

Chapter 6 – Parks, Recreation & Public Facilities

Introduction

Parks, recreation and open space are essential elements to a community's quality of life. These facilities improve physical and mental health, create opportunities to develop and build community, add to community pride, provide positive opportunities for leisure time, and improve overall quality of life in a community. Leisure time opportunities are provided, in most cases, through the active and passive recreation sites, facilities and programs within a community's park system, and its recreation programs.

A well-planned program of parks, recreation programs and open space will enrich people's lives and will help to attract new residents and businesses by positively impacting tourism, real estate values, and land development patterns.

History of America's Parks. During the second half of the 19th century, American cities built grand city parks, such as New York's Central Park and San Francisco's Golden Gate Park, to improve their residents' quality of life. Public officials of the time saw these parks as a refuge from the crowds, pollution, and stress where the public could experience fresh air, sunshine, and nature. In essence these parks functioned as a piece of the country with open space, fresh air, vegetation, and wildlife within the middle of an urban environment (Sherer 2006).

The country's park system fell into a state of decline as the population shifted to the suburbs following World War II. The decline of central city, property values and subsequent revenues decreased park funding and maintenance; making many city dwellers view places like Central Park as too dangerous or deteriorated to visit. The suburbs fared no better, as most were built with little public park space and people realized their backyards did not meet the requirement for public open space (Sherer 2006).

More recently, city parks have experienced something of a renaissance. This change has been linked to urban renewal, a strong economy, criticisms against automobile-oriented developments, and a shift away from the mid-20th century alienating and isolating architecture, in favor of public spaces that welcome and engage the community in general and the pedestrian in particular (Sherer 2006).

Public Health Benefits. The U.S. Surgeon General's comprehensive 1996 report found that people who engage in regular physical activity benefit from the following:

- Reduced risk of premature death;
- Reduced risk of coronary heart disease, hypertension, colon cancer, and non-insulin-dependent diabetes;
- Improved maintenance of muscle strength, joint structure, and joint function;
- Weight loss and favorable redistribution of body fat;
- Improved physical functioning in persons suffering from poor health;
- Healthier cardiovascular, respiratory, and endocrine systems (Center for Disease Control 1996).

Physical activity was also found to produce important psychological benefits, such as relieving symptoms of depression and anxiety, improving mood, and enhancing psychological well-being (Center for Disease Control 1996).

Despite the well-known benefits of physical activity, only 25% of American adults engage in recommended levels of activity and only 27% of students in grades 9-12 engage in moderate-to-extensive physical activity (Center for Disease Control 1996). Further research by the Center for Disease Control (2001) found the creation or enhanced access to places for physical activity led to a 25.6% increase in people exercising three or more days a week.

Economic Benefits of Parks. John Crompton, who has published extensive research on parks wrote, “The real estate market consistently demonstrates that many people are willing to pay a larger amount for a property located close to parks and open space areas than for a home that does not offer this amenity” (1999,1). In a follow-up report, Crompton (2000) reviewed 25 studies investigating the relationship between parks and open space and property values and concluded 20 resulted in such an increase.

A 2001 survey by the National Association of Realtors found 50% of respondents were willing to pay 10% more for a house near a park or open space. The survey also found 57% of respondents would be more likely to select one neighborhood over another if it was close to a park.

Parks can also serve as a city's identity and marketing tool to attract tourism, conventions and benefits. San Antonio's Riverwalk Park, constructed for \$425,000 has overtaken the Alamo as the most popular attraction for the city's \$3.5 billion tourism industry (Lewis 2002).

A real estate industry report calls neighborhood livability “a litmus test for determining the strength of real estate markets....If people want to live in a place, companies, stores, hotels, and apartments will follow” (ERE Yarmouth and Real Estate Research Corporation 1998, 15).

Access to Parks. There are many ways to measure existing park space in a community; the simplest is a per capita measurement. While popular, these park measurements can be misleading since only park acreage is reported and not necessarily park access. When a region's parks are clustered together, some neighborhoods will enjoy easy access to open space, while others are nearly shut out (Trust for Public Land 2004).

Figure 6.1. Illustration of a 5-minute walk radius for the outdoor pool.



Analyzing existing parks by their distribution and location to residential development is more accurate method to judge park access for a community (Trust for Public Land 2004). History has proven that distance of a quarter-mile radius forms the near perfect place for people to interact (Figure 6.1); allowing people to reach most destinations in a five-minute walk (Burden 2001). This quarter-mile radius should be used as a measuring stick to analyze access to a community's public park system.

