

CHAPTER SIX: TRANSPORTATION

VI. TRANSPORTATION

A. BACKGROUND

The primary street used for Village access is Shorewood Boulevard, which is also the community's main entrance. Shorewood Boulevard bisects the community east to west, and serves as the only direct connection between University Avenue on the south and Lake Mendota Drive (via Edgehill Drive) on the north. University Bay Drive serves as an alternative; however this route is far less convenient for traffic not destined for the UW campus. The UW has committed to "no net increase" in parking at UW Hospital and the campus as a whole as they eliminate surface parking and move towards structured parking. This should limit the increase in traffic on University Bay Drive due to University-initiated construction. Traffic on University Bay Drive has increased by 7 percent between 2001 and 2006.

The Village uses a number of strategies to control traffic and speeds within its boundaries. The speed limit on all residential streets in the Village is 20 miles per hour. Many of the "Y" shaped intersections in the Village have been modified by squaring off curves to slow down traffic. The Village also maintains a portable speed bump and a speed monitor board.

University Avenue, which serves the entire west side of Madison, is the Village's only arterial street. It forms the southern edge of the Village and provides direct access to downtown Madison. As part of the State's trunk highway system, it currently carries approximately 55,000 vehicles per day.



University Avenue.

As one of the most heavily traveled streets in the region, University Avenue is the main transportation spine for a large portion of the metropolitan area. This is reflected in the urban intensity of development along its edges. This intensity is especially noticeable along the Shorewood Hills segment of the corridor. With the continuing redevelopment of Hildale Mall and the planned redevelopment of the 21-acre State Department of Transportation site, the corridor will continue to densify. Transport 2020's proposed commuter rail line that runs parallel to University Avenue could spur additional redevelopment if it is constructed.

1. ROAD NETWORK

The Village's Public Works and Traffic Committees are charged with making recommendations for local street improvements within the Village. These are typically carried out on a yearly basis using the WISLR system, which rates pavement condition. It is administered by the Wisconsin Department of Transportation as a means to prioritize needed improvements. Village Public Works staff should be consulted for the most up-to-date WISLR ratings.

The Village’s most recent improvements include the reconstruction of a major part of Shorewood Boulevard. The project included stormwater management components such as pervious paving sections and terrace bioswales. In 2009 the Village coordinated with the City of Madison to repair University Avenue between Shorewood Boulevard and Campus Avenue, and the University to repair a portion of University Bay Drive.

In 2010 or shortly thereafter, the Village anticipates reconstructing Marshall Court to a more pedestrian-friendly cross section with sidewalks, terraces, pedestrian amenities, and on-street parallel parking. The street cross-section was arrived at through the Doctor’s Park neighborhood planning process.

The major upcoming road project that will affect the Village is the complete reconstruction of University Avenue between Allen Boulevard in Middleton and Segoe Road in Madison, along with pavement replacement from Segoe Road to Shorewood Boulevard. In January 2009 the Village, City of Madison, and Dane County agreed to coordinate on the project, which is slated for construction in 2011. The project will upgrade University Avenue to an urban cross-section with curb and gutter, on-street bike lanes, sidewalks, and new turn lanes.

There are various smaller local street projects that are planned for upcoming years. Map 6-2 shows upcoming projects within Village boundaries.

2. COMMUTING PATTERNS

Census 2000 figures indicate that almost 60 percent of Village commuters drive alone to their workplace. Walking, public transit, and “other means” combined, accounted for just over 20 percent of the commuting modes of Village residents. The average commute time among Village workers is 17 minutes.

As is apparent from Table 6-1, the Village had the lowest rate of commuters who drove to work alone, shortest commute time, highest carpool rate, and highest rate of working at home amongst comparison units of government. The Village also has a comparatively high rate of public transportation use and walking by commuters. These patterns are related to the high number of residents who work for the state and University, which is discussed further in the Economic Development chapter.

Table 6-1: Comparison of Village of Shorewood Hills Commuting Transportation with Surrounding Communities, Dane County, and the State of Wisconsin

	Shorewood Hills	V. Maple Bluff	City of Middleton	City of Madison	Dane County	WI
Car/Truck/Van - Drove Alone	59.2%	80.4%	81.4%	65.7%	74.1%	79.5%
Car/Truck/Van - Carpooled	12.8%	7.1%	8.1%	9.6%	9.5%	9.9%
Public Transportation	6.9%	0.0%	2.9%	7.2%	4.2%	2.0%
Walked	6.0%	2.4%	1.7%	10.7%	6.2%	3.7%
Other Means	7.3%	2.7%	1.1%	3.8%	2.2%	0.9%
Worked at Home	7.7%	7.3%	4.7%	3.1%	3.8%	3.9%
Mean Trvl Time to Work (min)	17.0	19.9	17.1	18.3	19.9	20.8

Source: Census 2000.

