



DRAFT

City of Madison, Wisconsin

YAHARA HILLS NEIGHBORHOOD DEVELOPMENT PLAN

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I. INTRODUCTION

The *Yahara Hills Neighborhood Development Plan* (the *NDP*) was prepared to guide the future growth and development of a new neighborhood located on Madison's southeast side. Parts of the *NDP* planning area were recognized as potential locations for future urban expansion in the 1990 *City of Madison Peripheral Area Development Plan*. In addition, open space is recommended for substantial locations within the *NDP* planning area, especially those areas associated with the numerous wetlands, floodplains and drumlins.

The *City of Madison Comprehensive Plan* was adopted in 2006. The *Comprehensive Plan* includes **Appendix Map 1: 2006 Peripheral Planning Area** which identifies the Yahara Hills planning area as a general location for relatively near-term City of Madison expansion and future urban development, but for which detailed neighborhood development plans have not yet been prepared and adopted. The *Comprehensive Plan* recommends that one or more neighborhood development plans be prepared for Madison's southeast growth area prior to initiating urban development. Like the 1990 *Peripheral Area Development Plan*, the *Comprehensive Plan* recommends park and open space uses for parts of the *NDP* planning area. The *Comprehensive Plan's* Peripheral Planning Areas Map refines the recommendations of the *Peripheral Area Development Plan*.

Under the terms of the *Town of Blooming Grove and City of Madison Cooperative Plan (2006)*, lands within the Town of Blooming Grove, including lands within and adjacent to the *NDP* planning area, will become part of the City of Madison through a series of attachments in 2015, 2020 and 2027. A neighborhood development plan for these lands is desirable to guide urban development in the area.

On June 16, 2015 the Madison Common Council adopted an ordinance attaching 915.6 acres (1.43 square miles) from the Town of Blooming Grove to the City of Madison, effective December 28th, 2015. The attachment is generally referred to as the "North Phased Attachment Area." This attachment included acreage in the *NDP* planning area. The "Southern Phased Attachment Area" will occur in 2020 and will include much of the planning area south of Wisconsin Department of Transportation-owned railroad tracks. The "Final Attachment" will occur in 2027 at which time the remaining Town of Blooming Grove will dissolve and be attached to the City of Madison.

The *Yahara Hills NDP* was prepared through a planning effort that included the participation of planning area property owners, City staff and officials, representatives of other municipalities and other interested individuals and organizations. Throughout the planning process, there was communication between interested parties and City staff as public and private planning objectives were identified. Public meetings were held to present and discuss background information, conceptual land use plans and the draft *NDP*. The *NDP* reflects an effort to balance the interests and objectives of all participants, while providing a comprehensive, long-range vision for the future development of neighborhoods within the planning area.

The *NDP* includes recommendations for land use and design, parks and open space preservation, transportation, urban services delivery, development staging and plan implementation. The plan was adopted as a supplement to the *City of Madison Comprehensive Plan* and serves as a guide for future urban development within the planning area as well as the vision against which future development proposals will be evaluated.

II. BACKGROUND INFORMATION AND PLANNING CONTEXT

A. Planning Area

The Yahara Hills Neighborhood Development Plan planning area boundaries generally follow Cottage Grove Road and the Wisconsin Department of Transportation-owned rail line on the north, the Blooming Grove-Cottage Grove township lines and Door Creek on the east, Siggelkow Road and the Town of Cottage Grove municipal boundary on the south and Interstate Highway 39/90 and the future eastern realignment of Sprecher Road on the west (**See Map 1: Planning Area**).

B. Municipal Governmental Jurisdiction

The planning area is comprised of lands within the City of Madison, the Town of Blooming Grove and the Town of Cottage Grove. The planning area totals approximately 4,195 acres (**See Map 2: Municipal Jurisdiction and Property Ownership**).

As noted above, the lands that are located within the Town of Blooming Grove will be attached to the City of Madison through a series of attachments under the terms of the *Town of Blooming Grove and City of Madison Cooperative Plan* (**See Appendix Map 2: Town of Blooming Grove Cooperative Plan**). The *Cooperative Plan* provides that development on lands that will eventually be in Madison will be guided by the City's adopted plans, policies, standards and procedures and may require attachment to the City at the time of development.

Part of the planning area includes lands owned by the Ho-Chunk Nation (the *Nation*) or the United States of America including the Ho-Chunk Gaming facility located at 4002 Evan Acres Road. This parcel is owned by the United States of America in Trust for the Nation and is referred to as the "Trust" land. The Trust land is located within the City of Madison as are Fee lands which are owned by the *Nation*. Fee lands are located along Mill Pond, Evan Acres and Savannah Roads and are located within the City of Madison.

C. Property Ownership

Some development has already occurred in and adjacent to the planning area including the Yahara Hills Golf Course (City of Madison), Ho-Chunk

Gaming and adjacent developed commercial lands, Dane County Landfill, Dane County Medical Examiner’s Office, GE Healthcare and several commercial and industrial users along CTH AB, Femrite Drive and Meier Road. Furthermore, farms and rural residential homes are located within the planning area. Much of the planning area has development constraints due to wetlands, floodplains, hydric soils and steep slopes (associated with the Blooming Grove drumlins and Door Creek). Large property ownerships within the planning area are listed in **Table One: Property Ownership** and are shown on **Map 2: Municipal Jurisdiction and Property Ownership**.

Table One: Property Ownership

Property Owner	Acreage
City of Madison	598
Dane County	307
Georgeson Property LLC	201
Paul F Fankhauser	199
Datex-Ohmeda Inc	162
Gordon F Hermsdorf	158
Larry G Skaar	145
Elaine A Gundlach Survivor’s Trust	113
Hermsdorf Trust	111
McAllen Properties 120	103

D. School Districts

The planning area is located within the Madison Metropolitan, McFarland and Monona Grove School Districts (**See Appendix Map 3: School Districts**) and is served by the following schools: LaFollette, McFarland and Monona Grove High Schools; Sennett, Glacial Drumlin, and Indian Mound middle schools; and Conrad Elvehjem, Glendale, McFarland Primary School, Taylor Prairie, Cottage Grove, Elementary Campus, and Waubesa Intermediate.

E. Natural Features

The planning area includes numerous natural resource features. These features provide the basis for the mapping of environmental corridors after the lands are added to the Central Urban Service Area. Natural resource features are designated environmental corridors as part of the urban service area amendment process (**See Map 3: Natural Features**).

1. Topography

The planning area's topography is comprised of rolling farmland, drumlins, wetlands, perennial and intermittent streams and floodplains associated with Door Creek and Penitto Creek. The high point (approximately 980 feet above sea level) is located atop a drumlin south of Meier Road. The lowest point is approximately 860 feet in elevation and is located south of Femrite Drive. The highest elevations near Meier Road provide wide vistas west to the Wisconsin State Capitol and the Madison skyline and east to lands in and around the Door Creek corridor and drumlins. The lower elevations often include intermittent or perennial streams and wetlands.

2. Woodlands

There are few large stands of woodlands within the planning area. According to the Capital Area Regional Planning Commission, these woodlands are very isolated patches within the greater landscape and far removed from contiguous woodlands beyond the planning area. Of these isolated patches, most are surrounded by agriculture or act as riparian buffers. The largest woodland patch is in the northwestern portion associated with the Blooming Grove Drumlins Natural Resource area with the others being substantially smaller. These woodlands exhibit irregular, unnatural, and small patch shape; are distant from each other and bisected by roads; have abrupt transitions at the woodland edge; and have existing development and infrastructure nearby.

3. Watersheds

The planning area lies within the Yahara River and Lake Monona, and Yahara River and Lake Kegonsa watersheds. The boundary between the watersheds generally runs north-south through the planning area. Sub regional watersheds include the Lake Waubesa and Mud Lake/Lake Kegonsa watersheds. Smaller subwatersheds are Penitto Creek and Door Creek.

4. Streams

Door Creek is a tributary to the Yahara River. It begins in the southeast corner of the Town of Burke and flows south 14 miles, emptying into the north end of Lake Kegonsa. It is a sluggish stream with a flat gradient of 2.4 ft/mi. Door Creek and its tributaries drain 29.5 square miles of rolling agricultural land between the developing far-east side of the City of Madison, and the western Village and Town of Cottage Grove. Door Creek's physical characteristics and low flow limit the fishery to forage species. Water quality is generally poor due to heavy sedimentation and reduced habitat. (Source: *Capital Area Regional Planning Commission - Southeast CUSA Future Urban Development Area Environmental Conditions Report*).

Door Creek winds south and east through the northern corner and southeastern section of the planning area. Door Creek is classified as a perennial stream south of Cottage Grove Road. The entire Door Creek watershed primarily contains rolling agricultural lands and drumlin-marsh areas.

Penitto Creek passes through the western part of the planning area, draining portions of southeast Madison and the Town of Blooming Grove. The creek flows to the south and west approximately three miles to Upper Mud Lake and Lake Waubesa. The creek is classified as a perennial stream and intermittent stream at various locations as it passes through the planning area. The creek has poor habitat due to low flows, channel straightening and sedimentation from farm field and urban runoff. (Source: *Capital Area Regional Planning Commission - Southeast CUSA Future Urban Development Area Environmental Conditions Report*).

Streams are considered navigable if they can float a small watercraft under defined conditions. Navigable waterways must be maintained as open drainageways and are subject to zoning regulations. Shoreland areas are defined to include all lands within 300 feet of the ordinary high-water mark or the landward side of the floodplain of the navigable reaches of rivers and streams. Shoreland areas include specific zoning regulations that are outlined in Section 28.05 (Zoning Code). Navigability delineations in the study area have not been field delineated by Wisconsin Department of Natural Resources. Prior to development, field delineations should occur on properties where navigable water ways may be present and all pertinent regulations shall be met.

5. Wetlands and Floodplains

There are extensive wetlands and floodplains within the planning area. Many of these features are located in the northern parts of the planning area, generally within the Blooming Grove Drumlins Natural Resource Area and along Penitto Creek. Other areas with extensive floodplains and wetlands are the lands south of Femrite Drive and north of the Dane County Landfill and lands in and adjacent to the Yahara Hills Golf Course. Wetlands and floodplains are also found along Door Creek as it flows through the planning area.

Wetlands delineations are primarily based on interpretation of aerial photographs. The exact boundaries of wetlands must be delineated in the field prior to development.

6. Hydric Soils

Areas with hydric soils or hydric inclusions are generally located near and along natural drainage areas such as Door Creek and other perennial or intermittent streams such as Penitto Creek. These soils are generally unsuitable for development and are primarily located where development is not recommended, or where stormwater management facilities are likely to be located. Soil conditions will need to be carefully evaluated on any lands with these soil characteristics that may be considered for development.

7. Endangered Resources

According to the Capital Area Regional Planning Commission's *Future Urban Development Area Environmental Conditions Report for the Southeast CUSA*, the study area contains a diverse array of streams, wetlands, woodlands and grassland habitats which are inhabited by numerous wildlife species, some of which are threatened or endangered. For example, a Threatened Sensitive Mammal, the Prairie Vole, may be present in the planning area. Certain sensitive plant and animal species identified by Wisconsin Department of Natural Resources are particularly sensitive to collection and disturbance and therefore, have been generalized. Natural communities such as lake-shallow hard drainage and southern dry mesic forest may be present. More detailed information may be obtained from the Wisconsin Department of Natural Resources Bureau of Endangered Resources. (Source: *Capital Area Regional Planning Commission - Southeast CUSA Future Urban Development Area Environmental Conditions Report*).

F. Existing Land Use

Much of the planning area is either agricultural or vacant land, or undevelopable lowland associated with Door Creek, Penitto Creek or the wetlands and drainageways near the Blooming Grove drumlins. Industrial, commercial and residential uses are located within the planning area (See **Map 4: Existing Land Use**).

Table Two: Land Use

Land Use	Acres	Percent of Total
Agriculture/Vacant	1452	34.6
Residential	104	2.5
Commercial	68	1.6
Industrial/Utilities	316	7.5
Institutional	12	0.3
Parks and Open Space	1898	45.3
Right of Way	345	8.2
Total	4195	100

1. Agricultural and Vacant

Lands in agricultural use are located along both sides of Meier Road and along CTH AB between the Wisconsin and Southern rail line and the CTH AB-Vilas Hope Road intersection. The southeastern part of the planning area, within the Town of Cottage Grove, also includes agricultural lands.

2. Residential

Residences are scattered throughout the planning area, especially along CTH AB, Femrite Drive, Meier Road and Siggelkow Road. An apartment building (Holiday Apartments) is located along Evan Acres Road. There are approximately 74 homes within the planning area.

3. Commercial

Commercial or related uses are primarily located near the Ho-Chunk gaming facility, along CTH AB and along Femrite Drive and include AA Quality Welding, Ace Mulches, America's Best Value Inn, Country Corners, Farwell Pools, Hallmark Drywall and Gypsum, Harley-Davidson, Ho-Chunk Gaming, Hustad Roofing, Hickory Hills Kennels, Magnus Grand Hotel, Purple Cow Organics, Reverend Jim's Roadhouse, and Suter's Speed Shop.

4. Industrial

Industrial uses are located primarily along or near Femrite Drive and include GE-HealthCare, Mallinckrodt Pharmaceuticals, Wisconsin Lift Truck Corporation, File 13, and Norandex Building Materials.

5. Utilities

a) *Sanitary Sewer and Water Service*

There are existing MMSD sanitary interceptors within the planning area. The Door Creek Interceptor travels along the Door Creek corridor. A combination force/gravity Cottage Grove Interceptor sewer travels along the Wisconsin and Southern rail line and serves the Village of Cottage Grove. The Door Creek and Cottage Grove

Interceptors converge at the rail line and continue to the west as the Door Creek Interceptor.

In the southern half of the planning area, the Blooming Grove Interceptor travels along the south side of the Beltline. It crosses IH 39/90 and enters the planning area in the Ho-Chunk Gaming area.

b) *Central Urban Service Area*

Part of the planning area is located within the current boundary of the Central Urban Service Area (CUSA). Lands within the Central Urban Service Area include the Savannah Road/Millpond Road/Evan Acres area and lands west of Meier Road north of Femrite Drive. The CUSA boundary intersects with IH 39/90 at the Wisconsin and Southern Railroad. The Rodefild Landfill and the Yahara Hills Golf Course clubhouse are located within Limited Service Areas. Limited Service Areas are lands where only one or a few urban services, such as sanitary sewer service, are provided to accommodate special or unique facilities or institutional uses.

c) *Water Service*

Water service to the planning area is provided by the Madison Water Utility within Pressure Zone 4. Well 9 serves the planning area. While the Spaanem Avenue Water Tower provides pressure to the planning area. The water system is able to provide adequate water pressure to elevations between 800-950 feet within the planning area. Elevations above 925 feet require a booster station. Currently, water service is provided to the Ho-Chunk Gaming area via a line that extends south from Femrite Drive, south across USH 12/18 to the Mill Pond/Evan Acres/Savannah Road triangle. A future well on Tradewinds Parkway will also serve this area.

6. Communication Towers

There is one telecommunications tower in the planning area located on agricultural property north of Meier Road. The tower is operated by AT&T. This tower is regulated by Dane County Zoning and a lease agreement between the landowner and AT&T.

7. Overhead Electrical Transmission Lines

There are American Transmission Company (ATC) high-voltage overhead electric transmission lines within the planning area. The 138 kilovolt Sprecher-Femrite line passes through the planning area along stretches of the east side of the IH 39/90 corridor, before crossing over IH 39/90. Transmission lines are shown on **Map 4: Existing Land Use**. The presence of the transmission lines results in unattractive views of both the lines and support poles. Additionally, easements for

the transmission lines apply to a portion of the road right-of-way and private property located along the corridor. The easements carry restrictions that prohibit structures and taller vegetation that will interfere with the lines or access to the lines. There are also limitations on modifying the elevation of the ground within the easement areas to ensure that an appropriate clearance underneath the lines is maintained. The ATC transmission line that runs along IH 39/90 has an easement extending 30 feet onto private property. Within this easement, no structures or vegetation are permitted and grade changes are prohibited without approval.

8. Natural Gas and Petroleum Transmission Pipe lines

The ANR Pipeline Company has two underground natural gas transmission pipelines within the planning area (**See Map 4: Existing Land Use**). One extends the length of the planning area, roughly one quarter mile east of Sprecher Road, and passing through the Yahara Hills Golf Course. The second crosses the northeast corner of the planning area, traveling southeast.

ANR has 6" and 10" diameter pipelines running generally together in a north to south direction through the whole area and a 16" diameter pipeline cutting through the northeast corner of this area. Generally, ANR has a 75' wide easement on the two pipeline corridor and has a 50' wide easement on the single pipeline (16") corridor.

The pipeline easements carry restrictions on development activities and structures to prevent damage and provide access to the pipelines. For example, grading activities cannot reduce the vertical distance from the ground elevation and the pipeline beyond a certain extent. Utility crossings such as sanitary sewer, water mains and stormwater mains generally must provide about 18" of vertical separation from the pipeline. Permanent structures and stormwater basins are not permitted within the easement. With an encroachment agreement, fences are typically permitted within the easement and plantings that do not exceed 5' at maturity are typically permitted at the outer edges of the easement. An encroachment agreement allows the pipeline operator to remove the obstruction to provide access to the pipeline without being responsible for its replacement.

A liquid fuel pipeline operated by Koch Pipeline Company enters the planning area from the east along the Wisconsin and Southern rail line. It then follows the ANR pipelines until it crosses USH 12/18, where it generally follows Millpond and Savannah Roads before crossing IH 39/90. The right of way width for this pipe line varies from approximately 10 feet to 60 feet (**See Map 4: Existing Land Use**).

9. Civic and Institutional

Civic and institutional uses in the planning area includes Hope Lutheran Church and which is located along CTH AB. Dane County is currently constructing a salt shed facility, highway building, and Medical Examiner's Office along CTH AB and Luds Lane. A future phase of the project may include a Dane County Sheriff's Precinct facility. Two cemeteries are located within the planning area. The Dane County Sanitary Landfill is also located within the planning area.

10. Parks and Open Space

Yahara Hills Golf Course is the largest park facility within the planning area. The 36-hole golf course includes a clubhouse. It is Madison's largest facility with two 18-hole championship courses. Both 18-hole courses feature large bunkered greens, hazards and water features.

Yahara Hills Park is approximately 125 acres in size and is located west and south of the Yahara Hills Golf Course. There are currently no facilities in Yahara Hills Park, but it is planned to serve as a community park with a variety of facilities, possibly including a multi-field sports complex. The City is considering how this park can be coordinated with an ongoing planning process being undertaken by the Ho-Chunk Nation for its lands west of the Yahara Hills Golf Course.

The Wisconsin Department of Natural Resources owns lands south of the Wisconsin and Southern rail line within the Blooming Grove Drumlins Natural Resource Area. Dane County and the City of Madison also own land within this Natural Resource Area. These lands are planned for open space use, but may offer some low-impact recreational activities such as bicycle/pedestrian paths.

11. Historical and Cultural Resources

Hope Cemetery is located along CTH AB and is managed by the Town of Blooming Grove. A second cemetery is located next to Hope Lutheran Church along the east side of CTH AB.

According to the Wisconsin Historical Society's State Archaeology and Maritime Preservation Program staff, several archaeological and burial sites have been reported within the boundaries of the SE Madison/Blooming Grove/Cottage Grove study area. Lithic artifacts of unknown age are present in several locations within the planning area.

The following mounds sites were identified by the Wisconsin Historical Society:

- Schimming Mound; an isolated linear mound that has not been field checked since 1914. The status of the burial mound is currently unknown. The site is classified as an uncatalogued burial site protected under Wis. Stats. 157.70.
- Lerum-Skogen Mounds: two nearly parallel mounds. One mound exists in very poor condition. This human burial site is protected under Wis. Stats. 157.70.
- Anderson Mounds: One linear mound exists in very good condition. This human burial site is protected under Wis. Stats. 157.70.

Wisconsin Historical Society (WHS) staff believes that given the results of previous surveys, there is high potential for similar archaeological sites within the unsurveyed portions of the planning area. The WHS recommends survey of non-developed parcels within the planning area, with particular attention to be paid to woodlots and other areas that have not been subjected to long periods of cultivation, as well as cultivated terraces on former wetland margins. Surveys may exclude previously surveyed portions of the study area, areas of recent residential development, and the golf course south of USH 12/18, due to the low potential for intact and significant archaeological deposits and/or burial sites in those parcels. If development is planned at the locations of sites that have not been evaluated for potential NRHP eligibility, WHS recommends that those sites be evaluated by qualified archaeologists.

G. Existing Zoning

Existing zoning regulations in the planning area are a combination of City of Madison regulations which apply to lands within the City, and Dane County regulations which apply to lands within the towns of Blooming Grove and Cottage Grove (**See Map 5: Existing Zoning**).

1. City of Madison Lands

Much of the land within the City of Madison portion of the planning area is zoned (A) Agricultural. Although most farming operations and other agricultural uses are permitted uses in the Agricultural district, it is primarily used as an interim zoning designation on future development lands annexed or attached to the City. Properties intended for eventual urban development will be rezoned to a more appropriate zoning classification as part of the future approval of a development project. A key factor in determining whether a development should be approved, and which zoning district classification should be assigned, is the consistency of the development proposal with the recommendations of the adopted

neighborhood development plan. Existing uses at the time of attachment to the City may continue under the Agricultural district classification either as conforming or non-conforming uses. Only conforming uses may expand.

Other zoning districts within the planning area include Planned Development (PD) on the Dane County Landfill property, Parks and Recreation (PR) on the Yahara Hills Golf Course site, and a scattering of lands zoned Conservancy (CN). Lands in the Millpond/Evan Acres and Savannah Road areas are zoned Commercial Center District (CC).

2. Town Lands

Most of the land currently within the Town of Blooming Grove is classified A-1 Agricultural Exclusive district (A1-(EX)). The A-1 (EX) district permits a variety of agricultural uses and is the primary district for farmland preservation. Other Dane County Zoning districts within the planning area include A-2 Agricultural District, A-3 Agricultural District, C-2 Commercial District, LC-1 Limited Commercial District and several other districts that are scattered throughout the planning area. Lands within the Town of Cottage Grove are zoned A1-(Ex), RH(1), RH(2), RH(3) R-1, R-1A, R3A, C-2 and other districts including LC-1.

3. Ho-Chunk Nation-Owned Lands

When Ho-Chunk Nation lands (Fee and Trust) were annexed to the City of Madison, they were rezoned from Dane County's zoning to the City's Temporary Agriculture zoning classification. When the City's new zoning code was subsequently adopted the lands were rezoned from Temporary Agriculture Zoning to CC. While the Trust parcel is zoned CC, it is not subject to the City's Zoning Code. The Intergovernmental Agreement between the City and the Nation calls for all Fee and Trust lands to ultimately be rezoned to a Planned Unit Development District.