Existing Facilities

The City of Madison offers a variety of parks and outdoor recreational facilities:

- 11 parks
- 11 tennis courts
- Disc-golf course
- Horseshoe pits
- Sand volleyball courts
- Outdoor swimming pool
- Assortment of playground equipment
- Youth baseball fields
- Baseball diamond
- Youth and adult softball fields
- Soccer fields
- Two outdoor skating rinks
- Skate board park
- 1 multi-use path (4.2 miles)
- 2 basketball courts
- Band shelter

Additionally, the Community Center includes the following indoor facilities:

- Aquatics centre with zero-depth entry, 85-foot water slide, hot tube, and sauna
- Two basketball courts
- Two racquet ball courts
- Child care
- Meeting room
- Family center
- Fitness area
- Locker rooms

The current outdoor pool at Westside Park is open from the end of May through the middle of August. In the fall of 2007, Madison's citizen voted to approve funding for the construction of a \$3.5 million new outdoor aquatics center. This aquatics center will be constructed in the same location as, and will replace, the existing municipal pool; construction is currently planned for 2008.

There are 11 parks with various facilities scattered throughout the City (Figure 6.2). A list of some of the facilities available at these parks is provided in Table 6.1. The City's skateboard park is located west of the outdoor pool in Westside Park. The park offers a variety of ramps and is open for all skaters.

The City has developed a four phase plan for the creation of new multiuse paths that connect the City to Lakes Herman and Madison (Figure 6.3). In 2006, the City of Madison received \$320,000 of earmarked funding from the transportation reauthorization bill to start construction for these phased improvements. In the summer of 2007, the City completed construction of Phase I, which connects the City to Lake Madison.

Two golf courses are located within the Madison area. The Madison Golf and Country Club is located west of the City. This 18 hole golf course is open to the public and also offers 15 driving range tees. The Lakes Golf Course is located southeast of the City. This 9-hole course is open to the public and also offers 20 driving range tees.

Table 6.1. Facilities available in Madison's parks.

	Baughman/Belatti	Westside	Flynn Field	Northwest	East Center	Library	Memorial	Tortland	Madison H.S. Tennis Courts	Thue Softball Diamond	4H Park
Picnic Shelters	✓	✓		✓							
Playground	✓		✓	✓	✓		✓	✓			✓
Soccer	✓										
Sand Volleyball	✓										
Baseball Diamond	✓	✓	✓								✓
Softball Diamond	✓									✓	
Horseshoe Pits		✓									
Swimming Pool		✓									
Tennis Courts		✓							✓		
Skate Board Park		✓									
Disc Golf				✓							
Skating Rink					✓			✓			
Warming House					✓						
Basketball Courts	✓	✓									
Toddler Play Area						✓					

In addition to the numerous indoor and outdoor facilities, the City provides a variety of recreational programs and activities to residents and visitors. The programs vary by the season, skill level and age, such as: youth football, arts and craft, boys and girls basketball, youth volleyball, archery, softball, tennis, and baseball.

Current Issues. The following issues were identified by City staff (Walters *et al.* 2007) as limitations of the current parks and recreation system:

- The existing skateboard park needs to be expanded
- Overall, the City needs additional diamonds for softball to accommodate demand and to compete for tournaments
- Baughman Belatti Park needs additional diamonds and lights
- There is a need for additional soccer fields
- The community center needs senior citizen specific athletic equipment
- A park in the northeast will be needed in the future
- Overall, there are concerns about adequate levels of maintenance for facilities