Another aspect of commuting patterns is where Village residents work, and where Village employees live. Table 6-2 shows the workplace for Village residents and the place of residence for employees who work in the Village according to the 2000 Census. 68.7 percent of the 779 Village residents in the workforce worked in the City of Madison. 18.1 percent of Village residents worked in the Village. 54.2 percent of the 3,100 people who work in the Village live in the City of Madison. The 141 people who both live and work in the Village represent just 4.5 percent of the total number of employees who work in the Village. While it is not unusual for many cities and villages to have a slightly larger number of employees than working residents, the 4:1 ratio in the Village is striking. The disparity can be attributed mainly to the Veterans Hospital and UW Hospital and Clinics (though only a portion of UW Hospital lies within Village boundaries and it is unknown how place of employment is assigned by the Census when it crosses municipal boundaries).

Table 6-2: Commuter Flow To and From Shorewood Hills

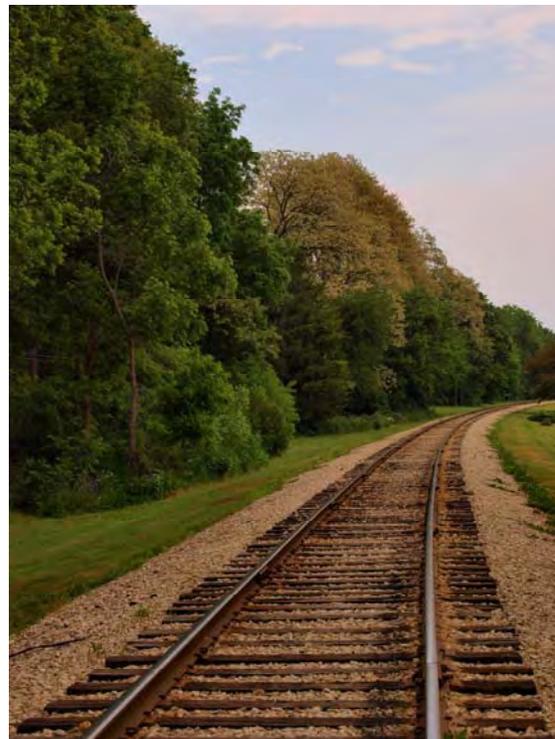
Workplace for Village Residents				Residence for Village Employees			
Rank	Workplace	Number	Percent	Rank	Residence	Number	Percent
1	C. Madison	535	68.7%	1	C. Madison	1679	54.2%
2	V. Shorewood Hills	141	18.1%	2	C. Fitchburg	169	5.5%
3	C. Middleton	24	3.1%	3	V. Shorewood Hills	141	4.5%
4	T. Madison	16	2.1%	4	C. Middleton	111	3.6%
5	V. Waunakee	10	1.3%	5	T. Middleton	66	2.1%
--	Other	53	6.8%	--	Other	934	30.1%
Total		779	100.1%*	Total		3,100	100%

*Note: for employees over the age of 16.
 *Does not add up to 100% due to rounding.
 Source: Census 2000.*

3. TRANSIT & RAILROADS

As of spring 2009, the Village was served by 14 bus routes that run along University Avenue. Route 2 is the only Village route that travels on a road (University Bay Drive) other than University Avenue. Bus routes provide access to the UW campus, Downtown Madison and other major destinations within the metropolitan area via University Avenue. Direct bus service into the interior of the Village was discontinued in 1988.

The active Wisconsin & Southern rail line that parallels University Avenue has been identified as the major spine of a potential regional commuter rail network in the Transport 2020 study. The Transport 2020 study looked at the feasibility and cost of commuter rail options for the central urban area of Dane County. The line would initially connect Middleton



The rail corridor that parallels Locust Drive has been identified as an important future commuter rail and bike-ped corridor.

(just west of the Beltline at University Avenue) to Sun Prairie (north of the Reiner Road/Nelson Road Intersection). There is the potential for additional spurs and creation of an express bus network to create an integrated transportation system. More details on the Transport 2020 plan are available in the review of state and regional plans section later in this chapter.

