the transportation needs of current residents while accommodating the region's anticipated growth.

"The 2040 Transportation Policy Plan presents the region's policies and plans to guide the development of the region's transportation system. It carries forward the vision of Thrive MSP 2040 for growth and development of the Twin Cities region toward economic success and vibrancy in the decades to come."

A bicyclist enjoys the off road trail along Lake Avenue. Lake Avenue was reconstructed to include an off-road multiuse trail that has become a very popular year-round destination used to get around town and enjoy the beauty of White Bear Lake.

2040 Thrive MSP TRANSPORTATION POLICY PLAN

The Metropolitan Council identifies White Bear Lake with the community designation of Suburban (see community designation map in Chapter 1). Suburban communities experienced continued growth and expansion during the 1980s and early 1990s, and typically have automobile-oriented development patterns at significantly lower densities than in previous eras. White Bear Lake is unique in the Twin Cities in that it is much older than most suburban communities and contains elements such as a traditional neighborhood street grid and downtown area that are not typically found in suburban communities. Suburban communities are expected to target opportunities for more intensive development near regional transit investments at densities and in a manner articulated in the TPP.

EXISTING ROAD SYSTEM

This section contains information on the existing roadway system in White Bear Lake. Definitions of common transportation terms are provided for the reader. Information includes functional classification (freeway versus local road) and jurisdiction (who owns and maintains the road). This section lists significant roadway projects undertaken over the last 10 years, as well as information from pertinent studies.

DEFINITIONS

These definitions are primarily based on the Metropolitan Council's Functional Classification Criteria from their TPP adopted January 14, 2015.

Average Annual Daily Traffic (AADT) - The average number of vehicles per day crossing a given point on the road.

Carpool – When two or more people share a private vehicle. At times, vehicle-sharing is facilitated by government.

Level of Service – As related to each mode, the different operating conditions that occur on a facility when accommodating various traffic volumes. It is a measure of quality of service provided by a facility. It is expressed as levels of service "A" through "F". Level "A" represents the best operation conditions and Level "F" is the worst.

Metropolitan Highway System – The system of highways intended to serve the region. Only principal arterials, which include interstate freeways, are part of the Metropolitan Highway System. The plan defines the Metropolitan Highway System to include the interstate freeways and other, non-freeway principal arterials.

A-minor Arterials – Roadway designation developed by and used only within the seven metropolitan counties to identify the most important minor arterials in the region. Principal and A-minor arterials are eligible for federal highway funding through the Transportation Advisory Board Regional Solicitation. A-minor arterials are more significant to the region than other minor arterials and are owned and operated by MnDOT, counties, and cities. A-minor arterials are further classified into one of four types: Reliever, Augmentor, Expander or Connector. Of these classification types, only the expander class is present in White Bear Lake. The expander is defined as:

> Expanders - Routes which provide a way to make connections between developing areas outside the interstate ring or beltway. These routes are located circumferentially beyond the area reasonably served by the beltway. These roadways are proposed to serve medium to long suburb-to-suburb trips. Approximately 650 miles of expanders have been identified in the metropolitan area. Improvements focus on preserving or obtaining right-of-way.

Multi-Use Trail - A multi-modal trail, typically an asphalt path between 8 and 12 feet wide, similar to a regional trail, but local in nature.

On-Road Bike Lane - A lane on a roadway (usually in the shoulder area) designated for bicycle traffic. Typically signed as such but not always.

Park and Ride - An arrangement whereby people can drive an automobile to and park in a designated lot, and use either a transit vehicle or car pool to their ultimate destinations.

Principal Arterials - The high capacity highways that make up the metropolitan highway system. Includes all interstate freeways which connect the region with other areas in the state and other states. They also connect the metro centers to regional business concentrations. The emphasis is on mobility as opposed to land access.

Regional Trail - A multi-modal trail designed to provide access to elements in the regional parks system and provide routes for alternate forms of travel from one city or county to another.

Sidewalk - A walkway designed primarily for pedestrian use, typically a 5-foot wide concrete path separated from vehicular traffic.

Transit - All forms of riding together. It includes fixed-route and paratransit services and employer rideshare programs. Further definitions of transit include:

> ADA Paratransit - Flexible forms of public transportation services that are not provided over a fixed route, i.e. demand responsive service for persons with disabilities.
>
> Bus Rapid Transit - BRT vehicles feature low floors and allow boarding from either door. Fares are paid before boarding – just as on light rail transit – so more time is spent moving rather than at bus stops. Trips are frequent with fewer stops per mile. Stations feature enhanced information displays and better lighting and radiant heat.
>
> Commuter Rail - Passenger train service that operates on existing freight railroad tracks. Commuter rail service primarily operates during "peak" travel times, usually the hours of 6 a.m. to 9 a.m. and again from 3 p.m. to 6 p.m.
>
> Express Transit - A scheduled service charging an express fair for non-stop with a minimum interval of four miles on a limited access or exclusive transit right-of-way.
>
> Light Rail Transit (LRT) - A form of transit using electrically propelled vehicles operating singularly or in trains on its exclusive right of way or within a designated portion of an existing right of way.
>
> Mass Transit - A scheduled fixed service using vehicles capable of carrying ten or more persons.
>
> Metro Transit -- The major public transit operator in the Twin Cities and previously known as Metropolitan Council Transit Operations (MCTO).

Transportation Demand Management (TDM) - Strategies to manage demand on roadways designed to redirect trips to higher-occupancy modes or away from peak traffic periods so that the total number of vehicle trips are reduced. TDM can include both capital and service improvements to highways and transit and may involve community action.

Person Trip - A one-way journey between two destination points by one person.

Vehicle Trip - A one-way journey made by auto, truck, or bus to convey people or goods.

FUNCTIONAL AND JURISDICTIONAL CLASSIFICATION

The functional classification indicates how a road is used and should be managed regarding speeds, access limitations, and road geometry considerations. The functional roadway classification system within

the Twin Cities metropolitan area consists of four classes of roadways: principal arterials which include Interstate freeways (Figure 5.2), minor arterials, collector streets and local streets.

An inventory of the roadways falling under each jurisdiction is provided in Table 5.1.

Table 5.1 Roadway Miles by Jurisdiction

Jurisdiction	Number of Miles
City Streets	67
City Streets MSA	19
County	20
State	5
Private Streets	3
TOTAL	114

Source: City Engineering Pavement Management Program database. Municipal State Aid (MSA)

Principal Arterials

The City's two principal arterials are interstate freeways; both are described below:

Interstate 694 - This important circumferential transportation route serves the northern metro area with 2 to 3 through lanes in each direction. 2016 Traffic Volume: 93,000 west of State Highway 61, 80,000 east of State Highway 61, and 77,000 west of State Highway 120 (Century Avenue).

Interstate 35E - This important radial route serves the eastern metro area with 3 through lanes in each direction. 2015 Traffic Volume: 73,000 south of Highway 96 decreasing to 37,000 north of Highway 96. Volumes are likely to increase significantly since this last count because of 2015 construction impacts.

Figure 5.1 Principal Arterials

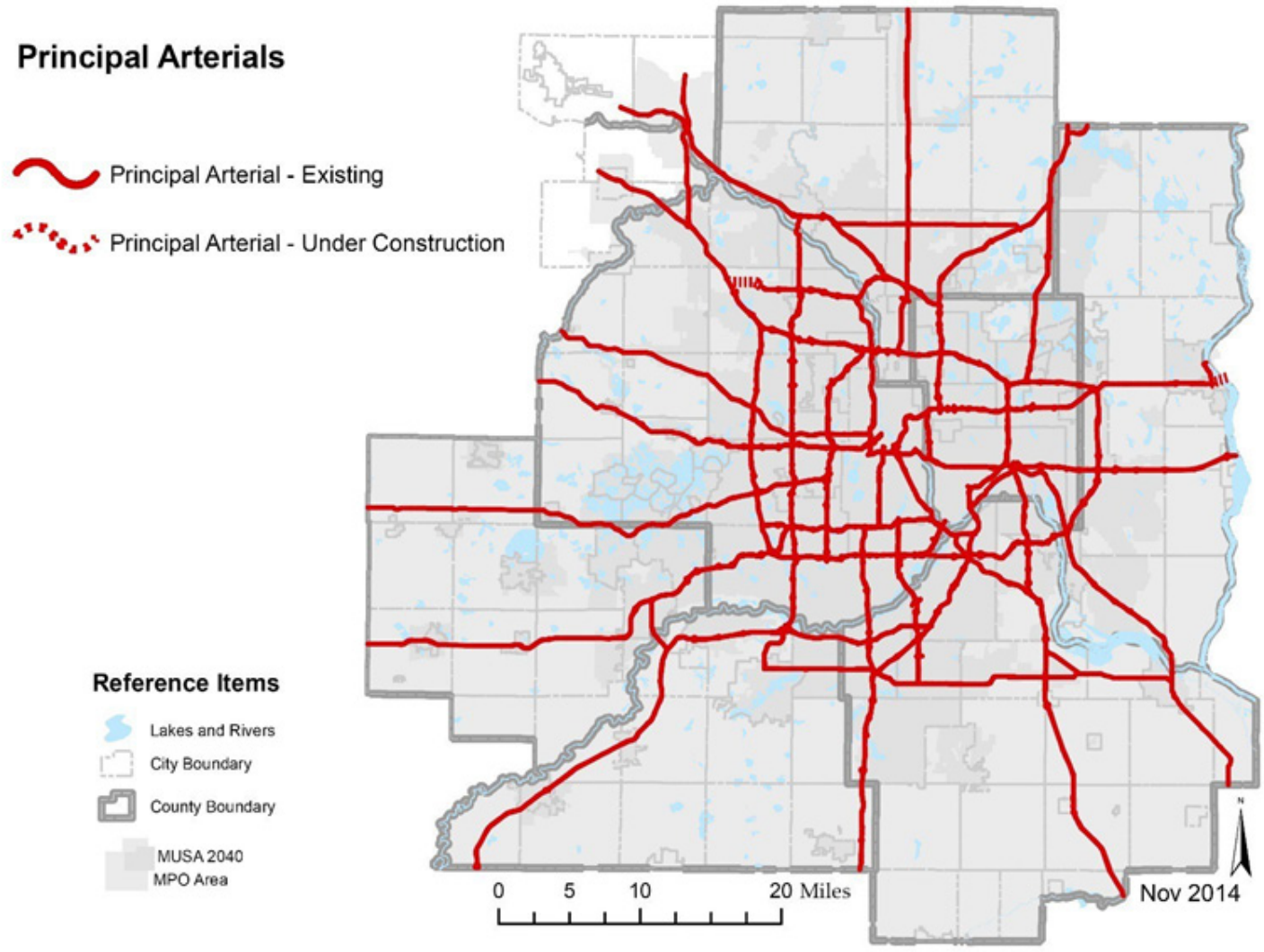
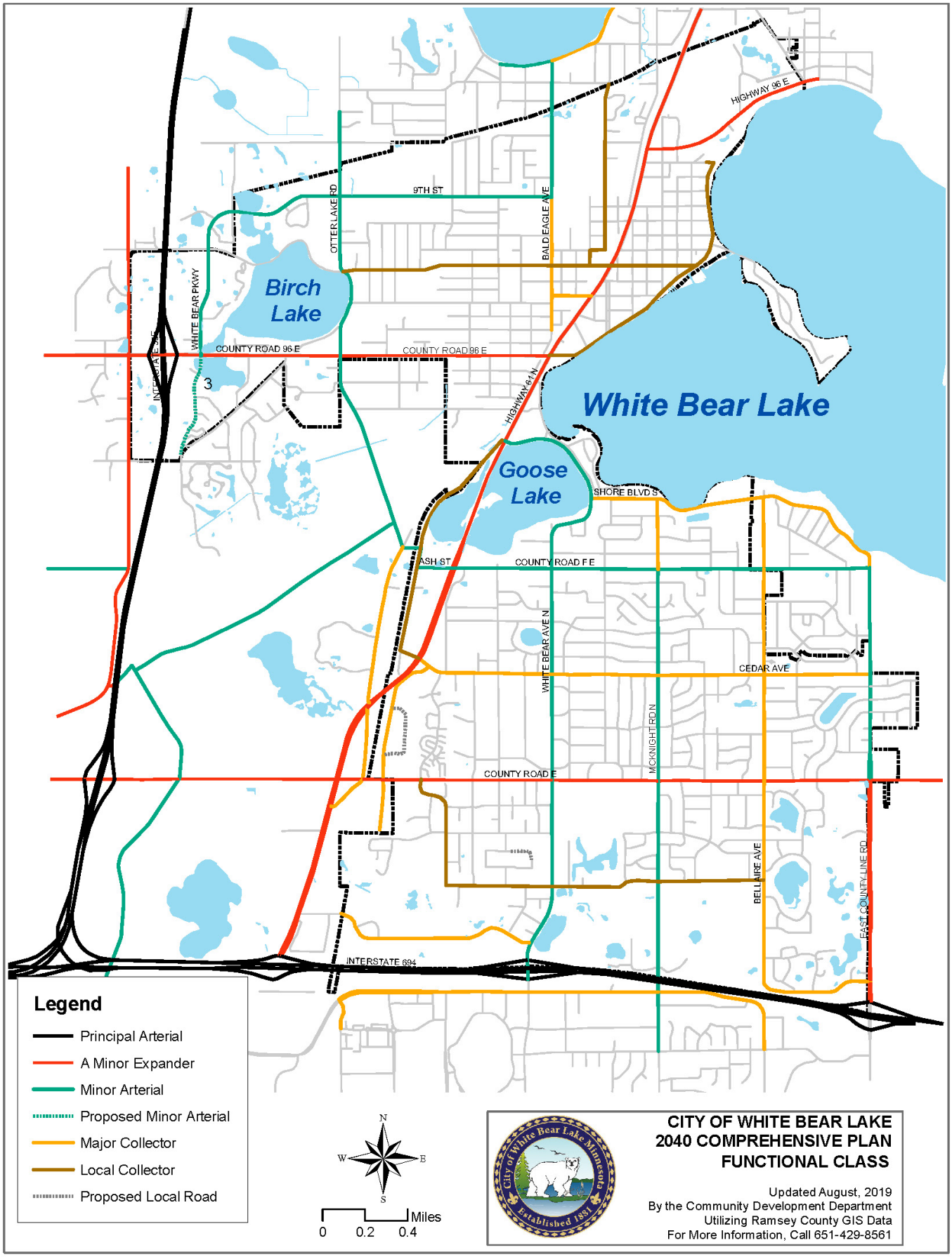