FIGURE 6.2

PARKS - EXISTING FACILITIES

Madison Comprehensive Plan

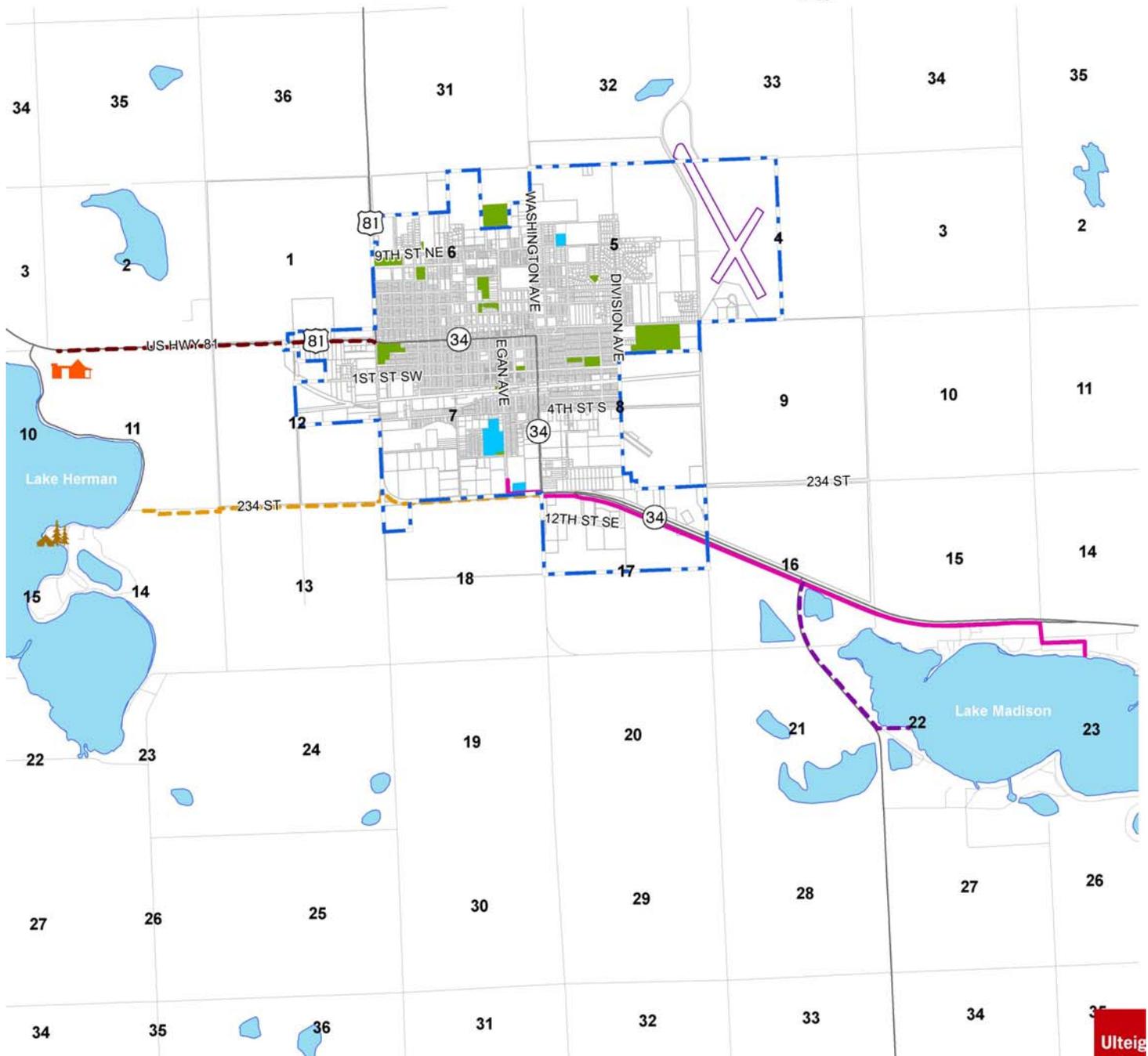


- Corporate Limits
- Madison Municipal Airport
- Railroad
- Roads
- Playground
- Park/Open Space
- Sports Complex
- Sports Complex Service Area
- Park/Open Space Service Area



FIGURE 6.3

EXISTING TRAIL SYSTEM
Madison Comprehensive Plan



Greenway System Opportunity. The three drainage systems which flow through the heart of Madison create both constraints and opportunities for the community. A major flood event in 1993 resulted in a buy out/relocation program to reduce the life and safety hazards within City boundaries. Sixty-seven homes were bought as part of this program (Banner Associates 1995). These drainage systems were evaluated in the recent Lake County DFIRM study which delineated locations of floodplains and floodways within Madison. Figure 6.4 illustrates the location of the proposed new floodway in purple and structures located within the floodway in red. Residences located within 1% annual chance floodplain are all subject to FEMA requirements for flood insurance, and those within the floodway will not be allowed to be substantially improved. These impacts to structures in Madison suggest the need for an overall floodplain management plan to minimize future flooding damages and the associated costs of owning property within the floodplain.

