

Transportation Analysis and Plan

The City of Waconia is a growing community that will need many miles of additional collector and local streets to serve the development that is forecast. This plan will examine ways to provide those improvements in a manner consistent with county and regional transportation plans and other objectives of the City.

The Transportation Plan should function as a guide to:

- Identify the City's existing and proposed transportation network
- Rank in priority its major investments to meet transportation needs
- Support the City's land use goals and objectives.

Analysis of Conditions

Road System

Functional Classification System, 2007

Functional classification is a tool used in transportation planning to categorize streets by the type of transportation service provided and the roadway's relationship to surrounding land uses. The purpose of a functional classification system is to create a hierarchy of roads that collects and distributes traffic from neighborhoods to the metropolitan highway system in as efficient a manner as possible given the topography and other physical constraints of the area.

The Metropolitan Council in its Transportation Policy Plan, presents a functional classification system applicable to the metropolitan area. The major classifications are:

- Principal Arterial
- "A-Minor" Arterial
- "B-Minor" Arterial or "Other Minor" Arterial
- Collector
- Local

The classifications provide for freeway, urban and rural standards. Of these, only the urban standards are applicable to Waconia. The local street system is not included in the Metropolitan Council's transportation system. Figure 4-1 shows the 2007 pattern of road functional classification, and Table 4-1 lists roads by functional class, number of lanes, and jurisdictional class. Note that Waconia Parkway North and Main Street were

designated until 2007 as CSAH 30. Now they are under the jurisdiction of the City of Waconia.

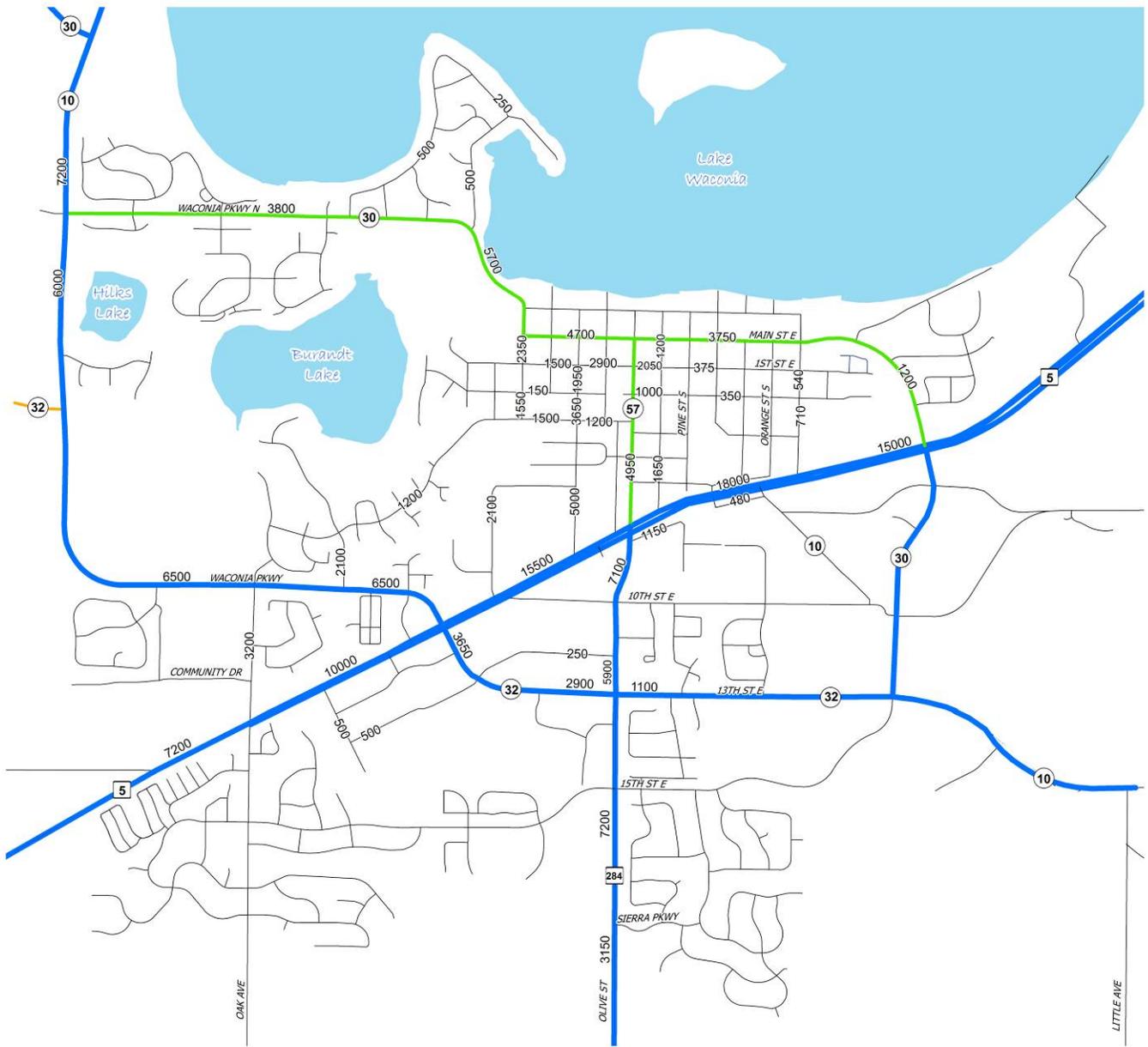
**Table 4-1
Functional Classification and Jurisdiction by Street**

Classification	Jurisdiction	Lanes
Minor Arterials		
Highway 5	State	2 to 4
Highway 284	State	2 or 3
CSAH 57 (Olive St.)	County	
CSAH 32 (Waconia Parkway S. and 13 th Street)	County	2
CSAH 59 (Hwy. 5 to CSAH 10)	County	2
CSAH 10	County	2
Collectors		
Waconia Parkway N.	City	2
Main Street (Waconia Parkway North to Hwy. 5)	City	2
Olive Street	City	2
Burandt Blvd.	City	2
W. 3 rd Street	City	2
10 th Street	City	2
Sparrow Road	City	2
15 th Street	City	2
Airport Road	City	2
Oak Avenue	City	2

Principal Arterials are the highest roadway classification and are considered part of the metropolitan highway system. These roads are intended to connect metropolitan centers with one another and connect major business concentrations, important transportation terminals and large institutional facilities. There are no metropolitan highways in Waconia.

Minor Arterials are intended to connect important locations within the City with access points on the metropolitan highway system and with important locations outside the City. These arterials are also intended to carry short to medium trips that would otherwise use the regional system.

Minor arterials are further classified as A-Minor and B-Minor arterials. The A-Minor arterials are those which have been identified by the Metro Council as reliever or augments routes. Relievers provide direct relief and support for congested principal arterials. Augmenters, literally, augment the capacity of these principal arterials in carrying traffic outward from the core of the metro area.



City of Waconia Comprehensive Plan

- A Minor Connector
- B Minor
- A Minor Expander
- Local



Figure 4-1
Existing Street Functional
Classification & Traffic Counts, 2006

Collector Roadways are designed to serve shorter trips that occur entirely within the City, and to collect and distribute traffic from neighborhoods and commercial industrial areas to the arterial system.

The Waconia Subdivision Ordinance establishes the minimum pavement width for Collector Streets as 41 feet in a public right-of-way of 66 to 80 feet. All Collectors in Waconia will be part of the City's Municipal State Aid system, and MSA streets must have two 12-foot travel lanes plus two 7-foot parking lanes set off by a continuous white stripe for a total of at least 38 feet of pavement. (Incidentally, the parking lanes function well as bicycling lanes on streets where there are few parked cars.)

Local Streets connect blocks and land parcels; their function is primarily to provide access to adjacent properties. Local streets can also serve as important components of bicycle and pedestrian circulation systems. In most cases, local streets will connect to other local streets and collectors, although in some cases they may connect to minor arterials. All other streets within the City are classified as local streets.

The Waconia Subdivision Ordinance establishes the minimum pavement width for Local (Minor) Streets as 34 feet in a public right-of-way of 50 to 66 feet. Once again, these dimensions are a comprehensive planning issue. The currently-required street width is wider than necessary for new local residential streets because there is so little on-street parking in the new neighborhoods. A distance of 27 or 28 feet between curb faces would provide enough space for travel and parking, improve appearances and reduce costs, traffic speeds, stormwater runoff, snowplowing and heat while providing sufficient space for emergency vehicles. Pedestrians should be accommodated by a sidewalk on one or both sides of future local residential streets.