H. Existing Transportation Facilities

1. Roadways*

The north-south major roadways serving the area are Interstate 39/90, a principal arterial that forms the western border of the planning area and County Trunk Highway (CTH) AB, a minor arterial that forms part of the eastern border of the planning area. The major east-west roadways serving the area are U.S. Highway (USH) 12/18, a principal arterial located in the southern section of the planning area; Femrite Drive, a minor arterial located north of USH 12/18 east to CTH AB; and CTH BB, a minor arterial that forms part of the planning area's northern boundary. Siggelkow Road is classified an urban collector east to CTH AB.

The section of CTH AB within the planning area has a two-lane rural cross section with narrow three-foot wide paved shoulders and no sidewalks. It is rated "least suitable" for bicycling because of narrow shoulder widths, moderately high traffic volumes and moderately high vehicle speeds. The eastern section of USH 12/18 within the planning area is a four-lane divided expressway. It is not suitable for bicycling. The west section of Femrite Drive, from IH-39/90 to Meier Road, has a two-lane rural cross section with three-foot wide paved shoulders and no sidewalks. It has a "May be Suitable" rating for bicyclists due to relatively low traffic volumes and the paved shoulders. The east section of Femrite Drive, from Meier Road to CTH AB, has a rural cross section with narrow gravel shoulders. The roadway pavement is also in very poor condition. For these reasons, it has a "Least Suitable" rating for bicyclists.

Existing Roadway Volumes

In 2014, the two-way average daily traffic (ADT) volume on I-39/90 was 76,000 north of the Beltline interchange and 49,100 south of the Beltline Interchange. In 2015, the two-way average daily traffic (ADT) on the Beltline was 82,800 west of the IH-39/90 interchange and 35,200 east of the IH-39/90 interchange.

The 2014 average weekday traffic (AWT) volume on CTH AB, east of IH-39/90, was 7,450; the AWT volume on Femrite Drive, east of IH-39/90 was 4,000; and the AWT volume on CTH BB, east of Sprecher Road, was 10,050. In 2012, the AWT volume on Sprecher Road, south of CTH BB was 6,450 (See **Map 6: Roadways**).

2. Transit Service*

Fixed-route bus service is not currently operated within the planning area. The majority of the area is greater than 3/4 of a mile from non-commuter transit routes, which eliminates the availability of paratransit service for eligible passengers. The closest fixed-route service is located

west and north of the area via Routes 31, 32, 33, 35, and 39. The Dutch Mill park-and-ride facility served by Routes 11, 12 and 31 is also located nearby. Route 31 provides service along Marsh Road/Agriculture Drive, connecting to the East Transfer Point; it operates weekday peak periods, evenings and weekends every 60 minutes. Route 32 provides service between the Buckeye Road/ Thompson Drive area and the East Transfer Point; it operates daily every 60 minutes, but does not operate during weekday peak periods when it is replaced by Routes 33 and 35. Route 33 provides service between the Cottage Grove Road/Sprecher Road area and the East Transfer Point; it operates weekdays every 30 minutes during peak periods only. Route 35 provides service between the Buckeye Road/Cottontail Trail area and the East Transfer Point; it operates weekdays every 30 minutes during peak periods only. Route 39 provides service between the Pflaum Road/World Dairy Drive area and the East Transfer Point; it operates weekdays every 60 minutes until about 6:00 p.m. Commuter service to central Madison is also provided at the Dutch Mill park-and-ride facility near Broadway/Stoughton Road (USH 51), with service primarily provided by Routes 11 and 12 every 30 minutes during peak periods only.

*The Madison Area Transportation Planning Board assisted with the background information in the Roadways, Transit Service and Pedestrian section of this Plan.

3. Pedestrian and Bicycle Facilities

Dedicated pedestrian and bicycle facilities are limited within the planning area. Marked bike lanes are present only on Buckeye Road from the Interstate to Kings Mill Way. Femrite Drive is a designated bike route with a wide paved shoulder from IH 39/90 east to Meier Road. The Siggelkow Road corridor's IH 39/90 underpass is designed to accommodate four travel lanes with bicycle lanes. Cottage Grove Road, Femrite Drive, and CTH AB are existing roadways with a need for new or improved paved shoulders.

4. Rail

The Wisconsin Department of Transportation owns the railroad right-of-way (leased by Wisconsin and Southern Railroad) that extends through the northern part of the planning area from beneath the IH 39/90 corridor east to the Village of Cottage Grove. The track is currently utilized solely for freight rail with trains passing through the planning area about two times each day. Street crossings of the rail line are located at CTH AB and Underdahl Road.

I. **Adopted Land Use Plans and Cooperative Plans**

The City of Madison has adopted a wide array of plans to guide land use and development within the City and its planned growth areas. Several of these plans include recommendations that specifically address the planning area or lands that are adjacent to the planning area.

1. **City of Madison Comprehensive Plan**

The *City of Madison Comprehensive Plan*, adopted in January 2006, includes numerous goals, objectives, policies and recommendations that apply generally to all areas. These recommendations are not limited to land use and development, but cover all of the elements of a *Comprehensive Plan* including, for example, transportation, housing, utilities and community facilities, agricultural, natural and cultural resources, economic development and intergovernmental cooperation. However, two sections within the Land Use chapter of the *Comprehensive Plan* provide the initial framework for the *Yahara Hills Neighborhood Development Plan*.

a) 2006 Peripheral Planning Areas

The *Comprehensive Plan* defines nine Peripheral Planning Areas (PPAs) at the edges of the urban area. The PPAs are areas that have at least some near or long-term potential for future urban development and City of Madison expansion, but for which no detailed planning has been done to define the City's interests and develop more refined recommendations. The PPAs are recommended as planning areas, and more detailed planning will not necessarily recommend that all lands within each PPA should eventually be developed with urban uses, or that Madison should seek municipal jurisdiction over the entire area.

The *Yahara Hills NDP* planning area is located within Peripheral Planning Area D, a "Group 1" District recommended as a potential location for relatively near-term City of Madison expansion and future urban development. Urban development under City of Madison jurisdiction is anticipated to begin in at least portions of all of the Group 1 Peripheral Planning Areas within one to five years. A key recommendation in the *Comprehensive Plan* is that a detailed neighborhood development plan must be prepared and adopted prior to initiating urban development in any peripheral area (**See Appendix Map 1: 2006 Peripheral Planning Areas**).

b) Generalized Future Land Use Plan

The *Comprehensive Plan* also makes broad land use recommendations for the entire City of Madison planning area,

including the Peripheral Planning Areas beyond the current City limits that do not have a detailed neighborhood development plan. The land use recommendations for the PPAs are relatively broad, and provide the initial framework for the more detailed recommendations in the neighborhood development plans that will be prepared for these areas. The *Comprehensive Plan's* Generalized Future Land Use Plan Map identifies recommended land uses within the planning area, which are described below (**See Appendix Map 4: Generalized Future Land Use**).

Neighborhood Planning Area - Traditional Neighborhood Development

This two-part designation is applied to approximately one-half of the planning area. Neighborhood Planning Areas are areas for which a neighborhood development plan with detailed land use recommendations has not yet been adopted, and needs to be prepared before urban development can begin. Plans for new neighborhoods are encouraged to incorporate the concepts of Traditional Neighborhood Development (TND). Basic TND concepts include compact, mixed-use development with a variety of housing types located close to neighborhood-serving businesses or activity centers; an interconnected, pedestrian and bicycle-friendly street network supplemented with off-street paths and trails; a system of neighborhood parks, plazas, squares and greens; and neighborhood schools and other neighborhood-scale civic and institutional uses. Traditional Neighborhood Development seeks to create an attractive and engaging “public realm” which is essentially the spaces within the public rights-of-way defined and enhanced by the buildings and other features along and within them. High-quality urban design, site design and architectural design are also important components of a successful TND neighborhood.

Employment

Employment districts are recommended to be predominantly office, research and specialized employment districts, and generally not include retail and consumer service uses serving the wider community. Limited retail and service establishments primarily serving employees and users of the District are encouraged

The *Comprehensive Plan* recommends that an Employment District be considered generally along the planning area's Interstate 39/90 frontage as well as east of CTH AB across from the Dane County Landfill and the Yahara Hills Golf

Course. A Land Use Plan Map Note (23) is included for the recommended Employment District. The note states:

“Expansion of the existing employment area along the east frontage of Interstate 39-90 is recommended. Because a detailed neighborhood development plan has not yet been prepared for this area, the boundaries of the proposed Employment District are only conceptual. Some Medium Density Residential uses should be located in close proximity to the proposed employment district to provide convenient workforce housing opportunities.”

A second note (Note 25) recommends development of an employment district east of CTH AB. Note 25 states:

“Development of an Employment District east of County Trunk Highway AB, generally between Femrite Drive and USH 12 & 18, is recommended. Because a detailed neighborhood development plan has not yet been prepared for this area, the boundaries of the proposed Employment District are only conceptual. Some Medium Density Residential uses should be located in close proximity to the proposed employment district to provide convenient workforce housing opportunities.”

General Commercial

The General Commercial designation is applied to the Ho-Chunk Gaming facility and adjacent commercial and service uses. General Commercial districts provide the City with a wide range of goods and services and while they are not generally intended to include residential uses, limited areas may be included. General Commercial districts are typically located along roadways and serve a wide variety of retail or service activities, including automobile-oriented uses and “heavy” commercial uses with appearance or operational characteristics not generally compatible with residential or some-scale commercial activities. Depending on their location, General Commercial districts may provide some supporting uses to adjacent neighborhoods, and an attractive interface and convenient pedestrian connections with adjacent residential areas should be provided to encourage this.

Recommended land uses in the General Commercial districts include:

- Retail and service business establishments, including buildings with large floor areas.

- Business and corporate offices.
- Clinics and health care facilities.
- Hotels and motels.
- Restaurants, entertainment and related uses.
- Wholesale, storage and distribution.
- Automobile-oriented uses, such as service stations, repair garages, car washes, vehicle sales and drive-through facilities.
- Construction and contractors offices, building materials and supply stores.

Park and Open Space

The Park and Open Space designation is applied to a large part of the Yahara Hills Neighborhood Development Plan planning area including drumlins, wetlands, floodplain, some uplands, the Yahara Hills Golf Course, and the Dane County Landfill. These areas are proposed for consideration as potential open space preservation areas in more detailed planning such as this *NDP*. At the scale of the *Comprehensive Plan*, recommended locations for smaller open space features, such as municipal parks or stormwater management greenways are generally not identified in areas where a neighborhood development plan has not been prepared.

The *Comprehensive Plan* includes a land use note that recommends that after the landfill closes it become open space. Note 23 states:

“The site north of U.S. Highway 12 & 18 is currently an active Dane County landfill, but after the landfill is closed, the recommended future use of the site is open space. The City’s Yahara Hills Golf Course is located south of USH 12 & 18.”

2. City of Madison Neighborhood Development Plans

The *Cottage Grove*, *Marsh Road* and *Sprecher* neighborhood development plans about the Yahara Hills planning area. These plans provide land use, transportation and utility recommendations for areas located in close proximity to the *Yahara Hills NDP*.

a) *Cottage Grove Neighborhood Development Plan*

In 1992, the City of Madison adopted the *Cottage Grove Neighborhood Development Plan*. The Plan provides detailed land use, transportation and development phasing recommendations for lands east of IH 39/90, south of CTH BB, north of the Wisconsin and Southern rail line, and generally

lands west of the future realignment of Sprecher Road. This plan abuts the *Yahara Hills Neighborhood Development Plan* planning area.

The *Cottage Grove Neighborhood Development Plan* was amended in 2006. The amendment is generally referred to as the “Buckeye Amendment.” The Buckeye Amendment was intended to address lands south of Buckeye Road that were not included in the original planning area, primarily due to uncertainties regarding expansion plans of an active quarry operating in the area and the need for further evaluation of open space. The Buckeye Amendment provides recommendations for near-term and longer-term urban development. The future limits of the Buckeye Quarry mining operation are now defined in a Reclamation Plan filed with Dane County. Further, the Amendment provides recommendations for preservation of open space areas. Approximately 155 acres within the Buckeye Amendment Area are recommended for preservation as permanent open space, including a wooded drumlin and large areas of wetlands, floodplains and associated upland meadows.

Sprecher Road is proposed to be realigned from its current alignment to a new corridor east of the drumlin along the east side of Sprecher Road. This realignment includes a future 120-foot right of way that is planned to accommodate a four lane parkway arterial street with bicycle lanes.

The drumlin and most of the wetlands and lowlands to the east have been designated by Dane County as part of the Blooming Grove Drumlin Resource Area, a large contiguous area of relatively-natural open space features extending north-south along the Door Creek corridor. Future developments within the Buckeye Amendment Area should be planned to preserve and protect these natural features and seek to enhance them through the restoration of additional areas at key locations. The design of future developments planned on adjacent lands should respect and reflect the significant visual and functional contribution to neighborhood character provided by these open space areas.

b) *Marsh Road Neighborhood Development Plan*

The *Marsh Road Neighborhood Development Plan* is located west of IH 39/90. The *Marsh Road NDP* was adopted by the City of Madison in 1999. The highway is a significant barrier between the two neighborhoods. The only connection between the *Yahara Hills NDP* and the *Marsh Road NDP* is Siggelkow Road. The IH

39/90 bridge over Sigglekow Road is designed to accommodate a four-lane road underneath it. The *Marsh Road NDP* recommends residential and open space uses along its east boundary with the IH 39/90 corridor.

c) *Sprecher Neighborhood Development Plan*

The *Sprecher Neighborhood Development Plan* was adopted by the City of Madison in 1998 with a series of amendments in 2001, 2005 and 2012. The *Sprecher NDP* recommends residential uses and an institutional use across CTH BB from the Yahara Hills Planning Area. The *Sprecher NDP* also recommends the Door Creek Open Space Corridor north of CTH BB. The corridor includes wooded drumlins, wetlands and related lowlands and represents an exceptional opportunity to develop a significant natural and recreation amenity. The City of Madison has developed parkland within the corridor. Recent acquisitions by the City of Madison and Dane County south of CTH BB have helped implement the broader park and open space goals in the area.

3. Town of Blooming Grove and City of Madison Cooperative Plan (2006)

In 2006, the City of Madison and the Town of Blooming Grove entered into a *Cooperative Plan* that establishes municipal boundaries over time through a series of attachments. These attachments from the Town to the City will occur in 2015, 2020 and 2027. At the end of the Cooperative Plan in 2027, all lands within the Town of Blooming Grove will have been attached to the City of Madison. Prior to 2027 “protected areas” of the Town may not be attached to the City of Madison. Protected areas include several residential subdivisions as well as existing developed business and commercial areas along USH 12-18.

The *Cooperative Plan* includes a provision that any development in the Town shall be subject to approval by the City in accordance with City Development Requirements. Development refers to the division of land, or construction of more than one principal structure on a parcel of land, or rezoning a parcel from a residential or agricultural classification to a non-residential classification.

The division of a five acre or larger parcel into two parcels for residential purposes shall not be considered development under the terms of the *Cooperative Plan* and the owners may divide and rezone

the parcel to a single-family residence on each new parcel without the cooperation or approval of the City.

The *Cooperative Plan* expires on October 31, 2027. At that time, a final attachment to the City of all remaining Town lands, including any Town protected areas, islands and any other remaining Town territory, will occur and the Town will be permanently dissolved.

4. City of Madison-Ho-Chunk Nation Agreement (1998)

The Ho-Chunk Nation and the City of Madison entered into an “*Intergovernmental Service and Development Agreement Between the City of Madison and the Ho-Chunk Nation*” that addresses land use, taxation, provision of services and development of Ho-Chunk Fee and Trust property. The *Agreement* includes a provision that authorizes the City of Madison and the Nation to create a Joint Planning Committee that is charged with the responsibility of creating and periodically updating a development plan for the Nation’s Fee and Trust land real properties located within the development area and the City boundaries. The “Development Area” is defined as various Nation-owned parcels of property located along Mill Pond, Evan Acres, and Savannah Roads on the southeast corner of the intersection of Interstate 90 and U.S. Highway 12-18, in the East ½ of Section 26, Township 7 North, Range 10 East, Dane County, Wisconsin.

The Joint Planning Committee is composed of six members and is charged with the responsibility of creating and periodically updating a development plan for the Nation’s Fee and Trust Lands located within the City boundaries and the development area. Upon approval by the City and the Nation, the Development Plan shall constitute the zoning classification for all of the Nation’s properties within the development Area. Until such times as the Plan is approved pertaining to any particular parcel of the Nation’s Fee Land, the current City zoning code provisions shall apply to the Nation’s Fee Lands in the Development Area located within the City. The City does not have zoning authority over Trust lands, including the Ho-Chunk Gaming facility.

5. Town of Blooming Grove Comprehensive Plan (2005)

The Blooming Grove Town Board adopted the *Town of Blooming Grove Comprehensive Plan* on September 13, 2005 under the auspices of Wisconsin’s Comprehensive Planning Law. The Town’s *Plan* includes a Future Land Use Plan that divides the town into seven land use districts. The northern half of the Future Land Use Plan Map recommends primarily residential development at densities from six to eight dwelling units per acre. It is anticipated that these

areas will be developed on public sewer and water. A mix of housing types are recommended for these areas. Many of these areas have an overlay designation of Conservancy (Blooming Grove Drumlin). These areas include environmental corridors, drumlins, lakes, streams, wetlands, woodlands, wild life habitats, isolated natural resources areas, poorly drained soils and severe slopes. The Town's Plan notes that development in these areas may lead to environmental and development problems.

Lands along Femrite Drive, south across USH 12/18 are designated "Commercial". Two areas are designated Government/Institutional and one area is designated "Extractive." The extractive use is the existing quarry along the south side of Buckeye Road.

6. Town of Cottage Grove Comprehensive Plan (2015)

The Town of Cottage Grove recently adopted its *Comprehensive Plan*. The Town's *Plan* includes the elements required by Wisconsin's Comprehensive Planning law. The Land Use Chapter includes a Future Land Use Map that includes general recommendations for land use. Much of the land adjacent to the City of Madison and lands that will be attached to the City from the Town of Blooming Grove between 2015 and 2027 includes a recommendation for Agricultural Preservation. However, the map recommends a large "Commercial Development Area" for the southwest corner of the Town, immediately east of the City of Madison. The Town's Plan recommends the following uses in the Commercial Development Area: a range of agricultural business, retail, commercial service, light assembly, institutional, health care, research and development, institutional and recreational uses. The Town's *Comprehensive Plan* further states the desire to minimize uses that may someday require extensive public services and utilities. The City of Madison does not support the large Commercial Development Area. Concerns include the sheer size of the area in the context of the Town's need for commercial development, the impact on natural resource features, and the lack of urban services which are typically necessary to serve such a large commercial area.

7. Dane County Parks and Open Space Plan

a) *Blooming Grove Drumlins Natural Resource Area*

The Blooming Grove Drumlins Natural Resource Area encompasses 1,645.8 acres, of which 174.7 acres are owned by Dane County. This resource feature includes land in the Town's of Blooming Grove and Cottage Grove. Some of these lands will be attached to the City of Madison under the terms of the *City of Madison and Town of Blooming Grove Cooperative Plan*.

This project area seeks to protect the glacial drumlin features found throughout this region as well as the associated wetlands that surround them. Drumlins are low, smoothly rounded, elongated hills of compact glacial till (sand, gravel, rock) deposited under the sheet of ice and shaped by its flow; with the longer axis parallel to the direction of ice movement.

The *Dane County Parks and Open Space Plan 2012-2017* includes the following recommendations regarding the Blooming Grove Drumlins Natural Resource Area:

- Partner with WDNR and Cottage Grove on implementation of connector trail between the Capital City Trail and the Glacial Drumlin Trail.
- Expand the project north boundary to include additional Door Creek headwaters area.
- Partner with the City of Madison to expand hiking/cross country ski trails into Door Creek Park.

b) *Door Creek Wetlands Natural Resource Area*

Parts of the southeast portion of the planning area include the Door Creek Wetlands Natural Resource Area. These lands include wetlands and surrounding upland buffer areas of Door Creek. Recommendations for this area include:

- Work with Wisconsin Department of Natural Resources on creating unified resource and recreation management strategies for the entire project area.
- Begin preliminary planning for the Lower Yahara River Trail.
- Expand boundary north and east to Blooming Grove Drumlin Natural Resource Area City of Madison's recommendation.
- This boundary should be revised in the future as local units of government complete more detailed neighborhood plans for developing areas.

III. RECOMMENDATIONS

A. General Development Concept

The general development concept for the planning area envisions a vibrant, sustainable series of sub-neighborhoods characterized by a wide variety of housing choices, mixed-use districts, industrial and employment areas, commercial districts, well-located public parks and permanent open space areas. Housing choices include single-family homes with a wide range of house and lot sizes, duplexes, townhouses, smaller apartment and condominium buildings and relatively high-density developments. All housing types include units suitable for households of different sizes, ages, incomes and lifestyles, including families with children. It is recommended that the housing units be a mix of owner-occupied and rental units.

Travel within the neighborhood is enhanced by an interconnected network of local streets that provides multiple routes to most destinations. Primary “framework” streets end at or pass beside planned public parks and other important neighborhood activity centers. All Madison streets will have sidewalks and are designed to accommodate bicycle travel. Bicycle and pedestrian travel on local streets is supplemented by a network of on-street bicycle lanes and off-street paths and trails linked to the regional bicycle network. Future transit service to the neighborhood will have easy access to the neighborhood focal points that will be the most likely destinations.

B. Traditional Neighborhood Development Concept

The 2006 Madison *Comprehensive Plan* recommends Traditional Neighborhood Development (TND) within peripheral neighborhoods. The development concept for the planning area incorporates the following TND design principles.

1. Mix of Land Uses

TND neighborhoods provide a variety of neighborhood-supporting activities in close proximity to residential areas, including shopping, work, recreation and civic activities. In general, relatively higher-density housing is located closer to the activity centers to provide convenient access to the most residents and encourage walking and bicycling as means of travel. Small mixed-use areas are encouraged, including buildings with apartments or offices located above storefronts, for example. In the planning area, the mixed-use area and employment areas will provide opportunities for commercial, employment and residential development.

2. Variety of Housing Choices

TND neighborhoods include a wide variety of housing choices. In the planning area, four broad residential land use districts are proposed that emphasize different combinations of housing types

and densities. Recommended housing types within the planning area include single-family detached houses on both large and small lots, duplexes, townhouses, apartment and condominium buildings and residential units in mixed-use buildings. These housing types could be part of co-housing, clustered housing and other multi-density configurations or alternative ownership structures. A range of housing types is recommended within each of the three residential districts and all housing should provide opportunities for households of different sizes, ages, incomes and lifestyles.

3. Interconnected Street Pattern

An interconnected street network and easy travel within the planning area are important elements of TND design. The *Plan* features a “grid-like” street pattern that provides multiple routes to destinations and encourages pedestrian and bicycle travel. The *Plan* creates relatively small blocks with mid-block paths provided where needed. Narrow street pavement widths are encouraged, particularly in low density single-family areas and areas served by alleys. Development generally should be oriented to the public street system rather than creating isolated enclaves with private streets.