With its nearby concentration of population, employment, and regional institutions, the Village is ideally situated for one or more rail stations. The Environmental Impact Statement and New Starts Application that the Transport 2020 group submitted to the Federal Government in June 2008 shows two proposed stations in the Village: just north of the Midvale Boulevard/University Avenue intersection, and close to the Veteran's Hospital. However, the application had to be withdrawn due to lack of a regional funding mechanism, such as a Regional Transportation Authority (RTA). In order for an RTA to be created, the State Legislature must enact enabling legislation. The Shorewood Hills Village Board has passed a resolution supporting the formation of an RTA.

Given the favorable climate for inter/intra-city passenger-rail, both locally and nation-wide, arrival of rail service sometime during the life of this Plan is a strong possibility, in spite of the project's current limbo status. Redevelopment along University Avenue and the rail corridor should be designed to take advantage of future rail by addressing pedestrian access and movement that a passenger rail system and/or dedicated bike path will likely create. These considerations should point to alternative treatments for parking, pedestrian circulation, density, mixture of uses and the design, orientation and grouping of buildings. Neighborhood Plans have been created for the Doctor's Park and Pyare areas that address such matters in more detail. The Neighborhood Plans should be referred to when the Village is considering redevelopment proposals or municipal infrastructure upgrades within the Marshall Court and Pyare areas, respectively.

4. BICYCLE AND PEDESTRIAN MOVEMENT

The bicycle and pedestrian components of the Village's circulation system are a loose patchwork of sidewalks, pedestrian lanes, bike lanes, bike paths, and unimproved footpaths. The placement of these pathways is somewhat dispersed and discontinuous. The most intact network of sidewalks is located in the original College Hills plat, although the network is disjointed even there. High-traffic locations by Shorewood Elementary, University Avenue, Locust Street, and Shorewood Boulevard all have sidewalks.

The Village also has several attractive triangle parks located at key intersections in the local sidewalk and road network. These parks contribute greatly to the Garden-Suburb character of the Village, adding physical definition to several key pedestrian crossings and slowing traffic.



The Village's several triangle parks are an important part of the local pedestrian system.

The Village is along a heavily-used bicycle route to Downtown Madison. The construction of the Blackhawk Trail – a joint City of Madison and Village project – in 2000 helped close a gap in the regional bicycle trail network. The trail skirts the southern edge of the golf course and ties into the bike lane along Locust Drive. There are currently just two “missing links” that prevent someone from biking from the Town of Springfield northwest of Middleton all the way to the UW campus and Downtown Madison, staying completely on bike paths or bike lanes. The reconstruction of University Avenue planned for 2011 will add bike lanes from Allen Boulevard to Segoe Road, as well as connect the bike path that currently ends at Spring Harbor Road to Allen Boulevard, eliminating one missing link.

The other is the gap between Shorewood Boulevard and University Bay Drive. The Doctor’s Park Neighborhood Plan (and the Madison MPO’s Westside Madison Bicycle Plan 2005 map) recommend filling that gap by completing a path along the rail corridor. If there is not sufficient space south of the Village pool, an alternate route is to install the path to the north of the tennis courts. The portion of the path between Marshall Court and University Bay Drive will run north of the railroad right-of-way and require easement or property acquisition.

The MPO’s Bicycle Plan map cited above also includes an analysis of the Village street system in terms of its suitability for on-road bicycle use and on-road bicycle lanes. See the review of state and regional transportation plans later in this chapter for more on bicycle system plans. The Village’s Doctor’s Park Neighborhood Plan recommends a bicycle path overpass of University Bay Drive at the University Avenue intersection.

5. AIR TRAVEL

Dane County is served by the Dane County Regional Airport. The airport terminal was expanded to a 274,000 square foot facility in 2006. There are 120,000 total flights (arrivals and departures) per year, of which 59 percent are general aviation, 34 percent are commercial flights, and 7 percent are military flights. Passenger traffic stood at 1.6 million in 2006, a 60 percent increase over 1990 levels. The airport moves about 26 million pounds of freight annually (www.msnaairport.com, accessed 3/9/09)

The airport serves 14 destinations (listed in order of most seats per week to least): Detroit, Chicago (O’Hare), Minneapolis, Milwaukee, St. Louis, Denver, Dallas/Ft. Worth, Cincinnati, Atlanta, Cleveland, Washington D.C. (Reagan National), Memphis, Newark, and New York (LaGuardia). While travel volume varies by time of year, there are approximately 37,500 departure seats available on commercial aircraft each week, on average. Northwest Airlines controls 46.5 percent of the Dane County market share, followed by American Eagle (20.0 percent), United Express (15.6 percent), Delta Connection (6.9 percent), Midwest Connect (6.7 percent), and Continental Express (4.4 percent) (statistics from the Wisconsin State Journal 2009 Book of Business).