Jurisdictional Classification System, 2007

Jurisdiction over the City's roadway system is shared among three levels of government: the state of Minnesota; Carver County and the City. The Minnesota Department of Transportation (Mn/DOT) maintains the state trunk highway systems. Carver County maintains the County State Aid Highway (CSAH) and County Road Systems.

The City maintains the remaining streets, some of which are designated as Municipal State Aid (MSA) Streets, and receive MSA funding. The current MSA system in Waconia includes:

- Oak Avenue
- Farm Line Road
- Burandt Boulevard
- Third St. W.
- Cherry Street
- Maple Street S.
- Elm Street S.
- Birch Street S.
- Walnut St. S.
- 8th Street
- First Street W. / E.
- Second Street W. / E.
- Industrial Boulevard
- Mill Lane
- Lakeview Terrace Boulevard
- Sparrow Road

MSA Streets that are turn-backs from Carver County:

- Waconia Parkway N.
- Walnut Street N.
- Main Street W.

Current Traffic Volumes

The most recent (2006) traffic counts are shown in Figure 4-1. Existing traffic volumes are compared to the size and capacity of each roadway in order to determine where capacity problems exist or are expected to occur in the future.

Roadway capacity problems arise when the roadway cannot efficiently handle the traffic using it, particularly at intersections. Efficient traffic movement is described in terms of "level of service" (LOS), categorized using the letters "A" through "F."

Levels of service for a developing area such as Waconia are described in Table 4-2.

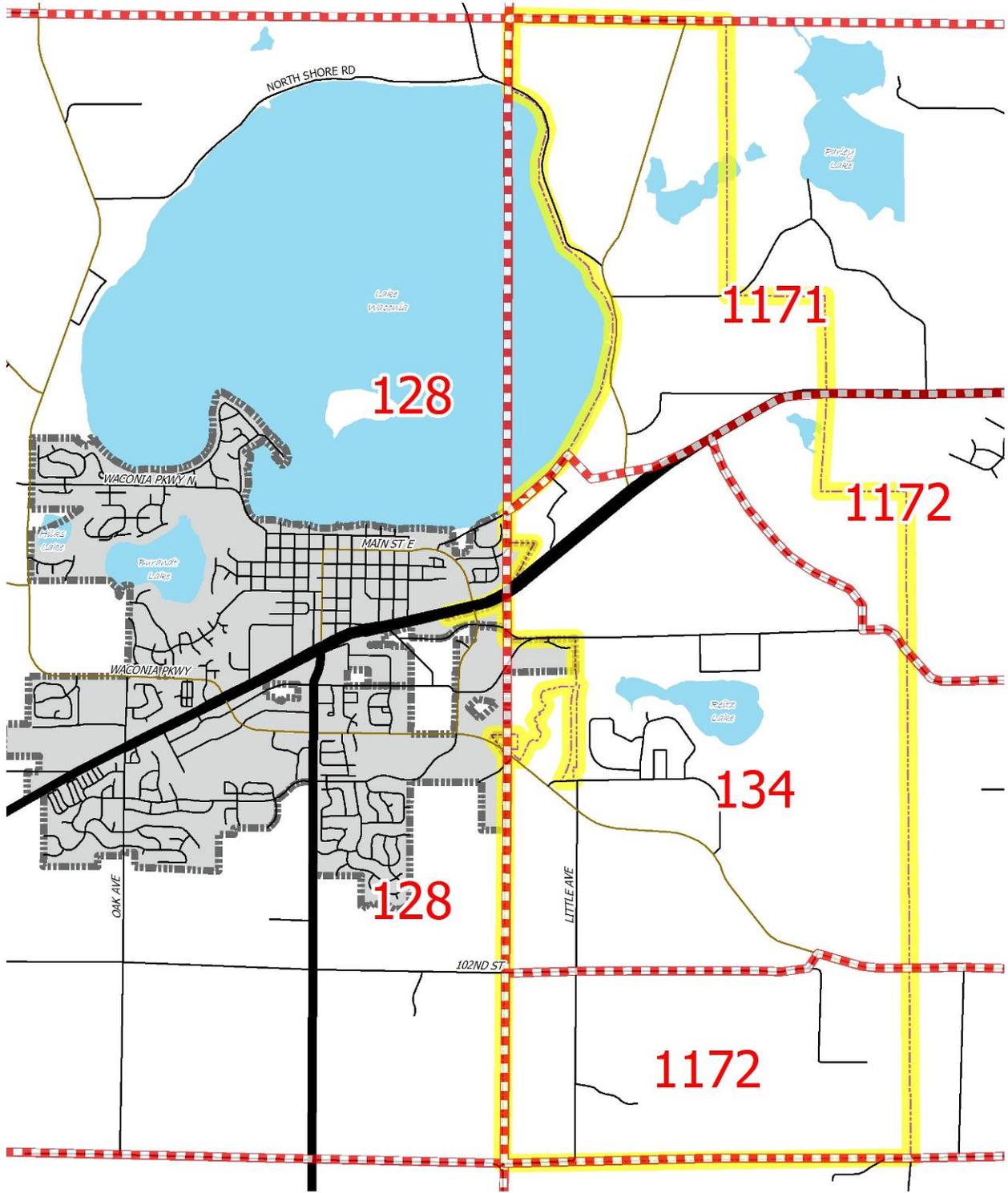
**Table 4-2
Traffic Level of Service Characteristics**

Level of Service (LOS)	Characteristics
A	<ul style="list-style-type: none"> ▪ Most Vehicles Do Not Stop At All ▪ Most Vehicles Arrive During Green Phase ▪ Progression Is Extremely Favorable
B	<ul style="list-style-type: none"> ▪ More Vehicles Stop Than LOS "A" ▪ Good Progression
C	<ul style="list-style-type: none"> ▪ Number of Vehicles Stopping Is Significant ▪ Fair Progression ▪ Individual Cycle Failures
D	<ul style="list-style-type: none"> ▪ Many Vehicles Stop ▪ Unfavorable Progression ▪ Individual Cycle Failures Are Noticeable
E	<ul style="list-style-type: none"> ▪ Limit of Acceptable Delay ▪ Poor Progression ▪ Frequent Cycle Failures

All other roads operate at LOS "C" or higher.

Transportation Analysis Zones

For purposes of regional transportation planning, the Metropolitan Council and the counties divide the region into Transportation Analysis Zones (TAZ's). Figure 4-2 shows the Council's TAZ boundaries. Regional population, households and employment forecasts are allocated to the TAZs as a means of calculating traffic volumes. Because Waconia is a developing community, the trips generated within some TAZ's may be expected to change significantly during the period of this plan.



February 15, 2009

City of Waconia Comprehensive Plan

-  TAZ Boundaries
-  Municipal Boundary
-  Orderly Annexation Area
- 134** Traffic Analysis Zones