Figure 5.2 Functional Classification



Minor Arterials

The City has 14 minor arterial roads. All minor arterials in the City are under State or County jurisdiction (except White Bear Parkway) and have one lane in each direction unless stated otherwise.

State Highway 61 - A historic route to the City of White Bear Lake, this divided highway (2 through lanes in each direction) is the community's spine running along the lake, through downtown, and connecting with all the east-west routes including I-694. The growth rate in traffic volumes have slowed since 2000, however, with continued development to the north of the City, an increase in traffic volumes is anticipated. The highest volume is north of the County Highway 96/ Lake Avenue intersection where in 2014 the AADT was 34,000.

County Highway 96 (west of Highway 61) - This east-west route (generally 2 through lanes in each direction), connecting the City with I-35E, is an important gateway to the community. Traffic volume generally decreases as it flows eastward, the primary turn-offs being northbound White Bear Parkway and Otter Lake Road.

State Highway 96 (east of Highway 61) - This east-west highway provides a route from the north side of the city to Dellwood and Stillwater. State Highway 96 is listed as a turnback candidate by MnDOT with jurisdiction going to Ramsey and Washington Counties, as appropriate.

State Highway 120 (Century Avenue south of County Road E) - This north-south route located on the east side of the City with an interchange with I-694 is an important route to Century College, numerous businesses and residential developments on the south side of the city. At Century College a pedestrian overpass connects the east campus with the west campus. Traffic volume is highest north of I-694 where the 2016 AADT was 32,500.

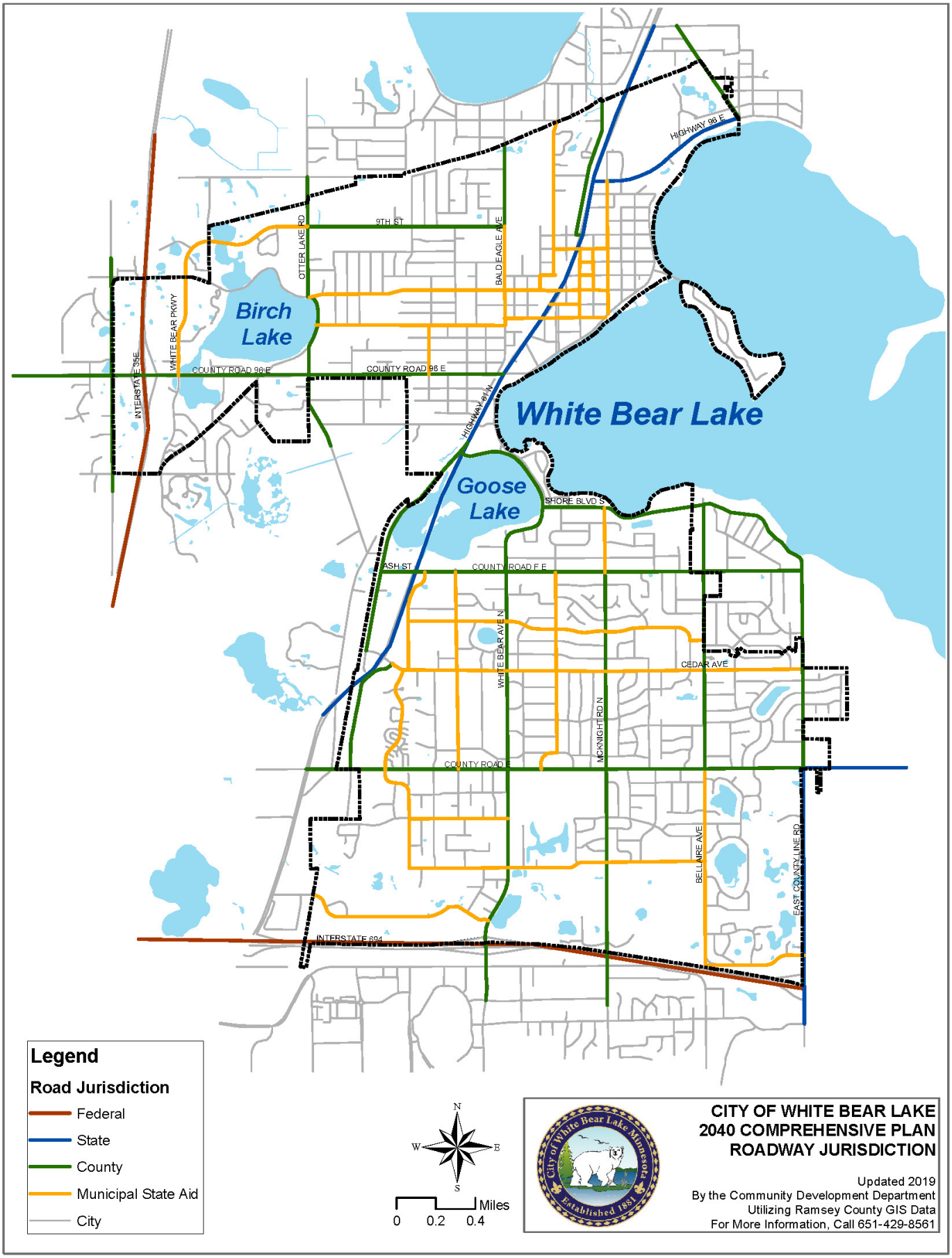
County Road E (County Road 15) - This is an east-west route along the southern third of the City. This regional roadway serves as a thoroughfare and connects communities to the east and the west of White Bear Lake. Traffic volumes appear to be stabilizing on this roadway. East of Century Avenue, County Road E is Trunk Highway 244 and is listed as a turnback candidate to Washington County by MnDOT. The City anticipates ongoing redevelopment in this key corridor.

Centerville Road (County Road 59) - This north-south route in the northwest corner of the City provides access to many business properties and intersects with County Highway 96. In 2016 the AADT was 8,400 just north of Highway 96.

White Bear Parkway (County Highway 96 to Otter Lake Road) - One of the City's newer streets serving Birch Lake Business Park and numerous businesses in the City and White Bear Township. This is the sole minor arterial under City jurisdiction and is a potential candidate for jurisdictional transfer to Ramsey County.

9th Street - An east-west extension of White Bear Parkway which begins at Otter Lake Road, terminates at Bald Eagle Avenue and serves the Weyerhaeuser (International Paper) Industrial Park area.

Figure 5.3 Roadway Jurisdiction



A father crosses 4th Street with his son on their way to the playground at Lincoln Elementary School. In 2016, 4th Street received a pavement mill and overlay. As part of the project, pedestrian facilities were improved and bicycle facilities, including "sharrows" were introduced. Sharrows communicate to all roadway users that bicycles frequent this important local corridor.

Bald Eagle Avenue (9th Street to north City limits) - Connects to Bald Eagle Boulevard in White Bear Township.

Otter Lake Road - A north-south route connecting County Road F through White Bear Township and Gem Lake to Hugo and an interchange with I-35E at County Road J.

White Bear Avenue - A north-south route from I-694 to Highway 61.

McKnight Road - A north-south route from County Road F across I-694 without access to the freeway.

County Road F - An east-west residential route between Century Avenue and State Highway 61.

Century Avenue/East County Line Road (north of County Road E) - A north-south residential route connecting mostly residential areas from County Road E to South Shore Boulevard.

Collectors

Collectors are so named because they collect traffic from the neighborhoods and business areas and distribute it to the arterials. Generally, collectors have one through lane in each direction – some have turning lanes at major intersections. Local collectors are a city designation that allow for residents to have a turn around tab to avoid backing into the street. The City has the following collector routes, listed below:

Bald Eagle Avenue - 2nd Street to 9th Street

Hoffman Road - Cedar Ave. to County Road E

Bellaire Avenue and County Road D - South Shore Blvd. to State Highway 120

Cedar Avenue - State Highway 61 to Century Ave

South Shore Boulevard - White Bear Ave. to County Road F/Century Ave.