The Madison area’s other airport is Middleton Municipal Airport – Morey Field. Extensive reconstruction all facilities, including the terminal building and the runway, was completed in July of 2005. The airport contains 39 hangars. The City of Middleton is currently planning an expansion, which will include a crosswind runway and additional hangar space. Middleton Municipal Airport provides western Dane County with a general-aviation

alternative to Dane County Regional Airport (information from www.ci.middleton.wi.us and the City of Middleton Comprehensive Plan).

6. THE JOINT WEST CAMPUS PLANNING COMMITTEE

This committee, consisting of representatives from the Village, University of Wisconsin, UW Hospital, City of Madison, and various adjacent Madison neighborhood associations, was formed to mediate and resolve ongoing concerns about future development on the Far West Campus of the U.W., which abuts the Village's eastern border. Specific concerns have primarily included traffic, urban design, and stormwater runoff issues. As active members of the committee, the Village has voiced specific concerns on the anticipated traffic impacts several development projects either in the preliminary or advanced planning stages. One of the Village's major concerns is the potential for pass through traffic in the Village caused, in part, from inadequate access to University Avenue and Campus Drive.

7. REVIEW OF STATE AND REGIONAL TRANSPORTATION PLANS

a. DANE COUNTY COMPREHENSIVE PLAN 2007

As with this Plan, transportation is just one part of the County's overall Comprehensive Plan. The County's plan has five overall transportation goals:

1. Provide an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit-dependent and disabled citizens.
2. Provide an accessible, integrated and well-maintained multi-modal transportation network that provides for the movement of people and goods in a safe and efficient manner.
3. Coordinate land use and transportation plans and decisions to ensure that transportation facilities are compatible with planned development.
4. Ensure that future transportation planning examines the full range of costs associated with infrastructure improvements and programs, including indirect, external, and opportunity costs.
5. Reduce transportation's contribution of greenhouse gases that contribute to climate change.

Additional goals are listed under Air Transportation, Bicycle and Pedestrian Transportation, Rail Transportation, Streets and Roadways, and Transit and Public Transportation. Goals that may have an impact on the Village include:

- Provide for safe, convenient and efficient bicycle and pedestrian travel throughout the county, including on-street and off-street facilities. (Bike & Ped)
- Promote the development of safe bicycle and pedestrian routes to schools and other community facilities. (Bike & Ped)
- Expand transit services in a manner to achieve an increasing proportion of total trips by transit.
- Develop a regional transit authority.
- Recognize and promote the economic benefit of transit-oriented development.

c. CONNECTIONS 2030 (DRAFT)

Connections 2030 is Wisconsin's long-range statewide multimodal transportation plan. It covers airports, highways and local road systems, transit, fixed-guideway transit (Kenosha's streetcar system and Metra station are considered fixed guideway), freight rail, intercity passenger rail, intercity bus, ports and harbors, ferries, bicycles, and pedestrians. Chapters are organized around seven goals:

1. Preserve and maintain Wisconsin's transportation system.
2. Promote transportation safety.
3. Foster Wisconsin's economic growth.
4. Provide mobility and transportation choice.
5. Promote transportation efficiencies.
6. Preserve and enhance Wisconsin's quality of life.
7. Promote transportation security.

There are additional chapters profiling Wisconsin's transportation system, implementing the plan, evaluating environmental impacts, and discussing environmental justice.

d. REGIONAL TRANSPORTATION PLAN 2030

The Regional Transportation Plan 2030 was created by the Madison Area Metropolitan Planning Organization (MPO), which is tasked with creating a cooperative, comprehensive regional transportation plan. A map of the MPO planning area is shown as Figure 6-2. Federal law requires the designation of an MPO for urbanized areas of 50,000 or more as a condition of spending federal highway and transit funds.

Adopted in November 2006 (with a supplement adopted in November 2007), the Plan uses local comprehensive plans to predict future transportation needs. It covers background information, socio-economic and land use trends and how they affect the transportation system, transportation trends, conditions, and issues, and creates a future transportation plan with goals, and objectives. The plan contains a financial capacity analysis for the recommended projects, as well as an environmental justice analysis.

The plan's primary relation to the Village is how it addresses the University Avenue corridor; recommendations for the corridor are covered in other plans discussed in this section (Transport 2020 for commuter rail, the Bicycle Transportation Plan for bikes, and the Transportation Improvement Program for the road itself).