Figure 4-2
Traffic Analysis Zones

Pedestrian and Bicycle Systems

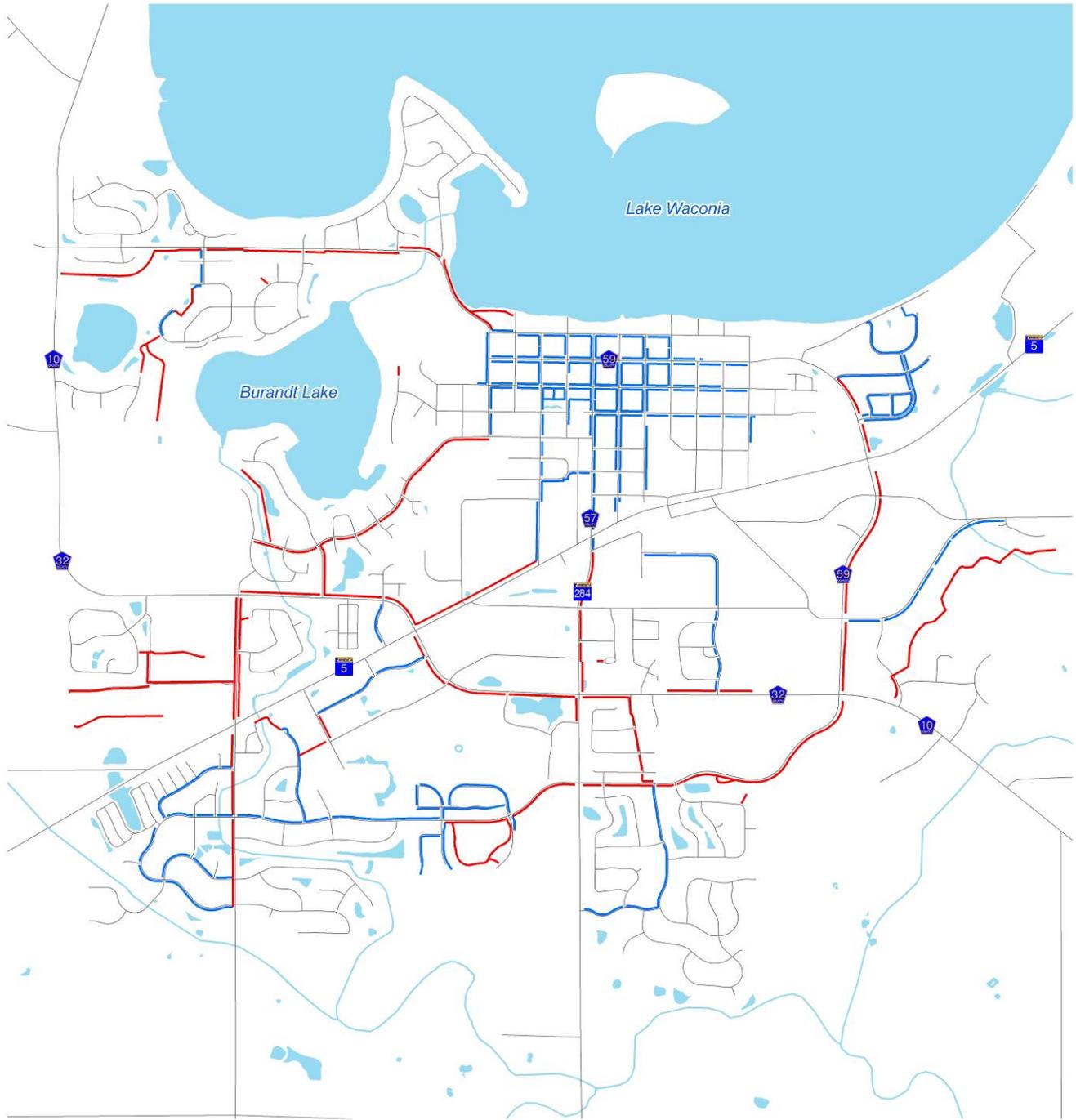
Master Sidewalks and Trails Improvement Plan

In 2007, existing sidewalks were mapped, rated for condition and documented in the *Master Sidewalks and Trails Improvement Plan*. That report also mapped alignments for future asphalt off-street multiple-use paths, including the Orderly Annexation Area on the east side of the community. Asphalt trails (side-paths) are planned along both sides of all County roads and all City collector streets. This plan will help ensure that adequate public right-of-way is acquired for future collector and minor arterial roads, and that the paths may be built in conjunction with new or improved roads.

The report did not establish a policy for the construction of sidewalks, a subject that ought to be addressed by the *Comprehensive Plan*. The recommended width of concrete sidewalks is 6 feet, which is adequate. Five-foot wide sidewalks are used where restrictive conditions exist.

Bicycling Routes

The *Master Sidewalks and Trails Improvement Plan* mapped the existing and planned bicycling side-paths (labeled as “trails”). Among the future trails are several links to Lake Waconia Regional Park.



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Sidewalks & Trails

- Existing Sidewalk - Adequate Condition
- Existing Trail - Adequate Condition
- Roads

- Ponds/Lakes
- Streams

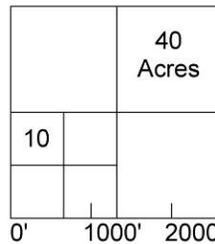


Figure 4-3
Existing Sidewalks
And Trails

Map Document: (H:\Waconia\C1239615\ArcView\39615 Existing Sidewalks & Trails 8.5x11.mxd)
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Transportation System Issues

The following transportation and transit issues were raised near the outset of the planning process. These questions were used to crystallize the analysis of conditions and guide the preparation of the plan.

1. **Highway 5 (Locally):** What should be the pattern of land use along Highway 5 through Waconia? What should the City do to make Highway 5 less of community divider, safer for crossing by pedestrians and bicyclists, and more attractive?
2. **Highway 5 (Regionally):** What should the City do to accelerate the improvement of Highway 5 east to Chanhassen and west to Norwood-Young America?
3. **North-South Arterial:** Should the City contribute money to accelerate the construction timing of the north-south minor arterial road planned by Carver County in the Little Avenue alignment?
4. **Local and Collector Street Design:** Should the design standards for local residential streets (found in the Subdivision Ordinance) be amended to require narrower local residential streets? Should sidewalks be required on one or both side of local streets? Should trees be required in the green strip (the boulevard) between the curb and the sidewalk? What about the design of collector (e.g., Sparrow Road) and minor arterial (e.g., 13th Street) roads?
5. **Transit:** What should the City do, if anything, to promote commuter transit service?

Transportation Plan

The Waconia Transportation Plan was designed to safely accommodate the increased traffic volumes that will be generated by the forecast growth of population, households and jobs along with the related land development. The plan is consistent with the Carver county Transportation Plan (2008) and the Metropolitan Council *Transportation Policy Plan*.

Street and Road System Plan

Proposed Major New Roads

There are several new roads planned to accommodate the growth of Waconia, as illustrated by Figure 4-4, Street Functional Classification Plan. Those road or segments are:

Table 4-3
Proposed Major New Roads

Name	Between	Functional Classification	Number of Lanes	Jurisdiction
County Road 30 / Little Avenue	TH 5 and Little Avenue	A-Minor Arterial	4	Carver County
Eastern neighborhoods collector street	Parley Lake Road and 102 nd Street	Minor Collector	2	City of Waconia
Western link road:	Waconia Parkway South (CR 32) / TH 5 @ Orchard Road	A-Minor Arterial	4	Carver County

Functional Classification Plan

A plan for the functional classification of roads has been prepared consistent with the Carver County Transportation Plan (2008) ; it is illustrated by Figure 4-4.

Design standards for the existing or future roads in Waconia are established by the unit of government that has jurisdiction as illustrated by Figure 4-7, Jurisdictional Classification Plan, below. The City of Waconia has ownership of and control over all the Local and Minor Collector and one of the Major Collector roads on the Functional Classification Plan. The major design standards for municipal roads are described in Table 4-3, below.

**Table 4-4
Roadway Design Standards**

	Right-of-Way Width*	Road Width (to back of curb)	Through Lanes	On-Street Parking	Design Speed	Side-walks	Planting Strip	Front Yard Setback
A-Minor Arterial	100 to 150	Varies	2 to 4	No	45 to 60 mph	Varies	Varies	50
B-Minor Arterial	80 to 120	Varies	2 to 4	Varies	40 to 55 mph	Varies	Varies	50
Major Collector	66 to 80	40	2	Yes	30 to 40 mph	2 @ 5-6'	8' with trees	35
Minor Collector	66 to 80	34 *	2	No	30 to 35 mph	2 @ 5-6'	8' with trees	35
Local (parking on both sides)	60	28 to 34	Not striped	Both sides	30 mph	1 @ 5-6'	6' with trees	25
Local (parking on one side)	60	28	Not striped	One side	30 mph	1 @ 5-6'	8' with trees	25
Local (no parking)	50 - 60	24	Not striped	None	30 mph	1 @ 5-6'	8' with trees	25

* Road width may be increased to accommodate striped bicycling lanes.