4. Land Use Transitions

The planning area will include a mix of land uses. It is recommended that transitions between different land uses, and between uses with significantly different intensity, be well-designed. In general, major changes in land use, density or the scale of development should occur at mid-block so that similar uses face each other.

5. Strong Orientation to the Street

It is generally recommended that both residential and non-residential buildings be oriented toward the street to provide definition to a block face and create a more engaging street environment. Commercial buildings located close to the sidewalk and relatively small front yards in residential areas are also recommended to help to define the block. Homes with porches are encouraged to provide community interaction at the street level.

Street trees are important elements in establishing the visual framework of streets, defining the space along public right-of-way and providing a physical environment desirable to pedestrians. While the selection of street trees needs to be coordinated with the design of street terraces and other street characteristics, it is recommended that street trees be full-canopy trees where possible.

6. Limited Visual Exposure of Garages and Parking Areas

The design of developments should locate garages and parking areas where they will not dominate the view from the street. In general, parking facilities should be located behind, beneath, or at the sides of buildings, rather than in front. Development on alleys can be used to prevent garage doors from dominating the front facades of homes, particularly on relatively narrow lots. On-street parking is planned to be available on most streets and can reduce the need for off-street parking.

7. Architectural Character

While this *Plan* can lay the foundation, individual development projects will to a large extent determine the future character of the planning area and how well they reflect TND design principles. The design and architectural character of the buildings and other structures are important elements in creating the unified “feel” of a Traditional Neighborhood Development, and in creating an attractive and engaging “public realm.” Design objectives include providing architectural variety while maintaining general neighborhood harmony in building characteristics such as height and massing; roof pitch; the proportion and profile of windows, doors and other elements of the facade; the orientation of doors, windows, balconies, porches and roof decks toward the street; and the choice of facade materials and colors.

C. Land Use Recommendations

The recommended land uses are shown on the Land Use and Street Plan and summarized below (See **Map 7: Future Land Use and Street Plan** and **Table 3: Recommended Land Use**).

Table 3: Recommended Land Use

Recommended Land Use	Total Acres	% of Total
Housing Mix 1	160	3.8%
Housing Mix 2	81	1.9%
Housing Mix 3	31	0.7%
Housing Mix 4	18	0.4%
Agriculture/Rural	559	13.3%
General Commercial	32	0.8%
Employment	231	5.5%
Industrial	251	6.0%
Community Mixed Use	46	1.1%
Neighborhood Mixed-Use	16	0.4%
Civic and Institutional	40	1.0%
Parks and Open Space	2,209	52.7%
Street Right-of-Way	521	12.4%
Total	4,195	100%

1. Residential Uses and Housing Mix Districts

The *Plan* recommends development of a variety of housing mix types within four housing mix districts. These districts are intended to meet the needs of households of different sizes, ages, incomes and lifestyles. Although the recommended mix of housing types varies in different parts of the neighborhood, it is specifically intended that all housing developed within the neighborhood be well-integrated into the community as a whole, and be located and designed to enhance neighborhood identity and encourage engagement and participation in neighborhood activities. Housing units should be a mix of owner-occupied and rental housing.

a) *Variety of Housing Types*

A variety of housing types and densities is expected to be developed at appropriate locations within each of the four Residential Housing Mix Districts, but many alternative development patterns could create the desired mix and variety of housing types and still be consistent with the general location and design recommendations of the *Plan*. For this reason, specific locations for each of the individual housing types recommended within a residential district are not identified on the Land Use and Street Plan. This approach provides prospective developers with reasonable flexibility and maximum opportunities to be creative and innovative in advancing the recommendations of the *Plan*. However, the Residential Housing Mix District recommendations are not equivalent to zoning district designations, and all developments are expected to provide a variety of housing choices. Specific locations for particular housing types will be identified during the review process as proposed development projects are brought forward for consideration and approval.

b) *Density Organized Around Mixed-Use Districts, Parks*

As shown on the Future Land Use and Street Plan (Map 7), higher-density housing types are generally recommended at locations closest to the planned Employment, Commercial and Mixed-Use Districts, with lower-density types of housing recommended at locations more distant from these areas. This arrangement places the highest concentration of residents within the closest distances to primary destinations, improving the walkability of the neighborhood. It also helps reduce vehicular traffic on interior streets since the higher-density uses are also closest to the major streets providing access to the neighborhoods. The exact boundaries between the four Residential Housing Mix Districts shown on **Map 7: Future Land Use and Street Plan** are somewhat conceptual. Modifications may be considered as specific developments are proposed, provided that the general land use pattern is consistent with the *Plan*'s objectives.

c) *Four Housing Mix Districts*

Recommended residential land use areas are divided into four broad districts: Residential Housing Mix 1, 2, 3 and 4. The density range for each Housing Mix District indicates the range of densities that are recommended within the respective districts. To provide consistency and accommodate comparison, the density ranges correspond with the density categories stated in

the Comprehensive Plan. The Housing Mix 1 and 2 Districts fall within the Comprehensive Plan's Low Density (0-15 units per acre) Residential category. The Housing Mix 3 and 4 districts fall within the Comprehensive Plan's Medium Density Residential (16-40 units per acre) category.

The four recommended Residential Housing Mix Districts are described below:

1) Residential Housing Mix 1

The predominant housing type in Housing Mix 1 areas is detached single-family housing on individual lots, but limited areas may be developed with duplexes, and townhouses at appropriate locations as development plans for specific subdivisions are prepared.

Housing Types

- Single-family detached homes with a wide range of house and lot sizes
- Duplexes
- Townhouses

Density Range

- Individual developments: less than 16 units per acre
- District average: less than 8 units per acre

It is specifically recommended that single-family housing developments include a range of house types and lot sizes. The use of alleys to provide rear access to garages is encouraged at appropriate locations. Alley-loaded garages can provide additional design flexibility and reduce the tendency for garages to dominate the streetscape, particularly on relatively small or narrow lots.

Duplexes and townhouses provide higher-density housing options that can be appropriate at some locations. In general, larger groupings of these housing types should be located closer to the Housing Mix 2 or Housing Mix 3 Districts, where they will help provide a transition to the higher densities found in those areas. Individual duplexes or small groups of townhouses also might be interlaced within areas primarily comprised of single-family homes, but careful site and building design is important in order to maintain compatibility and consistency with the character of surrounding development.

The density of the individual housing types in the Housing Mix 1 District should be within the Low Density Residential range of less than 16 units per acre as recommended in the Comprehensive Plan. The average density of the District as a whole should be less than eight units per acre. An average net density of 5 to 6 units per acre is assumed for purposes of estimating the potential dwelling units in the Housing Mix 1 district.

2) Residential Housing Mix 2

The predominant recommended housing types within the Housing Mix 2 District are single-family houses developed at relatively high densities on smaller lots, duplexes, townhouses and small-scale apartment and condominium buildings.

Housing Types

- Single-family detached houses on relatively small lots
- Duplexes
- Townhouses
- Low density apartment and condominium buildings
- Buildings with up to 12 units
- Building lots generally provide front, side and rear yards
- Buildings up to two stories in height

Density Range

- Individual developments: less than 16 units per acre
- District average: between 8 and less than 16 units per acre

Housing Mix 2 Districts are recommended in numerous locations within the planning area as shown on **Map 7: Future Land Use and Street Plan**. Higher density development at these locations will give more residents the opportunity to live within convenient walking and biking distance to mixed-use areas, parks and open space, schools and other neighborhood amenities and features.

Dwelling unit types in Housing Mix 2 Districts should be varied. Large areas of one housing unit type should be avoided and there should be a mix of owner-occupied and rental dwelling units.

Detached single-family or duplex units within the Housing Mix 2 districts should generally be developed on relatively small lots consistent with the higher average density recommended for the District. Townhouses will be more predominant than in the Housing Mix 1 Districts. Townhouses could be developed along an entire block face, or smaller groupings of Townhouses might be interlaced with multi-unit buildings or detached housing. Apartment and condominium developments should feature smaller buildings of up to 12 units and should include a mix of unit sizes, including larger two and three bedroom units suitable for families with children.

The density of the individual housing types developed in the Housing Mix 2 District should generally be within the Low Density Residential range of less than 16 units per acre as defined in the Comprehensive Plan. The average density of the District as a whole should be in the 8 to less than 16 units per acre range. An average net density of 10 to 12 units per acre is assumed for purposes of estimating the potential dwelling units in the Housing Mix 2 district.

3) Residential Housing Mix 3

Housing types within the Housing Mix 3 Districts should primarily consist of a mix of owner-occupied and rental townhouses and apartment or condominium buildings. Buildings may be larger and taller than in the Housing Mix 2 districts.

Housing Types

- Townhouses
- Apartment and condominium buildings
- Relatively larger buildings than those in Residential Housing Mix 2 Districts
- Limited side yards when buildings are located along standard streets
- Buildings may include front plazas or be grouped around courtyards to create defined common space
- Buildings up to three stories in height

Density Range

- Individual developments: up to 40 units per acre
- District average: between 16 and 25 units per acre

The Housing Mix 3 District is recommended to encourage higher residential densities at locations closest to the

Neighborhood Mixed-Use, Employment and Housing Mix 4 Districts. Concentrating relatively high-density housing near these districts will provide easy access for more residents, increase activity in them and help support the development of neighborhood-serving businesses. At some locations, the recommended Housing Mix 3 District also provides a transition zone between the smaller-scale, lower-density development recommended in the Housing Mix 2 Districts and the larger-scale, higher density development recommended in the Housing Mix 4 and Neighborhood Mixed-Use Districts.

Detached housing types are not generally recommended since the intent of the District is to encourage higher-density uses. Apartment and condominium buildings may be relatively larger and closer together compared to those buildings in the Housing Mix 2 District. Parking should be provided behind or beneath the buildings, or in separate parking courts. In this District, buildings may be up to three stories in height, but the height considered appropriate on a specific property will partly depend on the size and scale of surrounding developments. In general, an “urban” rather than “suburban” design and architecture is recommended. Multi-unit developments should include a mix of unit sizes, including larger two and three-bedroom units suitable for families with children.

Buildings located on the street grid should maintain a “street” orientation and be designed to help define and enhance the public realm along the right-of-way. On a few larger, deeper properties, a multi-building complex of apartments or condominiums may have some buildings that are not located directly on a public street. The design of these complexes should incorporate interior access drives, walkways and courtyards to establish and define common spaces and create strong linkages back to the local street system.

The density of individual developments within the Housing Mix 3 Districts will generally fall within the lower end of the Medium Density Residential range of 16 to 40 units per acre defined in the Comprehensive Plan. The average net density for the District as a whole should be between 16 and 25 units per acre. An average net density of 16-20 units per acre is assumed for purposes of estimating the potential dwelling units in the Housing Mix 3 District.

4) Residential Housing Mix 4

The Housing Mix 4 District is intended to be located adjacent to the Neighborhood Mixed-Use District. While building types within this District might include limited townhouse development at relatively high densities, most structures will be multi-unit apartment and condominium buildings. Detached housing types are not generally recommended since the intent of the District is to encourage higher-density uses.

Housing Types

- Townhouses at relatively high densities
- Multi-unit apartments and condominium buildings
- Relatively large buildings
- Development more likely to have underground parking
- Limited side yards when buildings are located along standards streets
- Buildings may include front plazas or be grouped around central courtyards to create defined space
- Limited on-site open space. May include more formal entry plazas, patios, roof gardens and balconies
- Buildings up to four stories in height

Density Range

- Individual developments: up to 40 units per acre
- District average: between 26 and 40 units per acre

Recommended Housing Mix 4 Districts are limited to locations adjacent to Neighborhood Mixed-Use Districts. Relatively high-density development is recommended to help support the development of neighborhood-oriented businesses that will create an engaging focal point for neighborhood activity and convenience shopping. Apartment and condominium buildings will be the predominant housing type in this District, and could include larger buildings up to four stories in height with relatively high lot coverage. Multi-unit developments should be a mix of unit sizes, including larger two and three bedroom units suitable for families with children.

While relatively high density is encouraged, individual developments near the upper end of the 26 to 40 unit density range are recommended only as part of well-designed projects that are coordinated with the development of neighborhood-oriented retail and service

uses that can support and provide amenity to a larger residential population.

The average net density of the district as a whole should be between 26 and 40 units per acre. This is a wide range, and the actual densities that can be supported here will depend partly on the detailed development plans for the Neighborhood Mixed-Use District, Commercial, Employment, and Industrial Districts as a whole. For purposes of estimating residential potential, an average density of 26-30 units per acre is assumed.

d) *Estimated Amount of Future Residential Development*

If all the lands in the Yahara Hills planning area recommended for residential and mixed-use development were built out at densities with the density range estimated in the neighborhood development plan, the total future number of residential units of all types in the neighborhood would be between 2,910 units (low estimate) and 3,428 units (high estimate). This is a general estimate for planning purposes and the number of future dwelling units could be outside this range, depending on the amount of land developed with residential uses and the actual density of individual projects.

Table 4: Estimated Dwelling Units

Density Range	Total Low Estimate	Total High Estimate
Low Density Residential Housing Mix 1 (5-6 du/acre)	800	960
Low Density Residential Housing Mix 2 (10-12 du/acre)	810	972
Medium Density Residential Housing Mix 3 (16-20 du/acre)	496	620
Medium Density Residential Housing Mix 4 (26-30 du acre)	468	540
Agr./Rural (1 du/35 acres)	16	16
Neighborhood Mixed-Use District (20 du/acre)	320	320
Total	2,910	3,428

2. **Agriculture/Rural District**

Rural residential and agricultural uses are recommended for the southeast part of the planning area, as well as a small area in the northeast part of the planning area. These lands are in predominantly agricultural and rural residential uses, with natural resource features including Door Creek, floodplains, wetlands and wooded drumlins. Urban services are not generally available to these areas and are not expected to be there for the foreseeable future. Additional non-farm land divisions and non-farm commercial and industrial development are generally not recommended in this district. The recommended net density for new development in this district is one dwelling unit per 35 acres. However, the division of a five (5) acre or larger parcel existing on (ADOPTION DATE) into only two parcels for residential purposes may be divided and rezoned to a single family residential district and construction of a single family residence on each parcel may be allowed. A parcel is defined as the contiguous lands within the control of a single owner.

3. **General Commercial District**

The General Commercial District is intended to accommodate locations for business, retail and service uses serving the general area. The General Commercial District is typically located along major thoroughfares and at highway intersections. These districts should generally be served by public transit when it becomes available and should have good access to the transportation network. Relatively higher density housing may be located near General Commercial Districts. Depending on specific uses, the district may require significant buffering along the transition between other adjacent land uses. Attractive building designs and site designs are encouraged. The General Commercial District is not intended to be a large format, regional-scale commercial district, but rather serve the surrounding neighborhood. This district could accommodate the following land uses:

- Retail and service establishments
- Clinics and health care facilities
- Hotels and motels
- Restaurants, entertainment and related uses
- Wholesale, storage and distribution
- Automobile-oriented uses, such as service stations, repair garages, car washes, vehicle sales and drive-through facilities

4. **Employment District**

Employment Districts are recommended at the GE Healthcare site and along the realigned CTH AB corridor north of USH 12/18. These districts are intended to provide high-quality employment opportunities for the planning area and the region. Recommended land uses include corporate and business offices, research facilities and laboratories, hospitals, medical clinics, light manufacturing and similar uses. The district should provide a variety of flexible sites for small, local or start-up businesses, as well as sites for large national or regional companies. It is also recommended that complementary uses be located in the Employment Districts. These uses will serve district employees and users and also provide the opportunity for shared parking. These uses could include business services, conference centers, childcare; restaurants, entertainment and other small-scale retail establishments on the ground floor of multi-story buildings; and lodging facilities.

In general, Employment Districts should be designed as a compact, integrated district rather than a string of low-density suburban-style developments, although some users may require relatively large sites. Design and development standards are recommended for these districts.

The exact block and street pattern within the Employment Districts is intended to be somewhat flexible in order to accommodate the needs of businesses that may require sites that are larger than those reflected on the **Future Land Use and Transportation Plan map (Map 7)**. If larger sites are needed, public streets should be provided. Private streets are not recommended.

Interstate 39/90 and USH 12/18 are gateways to Madison. Developments visible from these highways should have high quality site and building design that creates an attractive appearance on all sides of the development. Adequate site landscaping should be provided on all sides. Parking areas should not dominate the view from any vantage point.

Strong street, path and sidewalk networks are recommended to provide circulation within the district and connections to surrounding transportation corridors and adjacent land use districts.

5. Mixed-Use Districts

a) *Community Mixed-Use District*

A Community Mixed-Use District is recommended in the Savannah Road/Mill Pond Road/Evan Acres Road area. This area could include sports, entertainment, culture, recreation, lodging, limited retail and service uses. Residential uses are not recommended in this District. Ho-Chunk Gaming is working to determine the specific mix of land uses in this area.

A pedestrian scale “Main Street” development concept is recommended as the area redevelops over time. Large format retail and “strip commercial” building formats are not appropriate in this district. The District is intended to be an engaging, urban destination that meets the needs of the surrounding neighborhood and the larger region. Some existing uses in this area may be appropriate as interim uses but have the potential to be redeveloped in the future in a manner that is consistent with the Community Mixed-Use District concept.

The District has high visibility from IH 39/90 and USH 12/18 and is a visual gateway to the Madison area. High quality building design, pedestrian and bicycle-oriented streetscapes are recommended. Structured parking with liner building features will allow strong, attractive block faces that engage the pedestrian and bicyclist. Large surface parking lots should be avoided whenever possible.

A detailed master plan should guide the development of this District. Ho-Chunk Gaming has been working on a master plan for this area. The detailed master plan should address land use, design, transportation, parks and open space and utilities. Feasibility studies for the Ho-Chunk lands are also underway. High quality architectural and urban design is a critical component of mixed-use development. Design standards within the zoning code along with deed and plat restrictions are important tools in achieving a successful project. The Community Mixed-Use District should generally include multi-story buildings (single-story building may be appropriate in limited locations) that front on streets in order to create a compact urban form and create a sense of place. High quality architectural design, building materials, landscaping and other urban amenities such as plazas and squares, decorative furniture, fountains and lighting will be required.

Improved highway access to this area will be necessary prior to development occurring. Currently, several alternative access points are being examined by WisDOT.

The following design elements are recommended for future development in the Community Mixed-Use District:

- Integrated business and activity centers as distinct from an aggregation of separate sites.
- The design emphasis should be on place-making, and creating an identity and focal point for the area.
- Creation of a strong sense of place in the early stages of development.
- The district should have a center of gravity. This may be a main street, fountain, plaza, village green or clock tower or some other place where people are drawn.
- The design of the district should enhance the gateway of Madison via IH 39/90 and USH 12/18. High quality architecture, strategic building placement and superior site design and signage can help achieve this recommendation.
- Multi-story buildings are strongly recommended, especially on corner sites.
- Building Massing should be used to create a definable public space.
- High-quality building materials, such as brick or stone, are recommended.
- Buildings should be located close to the sidewalk, with parking to the rear or interior of sites rather than in front of buildings.
- On-street parking is recommended.
- Small plazas or courtyards and gathering places for visitors and employees are recommended.
- Minimal “gaps” in street-level retail and business frontage.
- High levels of pedestrian amenity in public and private areas, including street trees and other landscaping, walkways connecting public sidewalks and parking areas to building entrances or activity areas, benches and other street furniture, and special lighting.
- Wide sidewalks are recommended.
- High levels of bicycle amenity in the public and private areas.

b) *Neighborhood Mixed-Use District*

Commercial development within the Neighborhood Mixed-Use District is intended to accommodate relatively small-scale businesses primarily providing convenience goods and services

to neighborhood residents. Anchor uses such as a small grocery store, or pharmacy may be desirable to support smaller commercial uses. Smaller uses might include a bakery, bank, bicycle shop, clothing store, coffee shop, dry cleaner, fitness center, florist, hardware store, salon, restaurant and similar uses.

Residential uses are encouraged as part of Neighborhood Mixed-Use Districts that also include neighborhood-serving businesses, services or civic uses. Residential uses above storefronts on the ground floor of multi-story buildings are particularly encouraged at appropriate locations. The appropriateness of including residential uses in a specific development will depend to some extent on the location of the site and the opportunities to design a project with sufficient amenity to provide an engaging residential environment. Because the Neighborhood Mixed-use Districts generally have frontage on future four-lane arterial roadways, residential opportunities may be more attractive somewhat farther back from that street rather than right up to it. Residences could be located around a street-side or interior courtyard, for example. Buildings up to four stories in height are recommended, but developments with residential components will need to consider the potential need to provide usable open space or other on-site amenities. Development densities and intensities will need to be carefully considered in order to achieve a development pattern that successfully blends residential and non-residential uses (**See Figure 1**).

The site designs of development projects in the Neighborhood Mixed-Use Districts and the adjacent Housing Mix 3 and 4 residential districts should create an engaging relationship between residential and non-residential activities and encourage pedestrian movement among the various uses and activities.

It is recommended that relatively higher density residential uses be included within the District. Residential uses would add vibrancy to the District, especially in the evenings and on weekends when some non-residential uses are not in operation. Residential dwellings could be part of exclusively residential buildings or located within mixed-use buildings with ground floor retail, service, or office uses and upper floor residential uses. The Residential Housing Mix 4 District dwelling unit types would be the most appropriate residential uses. A net density of 20 dwelling units per acre is being used to estimate

the number of dwelling units in this District. This number could vary based on detailed planning for the area.

High quality architectural and urban design is a critical component of mixed-use development. Design-oriented zoning standards and deed and plat restrictions are important tools in achieving a successful project.

6. Industrial District

Industrial uses are recommended for developable lands along Femrite Drive and the north-south stretch of Meier Road. These areas already have industrial development in the general vicinity. Proximity to the Dane County Landfill and relatively good access to Stoughton Road, CTH AB and USH 12/18 make industrial uses appropriate in this area. Examples of recommended uses include manufacturing, production, processing, wholesale, storage, distribution, offices, construction and contractor shops and offices, flex space and limited retail and service uses that primarily serve the industrial uses. Development in this district should be designed with adequate landscaping and screening to ensure compatibility with adjoining uses.

7. Parks and Open Space District

The *Plan* seeks to preserve the significant natural features including streams, drainageways, wetlands, drumlins, steep slopes and wooded areas. Where practical, the *Plan* recommends connecting these features into an interconnected system of open space corridors. These natural areas are complemented by a system of well-placed parks that will provide convenient access to a variety of recreational opportunities and add significant aesthetic character to the planning area. The open spaces and parks are also recommended to provide the opportunity for local food production through the creation of community gardens. The non-park open spaces are designated *Other Open Space and Storm Water Management* in the *Plan*, while parks are designated *Parks and Open Space* (See **Map 8: Parks and Open Space Plan**).

a) Open Space Corridors

The open space corridors are intended to provide environmental benefits such as protection of the significant natural features, opportunities for naturalized stormwater management and preservation of wildlife habitat areas. The corridors will also provide aesthetic value by separating planned development areas to provide a more natural setting for what will become an urban area. Much of the open space

corridors are associated with the perennial and intermittent stream segments associated with Door Creek and Penitto Creek, as well as drumlins in the area. It is recommended that most of the stream segments be preserved as open drainageways and remain in a relatively natural state. The stream segments that have been designated as navigable waterways by the Wisconsin DNR are required to remain in a relatively natural state. There are also wetlands along many of the stream segments, which likely require preservation under DNR regulations. Other corridors correspond with the drumlin, steep slopes and wooded areas within the planning area.

