

In November 1904, Norwegian Consul Halle Steensland offered to pay for the Rutledge Street Bridge as a present to the City of Madison in commemoration of his 50 years residency in the City. The East Main Street Bridge appears identical to the Rutledge Street Bridge. Although the East Main Street span was built in 1926, ten years after the Rutledge Street Bridge, it appears to have been constructed according to the same plan. The bridge is a classically detailed concrete arch bridge and an excellent local example of a structure designed along certain aesthetic principles. The bridge is scheduled to be reconstructed in a manner similar to the recently completed Rutledge Street Bridge. The bridges are a major part of the Landmark designation and careful attention should be paid to future decisions that relate to them.



*Main Street Bridge (scheduled for reconstruction in the Summer of 1998) in the foreground with East Washington Avenue Steensland Bridge in background*

## Study Area Description

*The Yahara River Parkway.* The primary study area is the Yahara River Parkway itself, a corridor running parallel to the Yahara River as it flows across the isthmus from Lake Mendota to Lake Monona. With a 50-foot wide strip of green space on each side of the river that is about a mile in length, the Parkway includes some 16.5 acres of land. The secondary study area consists of land parcels directly adjacent to the Parkway that represent opportunities for increasing open space, implementing Parkway amenities, and encouraging future redevelopment (including residential, commercial, industrial, and institutional functions)

that complements the Parkway and meets the needs of neighborhood and City residents. Lying approximately one mile east of the state capitol, the Parkway crosses two primary arterial streets (East Johnson Street and East Washington Avenue) and connects four City parks (Tenney, Filene, Yahara Place, and Burr Jones Field).

## The Yahara River and Four Lakes.

The Yahara River and its lakes – Mendota, Monona, Waubesa and Kegonsa – are important in providing scenic beauty and swimming, boating, and fishing opportunities for area residents and visitors. As a result, the lakes are highly valued physical resources and are an integral part of the quality of life that Dane County residents enjoy.

*Geological History.* The lakes were formed about 10,000 years ago when the last glacier deposited a thick layer of glacial till (unsorted sediment) over the landscape and dammed up the large preglacial Yahara River Valley. The Yahara watershed (land area draining to the lakes) covers 359 square miles (over one quarter of Dane County). The Yahara River begins just north of Dane County in Columbia County and flows southward to connect the four lakes, finally joining the Rock River in Rock County. Much of the watershed is farmed; however, the watershed also contains most of the urban land in the Madison metropolitan area. In addition, the Yahara watershed includes some of the largest wetlands left in Dane County.

The Yahara lakes are classified as eutrophic lakes. Eutrophic lakes have an overabundant supply of nutrients and excessive weeds and algae. Lake Mendota includes 9,842 acres of water with 21.9 miles of shoreline. It takes about 6.3 years for the lake to flush through its 135 billion gallons of water. Lake Monona includes 3,274 acres of water with 13.2 miles of shoreline. The Yahara River is

approximately 35 feet wide and is approximately one mile in length (with an overall gradient of 3.6 feet per mile) between the two lakes. The flow of water in the Yahara River between Lake Mendota and Lake Monona is regulated by the dam located at the Lake Mendota inlet. The average baseflow is approximately 70 cubic feet per second.

*Recreational opportunities.*

The river provides for active, water-based recreation. The activities that are available include motorboating, canoeing/kayaking, rowing, jet skiing, and fishing. Biking, hiking, and walking are recreational activities that occur near the river. Passive activities such as sitting, reading, and picnicking also occur near the river. The recreational potential in the Parkway is insufficiently developed to take full advantage of this resource and to meet neighborhood needs.



*Motorized and non-motorized access and use.*

The Tenney Park Locks are located on the Yahara River along the southeastern corner of Lake Mendota and Sherman Avenue. The locks are operated by Dane County Public Works to control water flow and boat access. They open in May and close in October. The normal difference between the two lakes is five feet, with the locks providing passage from one lake to the other. Generally, boats need



to be under seven feet in height and draw less than two feet to ensure passage through the river channel (see the Appendix for boat counts). From May to October 1997, a total of 15,634 boats passed through the locks. In 1996, 13,686 boats used the Tenney Locks.