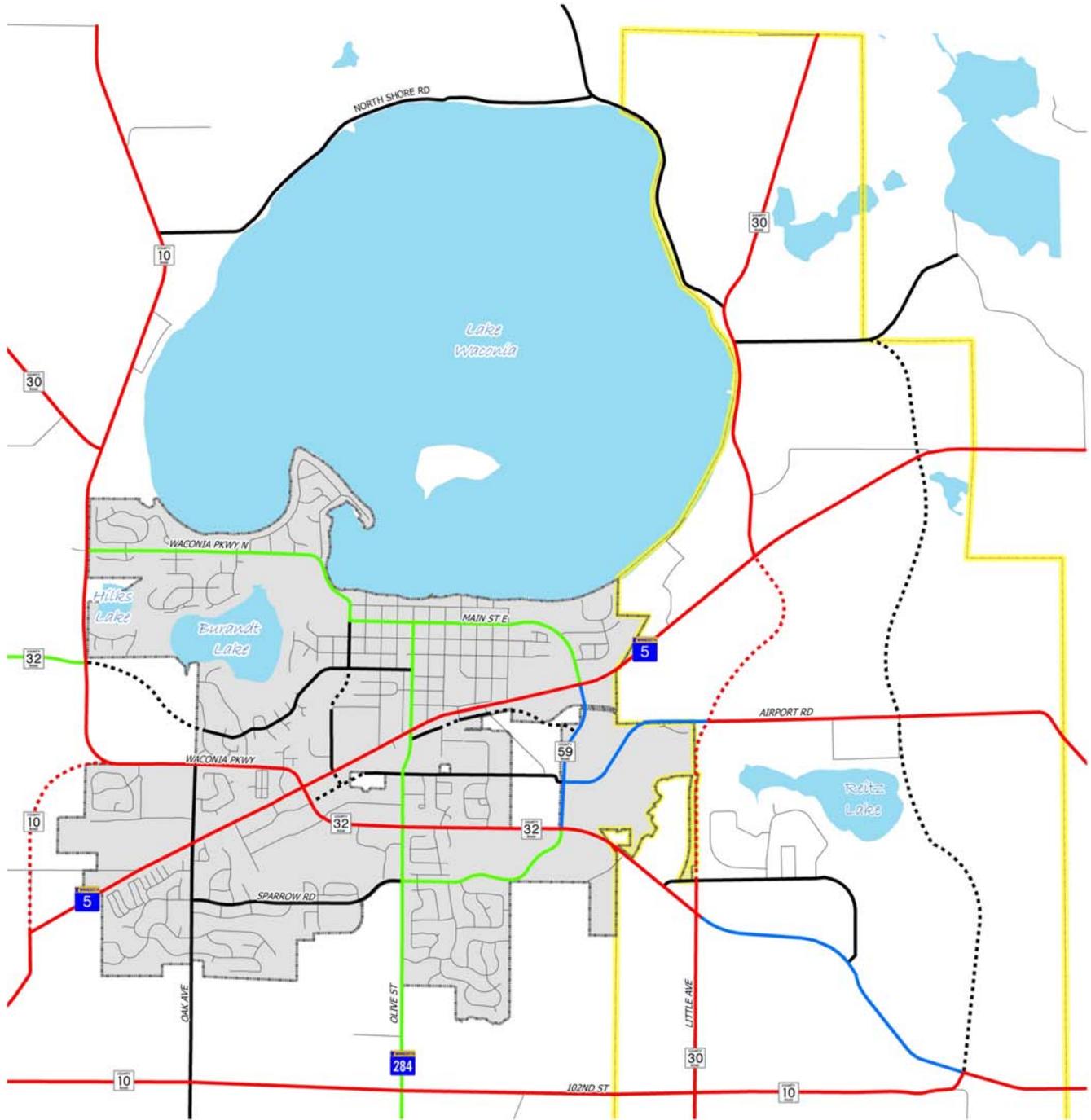
Travel Demand and Regional Highway System Capacity

The *City of Waconia Comprehensive Plan* includes a land use plan that is in conformance with the Metropolitan Council's *Transportation Policy Plan*.

Traffic generation may increase in two ways: through increased per-capita trip making or through intensified land use. Waconia is a developing community and, thus, will be generating trips from new housing units and businesses. Redevelopment and infill will also be pursued as opportunities become available.

However, at this time the City feels that the 2030 goals for households and employment that the Metropolitan Council has established for Waconia, which are the basis for the regional travel model, are a reasonable estimate. Subsequent plan updates and the regional, county and local levels will adjust and update interim and long-term growth forecasts.

Consequently, at this time the City expects that its land use plan will not result in auto trips on the regional highway system beyond those forecast by the Metropolitan Council. The City also feels that its land use plan will further the Council's objectives of increased transit ridership, travel demand management and efficient use of past regional highway and sewer investments.



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City of Waconia Comprehensive Plan

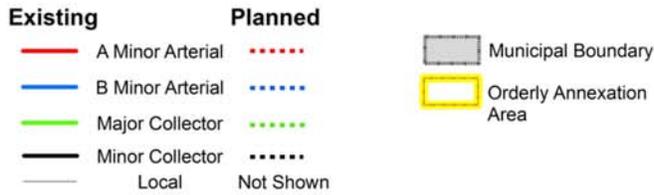


Figure 4-4
Street Functional
Classification Plan

Minnesota Trunk Highway 5 Improvements

To maintain an adequate level of service and safety along Minnesota Trunk Highway 5 between Northwood-Young America and Chanhassen, a multi-agency Highway 5 corridor study was conducted in 2008 to preliminarily identify possible changes to road design, access, intersection control, right-of-way width and related features. The following intersection control and access changes were preliminarily recommended for further study by MnDOT.

Signal Modifications

The intersection of Highway 5 and Highway 284 (named Olive Street or CSAH 57 north of Highway 5) is presently signalized and has left- and right-turn lanes. However, the split phasing of the signal system causes significant delays. Funding has been received from MnDOT to improve the signal system, and construction is anticipated to occur along with improvements to Highway 284 in 2011.

Additional Traffic Signals

- CSAH 30 when the new county highway is built (plus turn lanes)
- CSAH 10 Extension / Orchard Road
- Cherry Street
- The future north-south collector road serving eastern neighborhoods

Three-Quarters Intersection¹ Restrictions

- Spruce Street
- Birch Street
- Maple Street

Right-In, Right-Out Only Intersections

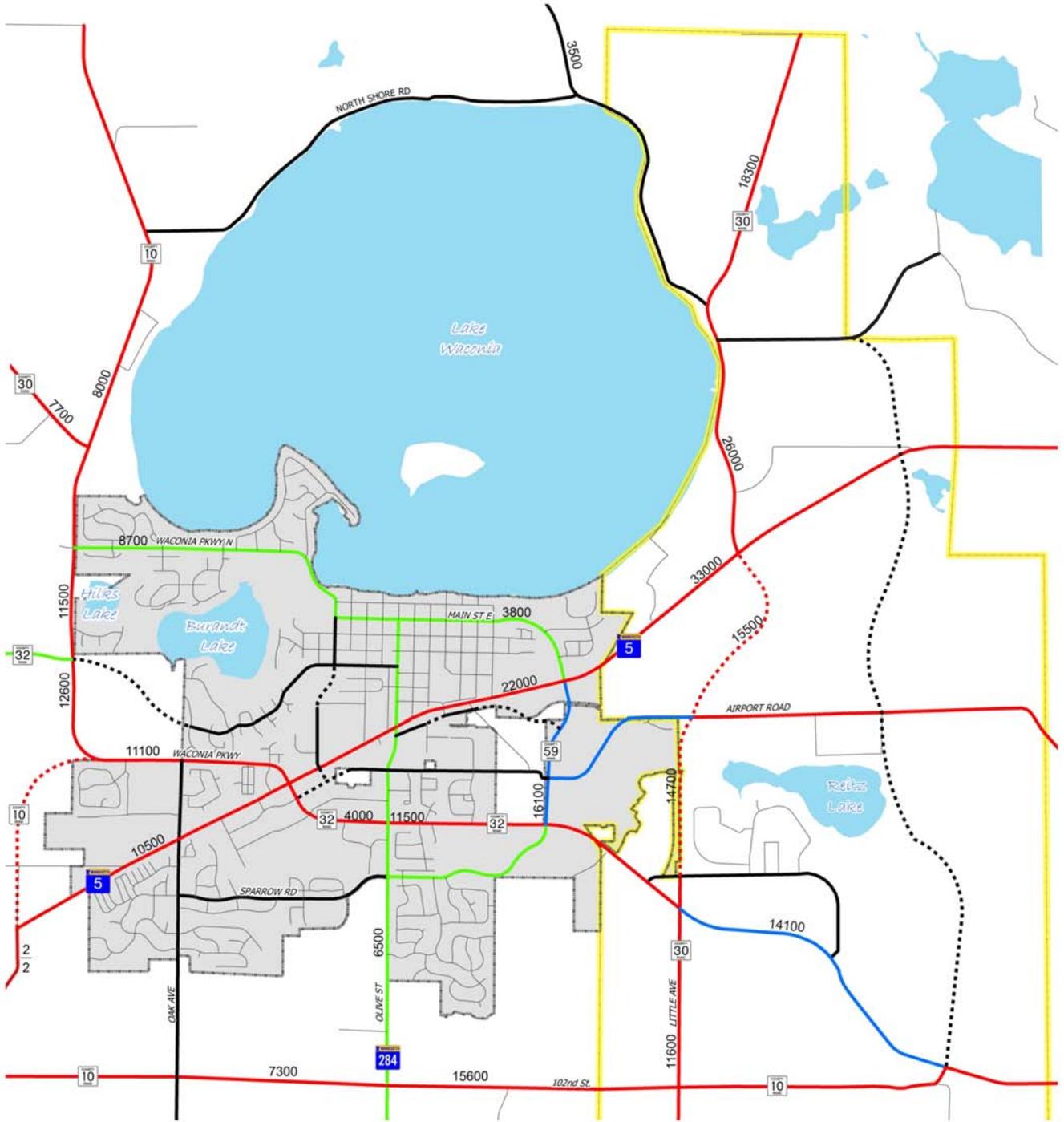
- Elm Street
- Old County Road 10
- Miscellaneous business access points