One alternative to address these impacts is the creation of a greenway system within these flood hazard areas. In addition to mitigating flood impacts, these greenways could also provide extensive recreational opportunities, improve property values in their vicinity, and could provide logical areas to create an internal system of multiuse paths which in most cases would be separated from vehicular traffic. Figure 6.5 illustrates the relationship between a potential greenway system, a future trails system, and stormwater management opportunities. The future trails plan provides the conceptual long term pattern to coordinate the earmarked funding trails with an overall multiuse trail system.

Figure 6.4. Location and impact of new floodway

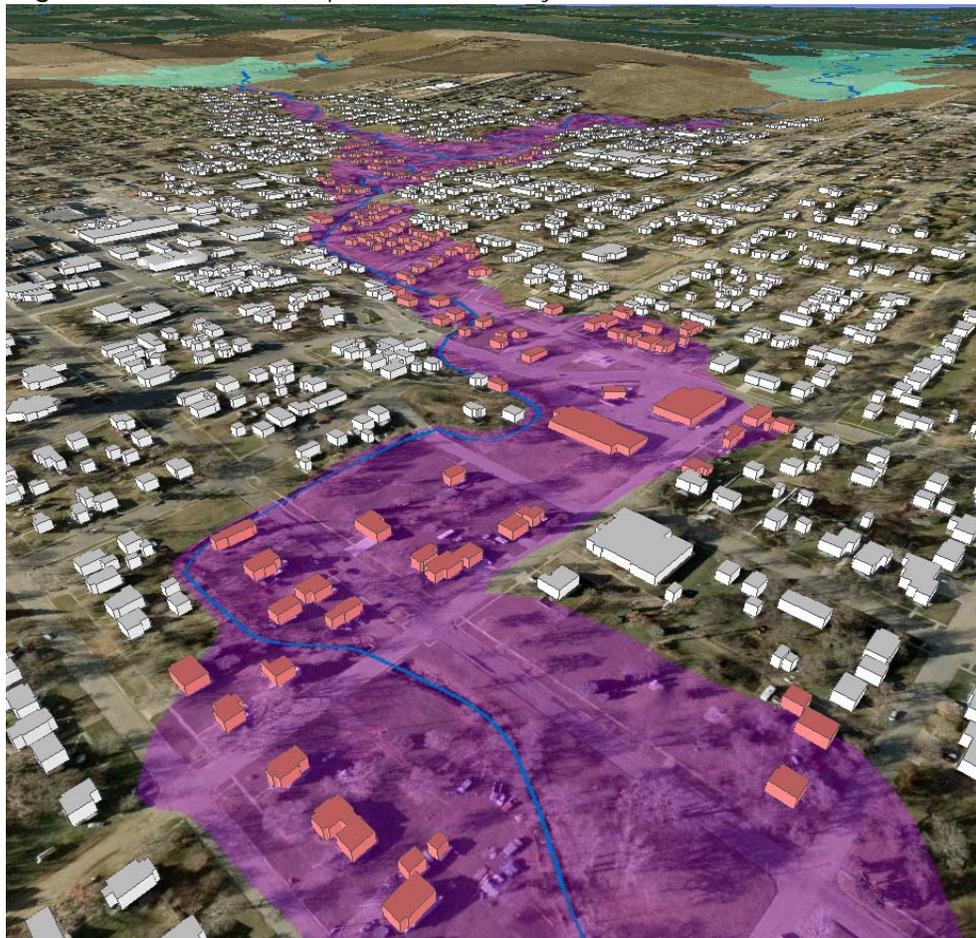
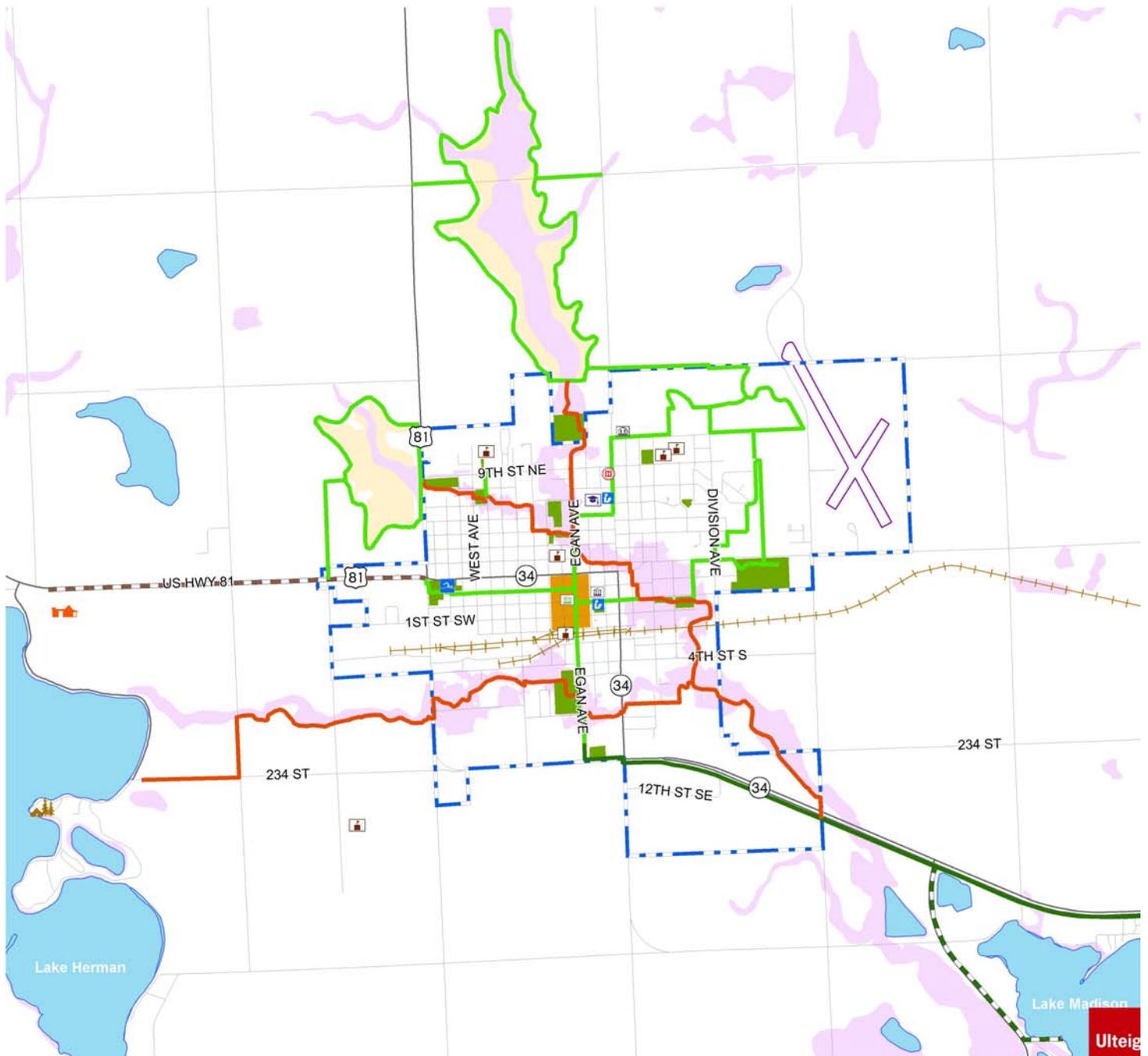
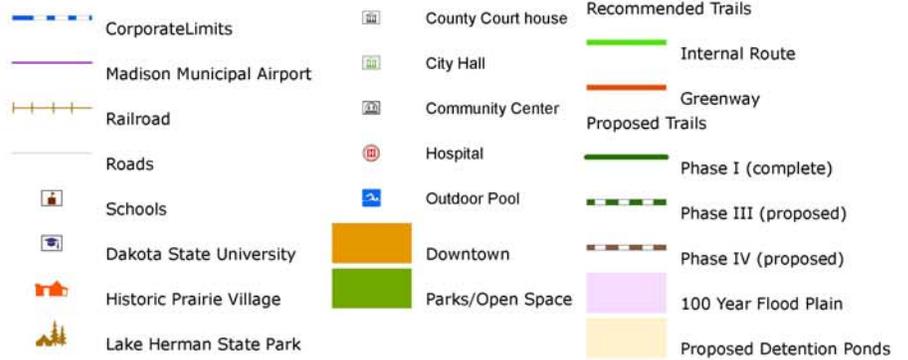


FIGURE 6.5

FUTURE TRAILS PLAN
Madison Comprehensive Plan



Parks and Recreation Plan and Recommendations

The following recommendations elaborate on the conceptual future trails plan illustrated in Figure 6.5:

- Develop an internal multiuse trail system within the City providing connectivity with schools, parks, the downtown, and other key destinations. This internal multiuse trail system should also coordinate with existing and planned multipurpose trails outside the City. The development of this system should generally originate in the downtown area and radiate outward to the rest of the City. When possible the trail system should provide loops and connections to other trails.
- The City should develop multiuse trail system which would be separated from vehicular traffic and would be developed as part of the establishment of linear greenways on the Park, Silver, and northwest creeks. The establishment of these multiuse trails should be viewed as a long range plan for the City. The multiuse trail should also be continuous, which in some cases will require the need for sections of the path to be constructed adjacent to streets or through designated on-street bike lanes.
 - Develop the Park Creek Greenway: a continuous greenway and multipurpose trail along the length of the Park Creek. The Park Creek Greenway should originate at the proposed northern flood detention pond and should continue to the Wildlife Management area at Lake Madison.
 - Develop the Northwest Greenway: a continuous greenway and multipurpose trail along the northwest creek. The Northwest Greenway should originate at the proposed westerly detention pond would connect with the Park Creek Greenway.
 - Develop the Silver Creek Greenway: a continuous greenway and multipurpose trail along Silver Creek connecting Lake Herman to the Park Creek Greenway. The greenway would originate near Lake Herman and would provide an east-west connect in the southern portion of the City and would connect to the Park Creek Greenway.
- Develop two trails and green space circling the proposed northerly flood detention pond which would connect with the Park Creek Greenway. These trails should be built in conjunction with the area developing.
- Develop two trails and green space circling the proposed westerly flood detention pond and would connect with the Northwest Greenway. These trails should be built in conjunction with the area developing.
- Develop a multipurpose trail along the proposed north-south multiuse “spine” along Egan Avenue which would run between State Highway 34 in the south, to the intersection of North Washington/11 ST NE and points beyond.
- Develop an east-west multipurpose trail connecting the central city to the new outdoor pool. The existing development along this segment will likely necessitate the need for designated on-street bike lanes or increasing the width of existing sidewalks if right-of-way permits.
- When terrain and land use patterns make it practical, encourage neighborhood-scale parks or recreational areas within a five minute walk (1320 feet) of all new residential neighborhoods. These parks should provide some of the following design characteristics:
 - Places to sit
 - Gathering points
 - Well defined entrances and visually accessible places
 - Paths to desired destinations

- Pedestrian friendly design
- Provide off-street multi-use paths that link greenway corridor paths to existing and planned neighborhood-scale parks.
- Require pedestrian oriented streetscapes and open spaces in the proposed mixed-use areas.
- Provide secure bicycling parking facilities in the downtown area which has been identified as destination for City's internal trail system.
- Analyze recreational needs of the City, such as additional softball diamonds and soccer fields, and incorporate these facilities into existing parks and future open space designated areas.

Greenway and Trail Design Principles

Greenway and Trail Design Principles: the following narrative provides general design principles which should be considered when developing the greenway multipurpose trails.

Safety. A sense of physical and personal safety is the most important design features. This can be achieved through good design relative to intended use and by enhancing the perception of personal safety.

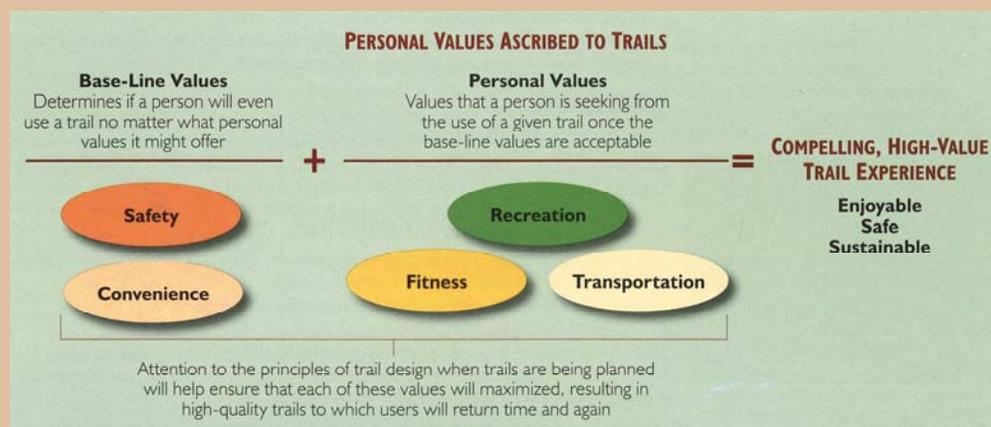
Convenience. Studies have shown the majority of trail users live within a few miles of those trails they use frequently.