Drive to Shorewood Boulevard. This plan advocates creating a continuous trail along the rail corridor (which is also discussed in the Village's Doctor's Park Neighborhood Plan).

The plan also includes an analysis of the Village street system in terms of its suitability for on-road bicycle lanes. Lake Mendota Drive, Edgehill Drive, Oxford Road, and University Bay Drive were considered the best candidates for such lanes based on factors such as right-of-way width, street grade and alignment, and connectivity to the UW bike-ped network. By contrast, University Avenue was considered a far less desirable location for bike lanes compared to other on-street locations within the urban area. Nevertheless, the plan does recommend the introduction of bike lanes to bridge the gap in the existing on-street system.

B. GOALS, OBJECTIVES AND POLICIES

GOALS:

- a. Provide a safe and efficient transportation system that meets diverse needs and multiple users.
- b. Enhance the quality of life in the Village by reducing the negative impacts of transportation and auto traffic.
- c. Make the entire Village pedestrian and bicycle friendly.
- d. Engage Village residents, business and property owners, Village staff, Village government, WisDOT, and the Metropolitan Planning Organization (MPO) in resolving local transportation and traffic concerns.
- e. Support and accommodate multiple modes of transportation.
- f. Recognize the far-reaching effects of transportation system improvements or modifications.
- g. Provide safe pedestrian and bicycle access to areas adjacent to the Village.

OBJECTIVES:

- a. Reduce speed and volume of auto traffic within the Village.
- b. Prevent the use of village streets as commuter routes and overflow parking lots.
- c. Establish safe and convenient pedestrian routes to schools, commercial areas, work, and recreational areas.
- d. Increase transit ridership, carpooling, and the use of other alternative transportation modes among Village residents and visitors.
- e. Develop innovative solutions to traffic problems through education, experimentation, and evaluation.
- f. Keep access to commercial areas convenient while discouraging overflow (traffic, noise, crime, light pollution, etc.) into residential areas.
- g. Gradually increase Village support for the Madison metro bus system.
- h. Improve safety around schools and parks.

POLICIES:

- a. Support use of alternative modes of transportation (walking, biking, carpooling, etc.) for community to and from work and school.
- b. Enforce the 20 mph speed limit, yielding to pedestrians in crosswalks, and parking ordinances on Village streets.
- c. Promote a Streetsharing program for pedestrians, bicycles, motor vehicles, etc.
- d. Collaborate with other village committees and residents to reduce congestion around the community center, pool, school, and parks.
- e. Promote walking and bicycle safety.
- f. Require that any new developments in the Pyare, Doctor's Park, or VA Hospital areas be 'transit-ready' by incorporating elements of transit oriented/supportive development. (Generally, compact, mixed-use, and walkable.)
- g. Enlist Village residents, Village employees, commercial landowners, and businesses in brainstorming and trying innovative solutions to transportation problems.
- h. Collaborate with other governmental units and organizations, including the UW, in analyzing and resolving long-term transportation related issues.
- i. Work collaboratively with developers and neighboring communities to address issues of traffic and parking spillovers into the Village.
- j. Minimize driveway openings onto public roads as redevelopment occurs.

C. RECOMMENDATIONS**ENGINEERING:**

- Use street design to calm traffic on Village streets (for example: narrow roadways, triangles, bump-outs, etc.).
- Continue to implement the recommendations of the Village's Walkable Communities Task Force.
- Continue capital improvements program to coordinate and sequence regular street improvements.
- Work with Dane County, the UW, and City of Madison to study and fund improvements to the intersections along University Avenue.
- Seek federal and state assistance to improve bicycle connections from far west Madison through the Village to the UW Campus and Downtown Madison.
- Seek federal and state assistance to improve bicycle and pedestrian circulation and safe connections along and across University Avenue. Major intersections that merit attention include University Bay Drive, Marshall Court (west)/Ridge Street, and Segoe Road. Options include overpasses.

TRAFFIC CONTROL:

- Organize 'slow-down' campaigns as needed.
- Complete the Village traffic study.
- Reduce vehicular traffic around the school and Village parks.
- Develop process for experimentation and evaluation of potential transportation solutions and measure the effectiveness of solutions.