*Fish habitat and fishing.* The Yahara River's vegetation and overhanging cover make it home to almost two dozen fish species, including popular sport fish such as muskellunge, northern pike, walleye, bluegill, brook silverside, common and golden shiners, minnows, white sucker, big mouth buffalo, common carp, pumpkin seed, black and white crappie, yellow perch, and largemouth, smallmouth, rock, and white bass. The Department of Natural Resources' classification of the current use of this section of the river is warm water sport fishery. At certain times of the year, the Yahara is also home to cisco and lake sturgeon. Spawning habitat is scattered throughout the river channel where "nooks and crannies" exist around bridges, trees overhang the water, and other features provide excellent nursery areas for young and newly-hatched fish. Angling for Yahara River fish attracts people from as far away as Milwaukee, and fishing is particularly successful below the Tenney Locks. Due to its confined area, the Yahara River is prone to fish kills, a direct result of storm sewer run-off during storm events and chemical spills.

*Wildlife.* The river parkway helps sustain and nurture living creatures by providing a habitat for them. There is an abundance of birds and water fowl, including eagles, hawks, owls, kingfishers, sea gulls, and song birds. Small mammals like



muskrats, squirrel, raccoons, minks, rabbits, woodchucks, gophers, and squirrels are more difficult to spot but do reside in the corridor. Reptiles like turtles and toads are less abundant.

*Landscape Material.* A study of the landscape material was prepared under a grant secured by the Urban Open Space Foundation. The study has recommendations on the management of the river parkway and the state of the existing material. The landscape material has dramatically changed form the original O.C. Simonds' landscape planting plan. Due to the status of the corridor, a City landmark, plant material invasive to the original design may have to be removed. Replacement plantings should conform with the historical original planting concepts. Presently, at least 34 species of trees and shrubs are within the Yahara River Parkway. Of these, 27 species are trees and seven are shrubs. The most abundant tree species is green ash, followed by river birch, black locust, box elder, and elm.



*Madison Park and Pleasure Drive Association  
1908*

The majority of trees are the result of river bank regeneration rather than tree planting. Fewer than a dozen trees can be ascribed to the original landscape plan. In the report, *Yahara River Parkway: A Landscape Management Analysis*, recommendations are outlined to restore the “prairie spirit” landscape plan and involve and educate the community on the resources they have (see Appendix, pages 103-110, for excerpts of the report).

*Water quality and the role of watershed.* Through state enabling legislation, the Dane County Lakes and Watershed Commission has assumed a principal local oversight and intergovernmental coordination role for the water resource management activities. Upstream the agricultural land continues to pose the principle threat to the watershed, but urban areas also add significant amounts of nutrients, bacteria, and other pollutants to the Lakes and river.

This study area is a priority watershed and is in the Wisconsin Nonpoint Source Water Pollution Abatement Program. This area is in the high priority Street Sweeping and Source Control Area. The goal is to protect water bodies from further degradation by reducing concentrations of nutrients and sediment loading, and by controlling runoff that contains pollutants.

The “rip rap” reduces river bank erosion from boat wakes. Soil loss, however, still occurs around the rocks and the large stone can make access to the water difficult. The rip rap diminishes the diversity of plant species near the water and the typical overhang on a natural river which provides cover to nurture fish and aquatic populations.



*Lake Mendota and Tenney Park with East Washington Avenue at the right of photo*



*East Washington Avenue at the left of photo with the Yahara River flowing into Lake Monona*

## **East Isthmus/Yahara Area Neighborhoods.**

The YRP Committee has developed its recommendations with special attention to the needs and priorities of east isthmus residents, particularly residents of the three neighborhoods directly adjacent to the Parkway: Emerson East-Eken Park, Marquette-Schenk-Atwood, and Tenney-Lapham/Old Market Place.

### **Yahara Area population.**

Primary population characteristics in Yahara area neighborhoods include the following (see Appendix for complete data):

*Age distribution.* Yahara area residents were similar to City of Madison residents overall in terms of age. In 1990, 14.5 percent of Yahara area residents were children below age 15 (16.1 percent City-wide), while 9.9 percent were seniors age 65 or older (9.3 percent City-wide). These two age groups – including the persons most likely to need a safe, cross-isthmus pedestrian route as recommended in this plan – together constitute almost one quarter of the Yahara area population.