McKnight Road - South Shore Blvd. to County Road F

Buerkle Road - White Bear Ave. to Hwy 61

Orchard Lane - Willow Ave. to Bellaire Ave.

2nd Street - Bald Eagle Ave. to Hwy 61

The following are also collectors, but are designated by the City as "local collectors" that allow for residents to have a turn-around tab to avoid backing into the street:

Division Street - 4th Street to the north

4th Street - Birch Lake to White Bear Lake

Lake Avenue - 12th Street to Hwy 61

Hoffman Road - Runs parallel and starts and ends at Hwy 61

Local Streets

All roads not classified above are considered local streets. The City has 86 miles of local streets some of which are Municipal State Aid (MSA) streets. MSA streets receive some state funding generated by the

gas tax. Since 1990, the City has undertaken an initiative to upgrade all of its streets with new concrete curb and gutter, new pavement, and improved drainage and utility infrastructure. To date, the City has reconstructed approximately 78 miles of streets (collectors and local streets) or about 91% of the all city-owned streets.

ACCESS MANAGEMENT

Proper access management is a key component of providing a roadway system that effectively balances mobility and access needs (see Figure 5.4). Access management concerns the number of roadways and/or driveways that can directly access a given roadway, as well as facility design at the access points. Arterial roadways, which primarily serve a mobility function, can only have limited access to not disrupt the flow of traffic and not create safety concerns. At the other end of the spectrum, the primary function of local streets is to provide access to local land

Table 5.2 MnDOT Recommended Street Spacing (Interregional Corridors)

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
1	**High Priority Interregional Corridors & Interstate System (IRCs)**				
1F	Interstate Freeway	Principal Arterials	Interchange Access Only		
1AF	Non-Interstate Freeway		Interchange Access Only (see Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
1A	Rural		1 mile	1/2 mile	
1B	Urban/ Urbanizing		1/2 mile	1/4 mile	
1C	Urban Core		300-660 feet dependent upon block length		
2	**Medium Priority Interregional Corridors**				
2AF	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (See Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
2A	Rural		1 mile	1/2 mile	
	Urban/ Urbanizing		1/2 mile	1/4 mile	
2C	Urban Core		300-660 feet, dependent upon block length		1/4 mile
3	**Regional Corridors**				
3AF	Non-Interstate Freeway	Principal and Minor Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
3A	Rural		1 mile	1/2 mile	See Section 3.2.5
3B	Urban/ Urbanizing		1/2 mile	1/4 mile	1/2 mile
3C	Urban Core		300-660 feet, dependent upon block length		1/4 mile

Figure 5.4 Mobility vs. Access

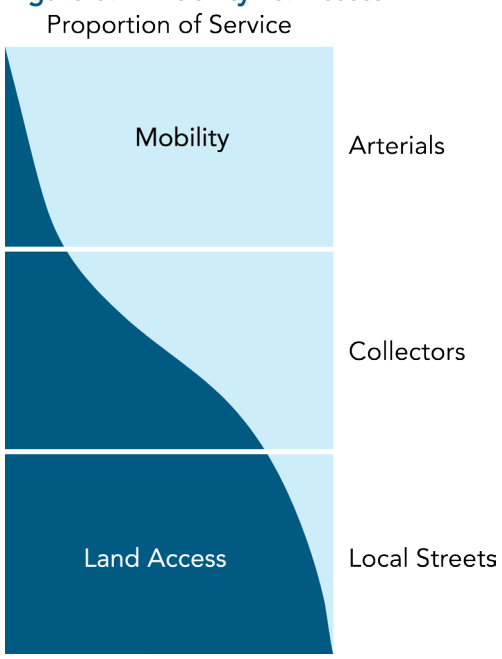


Table 5.3 MnDOT Recommended Street Spacing (Non-Interregional Corridors)

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		
			Primary Full-Movement Intersection	Secondary Intersection	Signal Spacing
4	**Principal Arterials in the Twin Cities Metropolitan Area and Primary Regional Trade Centers (Non-IRCs)**				
4AF	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
4A	Rural		1 mile	1/2 mile	See Section 3.2.5
4B	Urban/ Urbanizing		1/2 mile	1/4 mile	1/2 mile
4C	Urban Core		300-660 feet dependent upon block length		1/4 mile
5	**Minor Arterials**				
5A	Rural	Minor Arterials	1/2 mile	1/4 mile	See Section 3.2.5
5B	Urban/ Urbanizing		1/4 mile	1/8 mile	1/4 mile
5C	Urban Core		300-660 feet, dependent upon block length		1/4 mile
6	**Collectors**				
6A	Rural	Collectors	1/2 mile	1/4 mile	See Section 3.2.5
6B	Urban/ Urbanizing		1/8 mile	Not Applicable	1/4 mile
6C	Urban Core		300-660 feet, dependent upon block length		1/8 mile
7	**Specific Area Access Management Plans**				
7	**All**		**All**	**By Adopted Plan**	

Bicyclists of all ages share the road with vehicular traffic on South Shore Boulevard. South Shore Boulevard is Ramsey County facility used by over 6,000 vehicles per day. It is also a critical link in the longstanding effort to complete a regional trail facility around White Bear Lake. Multiple agencies are currently working together to move this multi-modal vision forward.

uses, so there are fewer access restrictions on these roadways. However, there are important considerations regarding access on local streets as well. Collector roadways are between arterials and local streets in terms of access allowed, since they serve a relatively even balance of the mobility and access functions.

Numerous studies have demonstrated the safety and operational benefits of managing access in an appropriate manner. The government agency which has jurisdiction over a given roadway determines the applicable access management guidelines for that facility. MnDOT has access management guidelines (See Table 5.2 and Table 5.3) that apply to Highways, such as TH 96 E (Lake Ave). Similarly, Ramsey County's access management policies apply to County roadways within White

Bear Lake. County roadways make up a substantial portion of the arterial roadway network serving the City. Access management is also important for roadways under White Bear Lake's jurisdiction. The City of White Bear Lake does not have access management guidelines for city streets. The City evaluates new and modified accesses to its city streets through a permitting process on a case-by-case basis.

EXISTING STUDIES

Below are studies that were undertaken to explore certain issues and corridors in White Bear Lake.

Minnesota Jurisdictional Realignment Project

MnDOT prepared this 2014 report evaluating possible changes in roadway jurisdiction. The report identified roadway segments that might be appropriate for a jurisdictional transfer between state, county, and city agencies. State Highway 120 was identified as possible turnback candidate to Ramsey and Washington Counties.

TH 120 Traffic Study

Century College, Washington County, the City of Mahtomedi, and MnDOT partnered to analyze traffic operations for TH 120/Century Avenue intersections between I-694 and County Road E in 2012. The traffic study addressed concerns related to Century College and traffic growth in the surrounding area. The study resulted in recommendations including improvements to the Century College and I-694 intersections.

I-694 Non-Motorized Crossing Study

MnDOT completed the I-694 Non-Motorized Crossing Study in 2016 to identify pedestrian and bicycle mobility needs across the I-694 corridor. A multimodal crossing at TH 120 and I-694 was identified in the study. TH 120 generally lacks pedestrian and bicycle facilities. The bridge over I-694 has narrow sidewalks but only desire paths for the approaches.

COMPLETE STREETS AND NETWORKS

Complete streets are streets for everyone. The City of White Bear Lake is committed to building a complete and integrated public right-of-way to ensure that everyone can travel safely and comfortably along and across a street regardless of whether they are walking, biking, taking transit, or driving. City right-of-way, in addition to serving a transportation role, is the largest and most important public space in the City. The City supports a modal hierarchy that:

- focuses on the safety of the most vulnerable road users,
- prioritizes transportation modes with the most health, environment, economic, and congestion reduction benefits, and
- enhances the safety, convenience, comfort, and efficiency of travel for people of all ages, abilities, and socioeconomic backgrounds.

The desire path present along State Highway 120 (Century Avenue), just north of I-694, is a strong indicator for the need to improve bike and pedestrian facilities. This frequently used path is a critical connection between White Bear Lake and communities south of the freeway.

Each complete street is unique and responds to its surrounding context. A complete street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

A complete streets and networks approach should be scaled appropriately for each individual transportation project or initiative, including for private developments that influence the public right-of-way. Not every roadway will incorporate all modes of transportation, but all modes should be considered in every roadway project with the goal of building a complete network.

FUTURE ROADWAY SYSTEM

This section contains information on the 2040 roadway system in White Bear Lake. This section lists significant roadway projects that could occur in future years, as well as ideas for areas that might merit additional study.

TRAFFIC FORECASTING

The Metropolitan Council conducts research on travel behavior, forecasts future transportation conditions generated by regional growth, and maintains a regional travel demand model. The geographic unit for this analysis is the transportation analysis zone (TAZ). Below is the TAZ for White Bear Lake.

TRAFFIC VOLUME PROJECTIONS

Staff used the 2014 population, household, and jobs estimates provided by the Metropolitan Council for each TAZ for the base year. For TAZs that partially fall within the White Bear Lake City limits, partial allocation of estimates, based on the percent of existing developed area within the City, where used ensure to that their sum was equal to overall 2014 Metropolitan Council estimates for population, households, and jobs. Staff then assigned household growth and job growth for each TAZ area based on the availability of land for future development and the type of development that would be appropriate based on the existing and future land uses. Population growth was based on the projected people per household in each decade for White Bear Lake. Some amount of growth is projected in most, but not all of the TAZ areas, mainly consisting of a mix of infill opportunities, accessory dwelling units, and potential teardowns and construction over several lots. Higher household and job growth was assigned to the areas in the vicinity of the future Rush Line BRT.

Traffic volume projections were provided by the Metropolitan Council, based on the City provided allocation of population, households, and employment.

Table 5.4 provides the population, household, and employment allocations by TAZ assumed in the Metropolitan Council model.