The open space corridors vary in width depending on the resource they are intended to preserve. In all cases, it is recommended that a natural corridor of at least 75 feet be provided. The natural corridor could be a part of private lots if restrictions are included that limit disturbance of the open space areas. It is anticipated that the ultimate width and ownership of these corridors will be determined through more detailed development planning. It is recommended that planned open space corridors that currently do not contain significant vegetation be enhanced with plantings such as native grasses, shrubs and trees.

Corridors associated with Door Creek, Penitto Creek and the Blooming Grove drumlins are recommended for open space preservation. Preservation of these corridors are intended to protect water quality in Door Creek and Penitto Creek and their associated wetlands, but also preserve the irreplaceable natural setting created by drumlins, woods and open fields along this segment of the Door Creek valley. The uplands are important environmental features in their own right and are critical for maintaining wildlife habitat and the complex ecological relationships that exist within a larger natural area.

The open space corridors in the *Yahara Hills NDP* planning area will become an integral part of a planned regional open space corridor. The proposed regional corridors cover a portion of the Dane County Parks and Open Space Plan's (POSP) Blooming Grove Drumlins Natural Resource Area (NRA) and the Door Creek Wetlands Natural Resource Area. The NRAs are larger corridors containing valuable natural resources recommended for preservation. Preservation within these areas is accomplished by acquiring land or conservation easements from willing sellers, and often occurs in cooperation with other units of government and organizations.

Some lands in the Blooming Grove Drumlins have already been purchased by Dane County to ensure their long-term preservation, while others remain in private ownership. Some of these lands might eventually be acquired by a public entity as part of a long-term preservation strategy. The primary objective is to preserve as much of these natural features as possible, preferably as part of a larger contiguous open space system. Additional lands may be acquired by the public in the future if financial resources are available, but recommended open space areas also include portions of properties that are expected to remain in private ownership, but where future development should be directed to other parts of the property. The intent of the recommendation is to explore a variety of public and private approaches to preserving the identified lands.

- b) **Parks**
Parks are recommended at strategic locations within the planning area. The park distribution generally reflects the distribution of the projected residential population when the neighborhood is fully developed.

The recommended parks are located where they not only provide convenient recreational opportunities to the surrounding neighborhoods, but enhance the visual character of the area. The proposed park sites have significant public street frontage, and will have high visibility to persons traveling along the neighborhood's roadways.

Since the parks are located at prominent locations, it is recommended they are planted with a mix of tree varieties, including large canopy trees. Full-canopy trees can be shown to full advantage in the open spaces of public parklands and can help create a dramatic setting for other park activities.

Yahara Hills Golf Course

One of Madison's 4 public golf courses is located 1/2 mile east of I-90. This course is a 36-hole regulation course spread over 400 acres of rolling hillside. Yahara Hills Golf Course opened in 1967. It is Madison's largest facility with two 18-hole championship courses and has hosted various national and state tournaments. There are no plans in the immediate future to modify the golf course.

Community Park

A large community park adjacent to Yahara Hills Golf Course is planned within the next 10 years that would serve the south east section of Madison and would provide destination amenities that are not currently present today. This park could be broken into 2 sections (the west and east sections) and would be connected by lands south of the existing golf course. Park amenities could include multiple playfields to allow tournament play in addition to other active and passive recreational amenities. With the proximity to the golf course, this will allow for complementary uses that are both public and private. The City will conduct a master planning process to determine the exact amenities to be offered.

Sports Complex

A multi-field sports complex is being considered as part of a larger mixed-use development focused on the Ho-Chunk Gaming facility and adjacent lands owned by the Ho-Chunk Nation and the City of Madison. This complex would be focused on tournaments and league users which may include a lighted soccer and tennis complex. This use is designated *Parks and Open Space* on the Future Land Use and Street Plan. Additional study will be necessary prior to the construction of this potential facility.

Neighborhood Parks

Several neighborhood parks are recommended in the planning area. These parks are intended to serve the recreational needs of the nearby residents. The neighborhood parks provide facilities for active recreation, such as a playground, basketball court, tennis court and open field space. Some of these parks are intended to provide amenity and more passive enjoyment and contain features like picnic areas, benches and naturalized areas.

Blooming Grove Drumlins Natural Resource Area-South Unit

Dane County owns 91 acres of open space that is open to the public year round. This land is located immediately east of the planned Sprecher Road realignment and north and south of CTH AB. This land is designated *Parks and Open Space* on **Map 7: Future Land Use and Street Plan.**

Parkland Dedication

Residential developers are required to dedicate land or pay a fee in lieu of dedication to accommodate the recreational needs of a development's residents. This dedication is used to

implement community, area and neighborhood parks. It is anticipated that some of the recommended parks will have to increase in size to correspond with the amount of dedication that will be received from development and to provide adequate space for desired recreation facilities such as field sports. It is also possible that the eventual park locations will differ from the locations illustrated in the *Plan*. Adjustments to the recommended parks should, however, maintain a balance of parks geared towards field sports that tend to be larger and parks geared for more passive recreation and neighborhood amenity that can be more effective when they are smaller in size.

Park Street Frontage

The parks recommended in the planning area have a substantial amount of frontage on public streets. There are multiple advantages to having streets front the parks, including increased visibility for the park and convenient access for the neighborhood. This configuration also creates potentially higher costs to the City, however, since fronting properties are generally responsible for street construction costs. If these costs become a potentially limiting factor in the ability to implement the recommended parks, it is recommended that alternative approaches to paying for street construction adjacent to public parks be explored, rather than modifying the park configurations to reduce street frontage.

Park Maintenance

The *Plan* primarily utilizes parks and open space to serve as the organizing feature for the neighborhoods within the planning area. This results in numerous parks, including smaller parks that are more costly to maintain on a per acre basis compared to larger parks. While it is recommended that arrangements for shared public and private park maintenance be pursued, the City will have to appropriately budget funds to ensure on-going maintenance.

c) Community Gardens

The *Comprehensive Plan* recommends that plans for future neighborhoods include recommended locations for community gardens. Community gardens are organized places where residents can rent small garden plots to grow produce for consumption; but they also provide a place where people can meet their neighbors and enjoy shared interests. Community gardens have been established at various locations in Madison, but one problem they face is finding suitable locations that can

be maintained over time, rather than only temporarily until the land is needed for some other activity.

At least one or two acres of suitable land with access to a water supply is considered desirable for establishing a community garden. Gardens should also be located where potential undesirable impacts on adjacent activities will be minimal. While community gardens on private land are encouraged, and can be provided as part of larger subdivisions or multi-family developments, community gardens can also be located on public land. The gardens often work best when located within or adjacent to City parks that also have other activities, rather than on isolated sites. Park locations typically provide greater visibility, playgrounds and playfields that non-gardening family members can use while others are working in the garden, opportunities for shared parking, and often, access to a water supply. It is recommended that the larger City parks in the planning area be considered for community gardens. The potential for locating a community garden in or near a park should be evaluated as part of more detailed park planning.

d) **Dane County Landfill**

Dane County currently operates the landfill north of USH 12/18. The landfill has an estimated capacity of 15 - 20 years. Currently, there are no plans to expand the facility to the north or east. However, Dane County has indicated that if the CTH AB Interchange is constructed, eastern expansion of the landfill could occur in the long-term. Further, if the current access to the landfill is closed, a new scale may be located on the north side of the facility in the vicinity of the parking lot that served the former City park along CTH AB. The recommended long-term use of the landfill is open space. However, the existing recycling and waste transfer buildings on the site are designated Civic and Institutional uses.

8. Civic and Institutional District

Several institutional uses are located in the planning area. These include a church, two cemeteries, a salt shed facility, a Dane County highway building, a Medical Examiner's Office located along CTH AB and Luds Lane, and the Dane County Landfill. The recommended long-term use of the landfill is open space, while the existing buildings are recommended for *Civic and Institutional* uses.

The McFarland School District has requested that a 40-acre potential school site (up to K-8) be shown on **Map 7: Future Land Use Plan and Street Plan**. This conceptual site is located west of CTH AB

and south of the neighborhood core area. As an alternative, two 20-acre sites are possible. This area should be developed with residential uses if a school is not built there.

9. Special Planning Considerations

Parts of the planning area are located in close proximity to Interstate Highways and quarries which bring about special planning considerations for development. These special situations are described below.

- a) Noise Mitigation Requirements Adjacent to the Interstate Highway Residential developments on lands adjacent to the Interstate Highway will be required to comply with Wisconsin Department of Transportation TRANS 405 regulations regarding mitigation of traffic noise, which address noise levels inside and outside buildings. Similar requirements apply to outdoor recreational uses. For other non-residential developments, only noise levels inside of buildings needs to be reduced below prescribed levels. Before any new residential or recreational development adjacent to an Interstate Highway can be approved, the developer must demonstrate that sound levels at the site are within permissible levels, or that adequate sound attenuation measures will be incorporated to reduce sound levels to permissible levels. This is reviewed as part of the development approval process.

Property owners and potential developers have the responsibility to determine how sound attenuation regulations may affect the plans or costs to develop specific properties, and to take the measures needed to attenuate the noise or otherwise comply with the regulations.

- b) Residential Development Adjacent to Quarry
The Yahara Materials' Buckeye Quarry is located north and west of the planning area. While lands in the planning area that are closest to the Buckeye Quarry are primarily natural resource areas, development on adjacent or nearby lands must recognize that there will be noise and vibration from operations at the quarry. As has been done in the past, it is recommended that potential owners of property near the quarry be required to sign a legal document acknowledging the presence and potential impacts of the quarry. Blasting can create vibrations in areas near quarries. Rock crushing also takes place at the site and dump trucks travel through the area hauling material from the site. The Yahara Materials' Buckeye Quarry was

attached to the City of Madison in December 2015 and City of Madison zoning regulations now apply to the quarry.

D. Transportation

The following recommendations are intended to provide the framework for a multi-modal transportation network in the Yahara Hills Neighborhood (See **Map 9: Transportation Plan-Roadways**).

1. Potential WisDOT Roadway Improvements

Wisconsin Department of Transportation Projects

The Wisconsin Department of Transportation (WisDOT) is currently overseeing a major reconstruction and expansion of IH-39/90 from the Illinois state line to the US 12/18 interchange. WisDOT will expand IH-39/90 from four to six lanes and will also reconstruct eleven interchanges within the corridor, including the Beltline-IH-39/90 interchange. The project will be constructed in three segments from south to north. Construction of the project's north segment, which includes all improvements proposed in Dane County, is expected to begin in 2020 or later.

WisDOT is overseeing a Planning & Environmental Linkages Study on the Beltline from USH 14 to CTH N. This is the first phase of a major Environmental Impact Statement (EIS) Study of the roadway corridor. WisDOT is examining alternatives that will improve safety, capacity and connectivity in the study area. The study is examining how all transportation modes can be improved, such as through additional or improved crossings of the Beltline.

WisDOT is also overseeing a freeway conversion study on USH 12/18, from IH-39/90 to CTH N. WisDOT hopes to include conversion of the segment east to CTH AB as part of the final phase of the I-39/90 expansion project, which includes redesign and reconstruction of the USH 12/18 interchange. Conversion of this segment of USH 12/18 to a freeway would potentially remove at-grade access to the high-speed divided roadway (e.g., at Millpond Road west of CTH AB and Femrite and Vilas Roads east of CTH AB) with access only allowed at the potential CTH AB interchange and existing CTH N interchange. Other alternatives are a jug handle design at the proposed Meier Road bridge across USH 12/18 and right in-right out access at Mill Pond Road.

Local road improvements would be made to provide alternative access in conjunction with the USH 12/18 freeway conversion project. Meier Road is proposed to be extended south from Femrite Drive to Millpond Road/Savannah Road with a new overpass of USH 12/18 (2020 or later construction). A two-way frontage road

may be constructed along the south side of USH 12/18 from the Meier Road extension to CTH AB. Direct access to USH 12/18 from Millpond Road may be removed.

A new grade-separated CTH AB diamond interchange is being considered by WisDOT to replace the existing at grade intersection with USH 12/18. Under this alternative, CTH AB would be realigned and expanded to four lanes (proposed 128-foot right-of-way) from approximately ½ mile south of USH 12/18 to approximately 800 feet south of Vilas Hope Road (construction 2020 or later). Construction funding for the Beltline/I-39/90 interchange and the USH 12/18 freeway conversion to CTH AB is not yet programmed. This plan recommends that this interchange be constructed. As an alternative to the interchange, WisDOT is considering a signalized intersection at CTH AB and US 12/18. If this option is selected, WisDOT would not build a frontage road from Mill Pond Road to CTH AB. This plan does not recommend a signalized intersection at CTH AB and USH 12/18.

WisDOT plans to reconstruct and expand the Cottage Grove Road overpass of the Interstate in 2019, although the project may be delayed due to the Interstate study currently in progress. The results of the study could affect the required length of the bridge span. The new bridge and connected roadway segments will have four lanes, sidewalks and bike lanes.

WisDOT is considering a new bridge over US 12/18 between Siggelkow Road and Femrite Drive approximately 400 feet west of the existing intersection with US 12/18. Approximately 2,000 feet of Siggelkow Road would be reconstructed south of US 12/18 to remove several sharp curves in the existing roadway. Existing Siggelkow Road would remain and provide access to properties in the area. WisDOT has no timeline for this project.

WisDOT recommends that Femrite Drive be reconstructed from a point approximately 1,300 feet north of the new bridge crossing. A new frontage road would be constructed along the north side of US 12/18 between Femrite Drive and Vilas Road to provide access to the properties on the north side of US 12/18. WisDOT has no timeline for this project.

2. Arterial and Collector Roadways

a) CTH AB

CTH AB is planned to be an arterial street with a four-lane (future six-lane) divided facility with bike lanes within a 130-foot right-of-way. CTH AB will serve as the major north-south roadway in the Yahara Hills neighborhood. The City prefers a new diamond interchange at USH 12/18 and the proposed new eastern alignment of CTH AB. A signalized intersection at CTH AB and USH 12/18 is not recommended.

b) Cottage Grove Road

Cottage Grove Road (CTH BB), an arterial street, is programmed to be reconstructed within a 130-foot right-of-way and expanded from two lanes to four lanes between North Star Drive and Sprecher Road. The project, which will include bike lanes and sidewalks, will be constructed in 2018. Reconstruction of CTH BB east of Sprecher Road is dependent on construction of the CTH AB realignment.

c) Femrite Drive

Femrite Drive is planned to be a two lane arterial roadway with a 90-foot right-of-way with a median and bike lanes. This roadway will continue to serve as a primary east-west connection between lands west of IH 39/90 and the Yahara Hills planning area. The Femrite Drive alignment east of CTH AB is a recommended collector street.

d) Meier Road

Meier Road is planned to serve as a two lane collector street with an 80-foot right of way. This existing rural roadway would have two travel lanes plus marked bicycle lanes. Meier Road is planned to cross over USH 12/18 to provide improved access to the Ho-Chunk Gaming area and Yahara Hills Golf Course.

e) Siggelkow Road

Siggelkow Road is planned to be a four-lane collector roadway with bike lanes from west of the IH 39/90 bridge to CTH AB. This roadway will have a 130-foot right-of-way and will provide a direct connection between the Yahara Hills Neighborhood and the Marsh Road Neighborhood.

f) Sprecher Road

The City of Madison is planning to reconstruct Sprecher Road on a new alignment within a 120-foot right-of-way from

Sharpsburg Drive to CTH AB. A four-lane divided roadway with bike lanes and sidewalks is proposed. The re-aligned roadway will connect directly with CTH AB, thereby providing a continuous north-south corridor between USH 151 in Sun Prairie and USH 12/18. The Sprecher Road project is not currently in the city's capital budget and construction would not commence until 2021 or later. The Madison Area Transportation Planning Board's long-range regional transportation plan recommends a four-lane divided facility for the entire Reiner/Sprecher/CTH AB corridor.

g) **New Collector Street**

A new east-west collector street is recommended to connect Vilas Hope Road with CTH AB and Meier Road. This street will pass by the proposed neighborhood parks in the area and will provide important access to the mixed use area along CTH AB. A right of way width of 80 feet is recommended.

h) **Interstate Highway 39/90**

The existing Interstate Highway 39/90 corridor will continue to function as an arterial highway that meets the needs of the Yahara Hills Neighborhood planning area and the larger region. The ongoing WisDOT study will determine changes to the existing facility.

i) **USH 12/18**

USH 12/18 will continue to function as an arterial that serves the planning area and the larger region. The ongoing WisDOT study will determine changes to the existing facility.

3. Ho-Chunk Gaming Area Transportation Recommendations

Currently, the Ho-Chunk Gaming area and the Yahara Hills Golf Course are served by only one access and egress road. This isolates the area from the rest of the City and limits future use of the Ho-Chunk lands. WisDOT has proposed several potential road projects that would approve accessibility to the area. These include a new bridge across USH 12/18 between Femrite Road and Savannah Road via Meier Road, a new grade-separated interchange (with a signalized intersection as a WisDOT alternative) at CTH AB and USH 12/18, and a new frontage road along the south side of USH 12/18 from the CTH AB interchange to the Meier Road bridge crossing of USH 12/18. Right-in, right-out access at Millpond Road is also being studied with a jug handle design. These potential projects have not been finalized at this time and are subject to change.

It is recommended that a new loop road be considered within the Yahara Hills Golf Course and the Ho-Chunk Gaming area Community Mixed-use District. The loop road would be a two lane facility in a 66-foot right of way. This public road would provide greatly improved access to the mixed-use district and the golf course as well as a planned community park in the area. The loop road is conceptual and will require in-depth planning to determine project cost/feasibility, the impact on the golf course and environmental features in the area.

It is recommended that a new two-lane street crossing of IH 39/90 that would connect the Yahara Hills Golf Course and Ho-Chunk Gaming area to the Marsh Road Neighborhood be considered. This street would cross IH 39/90 in the general vicinity of Storck Road and help alleviate the isolated nature of the golf course, future community park and the Ho-Chunk area Community Mixed-use District. The crossing would connect with the conceptual loop road along the edges of the golf course. A bicycle connection that is part of the regional multi-modal network would be included in this street design. The crossing would have an 80-foot right-of-way and would require detailed design in order to finalize an exact location.

Changes to the existing street pattern in the Ho-Chunk Gaming area may be appropriate if a master plan is prepared for the area. Ho-Chunk Gaming has retained the services of an urban planning consultant to look at a potential land use and street layout for the area.

4. Local Streets

The proposed street layout is a “modified grid” pattern that includes relatively small blocks, provides a high degree of connectivity within the neighborhood and provides multiple routes to most destinations. The street pattern is designed to accommodate factors such as existing topography, property ownerships and solar orientation while still providing an engaging street network.

a) Topography

Areas with steep slopes are avoided and the street pattern seeks to minimize the amount of grading that will be required to accommodate development. Often, streets run up and down the more moderate slopes so that streets and development can follow the natural contour of the land. This arrangement minimizes the use of retaining walls and steeper slopes in backyards and provides positive drainage for sanitary and storm sewers. In areas of steep slopes, development is limited

to the lower elevations and the sloped areas are recommended for open space.

b) Property Boundaries

The street layout largely respects existing property boundaries. The *Plan* minimizes any odd shaped development areas along property lines or where roads intersect property lines. In some cases, however, the most effective street pattern does leave small areas of a property that would be difficult to develop efficiently as a separate parcel. In these cases, property owners are encouraged to exchange land with adjacent owners to create parcels more suitable for development.

c) Solar Orientation

The street pattern also seeks to maximize solar orientation through both the street pattern and potential building placement and design. The City's Land Subdivision Regulations include standards for maximizing solar orientation of streets, blocks and lots.

d) Typical Local Streets

Most local streets will have a right-of-way width of 60 feet, depending on the location and the type of development along the street. The typical pavement width in a new residential subdivision is 32 feet. The City's Subdivision Ordinance does allow narrower street pavement in relatively low-density areas where criteria regarding average density, the amount of off-street parking provided and other factors can be met. Narrower streets and tighter corner radii are encouraged within the planning area as they enhance the pedestrian scale of the neighborhood and help encourage street-oriented development.

Other local street segments adjacent to larger parks or activity centers may have a 66-foot right-of-way to allow for a wider pavement width where considerable on-street parking is anticipated. Rather than being perfectly straight, longer neighborhood streets are planned to include curves and bends that will add interest and provide views of the streetscape in the distance while traveling through the neighborhood. Many local street segments end opposite planned parks and activity areas to provide interesting terminal views such as those to the Capitol; and all proposed parks have significant public street frontage to increase visibility and accessibility.

A potential rail line street crossing is proposed to provide improved access between the Fankhauser property and the

neighborhood core area. This crossing would help connect recommended development areas north and south of the rail line. The new crossing would require approval by the Office of the Commissioner of Railroads.

5. Roundabouts

Roundabouts may provide a cost-effective, safer alternative to other methods of traffic control at many types of street intersections. Well-designed roundabouts can reduce traffic speeds, improve traffic flow and increase safety for pedestrians and bicyclists. A roundabout is conceptually shown at CTH AB and Femrite Drive. Other intersections may also be good locations.

6. Planned Future Transit Service Improvements

Transit improvements to the service area may include new routes or extensions of existing routes. Commuter service may be provided by an extension of Routes 11 and 12 from the Dutch Mill park-and-ride to the east and/or a service restructure that extends the service provided by Routes 32, 33, and 35 from the north into the amendment area. Service would likely be every 30 to 60 minutes during weekday peak periods and every 60 minutes, if provided, outside peak periods. The ability to add new routes to serve the amendment area is limited since both the South and East Transfer Points are at or over capacity at certain times of the day; however, transfers may be accommodated at other points where routes intersect such as at the intersection of Monona Drive and Broadway. The potential to extend commuter service is further limited by constraints at the existing bus storage facility, which does not have space to park additional buses. These expected service levels reflect the anticipated land uses in the planning area. A potential future transit route could extend from Cottage Grove Road south to CTH AB, then on to lands south of the planned Neighborhood Mixed Use District. An alternative route could extend east along Femrite Drive with possible connects to the Ho-Chunk Gaming area and the planned employment area along the relocated CTH AB (See **Map 10: Transportation Plan-Future Transit Service**).

7. Planned Future Pedestrian and Bicycle Improvements

Pedestrian mobility in the planning area is encouraged by the interconnected “grid-like” street system, which provides multiple routes to most destinations. All City of Madison streets will have public sidewalks and are designed to also accommodate bicycle travel. Mid-block pedestrian/bicycle paths are recommended where a reasonably direct street connection is not available. Marked bicycle lanes are recommended on principal streets, and off-street

multi-purpose trails are integrated with existing and planned regional bicycle facilities.