*School enrollment.* Yahara area school enrollment figures, mirroring the age distribution, further indicate the need for a safe, cross-isthmus bike/pedestrian route as recommended in this plan. Pre-primary enrollment equalled 2 percent of the Yahara area population in 1990; elementary-to-high school enrollment, 8.8 percent; and college enrollment, 16.1 percent (1.9 percent, 11 percent, and 23.3 percent, respectively, City-wide). Altogether, students represented over one quarter of the Yahara area population in 1990. Safe crossing of East Washington Avenue is particularly important for elementary school students in the Yahara area since Lapham and Marquette Elementary Schools are paired schools lying on opposite sides of East Washington Avenue. In

addition, O’Keeffe Middle School serves both sides of East Washington Avenue, along with East High School.

*Transportation to work.* Compared to City residents overall in 1990, Yahara area residents were less likely to drive a car to work and more likely to walk, ride a bike, or take a bus. Over one third (36.6 percent) of 1990 Yahara area workers walked, rode a bike, or took a bus to work, compared to less than one quarter ( 24.6 percent) of City-wide residents (Walk or bike: 21.8 %, Yahara area; 16.9 %, City-wide. Bus: 14.8 %, Yahara area; 7.7 %, City-wide). Since safe pedestrian crossings at primary arterial streets such as East Johnson Street and East Washington Avenue are vital not only for pedestrians and bicyclists, but also for bus-riders who need to cross to get to bus stops, these figures indicate a pronounced need in Yahara area neighborhoods for a safe, cross-isthmus bike/pedestrian route as recommended in this plan.

*Residence in 1985.* According to 1990 figures, Yahara area residents are almost identical to City-wide residents in terms of “stability” of residence. Close to one third (32.6 percent) of 1990 Yahara area residents lived in the same house they had occupied in 1985 (35.9 percent City-wide), while an additional 29.9 percent had lived in the City of Madison for at least five years (23 percent City-wide). These figures describe a population committed to living in and preserving the quality of life in Madison and the Yahara area.