Potential Highway 5 Access Closures

- Tenth Street
- Willow Place
- Miscellaneous business access points

Recent intersection improvements along Highway 5 at CR 10 and CR 59 have reduced safety problems at those locations.

¹ A three-quarters movement intersection is one in which left-turns can be made from the major road (in this case, Trunk Highway 5) onto the secondary road but left-turns cannot be made from the secondary road onto the major road. A raised median is used to restrict the turning movements.



City of Waconia Comprehensive Plan

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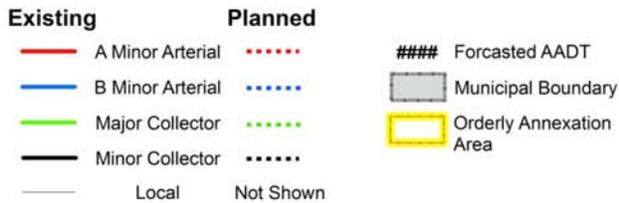


Figure 4-5
Forecast 2030
Average Annual Daily
Traffic Volumes

East Frontage Road

A new access route would have to be provided to the businesses along the south side of Highway 5 east of Highway 284 if the existing full-movement access point at Spruce Street is reduced to three-quarters movement as proposed in the *Highway 5 Corridor Study* (2008). The proposed alternative access would be a collector street along the alignment of 8th Street and East Frontage Road, extending east to CSAH 59. This street would be designated as part of the Waconia Municipal State-Aid system and, thus, eligible for the use of state funds. (Note that highway access would be reduced to right-in, right-out movement at Elm Street and to three-quarters movement at Birch Street, but those changes would not affect the south side of Highway 5.)

Other Road Safety and Movement Improvements

A small number of specific traffic safety problems have been identified in Waconia. These are listed below along with the potential means of resolving each.

Highway 284

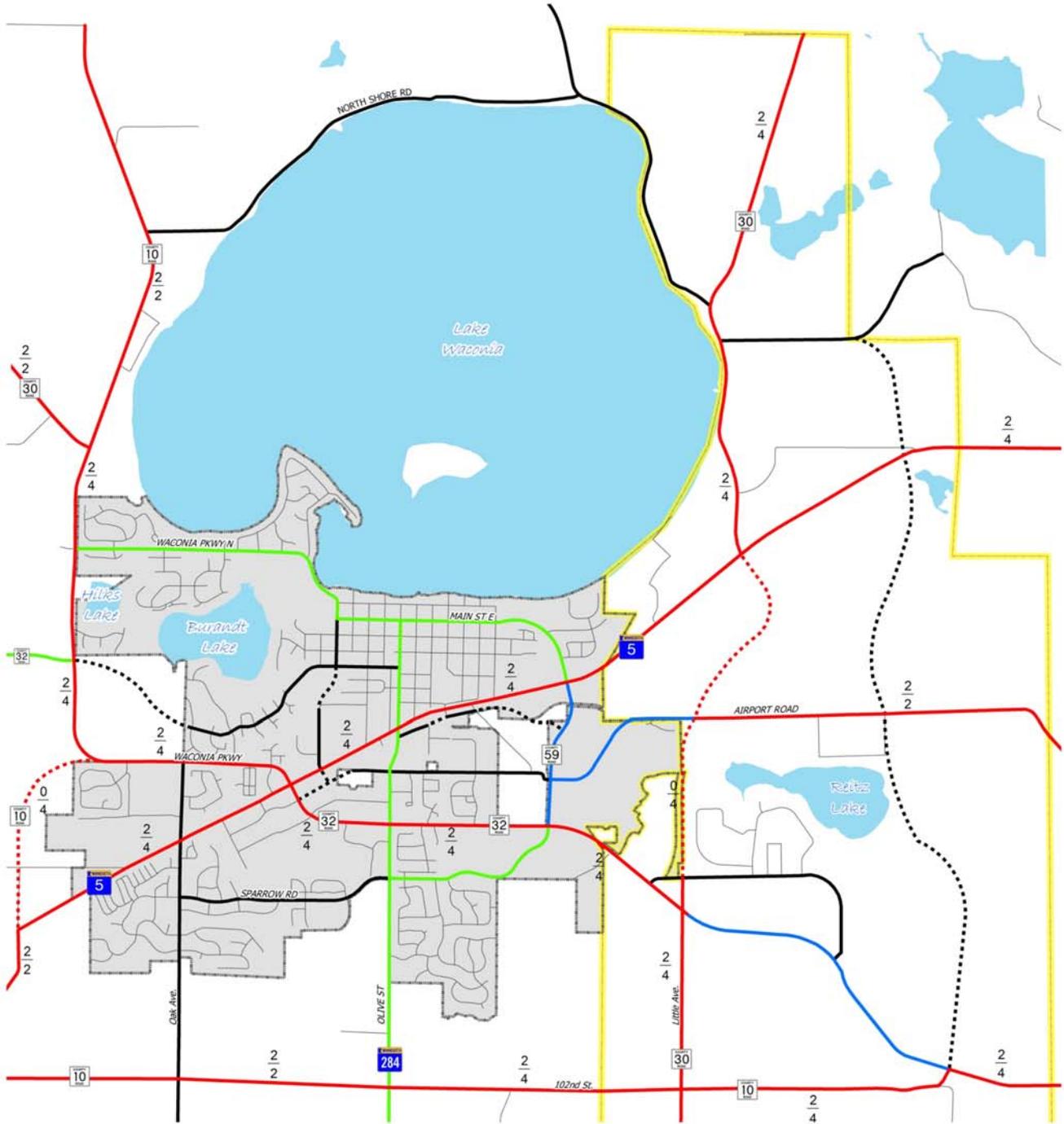
Several access points, a narrow corridor and sight distance constraints are expected to be improved by the City with funding from Mn/DOT by 2013. The following improvements are anticipated:

- A roundabout at Sparrow Road (built in 2008)
- Turn lane and bypass lane at Sierra Parkway (built in 2008)
- A roundabout at 13th Street (CSAH 32 / 10)
- A roundabout at Tenth Street
- Concrete medians and curb and gutter
- Complete street reconstruction with soils correction.

The final design and access improvement issues along Highway 284 will be resolved among the City, the Minnesota Department of Transportation and local businesses or property owners. This process is anticipated to begin in 2010.

Tenth Street

When the adjacent property develops, Marketplace Drive is proposed to extend to the east to connect with a realigned Tenth Street. This will close the current access of Tenth Street onto Highway 5.