Figure 5.5 Traffic Volume Projections

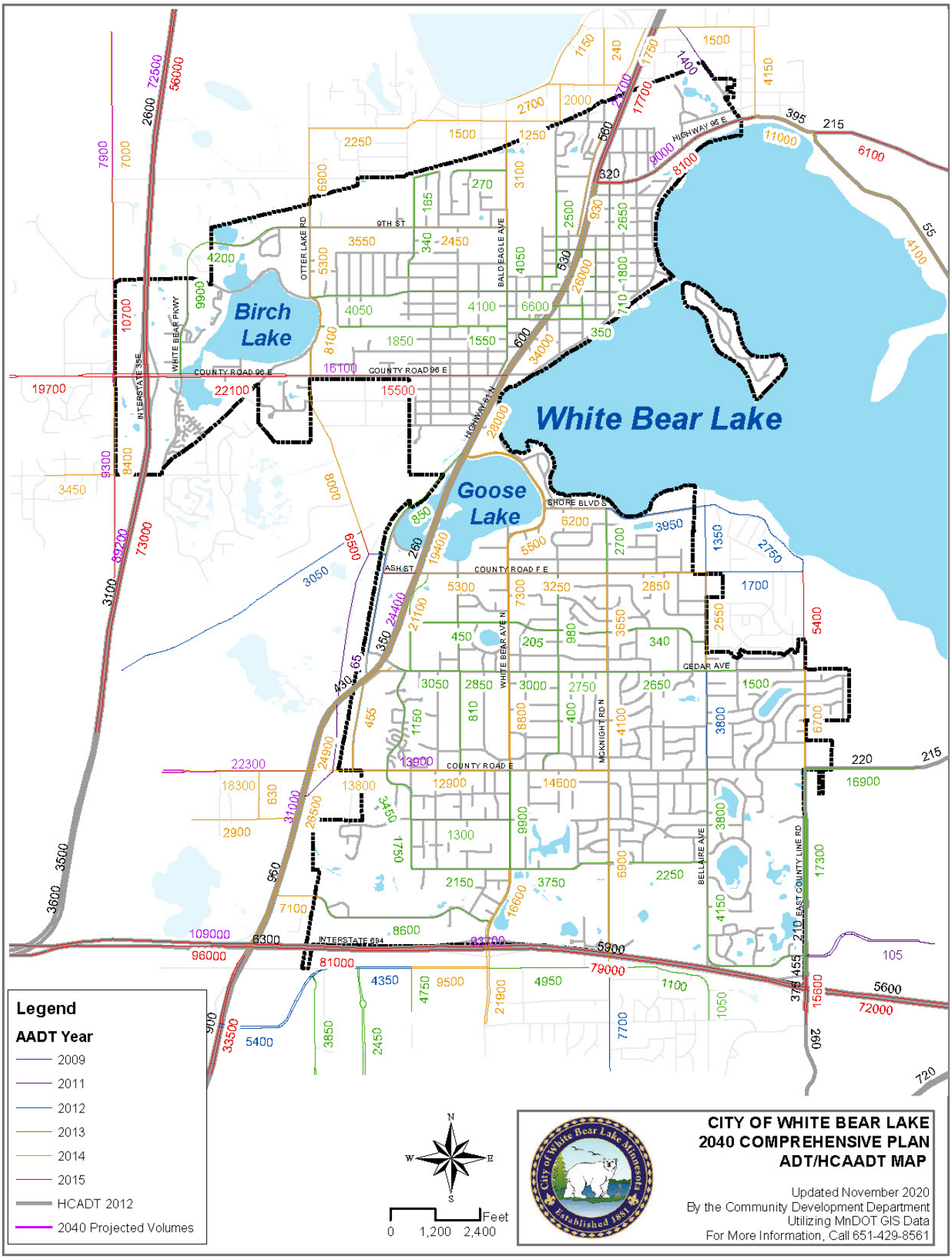
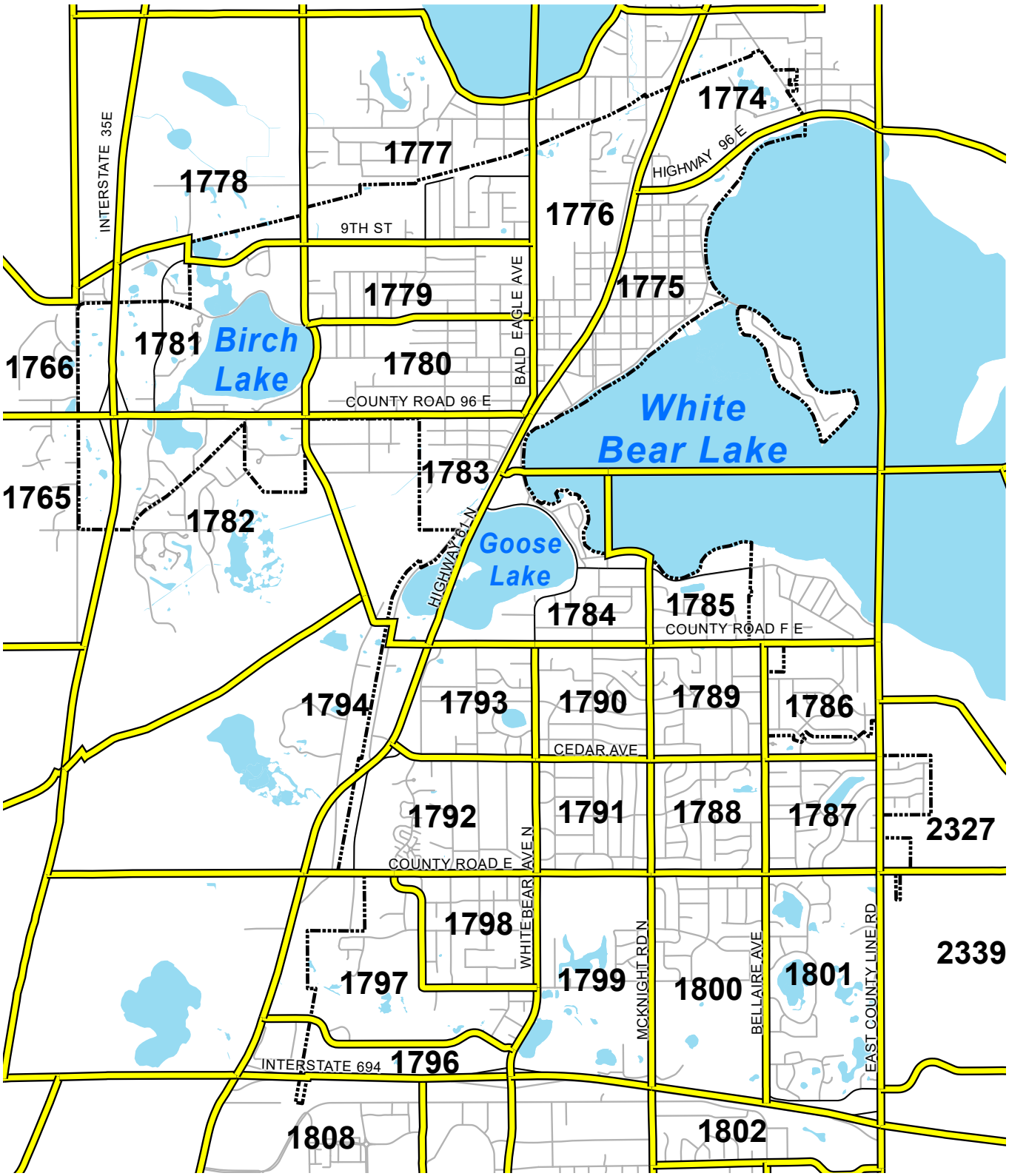


Figure 5.6 Transportation Analysis Zones



CITY OF WHITE BEAR LAKE
2040 COMPREHENSIVE PLAN
TRAFFIC ANALYSIS ZONES

Updated 2019
By the Community Development Department
Utilizing Ramsey County GIS Data
For More Information, Call 651-429-8561

Table 5.4 Transportation Analysis Zones Forecasts

	Population				Households				Jobs			
TAZ	2014	2020	2030	2040	2014	2020	2030	2040	2014	2020	2030	2040
1765	358	370	356	352	160	160	160	160	803	822	830	845
1766	214	516	498	492	110	223	223	223	118	118	118	118
1774	541	512	687	706	221	221	308	320	51	51	51	51
1775	1,395	1,629	1,582	1,566	704	704	709	710	1,417	1,417	1,440	1,460
1776	1,285	1,455	1,492	1,477	629	629	668	670	851	851	950	965
1777	953	810	788	778	349	350	353	353	191	191	191	191
1778	0	1	0	0	0	0	0	0	194	194	194	194
1779	1,525	1,352	1,308	1,294	584	584	586	587	45	45	45	45
1780	2,001	1,650	1,592	1,614	713	713	713	732	373	373	373	373
1781	548	757	730	722	299	327	327	327	787	787	810	825
1782	532	621	599	592	269	269	269	269	680	680	680	680
1783	439	421	584	706	182	182	262	320	353	353	380	395
1784	785	750	1,052	1,235	324	324	471	560	354	354	380	400
1785	457	442	427	421	191	191	191	191	7	7	7	7
1786	200	194	235	243	84	84	105	110	8	8	8	8
1787	950	822	810	800	355	355	363	363	401	401	401	402
1788	994	898	873	872	378	388	391	396	17	20	21	21
1789	824	764	737	728	330	330	330	330	127	127	127	140
1790	1,192	1,073	1,036	1,047	464	464	464	474	40	40	40	40
1791	982	863	855	845	383	373	383	383	85	85	85	85
1792	1,231	1,898	2,182	2,315	643	820	977	1,050	297	330	370	390
1793	1,161	1,109	1,096	1,482	474	479	491	672	229	229	229	250
1794	45	44	43	42	19	19	19	19	356	356	356	356
1796	4	7	6	6	3	3	3	3	757	757	757	757
1797	692	712	687	679	308	308	308	308	1,646	1,650	1,671	1,676
1798	964	845	976	992	365	365	437	450	50	50	70	85
1799	844	798	792	849	340	345	355	385	456	456	456	456
1800	1,013	919	886	875	397	397	397	397	53	57	60	60
1801	1,627	1,608	1,647	1,643	695	695	738	745	1,108	1,111	1,115	1,135
2327	394	451	435	419	195	195	195	190	85	80	85	90
2339	9	8	8	7	3	3	3	3	0	0	0	0
Total	**24,159**	**24,300**	**25,000**	**25,800**	**10,172**	**10,500**	**11,200**	**11,700**	**11,939**	**12,000**	**12,300**	**12,500**

FUTURE ROAD PROJECTS

Century Avenue

The stretch of Century Avenue between County Road E and I-694 should be monitored in the coming years for an opportunity to improve conditions. The presence of Century College (8,000+ students per year) exacerbates the lack of acceptable bicycle and pedestrian facilities. Besides being an important north-south thoroughfare, Century Avenue is one of limited I-694 crossings. This corridor is in need of improved pedestrian facilities.

State Highway 61/County Highway 96 Intersection

Traffic volumes at this intersection are slowly increasing, causing a continual degrading of traffic conditions with a possible Level of Service "D" by 2040. This intersection is also in need of a safer pedestrian/trail crossing.

State Highway 61

The city is effectively split by Highway 61. Multiple popular destinations on either side of the highway create an increasing demand for a safer crossing environment throughout the corridor. There is ongoing concern regarding vehicle speed and pedestrian safety. Many residents desire lower speed limits to reduce risk. The City should pursue this as a long term goal with MnDOT. It is important to recognize the trade-off between decreased speeds and increased congestion; however, reduced speed and increased safety could be improved through design and the potential for increased congestion could be alleviated by displacing trips to other modes. Below are a few example locations:

Whitaker Street - This crosswalk needs to be improved so that it is safer and more accessible. Both the Rush Line BRT and the Bruce Vento Trail projects should be used to promote greater accessible at this intersection for vehicles, bicycles and pedestrians. Proximity to railroad infrastructure presents challenges to implementation.

8th Street - This crosswalk needs to be improved so that it is safer and more accessible. With the emergence of the Arts District on Long Avenue, the City anticipates an increase in the number of pedestrians that cross Highway 61. Both the Rush Line BRT and the Bruce Vento Trail projects should be used to promote greater accessible at this intersection for bicycles and pedestrians. Proximity to railroad infrastructure presents challenges to implementation.