### **Yahara Area housing.**

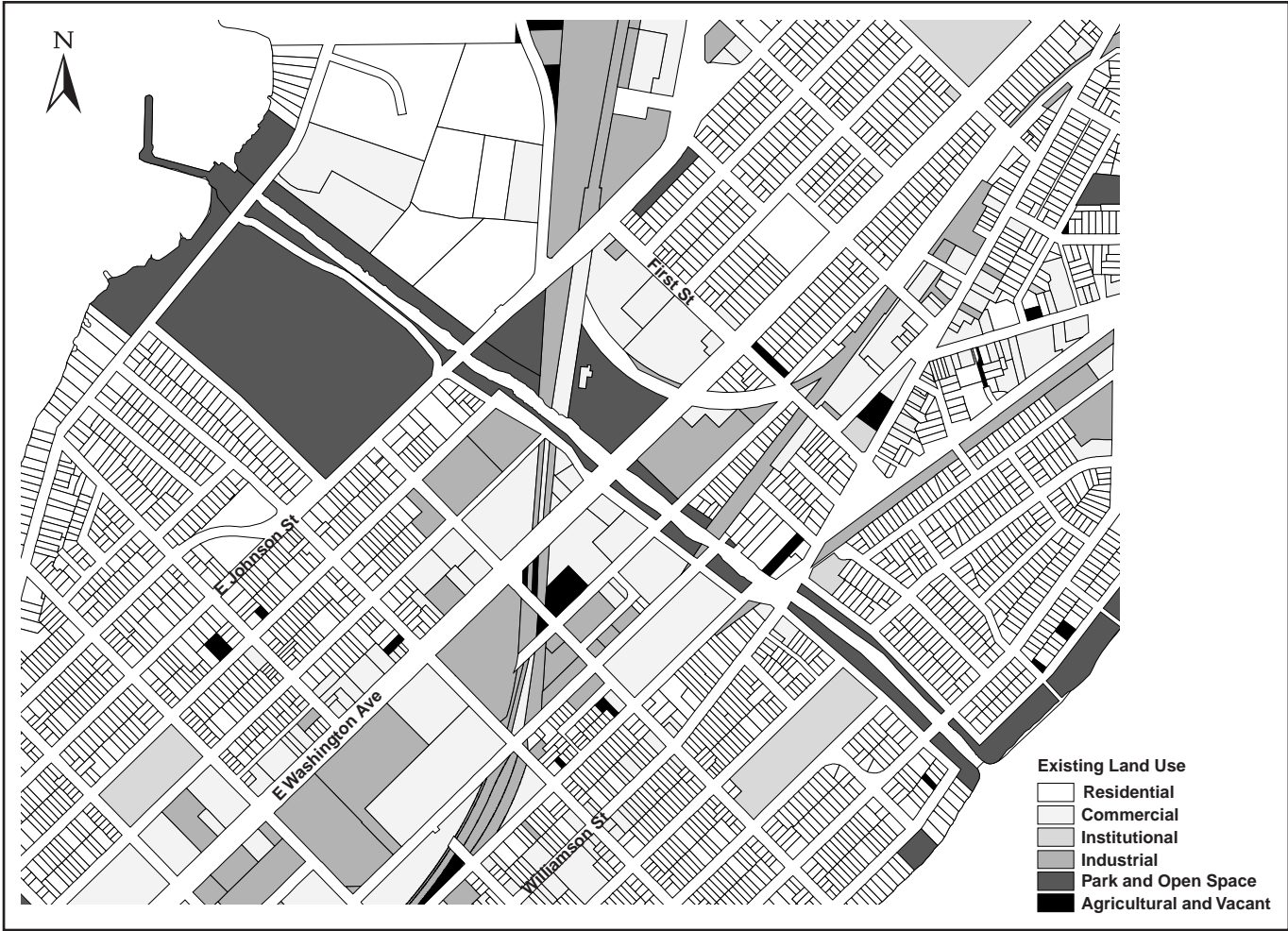
Primary housing characteristics in Yahara area neighborhoods include the following (see Appendix for complete data):

*Age of housing.* Yahara area housing structures are substantially older than housing structures City-wide. While over half of Yahara area housing units in 1990 (56.7 percent) were structures built prior to