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City of Waconia Comprehensive Plan

- $\frac{2}{4}$ Existing Number of Lanes
- $\frac{0}{4}$ Planned Number of Lanes
- Municipal Boundary
- Orderly Annexation Area
- A Minor Arterial (Existing)
- A Minor Arterial (Planned)



Figure 4-6
Existing and Proposed
Number of Lanes
for A-Minor Arterials

Potential Signal or Roundabout

- CSAH 32/10 at Oak Avenue
- Oak Avenue at Sparrow Road
- CSAH 10 at Future Burandt Boulevard
- CSAH 10 at Waconia Parkway North

School Campus

Potential connection of District 110 school campus to the west to the CSAH 10 extension.

Local System Maintenance

The City of Waconia annually improves part of the street system that is under its jurisdiction. Presently, there is a City-wide fifteen-year street reconstruction schedule and map that focuses most of the work in the older part of the city, north of Highway 5 and east of Burandt Lake.

Jurisdictional Classification Plan

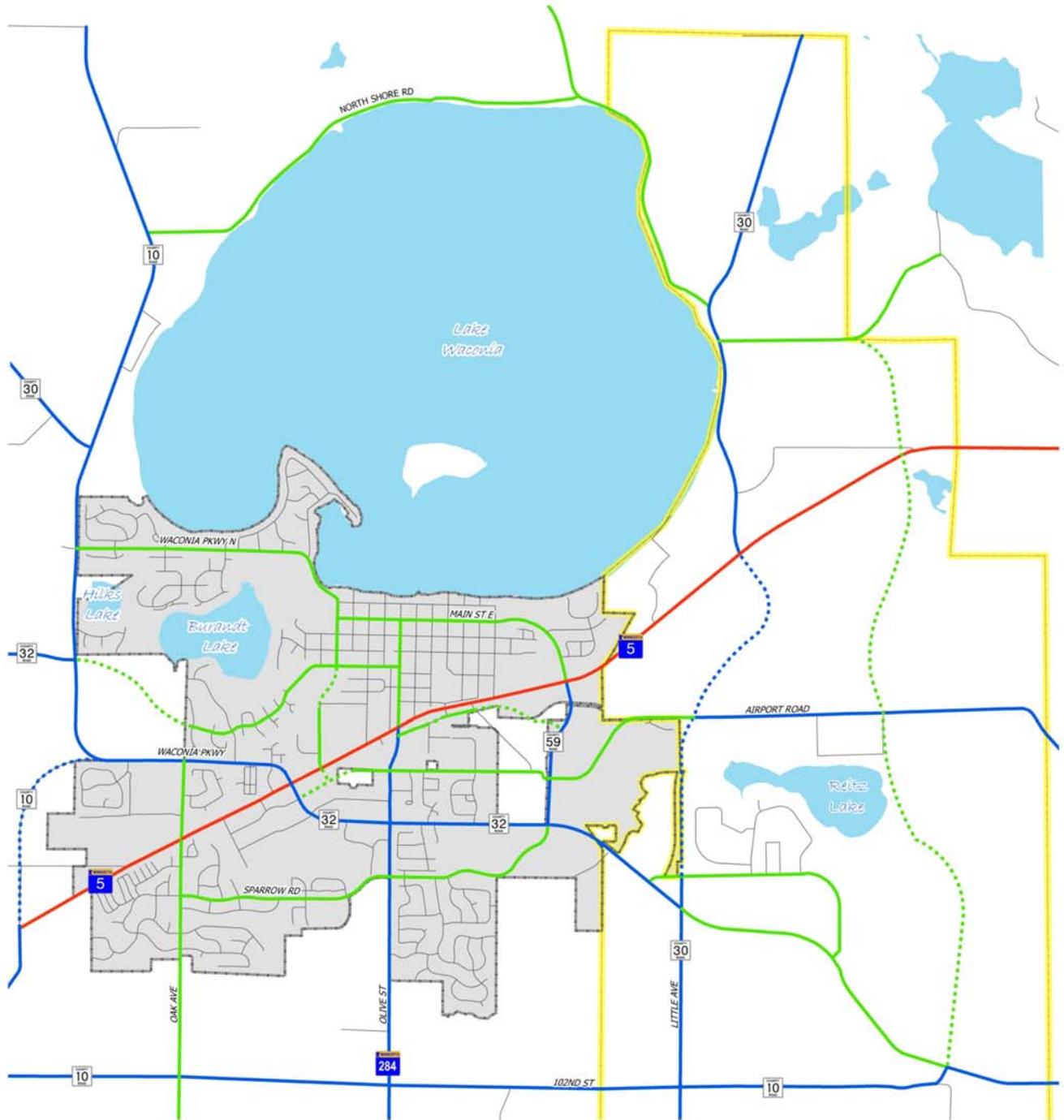
Jurisdictional classification indicates which unit of government owns and has responsibility for each road. The following additions or changes to jurisdictional classification are anticipated, as depicted by Figure 4-7.

Carver County

- **Highway 30** from State Highway 5 to a point south of Waconia on the Little Avenue alignment
- **Highway 10** from State Highway 5 to Waconia Parkway
- Take jurisdiction over **State Highway 284** (Olive Street south of State Highway 5)

City of Waconia

- **Walnut and Cherry Street:** linked through the County fairgrounds after the site is redeveloped
- **8th Street and East Frontage Road:** linked through private sites south of Highway 5 from State Highway 284 to County Highway 59
- An **unnamed collector street** on the eastern perimeter of the City from Parley Lake Road to County Highway 10.



City of Waconia Comprehensive Plan

February 20, 2009

- State Highway
- County Highway
- City or Township Road
- Proposed County Highway
- Proposed City or Township Road
- Municipal Boundary
- Orderly Annexation Area

40 Acres



Figure 4-7
Jurisdictional
Classification Plan

Forecast of Population, Households and Employment by TAZ

The City of Waconia accepts and adopts the Metropolitan Council’s forecast of population, households and employment and has based its plans for land use, transportation and wastewater on those demographics.

Table 4-4 presents the forecast of population, households and employment for each Traffic Analysis Zone in Waconia for the years 2000, 2010, 2020 and 2030. The City’s forecast is consistent with that of the Metropolitan Council. .

**Table 4-5
Forecast of Population, Households and Employment by TAZ, 2000 to 2030**

TAZ	Population				Households				Employment			
	2000	2010	2020	2030	2000	2010	2020	2030	2000	2010	2020	2030
128	6,814	10,600	14,280	15,405	2,568	4,500	6,000	6,500	3,777	7,000	8,500	9,000
134	-	-	1,460	4,275	-	-	500	1,500	-	-	100	100
1171	-	-	2,840	3,975	-	-	1,000	1,500	-	-	150	200
1172	-	-	1,425	1,375	-	-	500	500	-	-	1,150	3,700
Totals	6,814	10,600	20,005	25,030	2,568	4,500	8,000	10,000	3,777	7,000	9,900	13,000
Regional Forecast Waconia Only	6,814	10,600	20,000	25,000	2,568	4,500	8,000	10,000	3,777	7,000	9,900	13,000

Changes in Land Use that May Affect Transportation

The *Waconia Comprehensive Plan* calls for additional land development to accommodate the regional forecast for population, households and employment. The plan accepts and adopts those regional forecasts (see Tables 1-3, 3-2 and 4-3).

Some of that growth is expected to occur in infill locations but most of it is planned to occur on the eastern and southern perimeter of the urban area. (See Figure 3-6).

The *Comprehensive Plan* also includes a plan for staging land development in coordination with wastewater, water supply and local road improvements (see Figure 3-7). Before land development is approved, adequate local, county or state transportation improvements will be required to either exist or be programmed for the near future. In all cases, growth will be regulated to be compact and contiguous to prior growth.

Waconia will coordinate with Carver County and MnDOT to ensure that locally generated trips do not exceed the capacity of local or regional transportation facilities.

Waconia will regulate land development to reduce the total number of automobile trips on and their effect on County or State roads. To do so, the City will require that:

- Local streets are interconnected to the extent feasible
- Cul-de-sac streets are used only to serve land otherwise inaccessible
- Sidewalks are built along all future local streets
- A system of off-road bicycling paths is built (see Figure 4-8).