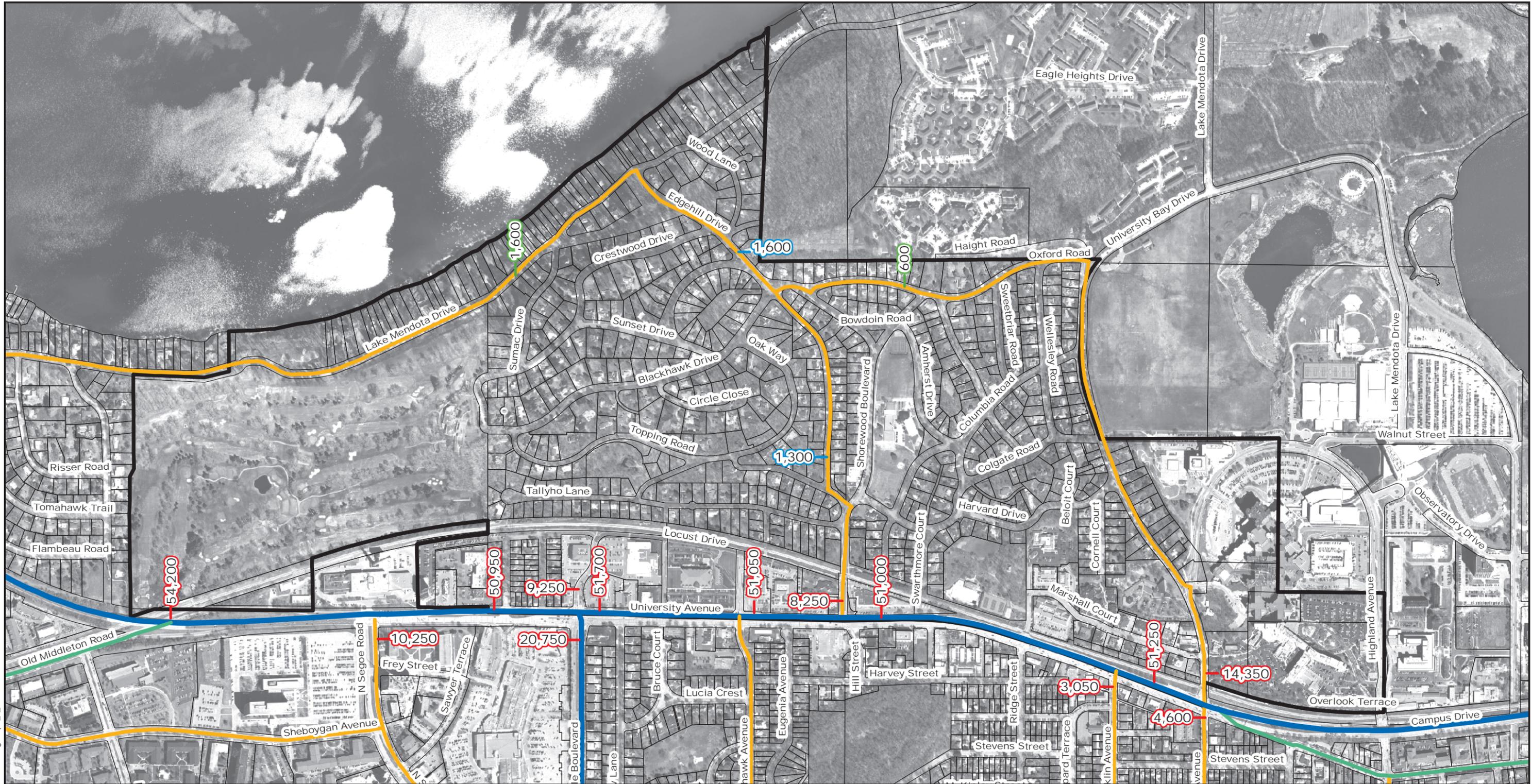
- Maintain school crossing guards and nighttime lighting at critical intersections and crosswalks.

EDUCATION:

- Continue to support the Department of Transportation Safe Routes to School program, which encourages students to walk or bike to school and to play areas (for example, support the Pink Posse program, Bike Rodeo, and promote “walking school busses.”)
- Celebrate International Walk to School Day (the first Wednesday in October).
- Continue to support the Streetsharing Pledge program.
- Continue to use the Village bulletin to educate drivers of both motorized- and non-motorized vehicles and pedestrians about the Village’s Streetsharing Pledge.
- Initiate safety education programs for walkers and cyclists. (intersection crossing, reflective clothing, flashlights, etc.).