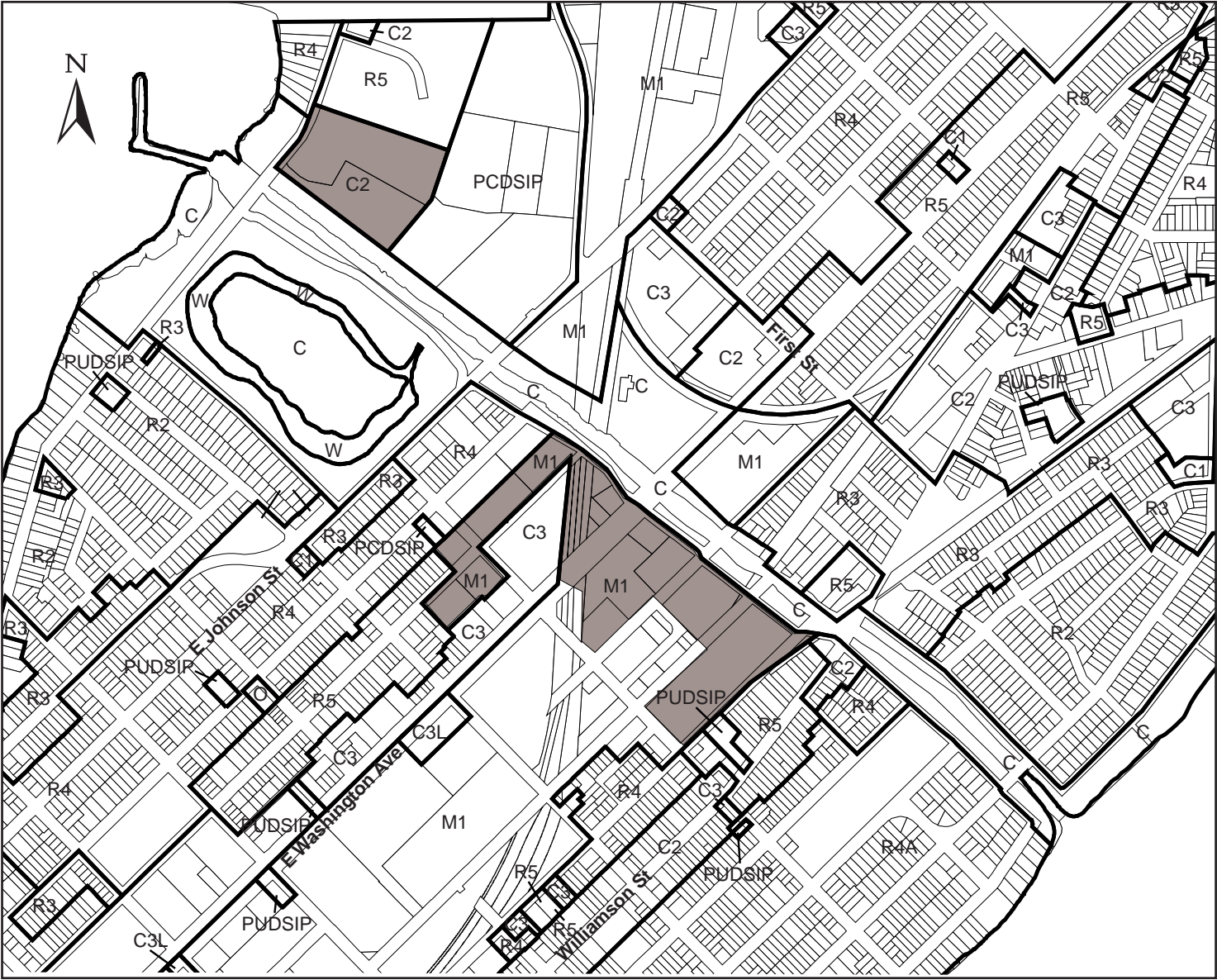
**Map 2**  
**Yahara River Parkway Existing Land Use**

The Existing Land Use Map shows the pattern of development with distinct residential neighborhoods divided by East Washington Avenue and the Yahara River corridor. The Committee understands that the river is a valuable resource and given the substantial inventory of vacant, underdeveloped, and underutilized properties in the Yahara River corridor, a new land use strategy is required to foster development and new economic activity. The sites outlined on the map are the parcels targeted by the Committee for redevelopment.

The Committee is interested in:  
 a) Encouraging mixed use on East Washington Avenue and varied forms of housing in the other sites, b) ensuring that a high standard of architectural and urban design quality is provided in the built environment, and c) encouraging the development of human scaled buildings, structures, and urban spaces that front the river and promote pedestrian connection to the river.



### Map 3 Yahara River Parkway Existing Zoning



The Existing Zoning Map shows the legislated rules for the properties near the river corridor. The recommendations on pages 65-70 speak to the changes needed to ensure development in accordance with the plan. The zoning changes involve the change of existing M1 to a Commercial Mixed-Use and Residential Districts.

1940, over half of City-wide units (53.9 percent) were structures built since 1960. Yahara area housing structures are in fact among the oldest and most historically significant in the City of Madison, suggesting the need not only to preserve existing structures but also to ensure that redevelopment adjacent to the Yahara River Parkway – itself an historical treasure – is consistent with the historical character of the surrounding neighborhoods. The Third Lake Ridge is a City of Madison Historic District abutting the Parkway. A National Register of Historic Place, the Marquette Bungalows, is also alongside the Parkway. Next to Tenney Park is the Sherman Avenue National Register of Historic Places (See site analysis on page 28).

*Housing Tenure.* Over one third (35.9 percent) of Yahara area housing units were owner-occupied in 1990 (47 percent City-wide) and the remaining 64.1 percent were renter-occupied (53 percent City-wide).