Recreation. Recreational value is perhaps most important in terms of predicting its level of use, assuming safety and convenience are not issues. Generally, trails with high-quality recreational experience have the following characteristics:

- Scenic and located in a pleasant park like setting, natural open space, or linear corridor away from traffic and the built environment
- Provide a continuous and varying experience that takes visitors to a variety of destinations
- Offer continuity with limited interruptions and impediments to travel

Fitness. Fitness is a growing value which is generally achieved if safety, convenience, recreation, and transportation values are met. Most important is to provide an interlinking trail system providing numerous route options.

Transportation. The transportation or commuting aspect of trails is valuable to a growing subset of trail users. An integrated trail system is most important to these users.



Minnesota DNR. 2007. *Trail planning, design, and development guidelines*. Trails and Waterways Division, 500 Lafayette Road, St. Paul, MN.

Twenty-Three Design Guidelines for Greenways

Research of several preferred greenway systems located throughout the country has identified the following 23 characteristics. It is not expected that all 23 design guidelines will be applied simultaneously, rather that one or more of the guidelines might offer insight into an increased quality of perception of a trail segment.

Number and characteristic of destinations

1. Recreational trips should offer a certain number of destinations that serve as arrivals or rewards. Most users identify three to four destinations along a trail as their points of arrival or reward.
2. Destinations have names.
3. Destinations have a certain level of features, activities, and meanings. Examples of features include benches to rest, water fountains, places to eat, bathrooms, views, people watching, and natural elements.
4. Destinations are "social stops". Recreators stop at some destinations to engage in social activities.
5. Destinations offer unique characteristics. Destinations have large singular features, such as historic building, and showcase indigenous materials, such as showcasing the natural landscape or buildings using native materials.
6. Destinations have no or few negative features. Examples such as busy street intersections or views of poorly maintained buildings.
7. Destinations can be merged with adjacent resources such as museums or downtown centers. Destinations can be expensive to create, as such, trails should be planned to use existing destinations.
8. Destinations serve all ages. Destinations should appeal to children and adults, not at the exclusion of one or the other.
9. Opportunities for public displays of healthy athleticism. Examples include, rock climbing walls, stunt bike courses, and skate parks.
10. Greenway plaza destinations can bring in all users, including non trail users, and provide a social gathering area.
11. Preferred destination parking lots are the first and last impression of a greenway if the user arrives by cars. These destinations should be designed to filter out the real world of traffic and noise and offer a safe social area for users starting or ending their trip.
12. Parking lot destinations with crime prevention through environmental design are preferred. Lighting, visible pay phones, no solid fencing, sight of streets, and access to nearby homes are all preferred parking lot destination characteristics.

The corridor and distance between destinations

13. Optimal distance between destinations. The distance between destinations is variable by the types of users, climate, and topography. Walkers and joggers prefer destinations 2/3 to 2 miles apart, if the trail is longer than six miles and bicyclists are the predominate users, than destinations can be four to nine miles apart.
14. Locate a minimal number of destinations a maximum distance apart for affordability.
15. Create proximate destinations for walkers or slower recreations radiating from major destinations. These users likely will not travel far and will start from major destinations and would benefit from nearby destinations.
16. Maintain a sense of flow on the greenway. Breaks in the flow include difficult or busy street intersections or gaps in the trail network.
17. A trip along the trail should follow a logical sequence, such as the classic introduction, development, and climax sequence.
18. The sequence of destinations should be designed so that users should be able to enter at any point and travel in either direction while still following a logical sequence of destinations.
19. The greenway corridor can have repetitive or similar small features. The main features of a destination produce a landmark, but the these landmarks can use repetitive features such as benches, water fountains, garbage cans, or signs.
20. To create a preferred greenway, increase the appeal of the destination and lessen the obstacles to get there.

Human Needs

21. Provide a corridor that could restore directed attention. An extended hike on a nature trail has shown to rest directed attention. The adjacency of nature has been shown to lessen delinquent behavior, improve family relations, and increase academic skills for lower income youth by resting directed attention.
22. Incorporate social "bridges" at destinations. Social "bridges" allow people to assist others, connect with other, observe others, or benefit those who help create or maintain the space used by others.
23. Social stops should foster conversation or interaction (Lusk 2002).