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0 350 700 1,400 Feet

Data Sources:
Dane County Land Information Office
Wisconsin Department of Transportation
City of Madison

Legend

- Principal Arterial
- Minor Arterial
- Collector
- ### 2006 Traffic Count
- ### 2005 Traffic Count
- ### 2002 Traffic Count
- Village of Shorewood Hills Boundary

**Map 6-1
Road Network &
Traffic Counts**

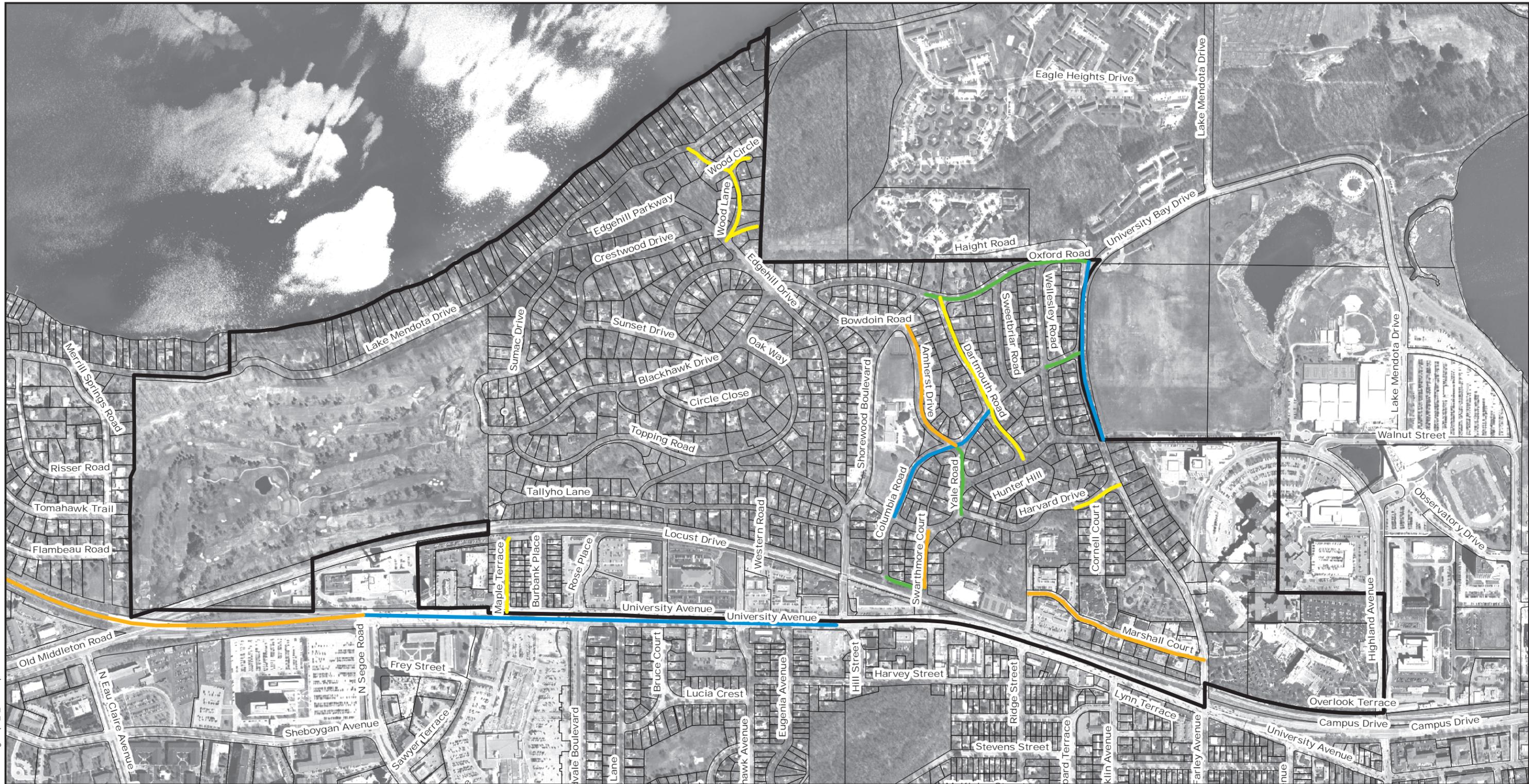
Village of Shorewood Hills
Comprehensive Plan

June 2, 2009

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planners | engineers | advisors



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0 350 700 1,400 Feet



Data Sources:
Dane County Land Information Office
Village of Shorewood Hills Engineer

Legend

- 2010
- 2011
- 2012
- 2013 or after

Village of Shorewood Hills Boundary

Notes:

- The Village continuously updates planned projects based on road conditions and budgetary considerations.
- Most projects include watermain, sanitary sewer and stormwater replacement.