*Housing: Units in structure.* Single-family homes represented 35.4 percent of Yahara area housing units in 1990 (48.1 percent City-wide), while 2- to 4-unit structures represented 49.2 percent (25.9 percent City-wide). Housing structures with 10 or more units represented 14.1 percent of Yahara area housing units in 1990, compared to 24.4 percent City-wide.

## **Transportation.**

### **East Isthmus Arterial Street Traffic.**

The Yahara River Parkway crosses two primary arterial streets on the east side of the isthmus: East Johnson Street and East Washington Avenue. Daily vehicular traffic volumes where these streets intersect the Yahara River are among the highest in the City of Madison. According to 1995 average daily traffic counts, the Yahara River is crossed by approximately 32,000 vehicles per day on East Johnson Street and approximately 50,000 vehicles per

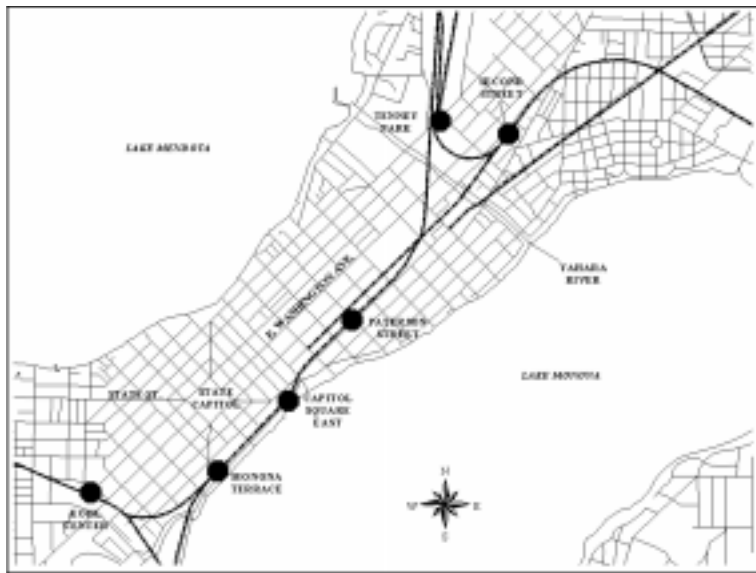
day on East Washington Avenue. Along with population data indicating substantial youth population, senior population, school enrollment, and prevalence of pedestrian and bicycle transportation in Yahara area neighborhoods, these figures highlight the importance of pedestrian underpasses at these street/river intersections as recommended in this plan – including west riverside underpasses to accommodate the proposed bike/pedestrian route and east riverside underpasses to accommodate the proposed foot trail.

### **Rail Road Traffic.**

*Present Freight Traffic.* The main rail freight operator is the Wisconsin & Southern Rail Line with an occasional train operated by the Canadian Pacific. Based on current service levels, there is about 42–46 trips a week either through or originating in Madison and crossing the Yahara River corridor. In the summer, there is approximately an additional 14 trips a week. This means, on average, between 6–9 trains a day.

*Future of Commuter Rail Line.* A study has recently begun considering the possibility of commuter rail in Dane County. The project is sponsored by the Wisconsin State Department of Transportation (WisDOT), Dane County, and the City of Madison. The underlying reason for the analysis of expanded mass transit technologies in general has to do with the fact that Dane County is projected to grow by over 100,000 people by the year 2020. There is a distinction to be made between commuter rail and light rail. Commuter rail typically refers to a heavier train set that is physically larger than those used for light rail. These commuter rail train sets can run on the existing rail infrastructure, the same infrastructure on which freight rail operations presently operate. Light rail would require its own, entirely new infrastructure: primarily smaller, narrower tracks in separate right-of-ways than exist presently for rail.

There are basically two rail corridors presently under consideration. The first runs east-west between Sun Prairie and Mazomanie, while the second runs north-south between DeForest and Stoughton. Also presently included for consideration is a small spur to the Expo Center. The attached map identifies the preliminary Madison area station locations. Also, the Yahara River area is being considered for a possible centrally located rail fleet storage and rail maintenance facility. The YRP Committee should use the information from this study as a springboard into an assessment of what possible threats and opportunities commuter rail presents to the redevelopment of the Yahara Parkway.