State Highway 96/12th Street - This crosswalk needs to be improved so that it is safer and more accessible. With the emergence of the Arts District on Long Avenue, the City anticipates an increase in the number of pedestrians that cross Highway 61. Proximity to railroad infrastructure presents challenges to implementation.

TRANSIT

Demand for transit service varies across the Twin Cities region. This applies to the time of day that transit is used, the number of trips taken, and the purpose of trips taken on transit. While this variation in transit demand is driven by a number of factors, it is primarily due to differences in development density, urban form, and demographics. To account for these differences in the planning and evaluation of transit service, the region is divided into five distinct Transit Market Areas representing different levels of potential transit demand. Figure 5.7 depicts Transit Market areas in the region. Table 5.5 describes the Transit Market Areas in White Bear Lake. Figure 5.8 depicts that on a regional basis, transit ridership has increased about 25% over the last decade.

Typical transit service is higher quality in the urban areas of the Twin Cities, and lower quality, generally, the further you get from the urban cores of Minneapolis and Saint Paul. In Market Area III, the primary emphasis is on commuter express bus service. Suburban local routes provide basic coverage. General public dial-a- ride complements fixed route in some cases. Portions of White Bear Lake is considered Emerging Market Area II which typically provides higher levels of service as demand warrants.

White Bear Lake is located in the northeast corner of the Metropolitan Transit Taxing District. In 2018 the Met Council had four fixed routes in White Bear Lake, two of which are provided by Metro Transit (see Figure 5.10). Service includes express routes as well as local/limited service routes.

EXISTING BUS SERVICE

There are only three bus routes with stops in the City and a total of eight routes with stops near the City that can be accessed by walking, biking, or driving to the stops or transit centers. Table 5.6 depicts existing bus service. Of these transit routes, Route 219 is the only bus service operating within the City outside of limited "Rush Hour" commuting times.

TRANSITWAYS

Transitways are dedicated transit routes with enhanced stations and amenities for passengers. This provides a higher level of service for riders than typical local bus service, and is expected to attract additional riders as a result. Currently, there are no transitways serving White Bear Lake, though there is the planned Rush Line corridor, described elsewhere in this plan.

In addition to transit routes, there are a variety of structures and facilities that support transit service by improving service and making transit more accessible and convenient.

PARK AND RIDE

Park and ride facilities provide an opportunity for transit passengers to drive to a transit stop and park their vehicle, then board transit. It effectively expands the service area for transit beyond the area that

Figure 5.7 Transit Market Areas

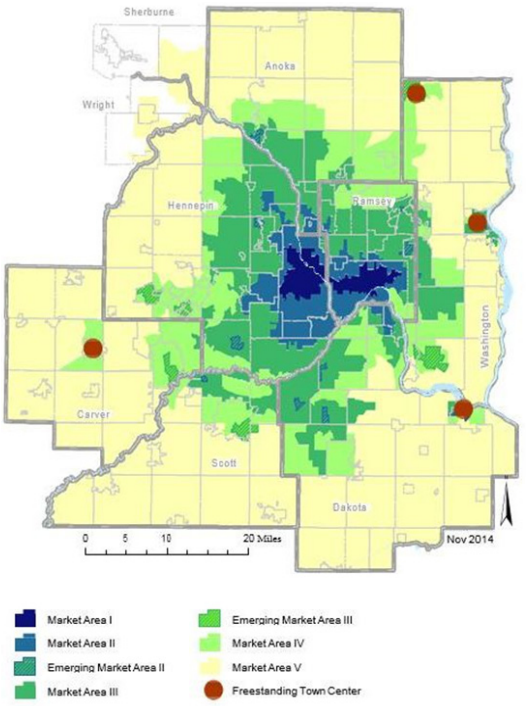


Figure 5.8 Regional Transit Use Trend

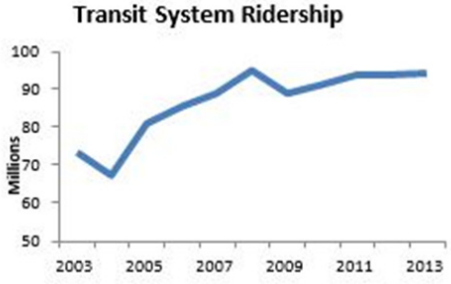


Table 5.5 White Bear Lake - Transit Market Areas Description

Transit Market Area	Market Area Description and Typical Transit Services
Market Area III	Transit Market Area III has moderate density but tends to have a less traditional street grid that can limit the effectiveness of transit. It is typically Urban with large portions of Suburban and Suburban Edge communities. Transit service in this area is primarily commuter express bus service with some fixed-route local service providing basic coverage. General public dial-a-ride services are available.
Emerging Market Areas II	The Emerging Market Overlay identifies locations within Transit Market Areas III and IV that have a higher potential for transit usage than the rest of the market areas surrounding them. These areas are currently too small or non-contiguous to support a higher level of transit service. Focusing growth in and around these areas to connect to other areas of higher potential transit use will present good opportunities for future transit improvement.

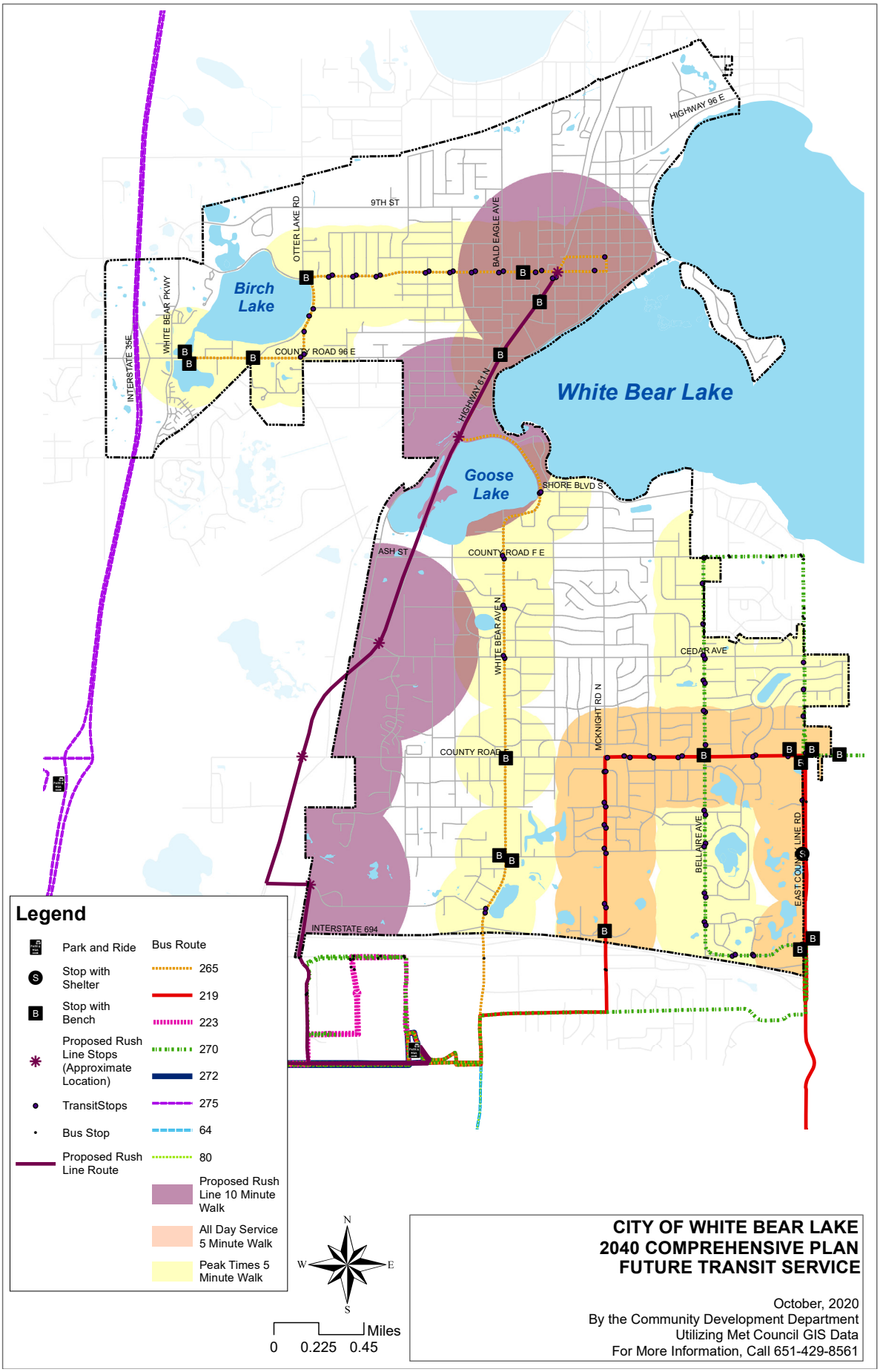

Birch Lake
White Bear Lake
Goose Lake
HIGHWAY 96 E
9TH ST
OTTER LAKE RD
BALD EAGLE AVE
WHITE BEAR PKWY
INTERSTATE 35E
COUNTY ROAD 96 E
HIGHWAY 61 N
SHORE BLVD S
ASH ST
COUNTY ROAD F E
WHITE BEAR AVE N
CEDAR AVE
MCKNIGHT RD N
COUNTY ROAD D
BELLAIRE AVE
EAST COUNTY LINE RD
INTERSTATE 694
Legend
Park and Ride
Stop with Shelter
Stop with Bench
Proposed Rush Line Stops (Approximate Location)
TransitStops
Bus Stop
Proposed Rush Line Route
Bus Route
265
219
223
270
272
275
64
80
Proposed Rush Line 10 Minute Walk
All Day Service 5 Minute Walk
Peak Times 5 Minute Walk
N
W
E
S
Miles
0
0.225
0.45
CITY OF WHITE BEAR LAKE
2040 COMPREHENSIVE PLAN
FUTURE TRANSIT SERVICE
October, 2020
By the Community Development Department
Utilizing Met Council GIS Data
For More Information, Call 651-429-8561

Table 5.6 White Bear Lake - Bus Service

Route	Service Type	Location	Frequency
64	Regular Route	Maplewood Mall, Downtown St. Paul	10-30 Minutes All Day Service
80	Regular Route	Maplewood Mall, Sunray Shopping Center (St. Paul)	30-60 Minutes Daytime Service
219	Regular Route	Maplewood Mall, County Rd E, Century College, Sunray Shopping Center (St. Paul)	30-60 Minutes All Day Service
223	Regular Route	Maplewood Mall, Rosedale Shopping Center	90 Minutes Daytime Service
265	Express	County Highway 96, 4th Street, Downtown White Bear Lake, White Bear Avenue, Maplewood Mall, Downtown St. Paul	30 Minutes 4 trips AM 4 trips PM Limited "Rush Hour" Service
270	Express	Maplewood Mall, Roseville, University of Minnesota, Downtown Minneapolis	2 Trips AM 2 Trips PM Very limited "Rush Hour" Service
275	Express	Lino Lakes and Vadnais Heights Park and Rides, Downtown St. Paul	7 Trips Peak Service

is walking distance from a stop. Park and rides may also have other features, such as bicycle parking, enhanced shelters, and expanded signage and wayfinding. Although two park and ride facilities within the City were discontinued in recent years, the Metropolitan Council operates three Park and Ride facilities downstream that serve White Bear Lake:

I-35E and County Road E (Vadnais Heights) – 300 Stalls

Highway 61 and County Road C (Maplewood) – 230 Stalls

Maplewood Mall – 1,000 Stalls

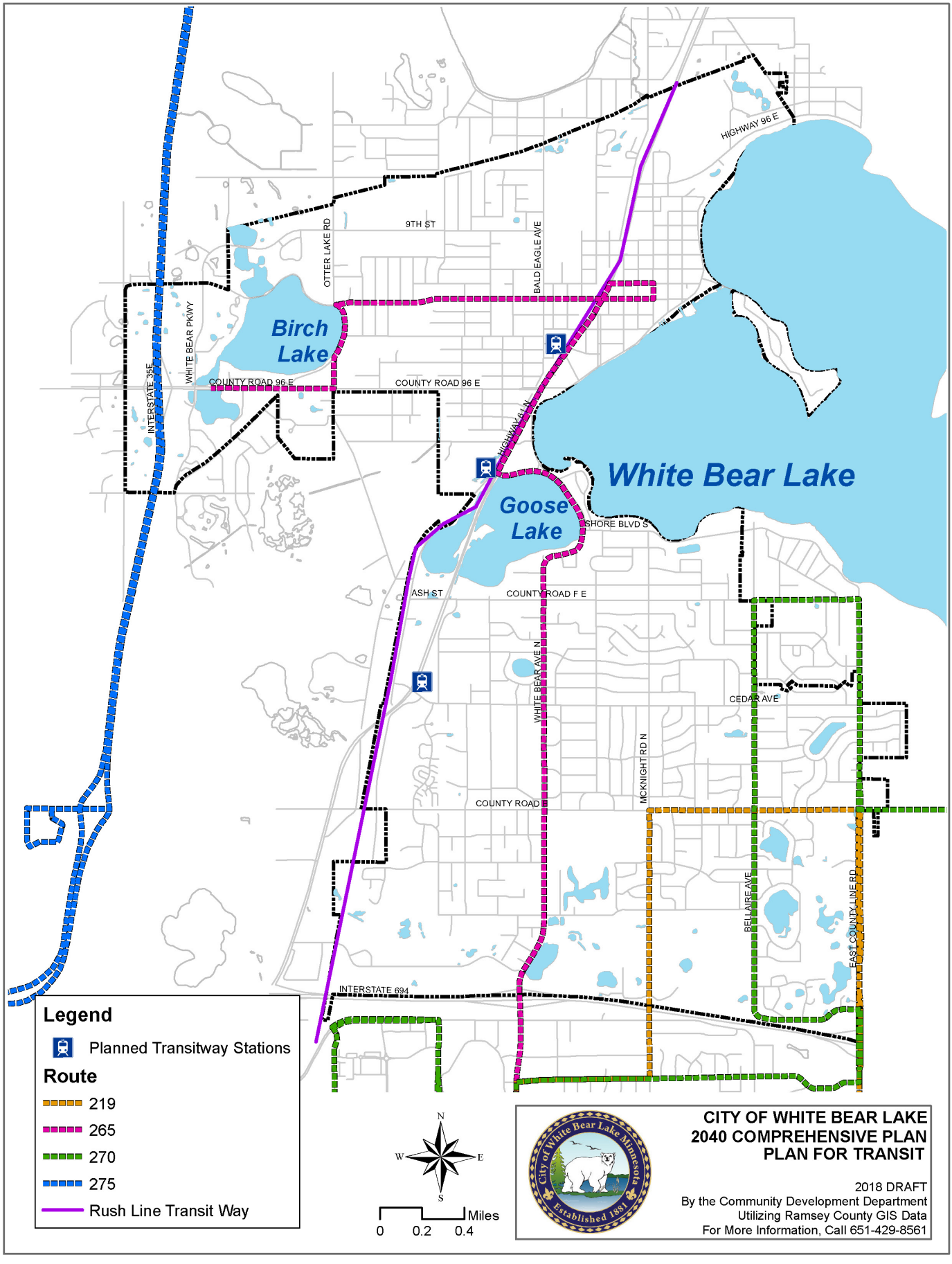
TRANSIT ADVANTAGES

Transit advantages are facilities that help increase the attractiveness of transit by providing them an option to being stuck in regular traffic. These are typically dedicated lanes or shoulders that are not open to all traffic, and may be bus only in some circumstances. Recently, as a result of the I-35E MnPASS Extension Study, MnPASS lanes were added to both southbound and northbound sides on I-35E. During peak hours, transit, motorcycles, and vehicles with two or more occupants including children or infants (HOV 2+) may drive in the designated MnPASS Express Lanes for free. Solo motorists who have a MnPASS account and a MnPASS tag must pay a fee to drive in the MnPASS Express Lanes during peak-travel times. I-35E is considered an express bus corridor according to the 2040 Transportation Policy Plan (TPP).

OTHER TRANSIT

Transit Link is the Twin Cities dial-a-ride small bus service for the general public, where regular route transit service is not available. Transit Link is for trips that can't be accomplished on regular transit routes alone, and

Figure 5.10 Plan for Transit



may combine regular route and Transit Link service. Transit Link rides must be reserved in advance.

Metro Mobility is a call ahead, shared public transportation service for certified riders who are unable to use regular fixed-route buses due to a disability or health condition. Rides are provided for any purpose.

RUSH LINE (PURPLE LINE) BRT

The METRO Rush Line, anticipated to be known as the Purple Line, is a 14-mile bus rapid transit (BRT) corridor that will extend from downtown St. Paul to White Bear Lake. A locally preferred alternative was selected in 2017 with 85% of the line planned to be a dedicated guideway that will share the Ramsey County Regional Railway Authority (RCRRA) right-of-way with the Bruce Vento Trail. North of I-694, the transit corridor will transition to BAT (Business Access and Transit) Lanes along the US-61 corridor to downtown White Bear Lake.

This locally preferred alternative has the Rush Line terminating in the city of White Bear Lake in the downtown area. Three other stations are proposed to be within White Bear Lake: Buerkle Road Station, Cedar Avenue Station and Marina Triangle Station. While the Rush Line was originally not included in the 2040 Transportation Policy Plan (TPP) Current Revenue Scenario Transitway System Investments, a 2018 update now reflects the Rush Line within the Current Revenue Scenario. This positive momentum has encouraged the City to start planning appropriate land uses for these future regional infrastructure investments.

Proposed Route for the METRO Rush Line

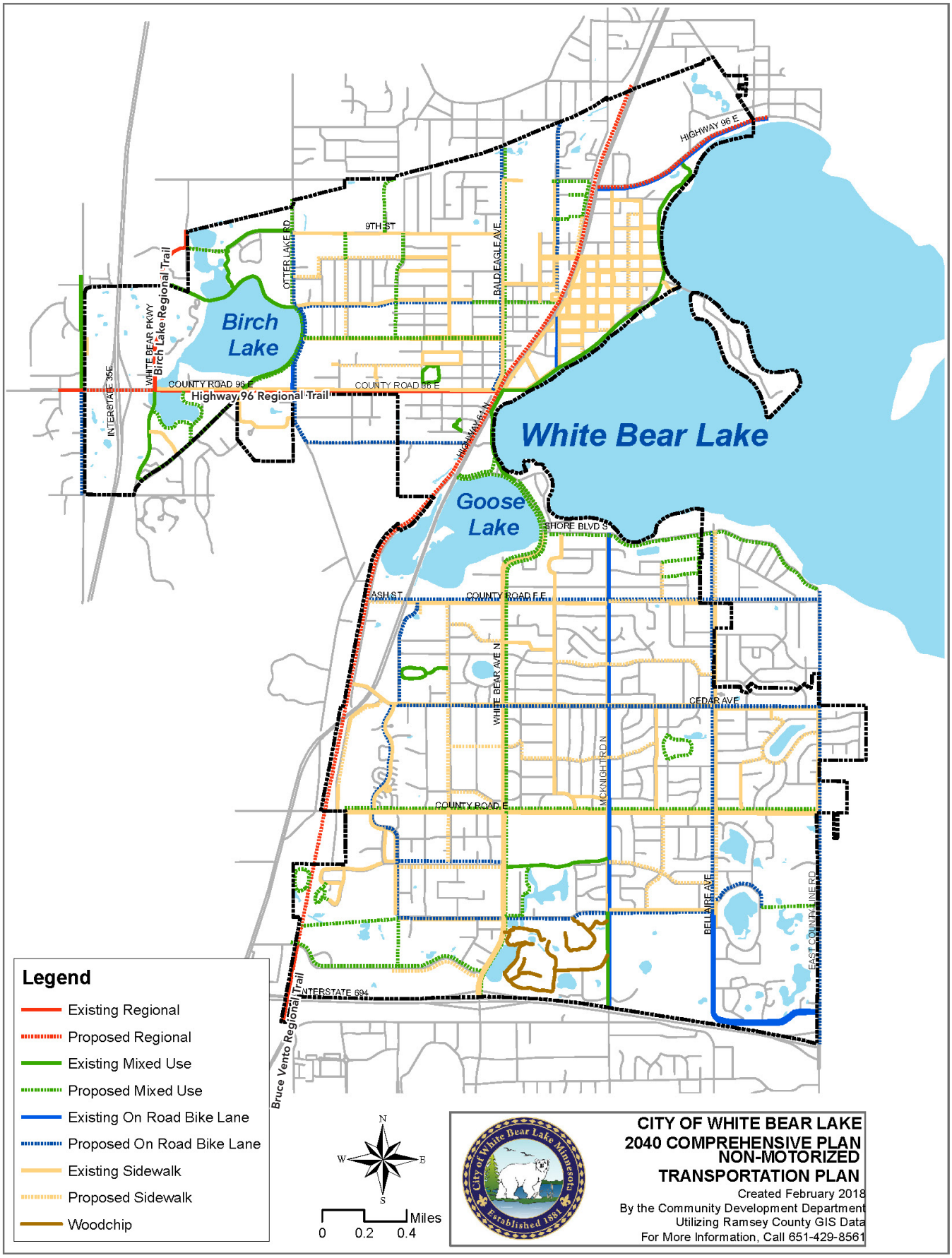
BICYCLING AND WALKING

Bicycling and walking are becoming increasingly important in the Twin Cities for commuting to work or school, running personal errands, and traveling to entertainment and activity venues. The increasing demand for on- and off-street bikeway facilities offers a significant opportunity to help reduce traffic congestion, improve air quality, improve personal health, and improve the marketability and attractiveness of living in White Bear Lake.

Because all trips begin or end with walking (with or without a mobility device), regardless of the primary mode of travel, improving pedestrian travel is paramount to getting around the City of White Bear Lake. Future transportation projects should follow the complete streets and network approach discussed earlier in this chapter.

White Bear Lake has partnered with the Active Living Ramsey Communities initiative for over ten years. This initiative improves health through community engagement. It promotes and creates environments that make it safe and easy for everyone to integrate physical activity into their daily routine. The City will continue collaborating to encourage walking, biking, and active living as a way of life throughout the city , county, and Twin Cities metropolitan area.