Access Management

The City of Waconia will cooperate with Carver County and the Minnesota Department of Transportation in following the county and state guidelines for managing access to major roads. Those guidelines (for minor arterial and collector roads only) are shown by Table 4-6, below. Deviations should be reviewed on a case-by-case basis and consider land use and roadway design.

Access management guidelines provide a means for transportation engineers and planners to balance private property concerns with the need to provide for a safe and efficient transportation system. Standardized guidelines provide a way for clear communications between the agencies and individuals involved (developers, city/county staff, landowners) in the process. The access spacing guidelines that have been developed for Carver County reflect the standards adopted by Mn/DOT. In this way, access in Carver County will be consistent with Mn/DOT best practices.

In addition, the improvements preliminarily recommended for further study by MnDOT in the *Trunk Highway 5 Corridor Study* (Carver County, 2008) would enhance safety and movement along Highway 5 and a portion of Highway 284 just south of Highway 5.

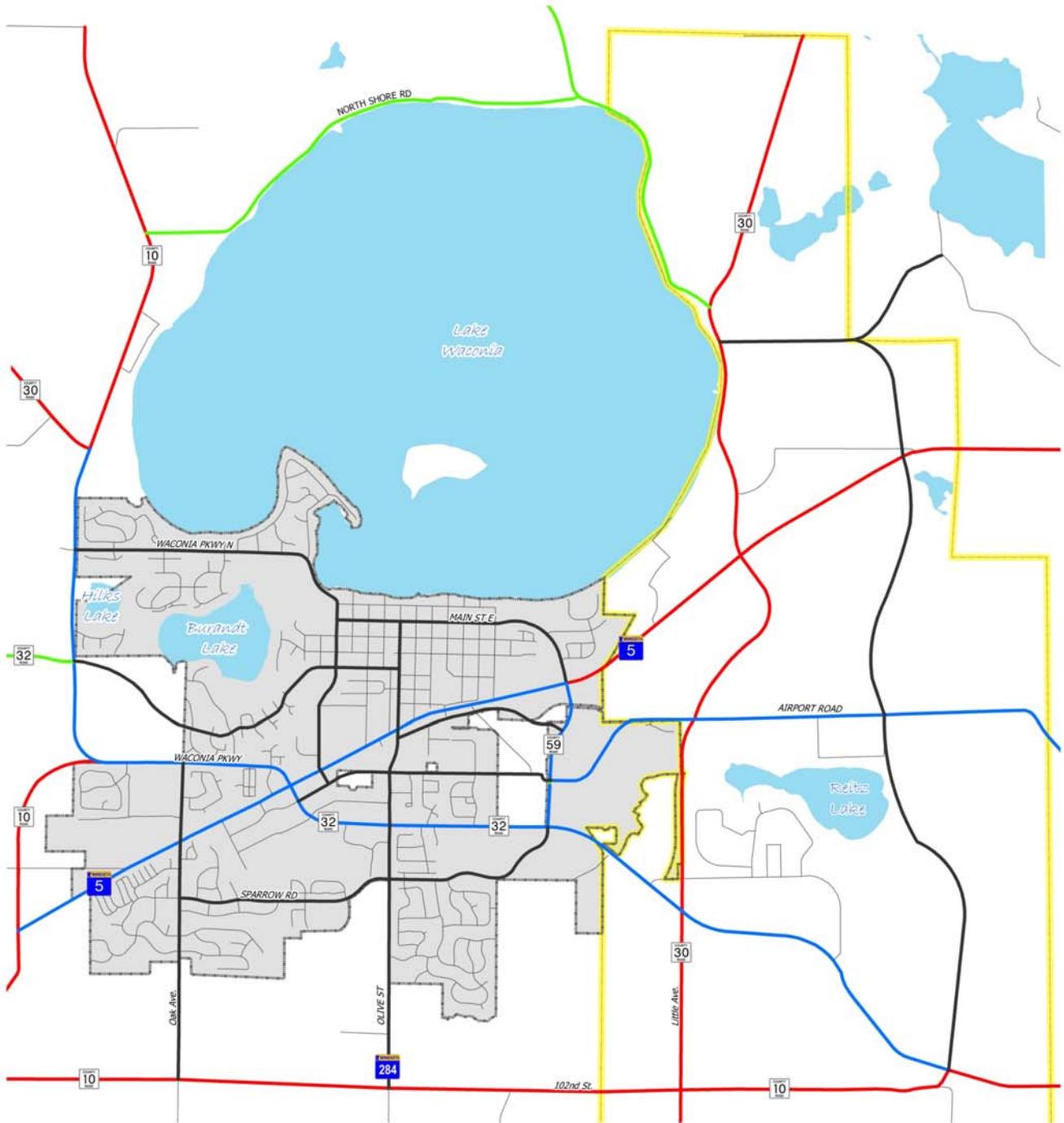
**Table 4-6
Access Management Guidelines**

Road Type	Primary Full Movement Intersection	Conditional Secondary Intersection	Signal Spacing	Private Access
Minor Arterial Roads				
5A: Urban Mobility Corridor	1/2 mile	1/4 mile	1/2 mile	By exception or deviation only
5B: Urbanizing Arterial	1/4 mile	1/8 mile	1/4 mile	
Collector Roads				
6A: Trunk Rural Collector	1/2 mile	1/4 mile	No signals	Permitted subject to conditions
6B: Urbanizing Collector	1/4 mile	1/8 mile	1/4 mile	
6C: Urban Core Collector	300 to 600 feet dependent on block length		1/8 mile	

Source: *Carver County Roadway Systems Plan*, 2008, Table 12, page 64.

Along Urbanizing Collectors, driveways should be kept to a minimum by locating parcel access primarily on Local streets.

Figure 4-8 shows the planned access classification for the major roads in and around Waconia as proposed by the 2008 *Carver County Roadway Systems Plan*.



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City of Waconia Comprehensive Plan

- 5A - Urban Mobility Corridor
- 5B - Urbanizing Arterial
- 6A - Rural Collector
- 6B - Urbanizing Collector
- Municipal Boundary
- Orderly Annexation Area



Figure 4-8
Future Access Spacing

Transit and Paratransit

The City of Waconia will continue to cooperate with Carver County and the Metropolitan Council to assess the feasibility of providing transit service to the community. If Waconia achieves the population forecast by the Metropolitan Council, transit service will become much more viable. Waconia's land use plan will guide growth into a compact pattern with nodes of high-density housing and employment, which should help support transit.

Waconia is outside of the Metropolitan Transit Taxing District. Waconia is in Market Area III and is in the area of potential of transit service expansion. Service options for Market Area III include peak-only express, small vehicle circulators, midday circulators, special needs paratransit (ADA, seniors), and ridesharing. There is no regular route transit service existing in Waconia. Rural dial-a-ride service is provided by Carver Area Rural Transit.