**Map 4**  
**Dane County Phase I Feasibility Study of Commuter Rail - Preliminary Central Area Station Locations**

*Mass Transit.* Metro bus lines provide a multitude of stops and bus lines that intersect with the Parkway. On Rutledge Street, the E Line bisects the Yahara River. On Williamson/Winnebago Street, the B & C Lines cross the river and on East Washington Avenue,

the I & J Lines, along with the Jx, R, S, and W, bisect the river. East Johnson Street has the A Line with U Shuttle Line service. Sherman Avenue has the G Line. In summary, there are four primary bus lines crossing the Yahara River. Primary routes provide continuous service seven days a week, including holidays. Two secondary routes provide continuous service five to seven days per week. Five commuter routes provide service Monday through Friday during peak periods. Walking distance to the bus stop is relatively short for anyone living near the Yahara River corridor.

### **City Wide Bike System.**

*Overall City Bikeway Network.* Madison has a network of over 100 miles of designated bikeways. Bikeways include separated off-roadway paved paths, on-street bike lanes, and signed mixed traffic bike routes. In addition, all local streets, and most collector streets adequately meet the needs of bicyclists (See Isthmus portion of Madison bike path in Appendix, page 83).

The City of Madison has had an adopted Bicycle Transportation Plan since at least 1975. This Plan was most recently updated in 1991. The Objectives and Policies in the Bicycle Transportation Plan include:

- To include appropriate provisions for bicyclists when planning all roadway improvements;
- To consider the development of separate (off-roadway) bicycle paths that provide access for bicyclists around barriers to bicycle travel. When direct routes can be provided that have few conflict points with motorists (such as rail corridors, lakefronts and water courses), these routes should have a high priority to be developed.
- To consider the provision of bikeways when developing parks, open space, railroad rights-of-way, and private subdivision projects, especially those that serve both transportation and recreational uses.

These goals can be summarized as:

- 1) provide bicyclist accommodations on all streets where possible; and
- 2) look for opportunities to provide off-street facilities to provide either short cuts/connections that would otherwise not exist on the roadway system, or to bridge barriers to pedestrian and bicyclist mobility and access.

*How does the Yahara River Parkway path fit into this system?* The Bike Plan Update Map for the 1991 Plan includes adding bikeways along the Yahara River as well as grade separations at East Johnson Street and East Washington Avenue.

Thornton Avenue between Sherman Avenue and Rutledge Street has been a part of the bikeway system from the beginning. The Yahara River is a natural corridor for pedestrian and bicycle transportation and recreational uses. The Yahara River connects three major parks (Tenney, Burr Jones and Yahara Place) in a park deficient part of the City. These parks are used extensively for a variety of outdoor sports throughout the year. Children from both sides of the Isthmus share these recreational facilities as well as schools. Lapham Elementary School on the north side of the isthmus serves all isthmus students for grades K-2, with grades 3-5 for all isthmus students being housed at Marquette Elementary School on the south side of the isthmus. All isthmus students attend O’Keeffe Middle School. Both Marquette and O’Keeffe are located on the Yahara River. Arterial streets running through the isthmus (East Johnson Street, East Washington Avenue and Williamson Street) create significant barriers to pedestrian and bicyclist traffic across the isthmus. The current Bike Route Map for Madison, published in 1997, moved the designated bike route across the isthmus from Thornton Avenue to Baldwin Street due to the difficulty of crossing East Johnson Street and East Washington Avenue at unsignalized locations. This does not mean that the City’s bicycle network is abandoning the Yahara River corridor. This is a preferred corridor for pedestrian and bicyclist travel, but crossings of the arterial streets need to be

improved. Several bike routes also converge on their way in/out of the downtown at points along the Yahara River: the Isthmus Bike Path provides access to/from the near and far southeast parts of the City via the converted railroad bridge over the Yahara River at Williamson Street.

**Isthmus Bike Path/Capitol City Trail.** The Isthmus Bike Path/Capitol City Trail is an outstanding recreational amenity for the isthmus. In addition to path/trail recreational activities, it provides an off-street connection to Olbrich and Olin-[Turville] Parks.