Figure 5.11 Non-Motorized Transportation Map



EXISTING AND PROPOSED NON-MOTORIZED FACILITIES

The existing and proposed non-motorized transportation system consists of sidewalks, multi-use paved trails, bike lanes, and paved shoulders shown in Figure 5.11. Most local residential streets do not include separate sidewalk or trail facilities. However, sidewalk and trail facilities are along several streets that connect multiple neighborhoods

While sidewalks are located throughout White Bear Lake, they are primarily concentrated in the downtown White Bear Lake area. Outside of downtown White Bear Lake, sidewalks exist mostly along one side of collectors and arterials, sometimes local streets. There are a handful of sidewalks proposed to give better access to pedestrians to connect from neighborhood to neighborhood. At a minimum, future walking facilities should be spaced no further than 1/4 mile apart.

Regional trails in White Bear Lake exist along Country Road 96 E (Highway 96 Regional Trail), White Bear Parkway (Birch Lake Regional Trail), and on the southern portion of the former BNSF railway (Bruce Vento Regional Trail). Future trail extensions are proposed for the Bruce Vento Regional Trail and the Highway 96 Regional Trail.

Multi-Use trails located throughout White Bear Lake currently exist along the west side of White Bear Lake, the north, east, and south sides of Birch Lake, a small section along Centerville Road, east to west along the White Bear Lake High School property, and a small section along McKnight Rd.

On road bike lanes (shoulders) exist along McKnight Rd, Bellaire Ave, and Highway 96 E, though their presence is intermittent and non-existent at major intersections. At a minimum, future bicycle facilities should be spaced no further than 1/2 mile apart.

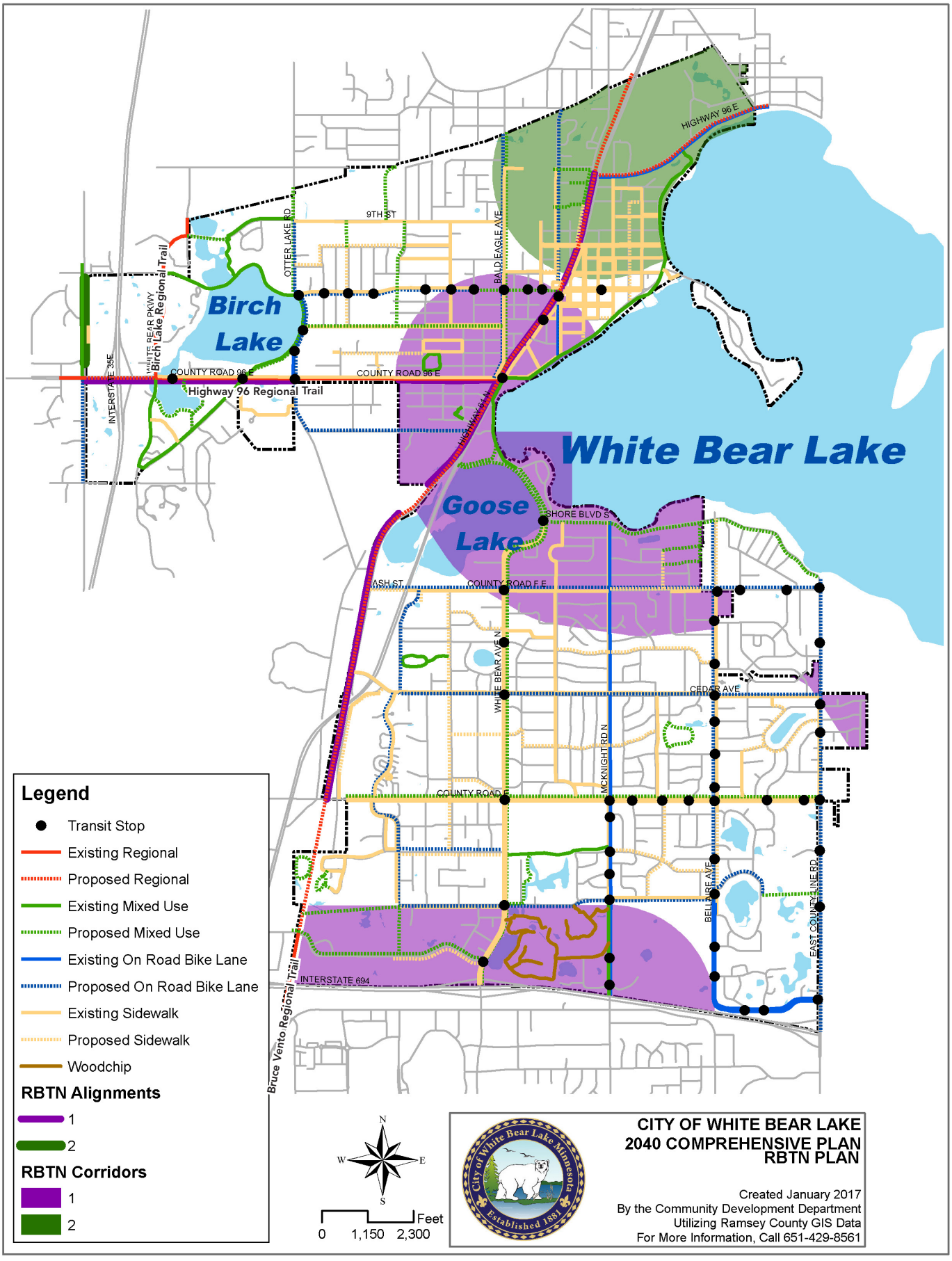
While vehicular parking is clearly delineated and easy to find in downtown White Bear Lake and other commercial areas, bicycle parking is harder to come by. Locating future bicycle parking facilities within the public right-of-way and near building entrances (out of the pedestrian travel way) will help further facilitate bicycle travel in White Bear Lake.

REGIONAL BICYCLE TRANSPORTATION NETWORK

Because bicycle trips often cross municipal boundaries, the Metropolitan Council has developed an arterial backbone network of regional bicycle facilities for transportation and has included it in the Transportation Policy Plan. This network, called the Regional Bicycle Transportation Network (RBTN), is intended to be supplemented by local bikeway facilities similar to the way local streets supplement principal and minor arterial roadways. Not to be confused with the regional trail system composed of existing and planned regional trails and trail search corridors, the RBTN's primary function is for transportation rather than recreational and scenic value. Though, both networks overlap in many locations and can serve both purposes.

The goal of the RBTN is to establish an integrated seamless network of on-street bikeways and off-road trails to most effectively improve

Figure 5.12 RBTN Map



conditions for bicycle transportation at the regional level. The network is divided into two tiers for regional planning and investment prioritization. Those tiers are Tier 1 and Tier 2 and are listed as either an alignment or corridor in the RBTN. They are described below.

Planning for the RBTN

In planning for specific RBTN alignments, the following guiding principles for regional bicycle corridors should be considered.

- Overcome physical barriers and eliminate critical system gaps.
- Facilitate safe and continuous trips to regional destinations.
- Accommodate a broad range of cyclist abilities and preferences to attract a wide variety of users.
- Integrate and/or supplement existing and planned infrastructure.
- Consider opportunities to enhance economic development.

Bicycle facility types that are suggested examples for implementing the RBTN include the following:

- Off-street trails
- Wide paved shoulders
- Bicycle boulevards
- Conventional bicycle lanes
- Buffered bicycle lanes
- Protected bikeways or cycle tracks

Tier 1 and Tier 2 Regional Bicycle Transportation Corridors

Tier 1 Corridors are a subset of the RBTN and have been identified as the highest priority for regional transportation planning and investment. The priority corridors are planned in locations where they can attract the most riders and where they can most effectively enhance mode choice in favor of biking, walking, and transit over driving alone. High rates of bicycle travel demand, as well as current and planned population and employment densities, where heavily weighted in the analysis of corridors. These corridors are intended to allow flexibility among local government agencies to tailor specific alignments for bikeway facilities through the local planning process. When specific alignments are designated through the local planning process, the regional corridor will be replaced on the RBTN map with the preferred alignment.

Tier 1 Corridors in White Bear Lake are shown as a purple bubble on Figure 5.12 and are located generally in a one-mile corridor along South Shore Boulevard and along I-694.

Tier 2 Corridors are the remaining corridors in the overall RBTN. These corridors are assigned the second tier priority for regional transportation planning and investment.

Tier 2 Corridors in White Bear Lake are shown as a green bubble on Figure 5.12 and are located generally in a one-mile corridor along Highway 96 E/Lake Avenue, east of US 61.

Relationship of Existing and Planned Bicycle Facilities to RBTN Corridors

Within White Bear Lake, the closest existing bicycle facility alignment to the RBTN tier 1 corridor along South Shore Boulevard is the striped shoulder along South Shore Boulevard. According to the Ramsey County planned bicycle facilities data, the City of White Bear Lake planned South Shore Trail would be the best candidate to be proposed for this RBTN tier 1 corridor.

Within White Bear Lake, the closest existing bicycle facility alignment to the RBTN tier 2 corridor along Highway 96E/Lake Avenue would be the striped shoulder along Lake Avenue. The Ramsey County Parks and Recreation planned Lake Links trail would be the best candidate to be proposed for this RBTN tier 2 corridor.

Tier 1 and Tier 2 Regional Bicycle Transportation Alignments

Similar to the regional bicycle transportation corridors, there are Tier 1 and Tier 2 regional bicycle transportation alignments where specific route alignments have been designated through the Regional Bicycle System Study process that included discussion with local agency staff. The designated RBTN alignments are based on local bicycle plans and in many cases already exist in some form and may need little or no improvement for the regional network. Those regional trails that provide direct transportation connections to and between regional destinations were included as Tier 1 alignments.

Tier 1 Alignments in White Bear Lake are shown as a bold purple line on Figure 5.12 and are located along CSAH 96 and US 61, south of Highway 96 E/Lake Avenue.

Tier 2 Alignments in White Bear Lake are shown as a bold green line on Figure 5.12 and are located along Centerville Road.