Map 6-2

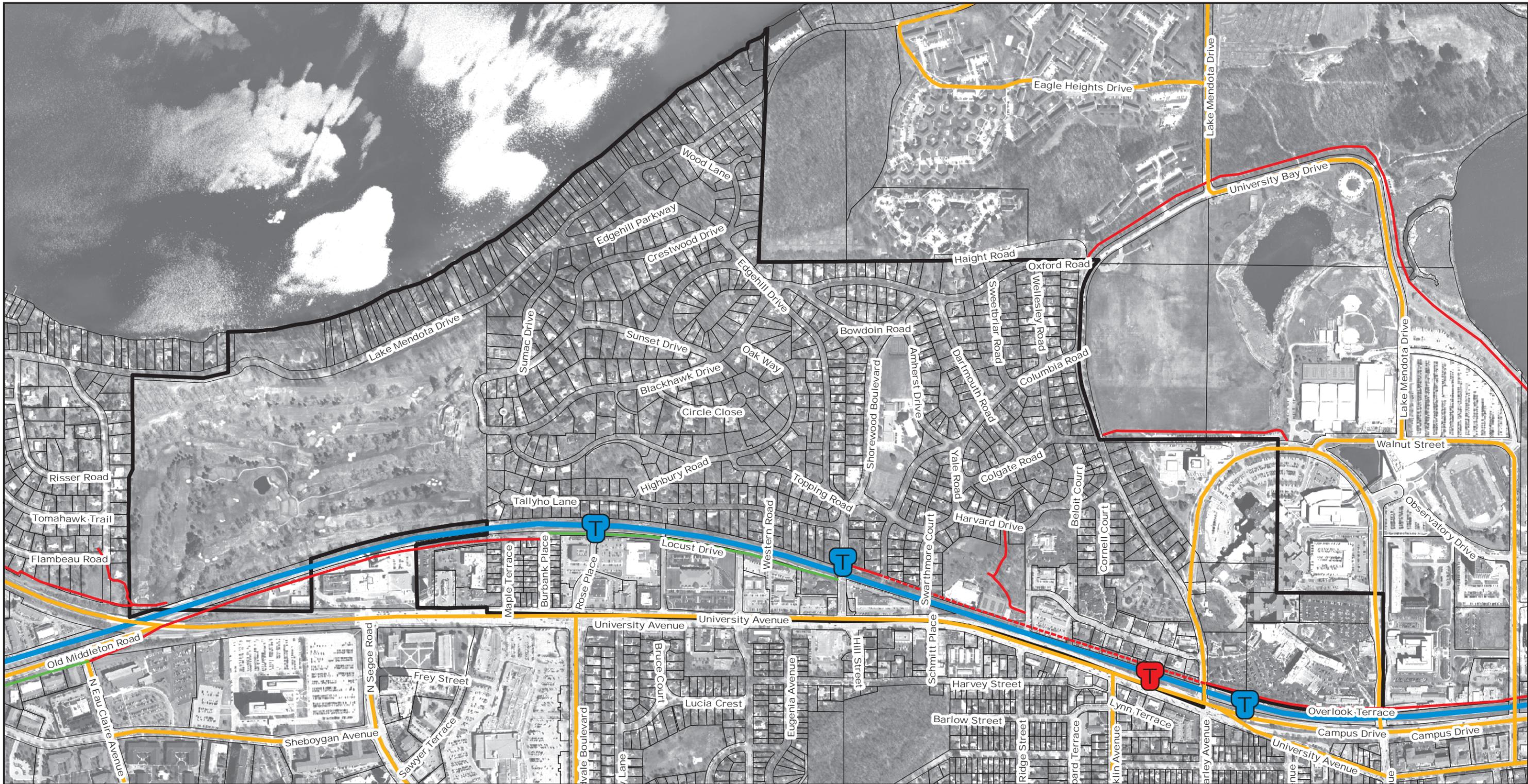
Planned Road Network Improvements

Village of Shorewood Hills
Comprehensive Plan

July 24, 2009

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planners | engineers | advisors





0 350 700 1,400 Feet

Data Sources:
Dane County Land Information Office
Madison MPO
Doctor's Park Neighborhood Plan
Madison Metro
Transport 2020

Legend

- Existing Off-Street Path
- Existing On-Street Path
- Future Off-Street Path
- Madison Metro Bus Service
- Transport 2020 Commuter Rail Route
- Potential Commuter Rail Stop (as shown in June 2008 FTA new starts application)
- Potential Commuter Rail Stop (as shown in Doctor's Park Neighborhood Plan)

Village of Shorewood Hills Boundary

Map 6-3
Bicycle & Transit Network
 Village of Shorewood Hills
 Comprehensive Plan

June 2, 2009

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