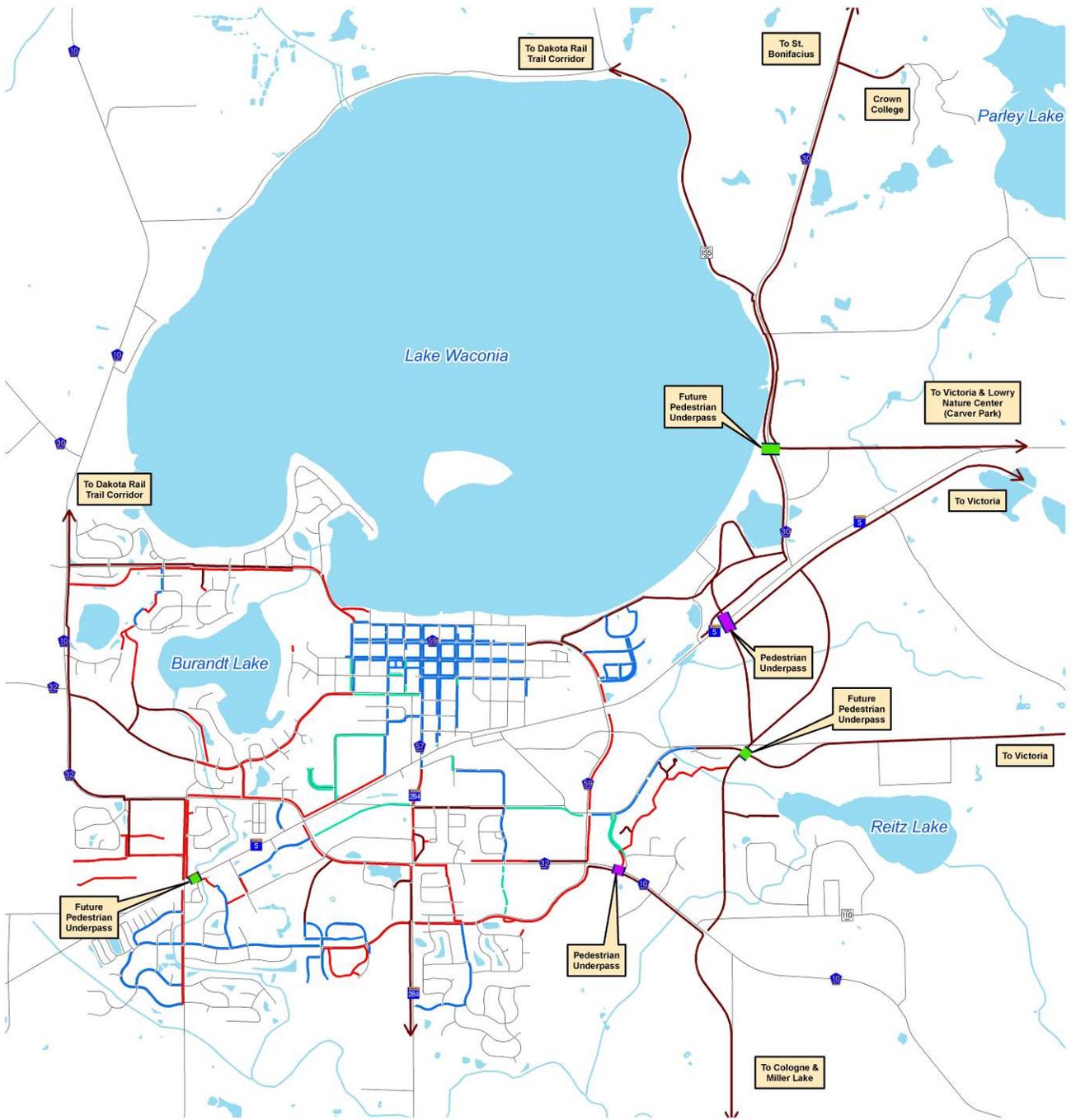
Pedestrians and Bicycles

In order to promote walking and bicycling, the City will implement the *Waconia Master Sidewalk and Trail Improvements Plan* (2007). That plan designates locations and estimates the cost of building or reconstructing a network of major concrete sidewalks and off-road multiple-use asphalt trails. Figure 4-9 graphically depicts the plan.

In addition to the *Master Sidewalk and Trail Improvements Plan*, Waconia will require land developers to build a six-foot concrete sidewalk on at least one side of every new local residential street and both sides of every new collector street. (A multiple-use path may be built on one side of certain collector streets.)

Longer term, Waconia will cooperate with Carver County and the Metropolitan Council to plan and build these trails:

- A regional trail between the City of St. Bonifacius, Lake Waconia Regional Park and the Miller Lake Regional Park Search Area (in Laketown Township, southeast of Waconia). This route may utilize the planned County Road 30 right-of-way along the east side of Lake Waconia and through eastern Waconia.
- A trail around Lake Waconia that may use the abandoned railroad line and the existing road right-of-way.
- Connections to the trail systems in the Cities of Victoria and Cologne.



City of Waconia 2008 Comp Plan Update

- | | | |
|-------------------------------------------------------|---------------------------------------------------------------------|-------------|
| Sidewalks & Trails | Pedestrian Underpass | |
| — Existing Sidewalk | ■ Existing Pedestrian Underpass | Streams |
| — Future Sidewalk | ■ Future Pedestrian Underpass | Roads |
| — Existing Trail | Roads | Ponds/Lakes |
| — Future Trail | Ponds/Lakes | |

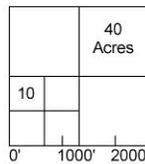


Figure 4-9
Proposed Sidewalks
And Trails

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The goals of the *Master Sidewalk and Trail Improvements Plan* are:

- To link neighborhoods with other neighborhoods.
- To link neighborhoods with priority destinations (schools, parks, churches, public facilities, medical facilities and commercial areas)
- To ensure public safety by allowing a safe route for pedestrians away from major roadways.
- To provide an alternative transportation option for residents, reducing the reliance on the automobile.
- To promote healthy lifestyles and provide residents with outdoor recreation activities.
- To assist in the planning for future growth and development of the community.

The design of the future sidewalk and trail system was based on these guidelines:

- Facilities should be located to link neighborhoods.
- Facilities should be located to coincide with established pedestrian patterns.
- Facilities should be located along streets that serve as major pedestrian ways and/or carry a higher level of vehicular traffic.
- Facilities should be located to connect and make the best use of existing facilities.
- Facilities should be located to allow for the future connectivity to surrounding communities, Carver County Parks, and regional trails.
- Facilities (all sidewalks and trunk trails) should be located to meet the requirements of the Americans with Disabilities Act.

A preliminary capital improvements program was included in the 2007 master plan for new construction and reconstruction of deteriorate sidewalks and trail segments during the 2008 through 2018 period. It included:

- 28 projects
- 14 are to be included in street reconstruction projects
- One is to be included in a utility reconstruction project
- One is to be included in a park project
- The total estimated cost of the 28 projects (in 2007 dollars) was \$2,355,000.

The condition and location of sidewalks that may be rebuilt as part of street reconstruction projects will be determined at the time of the street project. Pending boulevard widths and proposed street grades, many of those sidewalk segments may be protected rather than reconstructed.

There are many other future sidewalks and paths identified in Figure 4-8 that were not included in the 2007 capital improvements program for sidewalks and trails. Those facilities will primarily be constructed and funded by new developments according to city requirements and ordinances and will not require any City cost participation.

For the sake of user safety and comfort, the *Waconia Comprehensive Plan* recommends that the width of off-road asphalt multiple-use paths be 10 feet rather than the 8 feet shown in the *Master Sidewalk and Trail Improvements Plan*. White shoulder stripes and skip-dash centerlines stripes should be applied, consistent with Mn/DOT guidelines.

On-street striped lanes should be considered in conjunction with the planned side-paths in order to provide for the full range of bicyclists and promote bicycling along streets where side paths may not be physically possible or politically acceptable. Stop signs should be installed where the side-paths meet streets and the path alignment moved away from the intersection of the two street legs if possible.

Goods Movement and Rail Lines

The Waconia land use and transportation plans support regional and local goods movement by:

- Providing concentrations of industry and business.
- Building a system of minor arterial and collector roads to access locations of industry and business while supplementing the regional highway system.
- Protecting the function of the arterial and collector road systems by enforcing county and regional access management guidelines.

There is no rail service to Waconia.

Aviation

There are no public airports in or near Waconia, and the city is not in the sphere of influence of any public airport, with Flying Cloud Airport in Eden Prairie being the closest. There is, however, a private landing strip near Reitz Lake, east of the city (hence the name Airport Road).

The airspace over Waconia is used by aircraft operating from metropolitan airports and other airports. Likewise, the City has no jurisdiction over the water surface of Lake Waconia but seaplanes are allowed to operate on the lake and could prove to be incompatible with urban development and boating on the lake. A minor heliport is operated at Ridgeway Medical Center for emergency transportation only.

There are no existing or planned public aviation facilities in Waconia. Waconia is located approximately 16 miles west of Flying Cloud Airport, identified in the *Aviation Policy Plan* as a reliever airport for Minneapolis-St. Paul International Airport.

Structures that are 200 feet or higher above ground level may pose hazards to air navigation. Waconia has no existing structures of this height; does not permit such

structures under its zoning ordinance, and has no plans to permit such structures in the future. Any applicant who proposes to construct such a structure shall notify the city and the Commissioner of the Minnesota Department of Transportation at least 30 days in advance as required by law.

The Waconia zoning ordinance regulates the height of structures so they will not pose a hazard to air navigation including electronic interference. If needed, the City will notify the FAA as defined under code of federal regulations CFR – Part 77, using the FAA Form 7460-1, “Notice of Proposed Construction or Alternation.”