The northeast side of the City is served by bike routes along Sherman Avenue and Mifflin Street, where another railroad bridge over the Yahara River has been converted to pedestrian and bicycle use. This bridge also provides additional access to Burr Jones Field.

## **Yahara Area Parks and Open Space.**

The Yahara River Parkway traverses four City parks: Tenney Park, Filene Park, Burr Jones Field, and Yahara Place Park. The Parkway is also adjoined by the Marquette-O’Keeffe school grounds and is crossed by the Isthmus Bike Path/Capitol City State Trail. In addition to these park and open space amenities, the Yahara River Parkway is itself a park and open space amenity that this plan is intended to enhance for all City of Madison residents.

These park and school sites are the major open spaces of the east Isthmus area, which is deficient in total parkland. City-wide, the basic park categories (neighborhood, area, community, and play field) contain approximately 10.5 acres per 1,000 people. The east Isthmus area contains only 5.9 acres per 1,000 people. (Census tracts 18 and 19 had 11,691 people in the 1990 census. The four park categories in these tracts total 69 acres.) In addition to the

acreage deficiencies, several residential areas do not have any parks within the service area distances recommended in the Park and Open Space Plan.

One strategy being implemented to alleviate these deficiencies is to make existing parks more easily accessible to residents by connecting the parks with bike routes and off-street paths. These trails also provide more distant access to large parks such as Olbrich, Olin-Turville, Vilas, and the UW Arboretum.

*Tenney Park.* Initial development of the Yahara River Parkway (which began in 1903) was based on the plans of renowned landscape architect and Tenney Park designer O.C. Simonds, who envisioned the Parkway and Tenney Park as natural aesthetic and recreational complements to each other. The YRP Committee recommends fulfilling key elements of Simonds' vision for the Parkway and Tenney Park: a continuous and accessible public Parkway uninterrupted by private properties; a pedestrian path on each side of the river; and a landscaping plan for both Tenney Park and the Parkway that highlights native plant species. Tenney Park, the largest park in the neighborhood and one of the most popular in the City, covers 41.9 acres and is considered a community park.



A community park has a 2.5 mile serving radius encompassing three to six neighborhoods.

*Waterway and Locks:* The Dane County Public Works Department is responsible for the lake levels and waterways throughout Dane County, including the portion of the Yahara River that traverses the Madison



isthmus area. They operate the locks and weed cutting program and, along with the State of Wisconsin, develop programs for water quality improvements. The DNR has established minimum and maximum lake levels for the Yahara Lakes. The Dane County Public Works Department checks and regulates the lake levels by making appropriate outflow adjustments. The Sheriff's Department is responsible for patrolling the waterway and enforcing the laws.

*Filene Park.* Filene Park is on the small knoll east of the boat launch at the Tenney Park Locks.

*Burr Jones Field.* Although Burr Jones Field (6.2 acres) occupies an ideal open space site in the center of the isthmus along the Yahara River, its use is presently limited by inadequate and/or unsafe access for vehicles, bicycles, and pedestrians. Burr Jones Field also lacks screening from adjacent commercial/industrial properties, and its design as an athletic field makes minimal use of the Yahara River Parkway as an aesthetic and recreational amenity. The YRP Committee recommends a comprehensive redevelopment plan for Burr Jones Field and adjacent land parcels between East Washington Avenue and East Johnson Street in order to raise the area to its potential as a social and recreational centerpiece of the Yahara River Parkway. Presently, the park is primarily used for Ultimate Frisbee and soccer.

*Yahara Place Park.* On the shore of Lake Monona at the mouth of the Yahara River, Yahara Place Park is a natural extension of the Yahara River Parkway and a potential site for educational, recreational, and social amenities.

*Marquette-O’Keeffe Playground.* The Marquette-O’Keeffe playground is the isthmus’ major recreational space south of East Washington Avenue.

### Site Analysis.

While quantitative data and maps are helpful in describing the Yahara River Parkway and its surrounding neighborhoods, a more “subjective” analysis of how people actually experience the Parkway when they are in it is equally if not more enlightening (see map at right).



**Map 5**  
**Site Analysis – The map shown above is illustrative of the important aspects of this river corridor.**