Three types of bicycle facilities are recommended in the planning area. Bicycle lanes on more heavily traveled roads such as arterials and collectors provide more-direct routes and have fewer stops, and are often preferred by commuters and long-distance bicyclists. The local neighborhood street network also provides relatively direct routes, but has much lower traffic volumes and is suitable for a wider biking population. Off-street pedestrian/bicycle paths also serve a wider population, including recreational riders and younger riders. Recommended pedestrian and bicycle facilities are shown on **Map 11: Transportation Plan-Pedestrian/Bicycle Facilities**.

a) **Marked Bicycle Lanes**

Marked bicycle lanes are recommended on all of the arterial or collector roadways. As the planning area develops, bicycle lanes or shared streets (bicycle boulevards) may be appropriate on additional streets.

b) **Local Street Network**

While many roadways are planned to have dedicated bicycle facilities, the recommended street network also provides alternative routes for bicycle travel through the neighborhood on local streets that are relatively direct and continuous, but will generally have low traffic volumes. The street alignments shown in a neighborhood development plan are sometimes modified as individual developments are approved, but it is important that the street linkages providing these low-traffic routes be maintained and that other plan objectives are met.

c) **Shared-use Pedestrian and Bicycle Paths**

Several long, primary off-street pedestrian and bicycle paths are recommended to serve the neighborhood. These paths connect with the regional bicycle trail system and link destinations within the planning area. Shorter path segments provide connections and amenity within the planning area. It is recommended that the bicycle and pedestrian paths be constructed at the time of development, as is done with other public transportation facilities such as streets and sidewalks.

d) **Bicycle Way Finding**

It is recommended that a bicycle wayfinding system be developed for the planning area.

- e) **Bicycle Parking**
Adequate bicycle parking facilities are required when sites develop and should be appropriate for types of use, with stalls within the right-of-way, on developed sites, and when appropriate sheltered and secured. These facilities should be located in prominent public areas, near building entrances and be appropriately sized and be well maintained.
- f) **Traffic Calming**
Traffic calming mechanisms, such as bump-outs at intersections, should be considered to improve the pedestrian and bicycle environment. These mechanisms may be especially important in high pedestrian and bicycle areas such as near schools and parks and within mixed-use areas.
- g) **Snow Removal**
Sidewalks, bicycle lanes and pedestrian-bicycle paths should be adequately maintained for year-round use including appropriate snow removal.
- h) **Mitigate Barriers to Pedestrian and Bicycle Mobility**
Unanticipated barriers to bicycle mobility, such as streets without adequate crossing facilities, should be identified. Locations where improvements are needed most should be prioritized and then improvements made.
- i) All streets in the area will be designed to accommodate bicyclists. A network of shared-use paths will complement the on-street network.
- j) Marked bicycle lanes are recommended on all arterial and collector roadways. As the planning area develops, bicycle lanes may be appropriate on additional streets.
- k) While some roadways are planned to have dedicated bicycle lanes, the recommended street network also provides alternative routes for bicycle travel through the neighborhood on local streets that are relatively direct and continuous, but will generally have relatively low traffic volumes. The street alignments shown in a neighborhood development plan are sometimes modified as individual developments are approved, but it is important that the street linkages providing these low-traffic routes be maintained and that other plan objectives are met.

The extension of the Capital City Trail is recommended along the Wisconsin and Southern railroad line. On-street improvements are shown for most existing roads in and bordering the planning area, including CTH AB, CTH BB, Buckeye Road, Cottage Grove Road, Femrite Drive, Siggelkow Road and Sprecher Road.

Wisconsin Department of Natural Resources (WisDNR) and Dane County are responsible for construction of the Glacial Drumlin Trail (2021 or later) west from the Village of Cottage Grove to the rail underpass at IH 39/90. The City of Madison is responsible per a memorandum of understanding, for extending the Capital City Connector Trail east to the rail underpass at IH 39/90. The City has a federal grant to construct the bike path from Vondron Drive to the railroad underpass at IH 39/90 and the project is scheduled to be completed by 2017. However, the last segment won't be built until WisDNR and Dane County complete their segment from the Village of Cottage Grove.

1) Primary and Secondary Bicycle Networks

The MPO plan identifies a combination of Primary and Secondary Bicycle Networks. Primary networks are comprised of higher level facilities that appeal to a broader audience, such as off-street paths, bike boulevards, and wide or buffered bike lanes. Secondary networks can provide more direct access but may be located on streets with high traffic volumes and/or speeds. A proposed Primary (shared-use path) path is recommended to cross from the Marsh Road area east across IH 39/90 into the Ho-Chunk Gaming area where it will extend north along Meier Road across USH 12/18. The path would then continue north through the Yahara Hills planning area where it would connect with the Glacial Drumlin Trail. It is proposed to extend north from the Glacial Drumlin Trail, across CTH BB, and eventually to link with trails in Door Creek Park.

The Glacial Drumlin Trail is designated a Primary (shared-use) facility. This facility includes a connection to the Capital City Trail west of IH 39/90. Primary (on-street bicycle) facilities include Femrite Drive, part of Meier Road north and south of Femrite Drive and a connection between CTH AB and a recommended north-south Primary (shared-use) facility running generally along Door Creek.

CTH AB and the future Sprecher Road realignment are designated Secondary (on-street) bicycle facilities. Siggelkow Road is also designated a Secondary (on-street) bicycle facility. A planned bicycle facility is also proposed along a new frontage road that is planned by WisDOT to run along the south side of USH 12/18 adjacent to the Yahara Hills Golf Course. This path would intersect with the proposed Door Creek path in the eastern part of the planning area.

8. Planned Pedestrian Facilities

Pedestrian mobility in the planning area is encouraged by the interconnected “grid-like” street system which provides multiple routes to most destinations. All City of Madison streets will have public sidewalks on both sides of and are designed to also accommodate bicycle travel. Mid-block pedestrian/bicycle paths are recommended where site constraints dictate longer block lengths and a reasonably direct street connection is not available. Shared use paths will serve the neighborhood.

9. Transportation Demand Management

In order to ensure the viability and desirability of non-automobile modes of transportation in the planning area, a number of transportation demand management initiatives are proposed.

a) Transportation Demand Management Plan and Program

A Transportation Demand Management Plan and Program should be developed for the planning area. Employer-based TDM measures should be instituted as part of a comprehensive planning area-wide TDM program, in order to enhance the desirability of non single-occupancy vehicle (SOV)-based transportation modes--including public transit, walking, bicycling, carpooling and telecommuting.

b) Transportation Management Associations

The formation of Transportation Management Associations (TMAs) should be considered, where appropriate, as a mechanism to organize individual employers and administer TDM initiatives in the planning area. A TMA is an organized group that applies various approaches to help facilitate the movement of people and goods within an urban area – most often stressing the use of transportation demand management strategies and measures. TMAs are often legally constituted and frequently led by the private sector, in partnership with public sector entities, in an effort to address transportation challenges.

TDM Measures to be considered for inclusion in the TDM Plan/Program

In general, “transportation demand management” refers to a set of actions or strategies to encourage travelers to use alternatives to driving alone, especially at the most congested times of the day. The term TDM encompasses both alternative modes to driving alone and the techniques or strategies that encourage use of these modes. TDM alternatives include travel options such as carpools and vanpools, public and private transit (including shuttles) and bicycling, walking and other non-motorized travel

TDM measures also can include “alternative work hours” options that reduce the number of days commuters need to travel to the worksite or shift in-office time to avoid peak congestion periods. Alternative work hours can include:

- Compressed work weeks, in which employees work a full 40-hour work week in fewer than the typical 5 days.
- Telecommuting, in which employees work one or more days at home or at a “satellite work center” closer to their homes.

TDM strategies include improvements in alternative modes of transportation; financial and/or time incentives for commuters who use alternative modes; information dissemination and marketing activities that heighten travelers’ awareness of and/or interest in alternatives; and supporting services that make the use of alternatives more convenient or that remove psychological impediments to use of alternatives. Examples of TDM strategies are:

- Improvements to existing transportation services, such as shuttle buses and vanpool programs
- Financial/time incentives, for example, preferential parking for ride sharers, subsidies for transit riders, and transportation allowances
- Parking management programs
- Priority treatment for ride sharers, for example, high occupancy vehicle (HOV) lanes and freeway ramps
- Employer support measures, such as employee transportation coordinators, participation in Metro’s Employee Pass Program or on-site transit pass sales, or guaranteed ride home programs

- Marketing and promotion techniques (such as transportation fares or periodic prize drawings for users of alternatives modes)
- TDM measures can be particularly effective in attracting public transit ridership from individuals who own their own vehicles (i.e., “choice” riders) in the planning area. Possible transit service improvements that could help attract choice riders include:
 - Pursuing the development of more pre-paid unlimited ride pass programs, commuter choice pass programs, and employer-subsidized transit fare programs with large employers and employer associations in the City
 - Pursuing further introduction of Intelligent Transportation Systems (ITS) technologies that enhance service reliability, real-time information, convenience and security
 - Continuing to install bicycle racks on buses

E. Sanitary Sewer Service

The planning area is part of two watershed drainage basins. These drainage areas primarily determine how sanitary sewer service will be provided.

1. Yahara River and Lake Monona Watershed

This planning area is served by several existing Madison Metropolitan Sewerage District (MMDS) interceptor sewers including the Door Creek Extension, Cottage Grove Extension, and Far East interceptors. The recommended land uses in the Yahara River and Lake Monona watershed include Housing Mix 1-4, Neighborhood Mixed Use, Industrial and Parks and Open Space. Future sewer service will be provided by gravity sewer extensions off of MMSD’s sewer interceptors: Door Creek Extension, Far East and Cottage Grove Extension. The northern part of the study area near the railroad will be served primarily by the Door Creek Extension and the Cottage Grove Extension Interceptors while the middle section northwest of the Dane County Landfill and Ho-Chunk Gaming area will be served by gravity City sewer interceptors connecting to the west to MMSD’s Far East interceptors.

2. Yahara River and Lake Kegonsa Watershed

The Yahara River and Lake Kegonsa Watershed will include housing mix types 1, 2, 3, and 4. Neighborhood Mixed Use, Employment, General Commercial, Civic and Institutional and Industrial uses are also planned.

The Yahara River and Lake Kegonsa Watershed will be served by MMSD's Blooming Grove sewer which crosses Interstate HWY 39/90. The majority of this area drains east towards Door Creek. Areas draining towards the creek will be served by a new regional lift station near the Door Creek where the creek crosses USH12/18. This station will have a force main extending 4800' west along USH 12/18 until connecting to a new gravity sewer at CTH AB. This gravity sewer will extend 6200' west along US Highway (USH) 12/18 to Long Drive. At Long Drive, the new gravity sewer will connect to MMSD's Blooming Grove interceptor. In order to fully utilize the lift station at Door Creek and USH 12/18, a new interceptor will need to be extended to the north along the Door Creek draining lands into the new Lift Station.

It is anticipated that a smaller lift station and force main will be necessary on Femrite Drive at CTH AB. This lift station will either pump to the north on CTH AB until draining by gravity to MMSD's Cottage Grove Interceptor located on the south side of the rail line or the sewer could potentially be pumped to the west to Meier Road where the gravity sewers drain to MMSD's Blooming Grove sewer interceptor. Eventually this lift station on Femrite Drive would be relieved and the area would drain to the east to the gravity sewer along the Door Creek that drains to the regional lift station located on USH 12/18 and the Door Creek.

Lands south of USH 12/18 drain to the south toward Interstate Highway 39/90. These lands will be provided sanitary sewer service with a lift station most likely located where Door Creek crosses Interstate Highway 90/39. The force main will extend west along the Interstate Highway 39/90 corridor until connecting to MMSD's Blooming Grove sewer.

3. Sanitary Sewer Charges

All developing parcels can expect one or more charges from the Madison Sewer Utility for the privilege of connecting to public sanitary sewer. This charge can be in the form of an impact fee, direct or deferred assessment or a simple connection charge. Certain parcels could reside in multiple fee districts. Charges that represent a prorated share of the costs for the City to extend sewer service to the respective parcel will be required. In addition, all development parcels will incur sewer area charges from the Madison Metropolitan Sewerage District for downstream facilities and treatment plant connection charges. All charges are adjusted annually for interest or inflation.

F PUBLIC WATER SERVICE

1. Water Distribution System

The Water Utility would like to loop the water line that serves the Ho-Chunk Gaming area. The Water Utility would like to eventually connect this line with a line that serves lands within the Secret Places subdivision across IH 39/90. This connection would create a looped system that would provide increased reliability.

As development occurs, larger water mains will be extended along the primary roads, with smaller water distribution mains constructed along local streets developed within the neighborhood. The Water Utility will also seek to loop the larger mains to increase service reliability.

2. Reservoirs and Water Towers

Water service to the planning area is provided by the Madison Water Utility within Pressure Zone 4. The Spaanem Water Tower provides pressure to the planning area. Elevations above 925 feet will require a booster station.

3. Public Wells

A new Well (31) will be constructed in 2017 in the Tradewinds Parkway area. Well 9 and Well 31 will serve the planning area.

G. Storm Water Management

1. Land Use and Street Plan

The Future Land Use and Street Plan identifies a basic framework of proposed stormwater management facilities within the planning area, including open drainageways and stormwater detention facilities. The map does not illustrate the location of smaller infiltration mechanisms such as rain gardens or segments of underground storm sewer that will be needed at some locations. The facilities shown on the map are preliminary, but their locations and approximate sizes are based on an analysis of drainage patterns and the amount of land and potential future development within the many sub-basins in the planning area. Detailed stormwater management planning and engineering for development projects may result in some modifications to these conceptual facilities, but it is expected that any revisions will be generally consistent with the framework recommended in the Future Land Use and Street Plan.

2. Open Drainage Ways

Much of the stormwater conveyance within the planning area is planned within open drainageways, many of which are part of larger open space corridors. Drainage ways provide environmental benefits, such as an increased opportunity for water to infiltrate back into the ground and a location for wildlife habitat and movement. To the extent compatible with stormwater management objectives and other intended uses of the corridor, drainageways should be maintained in a relatively natural, undeveloped state. Natural groundcovers are encouraged as an alternative to mowed swales. The natural appearance can provide a visual open space amenity within the neighborhood and serve as a land use buffer.

The open drainageways are recommended to be at least 75 feet in width. Drainageways that contain detention facilities in addition to stormwater conveyance will most likely be wider. While portions of the corridors may be dedicated to the public for stormwater management or other purposes, some of the lands within the illustrated corridors may remain as private property. It is also possible that lands adjacent to streams and wetlands will be subject to special regulations that are applicable to an area larger than the illustrated corridors.

3. Stream Bank and Wetland Improvements

It is recommended that measures be taken to limit erosion along the existing streams and drainage courses within the planning area. The stream banks could be stabilized through selective tree removal to increase sunlight and installation of appropriate native plants. The limited use of natural boulders or similar materials may also be appropriate. In some cases the existing streams and drainage courses will not be suitable for locations to accept urban stormwater. In these situations, planned detention facilities that are located adjacent to these waterways will gradually release stormwater into the waterway at rates similar to the pre-development rate. Measures should also be taken to enhance and protect wetlands, such as removal of invasive brush and trees, dredging of accumulated past sediments and careful management of land disturbance and runoff in their vicinities to prevent further degradation. Ideally, improvements to the streams and wetlands will occur at the time the adjacent land is developed or earlier.

4. Storm Sewers

The street network and underground storm sewers will accommodate the majority of “upstream” stormwater conveyance, collecting stormwater that will eventually flow into open drainageways and detention facilities. In some situations, larger storm sewers will be necessary to convey stormwater to its ultimate destination. Storm

sewers will also be used to connect drainageways where maintaining an open drainageway is not a reasonable approach, given the proposed land uses and urban street pattern.

5. Storm Water Detention Facilities

Preliminary locations for storm water detention facilities are illustrated on the Land Use and Street Plan. In locating the facilities, it is generally assumed that individual properties will develop separately and that about five percent of each property will be required for storm water detention. If the development of several properties is coordinated, it may be possible to shift the locations of some of the required stormwater facilities among them and perhaps eliminate some. The actual percentage of any property that will be utilized for stormwater management will be determined during detailed development planning, and will vary based on the type of development proposed, the stormwater management mechanisms used within the development, soil conditions, and applicable stormwater regulations.

6. Madison Storm Water Utility

The Madison Storm Water Utility, established in 2001, handles stormwater management in the City of Madison for both existing conditions and post-development conditions. The Utility charges user fees to all City of Madison parcels for this service.

H. Other City of Madison Services

1. Police Protection Services

The City of Madison Police Department will provide police protection services to lands within the planning area that are located within the City. Lands located in the Towns will continue to receive services from the Dane County Sheriff's Office or through another arrangement that the Towns may make in the future.

The planning area is part of the Madison Police Department's East District. The East District Station is located at the intersection of Thompson Drive and Cottage Grove Road just west of Interstate 39-90-94. This station is about one mile from the edge of the planning area.

The City of Madison continues to grow and expand, and additional police officers and support personnel will be needed in order to maintain the staffing levels required to serve a larger population and more spread-out community

2. Fire Protection and Emergency Medical Services

The City of Madison Fire Department will provide fire protection and emergency medical services to lands within the City of Madison and the Town of Blooming Grove.

Currently, two Madison fire stations are located in relatively close proximity to the planning area: Station No. 5 on Cottage Grove Road near Stoughton Road and Station No.13 which is located at 6350 Town Center Drive. Lands that are located within the Town of Cottage Grove are served by Cottage Grove Volunteer Fire Department. The Cottage Grove Volunteer Fire Department serves the Town and Village of Cottage Grove and a portion of the Town of Pleasant Springs.

3. Streets and Sanitation Services

For lands within the City of Madison, the Madison Streets Division provides collection of solid waste, large items, and recyclable materials on a year round basis; the collection of brush on a monthly basis from the Spring until the Fall; and leaf/yard waste collection in Spring and Fall. Solid waste collection is provided primarily to single-family dwellings and multi-family projects of 8 units or fewer because most larger apartments and commercial establishments contract with private firms for this service. The Streets Division also provides street repair, street cleaning, and snow and ice control. Currently, these services are provided to the planning area from the East Side Public Works Facility located on Sycamore Avenue.

I. Development Phasing

The planning area is divided into four development phasing areas. All of the lands within each phasing area share certain characteristics regarding the sequence for urban service extension, connections with the planned neighborhood street network or municipal jurisdiction that make it reasonable to consider them generally ready to begin urban development at about the same time. The boundaries of the phasing areas should be considered approximate. The actual sequence of development will depend on a variety of factors including property owner interest, the budgeting and scheduling of public infrastructure and urban service extensions, the development plans for adjacent properties and whether or not the recommended street connections to the area can be implemented at that time (**See Map 12: Utilities and Development Phasing**).

1. Phasing Area A

Phasing Area A comprises 1,261 acres in the north, central and southern parts of the planning area. This area includes the Ho-Chunk lands as well as lands along the south side of CTH BB. The western half of the area includes the western parts of the planned neighborhood core area. Parts of this phasing area have been attached or annexed to the City of Madison, with the remainder slated to be attached in 2020 or sooner. Parts of this area are already located within the Central Urban Service Area. Phasing Area A includes lands recommended for a variety of housing types, mixed use development, employment, industrial, general commercial, parks and open space, and civic and institutional uses. Some property owners in Phasing Area A have expressed interest in developing their lands in the near-term. Existing sanitary sewers serve parts of this area or the area can generally be served with the extensions of gravity sewers. Much of this area is in the Yahara River and Lake Monona Watershed. It is recommended that the City request an amendment to the Central Urban Service Area to include all or parts of Phasing Area A.

2. Phasing Area B

Phasing Area B generally includes the center of the planning area and covers 1,405 acres. This area includes a recommended range of residential housing mix types, a neighborhood mixed use area, parks and open space, industrial, employment, general commercial and civic and institutional uses. This area could develop when necessary street and utility connections are available through adjacent lands. A potential lift station and forcemain would be necessary to serve part of Phasing Area B. Much of this phasing area is in the Yahara River and Lake Kegonsa Watershed.

3. Phasing Area C

Phasing Area C includes the eastern part of the planning area and covers 334 acres. There has been some interest in developing this area but it does not have ready access to gravity sewers. This area would need to be served by lift stations and forcemains. Various housing mix types, employment, parks and open space and civic and institutional uses are recommended in this area. Phasing Area C is located in the Yahara River Lake Kegonsa Watershed.

4. Phasing Area D

Phasing Area D includes the southeastern part of the planning area and covers 1,195 acres. This area is located in the Yahara River Lake Kegonsa Watershed. Lands within this phasing area are recommended for agriculture/rural and parks and open space uses.

While a general A to D sequence for beginning development within the four defined phasing areas is broadly assumed, it is not intended that the start of development in any phasing area necessarily should be deferred until such time as development within any other phasing area extends to a particular location or reaches a certain percentage of full build-out. Simultaneous development at multiple locations within the planning area can benefit the neighborhood by increasing development opportunities and choices and by facilitating completion of desirable street connections and improving accessibility. The appropriate time to begin development in any phasing area will depend more on the availability of City infrastructure improvements and services than on the pace of development in other phasing areas.

IV. Plan Implementation

This section recommends the actions needed to prepare the planning area for development with the full range of urban services and to ensure that future development is consistent with the recommendations of this *Plan*.

A. Neighborhood Development Plan Adoption

The *City of Madison Comprehensive Plan*, adopted in January 2006, includes broad growth and land use recommendations for the planning area, which is identified as part of Peripheral Planning Area D and recommended as a potential location for relatively near-term City of Madison expansion and future development. The *Comprehensive Plan* also requires that a more-detailed plan for future City growth areas be prepared and adopted prior to beginning urban development within them. The *Yahara Hills Neighborhood Development Plan* has been prepared to provide detailed land use, transportation, and public service recommendations to guide the future growth and development of the planning area.

It is recommended that the *Yahara Hills Neighborhood Development Plan* be adopted as a supplement to the *City of Madison Comprehensive Plan*. It is also recommended that the *Comprehensive Plan* Generalized Future Land Use Plan map be amended as appropriate during the next review and evaluation to reflect the land use recommendations in the *Yahara Hills Neighborhood Development Plan*.

B. Central Urban Service Area Amendments

In order for the City of Madison to provide public sanitary sewer and the full range of urban services to future development in the neighborhood, the lands proposed for development must first be added to the Central Urban Service Area. Following adoption of the *Plan* as a supplement to the *Comprehensive Plan*, the City should prepare and submit to the Capital Area Regional Planning Commission an application to amend the Dane

County Water Quality Plan to include lands within Phasing Area A in the Central Urban Service Area. Future requests to amend the Central Urban Service Area to include all or portions of the lands within Phasing Areas B, C and D should be submitted at the time it is determined appropriate to begin urban development in those areas, or to extend public sanitary sewer to serve existing developments that currently do not have it.