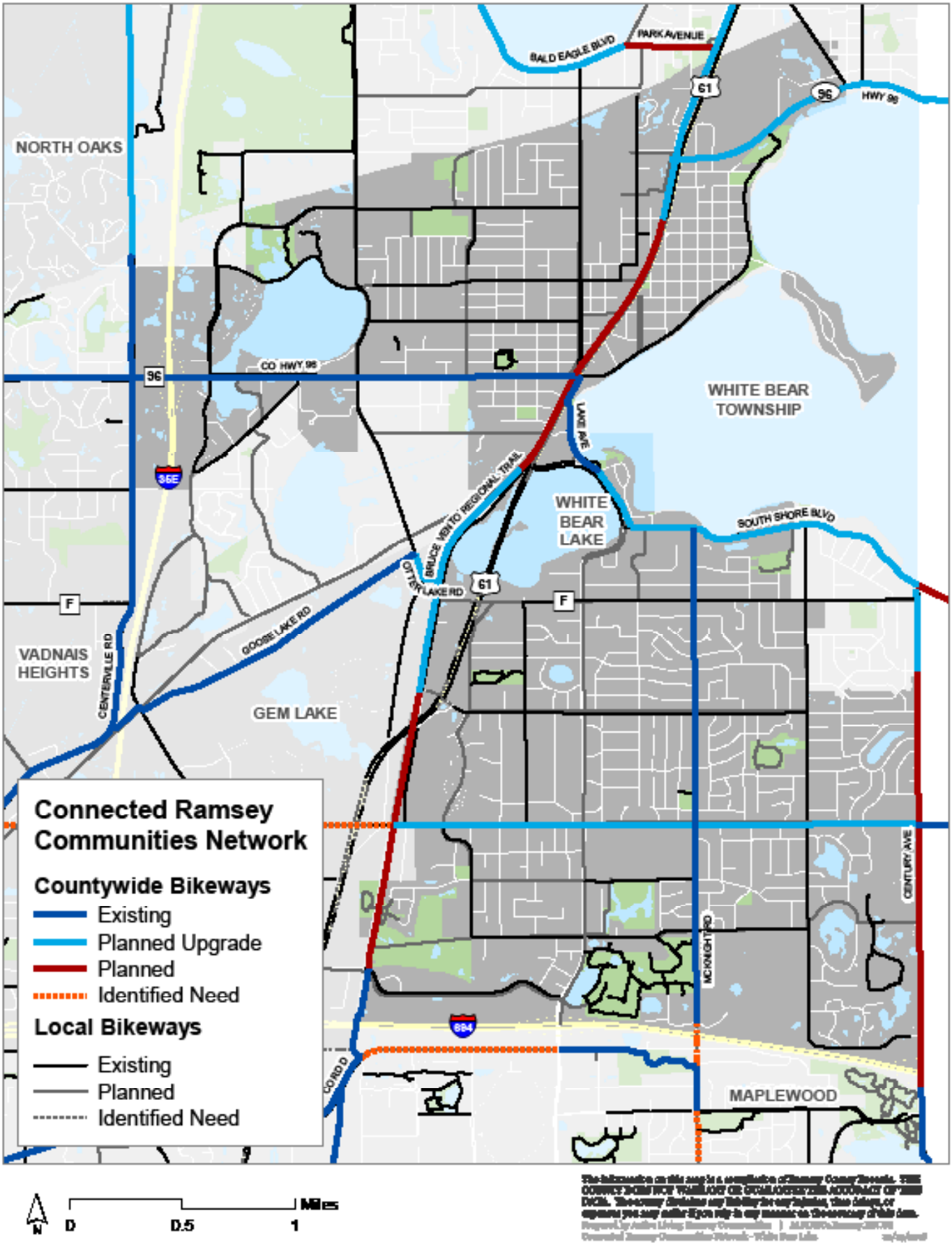
Relationship of Existing and Planned Bicycle Facilities to RBTN Alignments

Within White Bear Lake, the closest existing bicycle facility alignment to the RBTN tier 1 alignment along CSAH 96 would be the Ramsey County Parks and Recreation Highway 96 Regional Trail. This facility is the best candidate for this RBTN tier 1 alignment.

There is no close existing bicycle facility alignment to the RBTN tier 1 alignment along US 61 at this time. The Ramsey County Parks and Recreation planned Bruce Vento trail extension would be the best candidate to be proposed for this RBTN tier 1 alignment.

Within White Bear Lake, the closest existing bicycle facility alignment to the RBTN tier 2 alignment along Centerville Road would be the off-street trail along Centerville Road between CSAH 96 and the railroad. This facility would be the best candidate for this proposed RBTN tier 2 alignment as there are no other bike facilities planned at this time along this corridor.

Figure 5.13 Connected Ramsey Communities Network Map



Connected Ramsey Communities Network

The Ramsey County Pedestrian and Bicycle Plan establishes the Connected Ramsey Communities Network as a framework for planning, prioritizing, and designing the countywide active transportation network. Ramsey County municipalities came together to build this network from local facilities and plans. When fully developed, it will connect people with desirable destinations throughout the city and county with high-quality, long-distance, and connector routes. The plan includes a set of tools, analyses, and actions to engage communities in creating a place where people of all ages, abilities, and backgrounds can safely and comfortably walk and bike in their daily lives.

Figure 5.13 shows the planned and existing major Countywide Bicycle Corridors, Countywide Connectors, and local bikeways in White Bear Lake. "Connected Ramsey Communities Network - Ramsey County" shows the entire network throughout the county. Bikeway facilities shown on these maps include off-street trails, on-street bike lanes, and paved shoulders.

AVIATION

FACILITIES

No airports or heliports are located or planned for in White Bear Lake. No aviation support facilities such as radio beacons or navigational aids are located or planned in White Bear Lake. Benson Airport, the closest airport, is located about one mile north of the City, east of Bald Eagle Lake. The airport is a base for a flying club and flight instruction center.

AIRSPACE

White Bear Lake is located in general airspace. The City is outside the airport influence area and the city is not along the glide path of any airport in service.

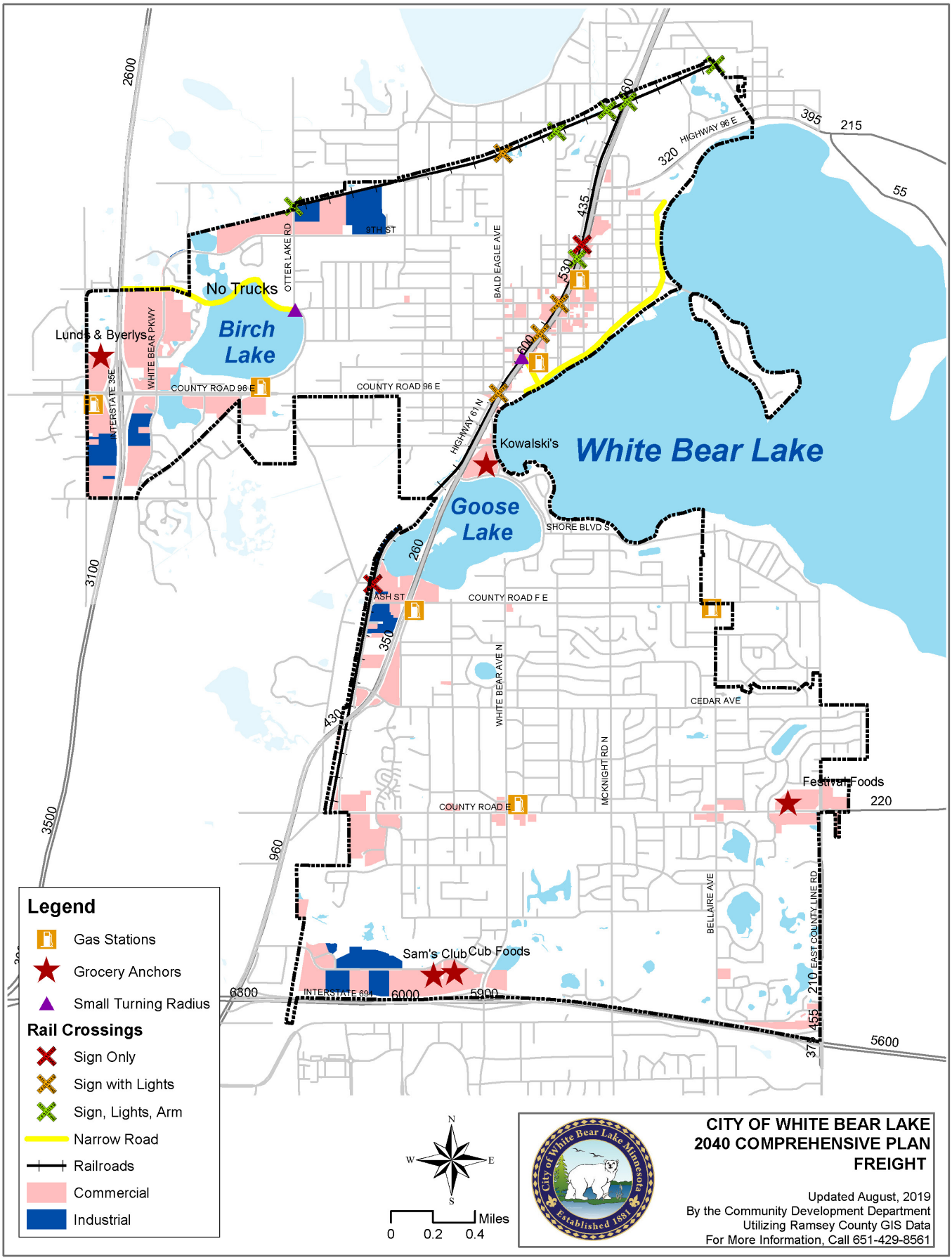
STRUCTURES

No structures are over 200 feet high. If any structures over 200 feet high were to be considered, the FAA is to be notified as defined under code of federal regulations CFR - Part 77, using the FAA Form 7460-1 "Notice of Proposed Construction or Alteration". No development is expected to impact airport communication or air traffic operations through visual or electronic interference. No planned development is expected to impact airport communication or air traffic operations through visual or electronic interference.

SEAPLANES

In White Bear Lake, seaplanes are allowed only on White Bear Lake.

Figure 5.14 Freight Map



FREIGHT

White Bear Lake has two active railroad lines: the Canadian Pacific Rail System and the Burlington Northern & Santa Fe Rail Line.

The Canadian Pacific Rail System runs along the northern boundary of the City. It is an intercontinental railway system that provides freight transportation services over a 14,000-mile network in Canada and the U.S. In Minnesota, the line runs from Duluth to Minneapolis and then splits to run both east and west. In White Bear Lake, the Canadian Pacific intersects with seven streets, all at grade. All seven intersections have a flashing light signal.

The Burlington Northern & Santa Fe has a main line with limited use, which enters the City west of Goose Lake and extends north through White Bear Lake's downtown along the west side of State Highway 61 and terminates in Hugo.

The Burlington Northern & Santa Fe main line intersects five streets within the City and the City's Public Works access at Hoffman Road. Crossings are at grade. All intersections have a flashing light signal except the intersection with the old Public Works access, which only provide stop signs.

The Burlington Northern & Santa Fe industrial spur line connects to the main line at a location referred to as the M & D junction (near the intersection of Hoffman Road and Otter Lake Road). This spur extends south to its termination point north of I-694. Along its alignment the railroad intersects five streets, two at-grade. The two at-grade crossings, Buerkle Road and Scheuneman Road (County Road 147) have only crossing signs.

FUTURE PROJECTS

As part of future projects, the City should explore improving crossing conditions as opportunities present themselves including:

Crossing Surface - From a ride quality standpoint, concrete panel railroad crossing surfaces provide the best service and should be considered, especially for higher volume roadways.

Pedestrian Safety and Accessibility - Railroad crossings at high volume pedestrian locations should be evaluated to improve conditions, especially in conjunction with major projects such as the Rush Line BRT and Bruce Vento Trail.

Quiet Zone - Occasionally residents call and complain about train horns sounding. Usually it is a new resident. Implementation of a Quiet Zone is typically cost-prohibitive, but could be explored to at least generate a rough cost estimate.