C. City of Madison Attachments

The lands that are within the Town of Blooming Grove will eventually be attached to the City of Madison pursuant to the Cooperative Plan for the City of Madison and Town of Blooming Grove. The Cooperative Plan requires that lands within the Town of Blooming Grove attach to the City of Madison via a series of attachments. These attachments will occur in three phases. The first phase occurred in 2015. Additional Attachments will occur in 2020 and 2027. Further, property owners within the Town may request attachments to the City at any time with the exception of lands located within “protected areas.” The City may decide whether or not to accept the attachment and whether or not to require that the development have the full range of urban services. It is generally recommended that future development on lands within the attachment areas only occur after the lands are attached to the City of Madison. It is also recommended that the City not approve development or subdivisions within these areas unless the full range of urban services can be provided at the time of such approval.

D. Zoning Map Amendments

Much of the planning area is zoned Agricultural District, and can only be used for agriculture and other limited uses. The majority of the remaining lands are zoned for residential use and several areas are zoned for industrial and commercial use. As Town of Blooming Grove lands are attached to the City of Madison, they will be zoned into appropriate City zoning districts, based on various factors including existing use and planned use.

Under the provisions of the Blooming Grove Cooperative Plan, subdivision requests and requests to rezone property from an agriculture or residential zoning classification to a non-residential classification constitute “development” and may require attachment to the City and the provision of full urban services. In the City of Madison, the agricultural zoning district is used as an interim classification placed on lands that will eventually be rezoned to permit urban development.

It is recommended that the future zoning classification of lands within the planning area conform to the land use recommendations of the adopted *Plan*. It is further recommended that lands be rezoned to another district only in conjunction with consideration of a specific a subdivision and/or a

specific development proposal sufficiently detailed to ensure that development within the district will be consistent with the neighborhood plan.

E. Design Standards

The Madison Comprehensive Plan recommends that plans for new development areas incorporate the principles of Traditional Neighborhood Development. Urban design and architectural design are particularly important elements in Traditional Neighborhood Development. The City of Madison's Zoning Code, includes form-based standards that provide more effective design controls.

Design standards can be included in private deed restrictions and covenants applied to the property. In some cases, it may be appropriate to require that such design standards be established as a condition of zoning or subdivision approvals.

Design standards can be incorporated in Planned Developments.

It is recommended that zoning and subdivision approvals for development projects in the planning area establish project design standards that address the Traditional Neighborhood Development principles outlined in the neighborhood development plan. The appropriate standards may be contained within the regulations of the zoning districts assigned to the project, or applied as a part of the conditions of development approval.

F. Land Subdivision Regulations

Most lands in the neighborhood will need to be subdivided into smaller parcels before they can be developed with urban uses. As these lands are proposed for development, many of the neighborhood plan recommendations can be implemented through the review and approval of subdivision plats and application of the City of Madison's land subdivision regulations. In Madison, requests for approval of a land divisions are usually considered in conjunction with a request to rezone undeveloped property to allow urban development.

Subdivision approvals establish the location of public streets, parks and stormwater management facilities. The rights-of-way and other lands required for these purposes will largely be acquired through dedications as provided in the subdivision regulations. The spatial relationships between the proposed streets, proposed parks, and other land uses illustrated in the Future Land Use and Street Plan reflect important neighborhood planning objectives. These relationships need to be maintained as the land in the neighborhood is developed if these objectives are to be realized.

Subdivision also establishes the sizes and arrangement of individual development parcels. Subdivision applications will be reviewed together

with the corresponding rezoning application to ensure that the proposed division will support the land uses recommended for the site in the neighborhood plan, and that plan recommendations regarding provision of a variety of housing types and densities in residential areas are implemented.

Future subdivisions in the planning area should conform to the recommendations in the adopted *Plan*, particularly regarding the locations of streets, off-street paths, parks and stormwater management facilities. Future subdivisions should provide building lots that facilitate development of the types of land uses recommended in the plan. For higher-density types of development, proposed subdivisions may also be required to provide information showing how the lots may be developed with building designs that maintain the desired street orientation and pedestrian-friendly street character.

Local streets within proposed subdivisions should either generally conform to the pattern of local streets shown in the neighborhood plan, or similarly reflect the objectives illustrated in the neighborhood development plan. Some of these objectives include the provision of connecting streets through the neighborhood, provision of multiple routes to neighborhood destinations, the orientation of streets to visual features in the neighborhood and the streets' function as part of the stormwater management drainage system.

G. Capital Improvement Program and Capital Budget

The *Plan* proposes several types of public improvements and facilities for which public funds may be required. Public improvements and facilities that might require some public funding include proposed public parks and open spaces, arterial, collector and local streets, stormwater management facilities, sanitary sewer facilities and potable water facilities. Implementation of some of the public improvements recommended in the neighborhood development plan will also require participation and cost sharing by other units of government.

It is recommended that the responsible City agencies include within future capital improvement programs and the capital budget those public improvements and facilities for which public funding is required to implement the *Yahara Hills Neighborhoods Development Plan*. It is further recommended that the City continue to work cooperatively with other agencies and units of government to seek their participation in the development planning and the costs of public improvement projects of mutual benefit recommended in the neighborhood development plan.

H. Dane County Parks & Open Space Plan

The *Dane County Parks and Open Space 2012-2017* identifies the Blooming Grove Drumlins Natural Resource Area and the Door Creek

Wetlands Natural Resource Area boundaries on Madison's southeast side. According to the Dane County Plan, Natural Resource Areas consist of land that is specifically set aside for a protection of a valuable environment and/or greenbelt corridor that were identified through a public process. This can include habitat protection and open space preservation. Recreation at natural resource areas is a secondary objective, and users are encouraged to enjoy the resource as is. Passive recreation activities dominate the site's use. If at all, active recreation only takes place on the fringes or in small pockets of a natural resource area. Natural resource areas may include off-road regional trails and surrounding lands belonging to another category, such as recreation parks or wildlife areas.

According to the *Dane County Parks and Open Space Plan 2012-2017*, lands protected within these project areas should be large, contiguous blocks that may include a mixture of agricultural working lands, water, wetlands, steep topography, prairie and forests. Some of these lands may be protected through fee title purchase, however, much of the protection of larger landscapes can be achieved through purchase of conservation easements and continue to remain under private ownership. Land or easements are only purchased from willing sellers. Natural Resource Area boundaries have no bearing on any zoning or land use decisions and participation by private landowners or local units of government to carry out any outlined resource protection initiatives is on a voluntary basis.

Creation of larger areas will provide enough space to incorporate some limited recreation use, without impacting the resource and also allow native vegetation management practices, such as burning, to take place. Lands protected within Natural Resource Areas are often owned by multiple public agencies, therefore it is critical that the County work jointly with these other agencies to ensure cohesive resource and recreation management.

I. Interagency and Intergovernmental Cooperation

The *Plan* provides a framework for coordinating the activities of City of Madison agencies and other units of government in the implementation of the *Plan*. Many important elements of the *Plan* will require continued cooperation and coordination.

It is recommended that the of City of Madison work with the appropriate agencies and other units of government to fully implement the *Plan*.

SPECIAL THANKS TO THE CAPITAL AREA REGIONAL PLANNING COMMISSION FOR THEIR ASSISTANCE IN PREPARING THE BACKGROUND INFORMATION SECTION OF THIS PLAN.

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Map 4	Existing Land Use
Map 5	Existing Zoning
Map 6	Roadways
Map 7	Land Use and Street Plan
Map 8	Parks and Open Space Plan
Map 9	Transportation Plan-Roadways
Map 10	Transportation Plan-Future Transit Service
Map 11	Transportation Plan-Pedestrian/Bicycle Facilities
Map 12	Utilities and Development Phasing

APPENDIX MAPS

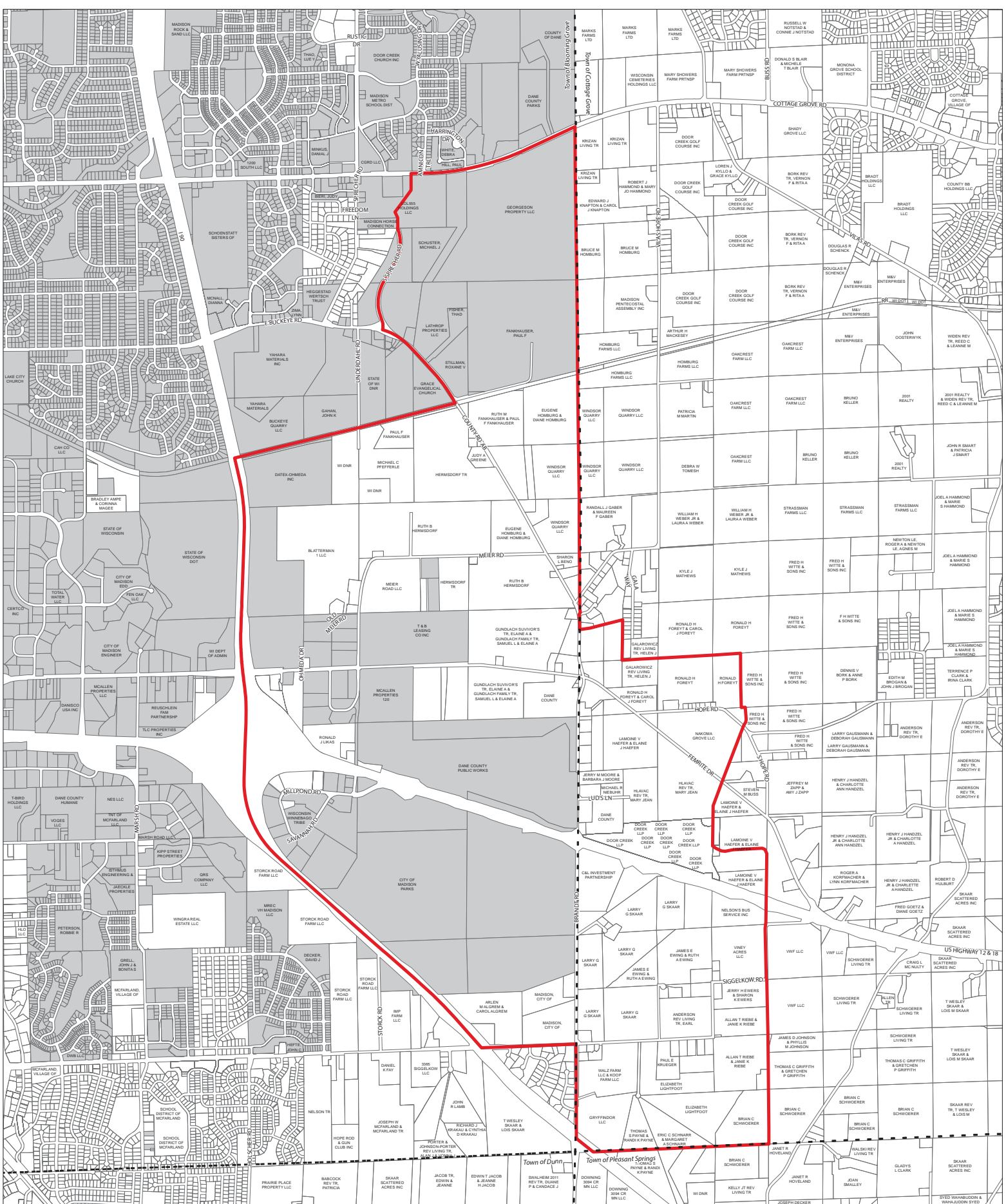
Appendix Map 1	2006 Peripheral Planning Areas
Appendix Map 2	Town of Blooming Grove Cooperative Plan
Appendix Map 3	School Districts
Appendix Map 4	Generalized Future Land Use

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Table 2	Land Use
Table 3	Recommended Land Use
Table 4	Estimated Dwelling Units

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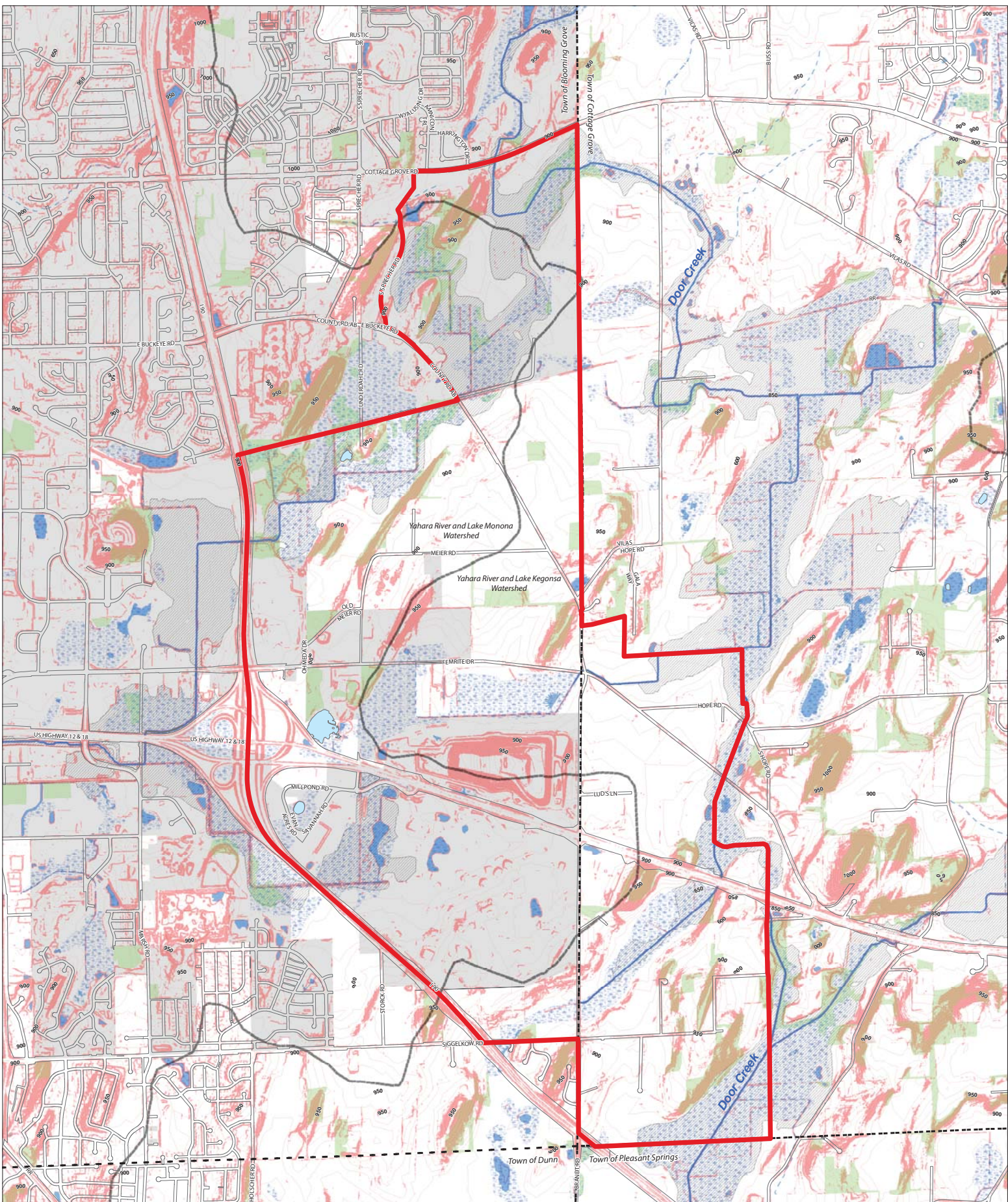
Figure 1	Neighborhood Core
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Map 2:
Municipal Jurisdiction &
Property Ownership

- Planning Area
- Township Boundary
- City of Madison
- Other Municipalities

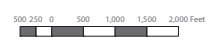


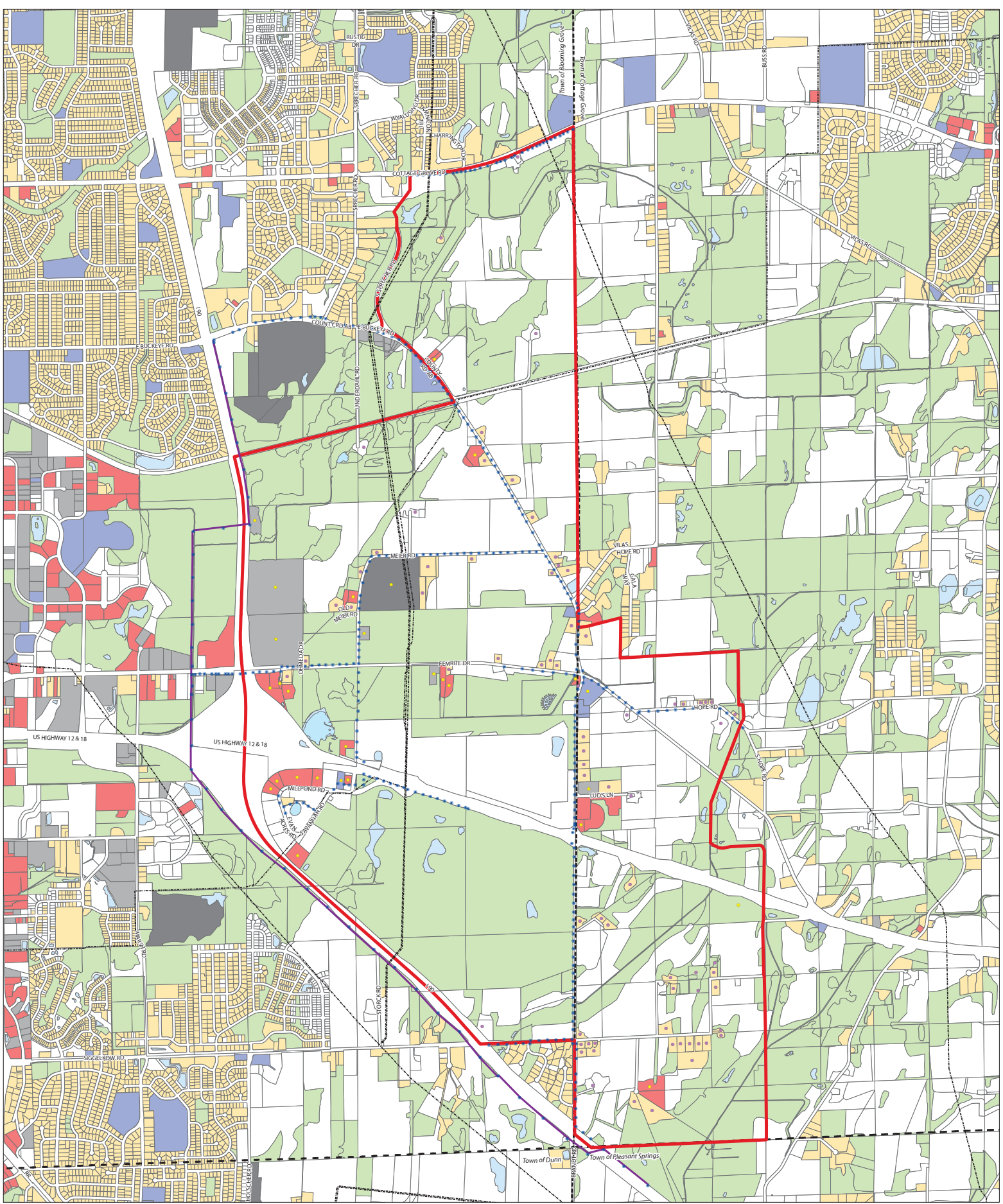


Map 3:
Natural Features

Yahara Hills
Neighborhood Development Plan
City of Madison Planning Division

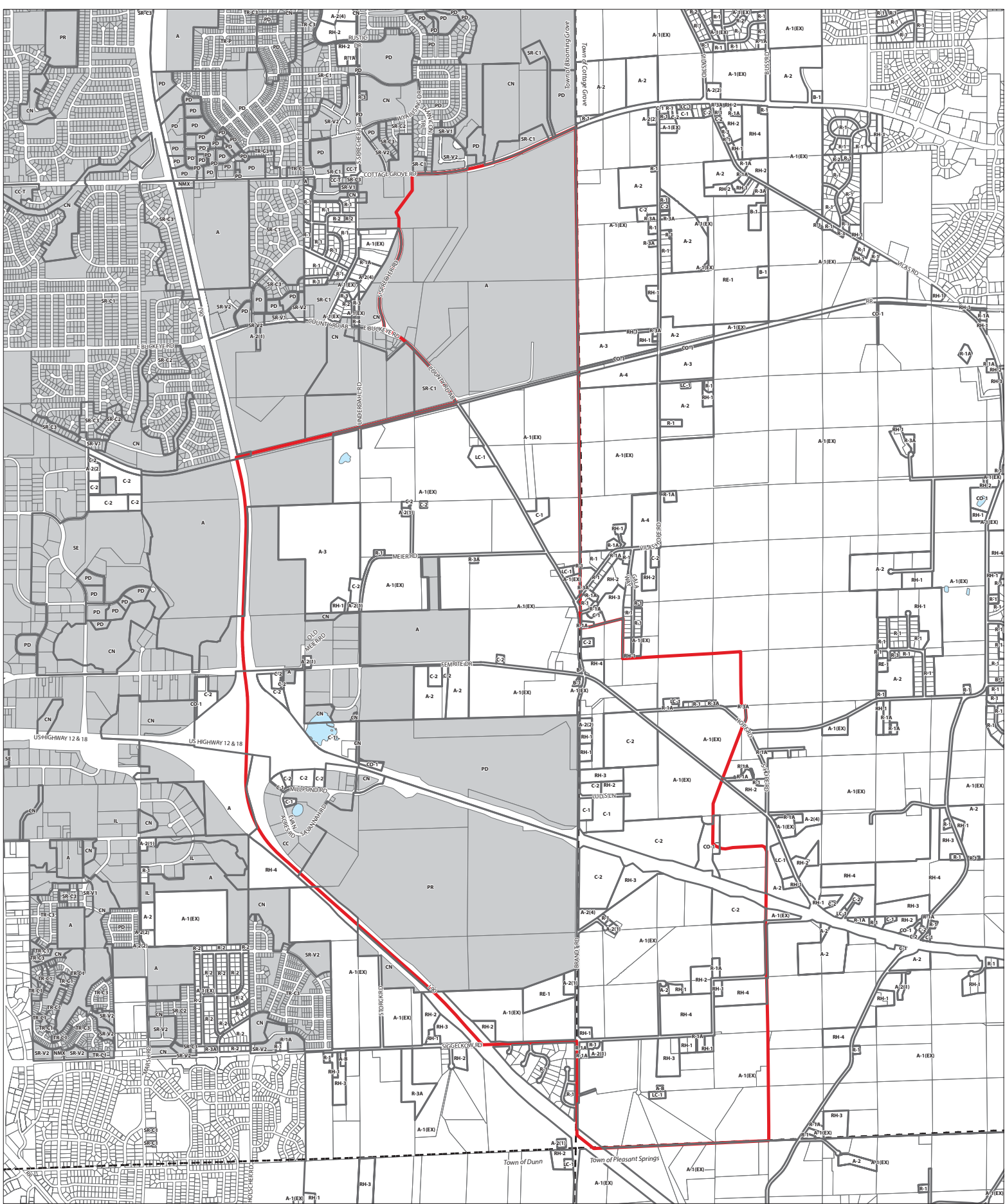
- | | | |
|----------------------|-----------------------|-----------------------|
| Planning Area | Major Ridgeline | Wetland |
| Township Boundary | 10' Elevation Contour | Floodplain |
| City of Madison | Surface Water | Hydric Soils |
| Other Municipalities | Perennial Stream | Slopes 12% or Greater |
| | Intermittent Stream | Woodland |





Map 4:
Existing Land Use

- | | | | |
|----------------------|------------------------|-----------------------|---|
| Planning Area | Agriculture and Vacant | Mineral Extraction | Natural Gas/Petroleum Transmission Pipeline |
| Township Boundary | Commercial | Parks and Open Spaces | Power Poles |
| Businesses | Industrial | Residential | Power Lines |
| Single Family Houses | Institutional | | |

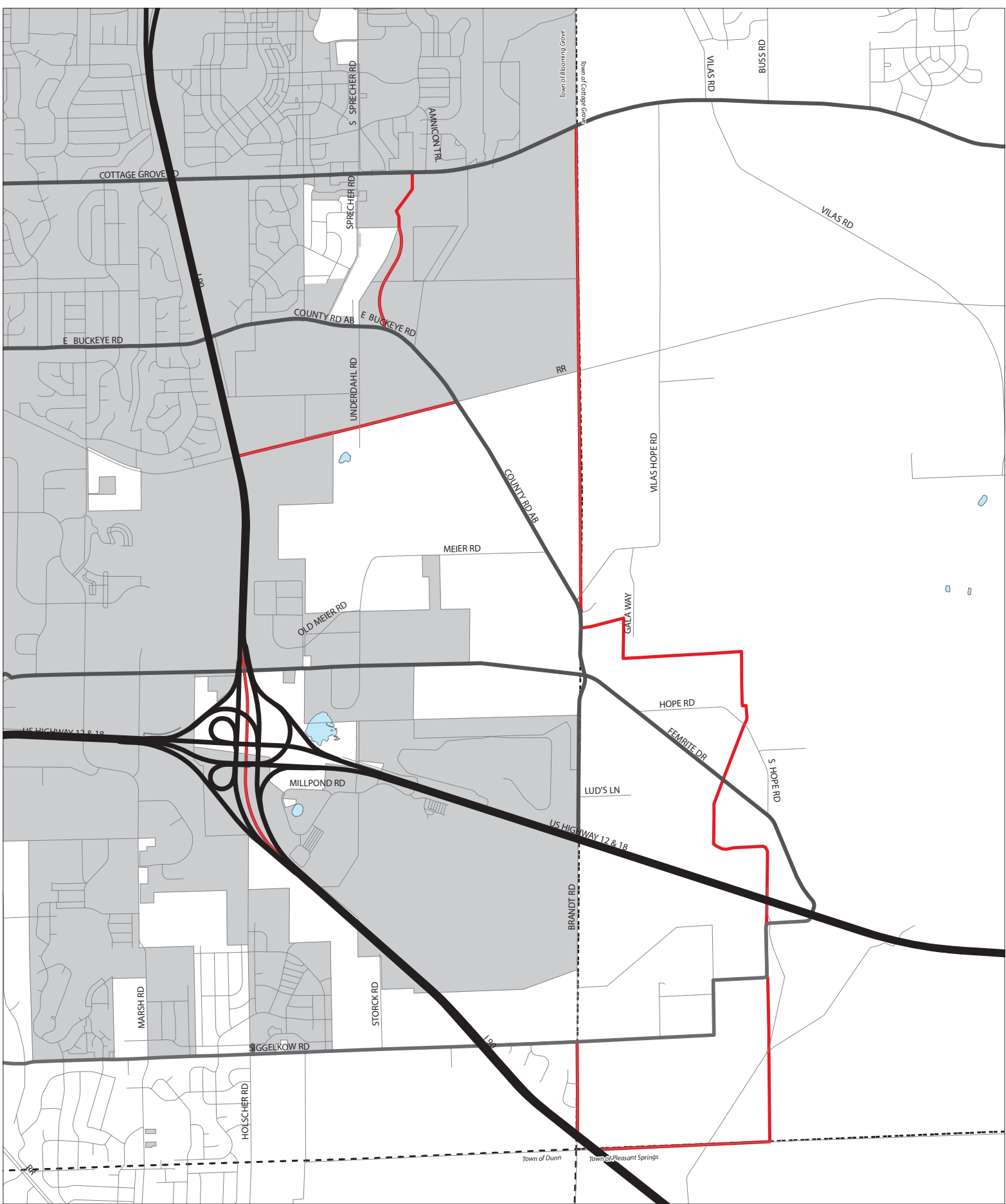


Map 5:
Existing Zoning









- Planning Area
- Township Boundary
- City of Madison
- Other Municipalities

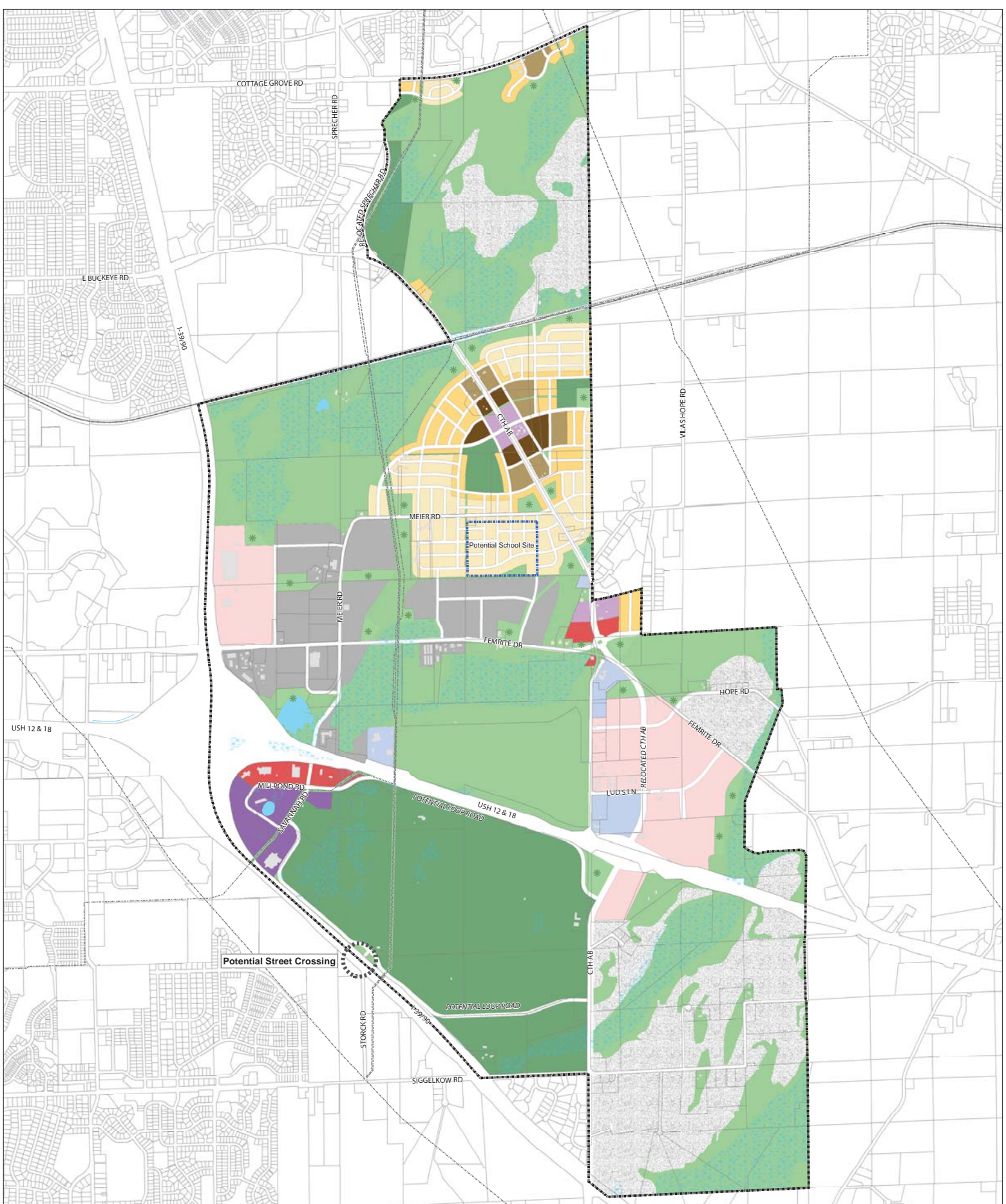
- Madison Districts**
- Residential Districts
SR-C1, SR-C2, SR-C3, SR-V1, SR-V2, TR-C1, TR-C3, TR-P
 - Commercial Districts
CC, CC-T, NMX
 - Employment Districts
IL, SE
 - Special Districts
A, CN, PD, PR

- Dane County Districts**
- Residential Districts
R-1, R-1A, R-2, R-3, R-3A, R-4
 - Rural Homes District
RH-1, RH-2, RH-3, RH-4
 - Commercial Districts
C-1, C-2, CO-1, LC-1
 - Recreation District
RE-1
 - Local Business District
B-1



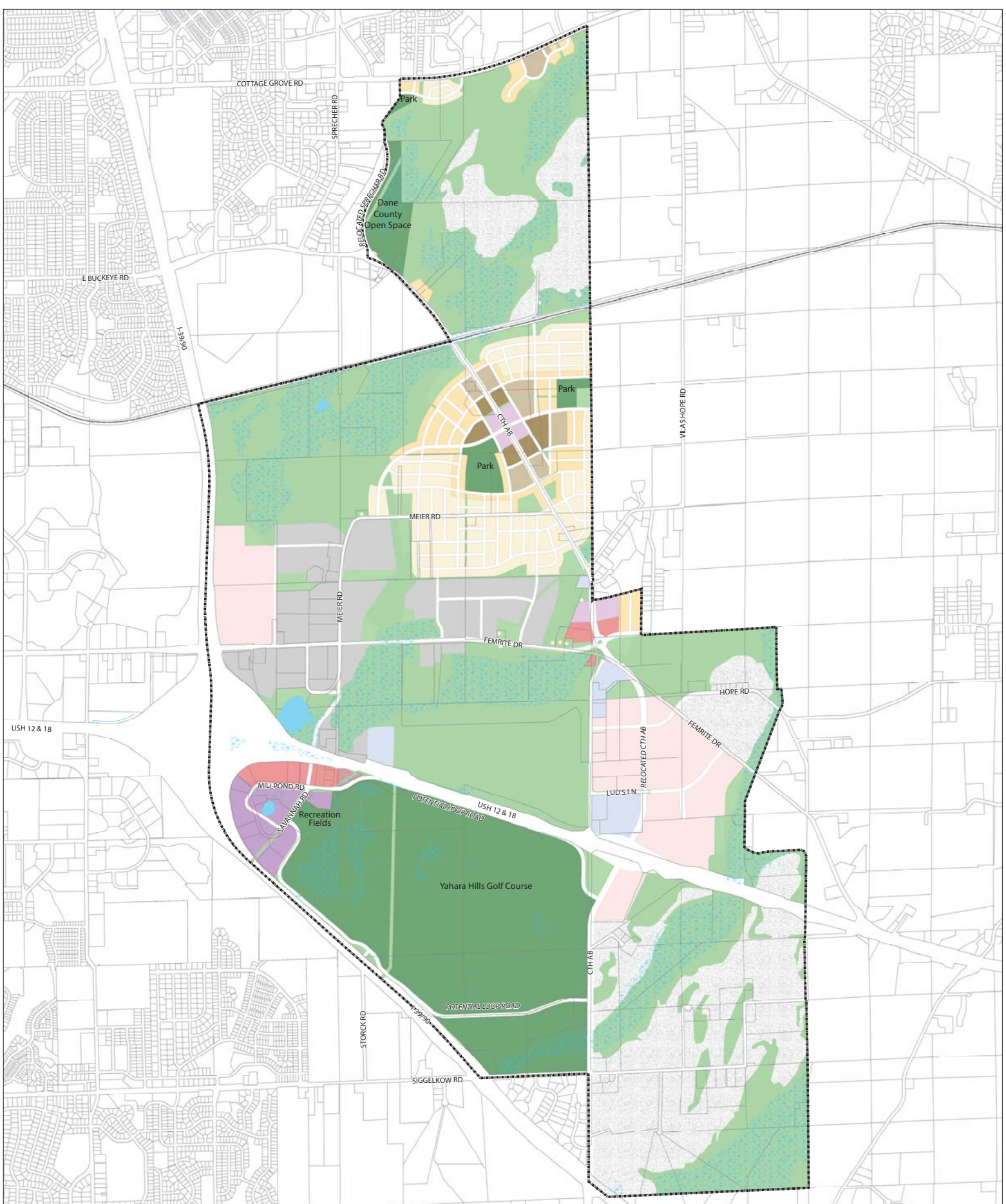
Map 6:
Roadways

- | | | | |
|---|----------------------|---|--------------------|
|  | Planning Area |  | Principal Arterial |
|  | Township Boundary |  | Minor Arterial |
|  | City of Madison |  | Urban Collector |
|  | Other Municipalities |  | Local Streets |



Map 7:
Future Land Use and Street Plan

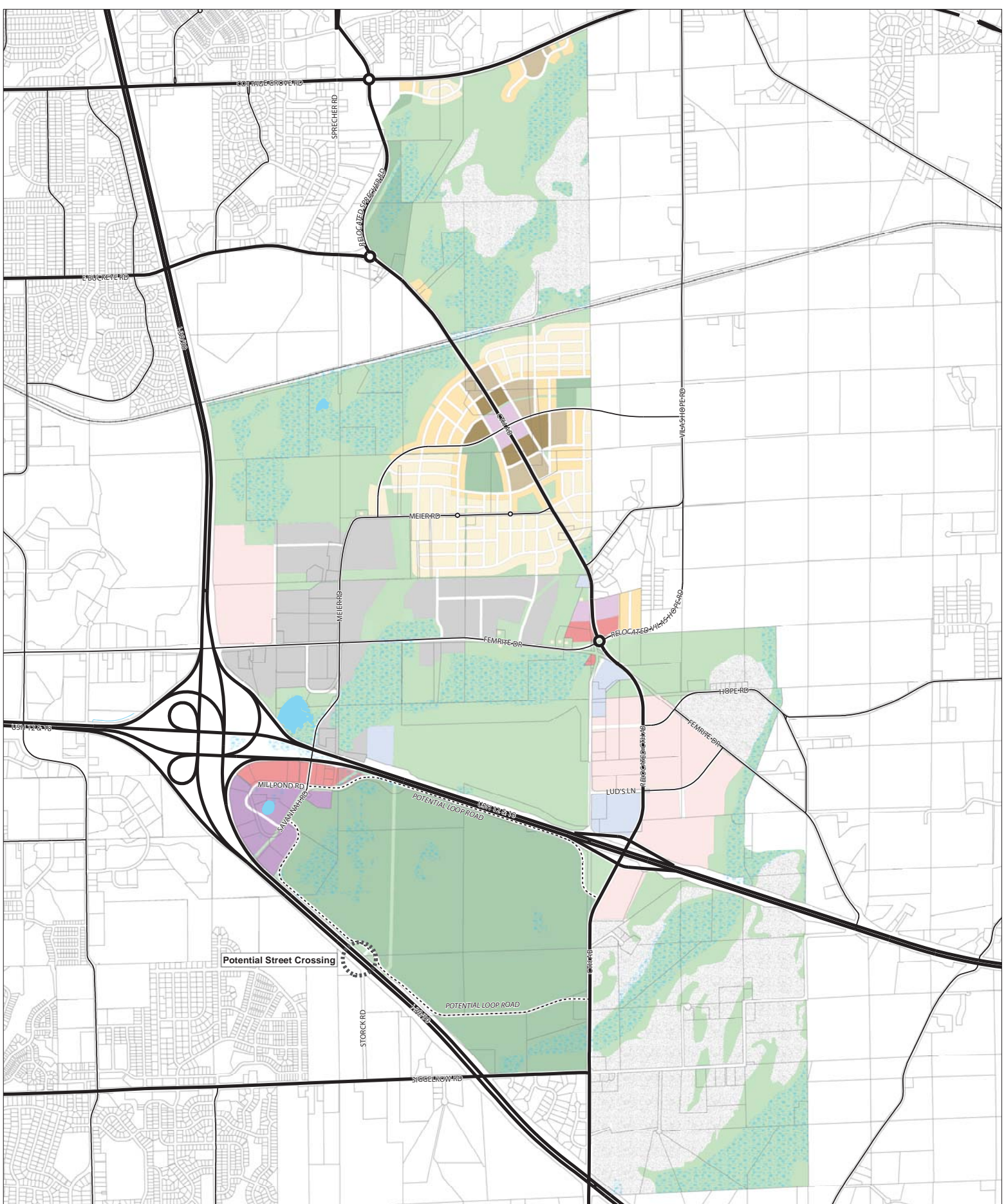
- Planning Area
- Natural Gas/Petroleum Transmission Pipeline
- Street Right-of-Way
- * Potential Stormwater Location
- Potential School Site
- Housing Mix 1
- Housing Mix 2
- Housing Mix 3
- Housing Mix 4
- Agriculture/Rural
- Employment
- Commercial - General
- Mixed Use Neighborhood
- Mixed Use Community
- Civic & Institutional
- Industrial
- Parks and Open Space
- Other Open Space and Stormwater Management
- Wetland



Map 8:
Parks and Open Space Plan

- Planning Area
- Street Right-of-Way
- ~ ~ ~ Wetland
- Park*
- Other Open Space and Stormwater Management

*Some of the parks may increase in size based on required parkland dedication and desired facilities.

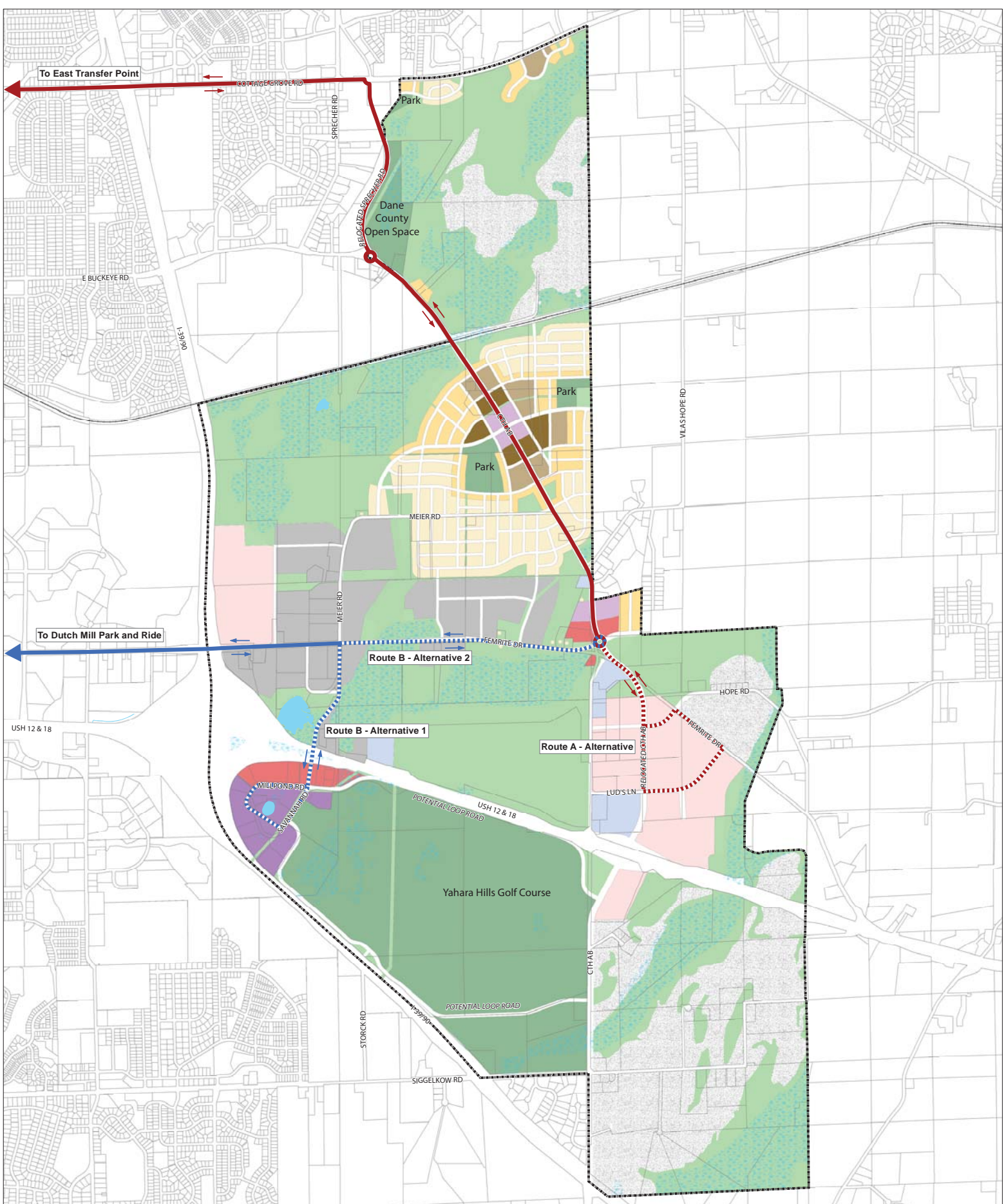


Map 9:
Transportation Plan - Roadways

Planned Street Functional Classification

- Arterial
- Collector

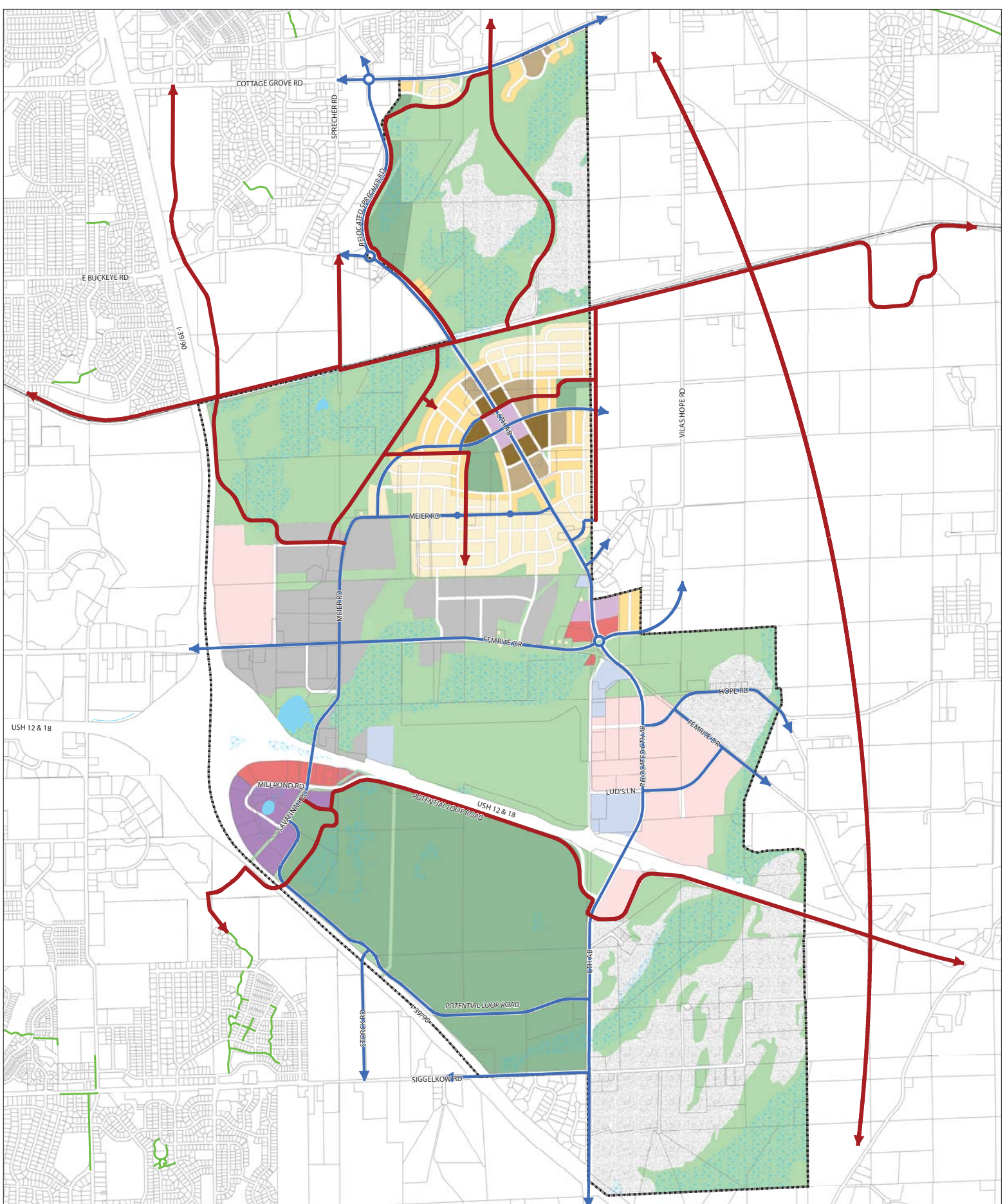




Map 10:
Transportation Plan -
Future Transit Service

- Planning Area
- Peripheral Route Option A
(East Transfer Point)
- Peripheral Route Option A - Alternative
- Peripheral Route Option B
(Dutch Mill Park and Ride)
- Peripheral Route Option B - Alternative

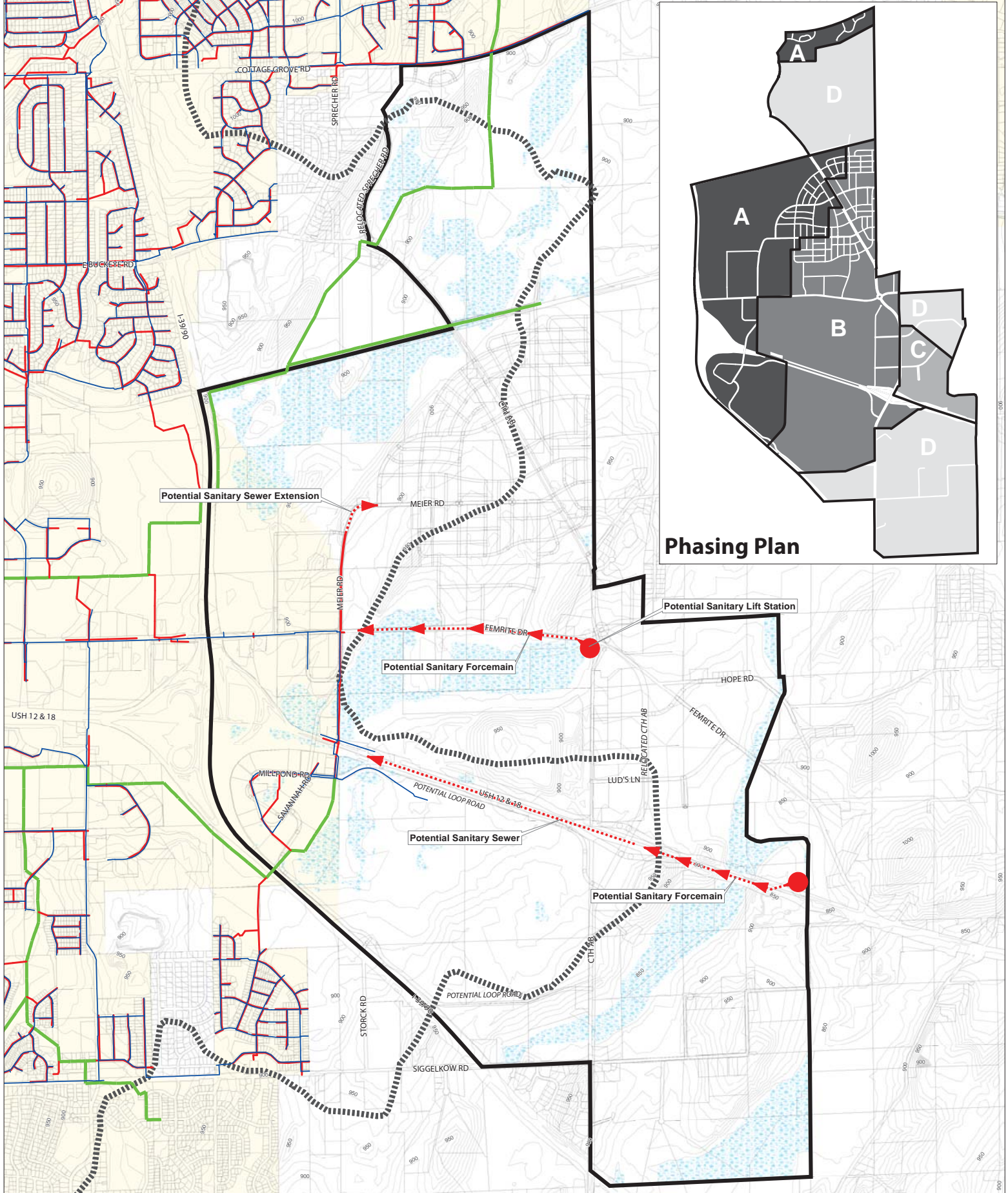




Map 11:
Transportation Plan -
Pedestrian/Bicycle Facilities

Pedestrian/Bicycle Facilities

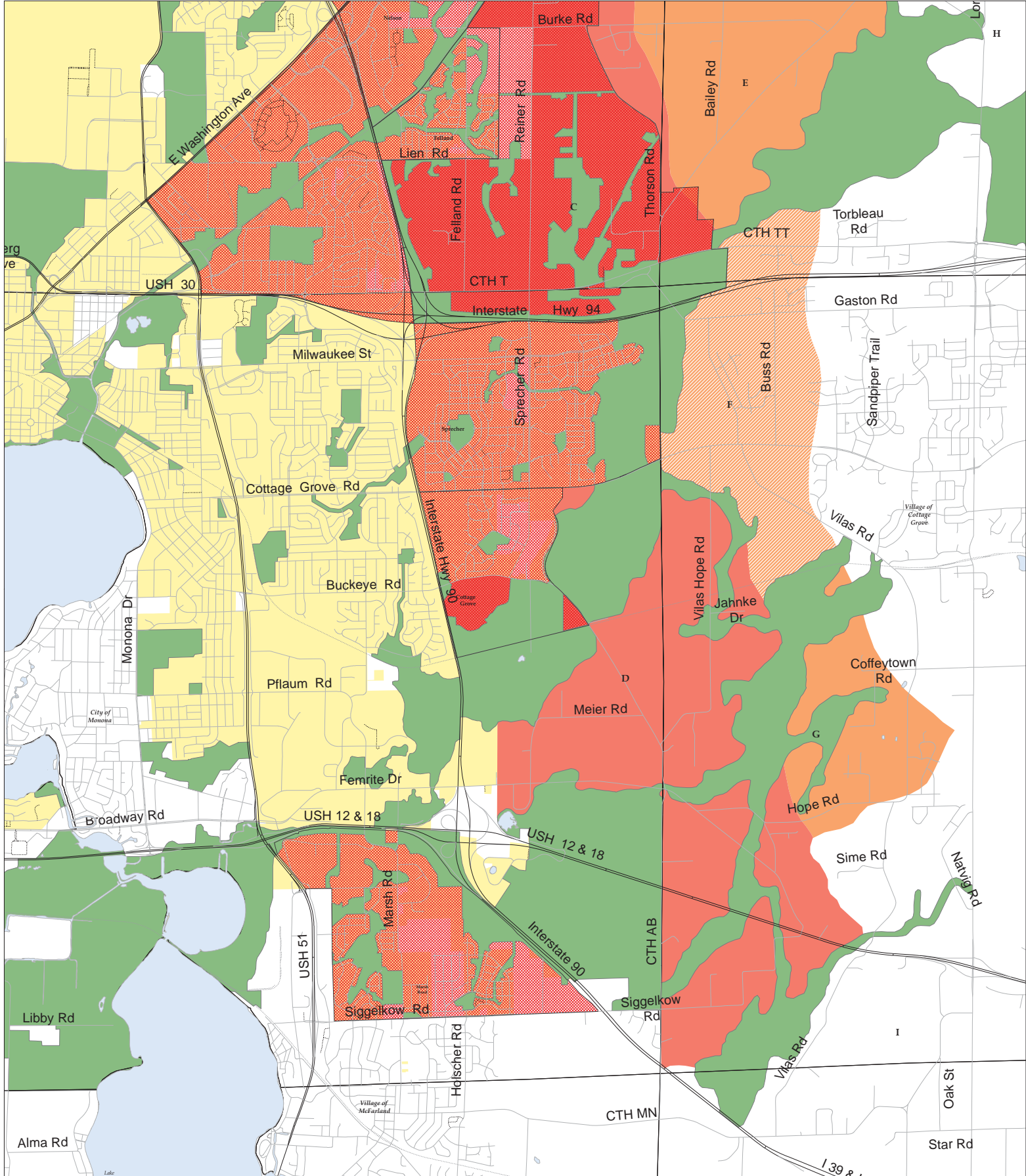
- Existing Shared-Use Path
- Proposed Shared-Use Path
- Proposed Bicycle Lane



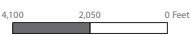
Map 12:
Utilities and
Development Phasing

- Watershed Boundary
- Planning Area/Phasing Boundary
- Central Urban Service Area
- Wetlands
- Watermain
- Sanitary Sewer Mains
- MMSD Sanitary Sewer
- Potential Lift Station
- Future Sanitary Sewer Gravity Main
- Future Sanitary Sewer Forceman





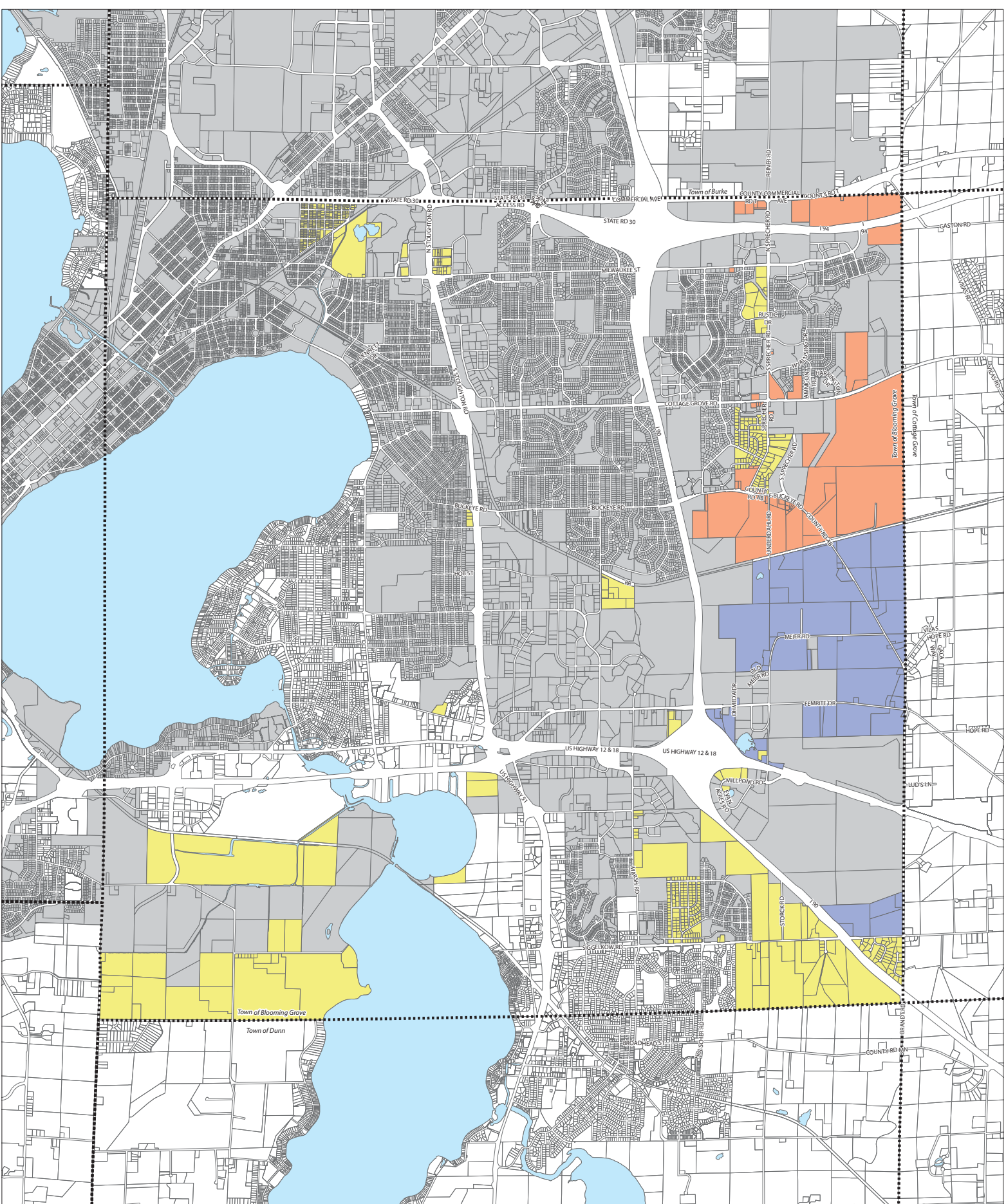
Appendix Map 1:
2006 Peripheral
Planning Areas



Peripheral Planning Areas
(See Plan text for group descriptions.)

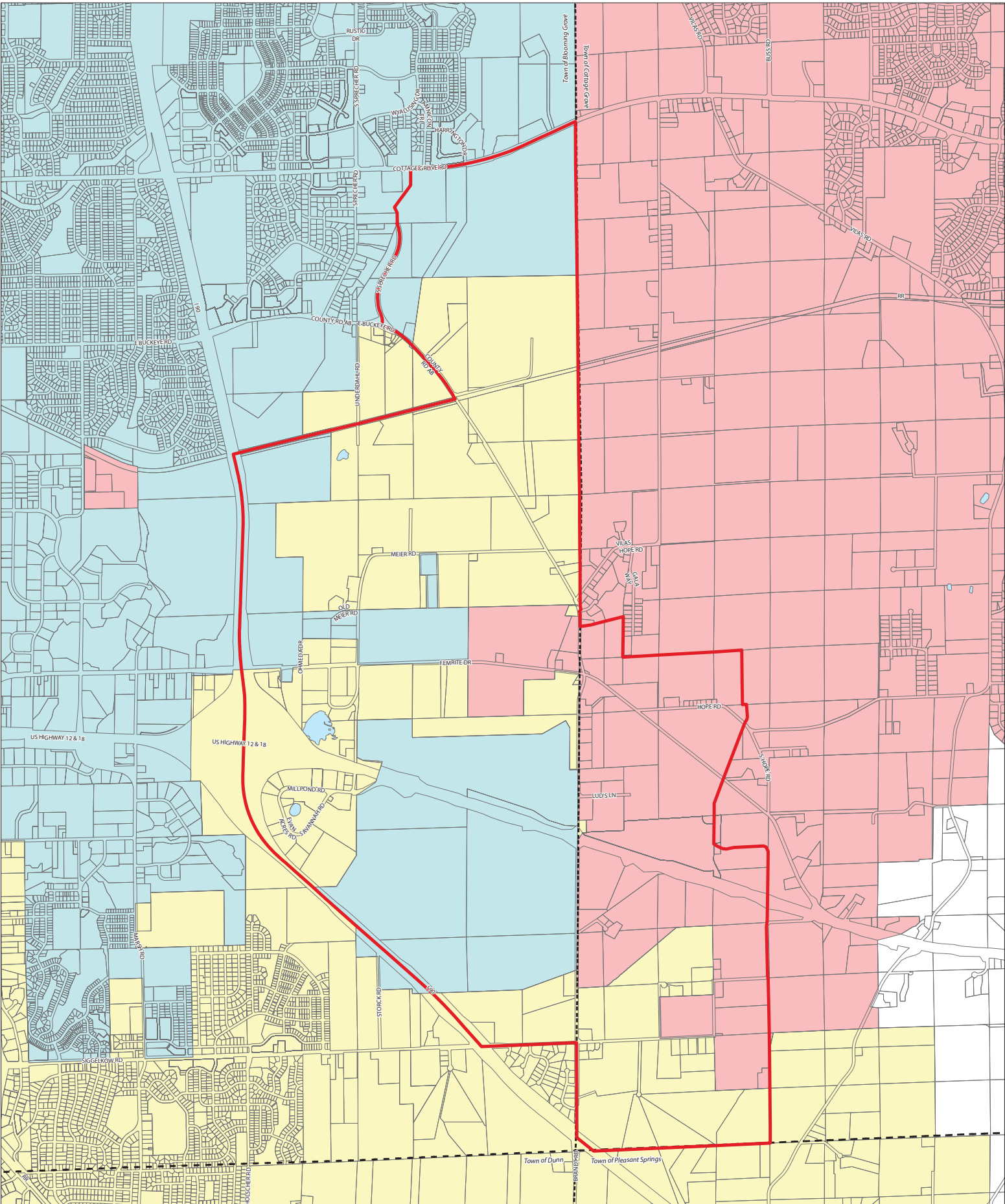
- 2006 Peripheral Neighborhood Development Plan Areas
- Group 1 (Areas A, B, C, D)
- Group 2 (Areas E, F, G)
- Portions of this area should be considered for permanent open space and agricultural land preservation as part of a community separation area.
- Group 3 (Areas H, I)
- Park and Open Space
(Generalized Future Land Use Plan)
- City of Madison
- Other Cities and Villages
- Township Lines





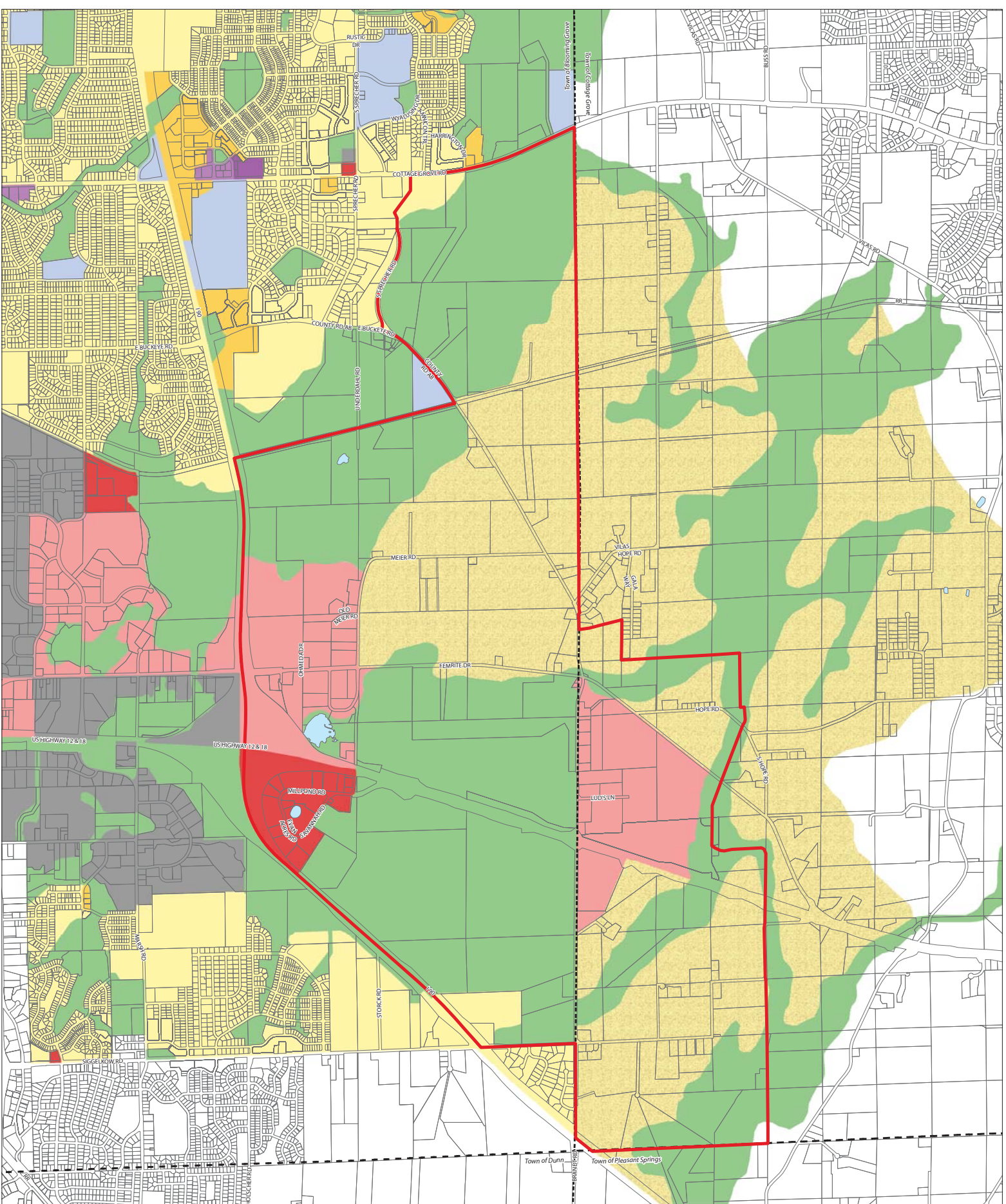
Appendix Map 2:
Town of Blooming Grove
Cooperative Plan

- | | |
|--|--|
|  Planning Area |  North Phased Attachment
December 26, 2015 |
|  Township Boundary |  South Phased Attachment
December 28, 2020 |
|  City of Madison |  Final Attachment
October 31, 2027 |
|  Other Municipalities | |



Appendix Map 3:
School Districts

- Planning Area
- Township Boundary
- City of Madison
- Madison Metro
- McFarland
- Monona Grove
- Other Municipalities



Appendix Map 4:
Generalized Future Land Use

- Planning Area
- Township Boundary
- Other Municipalities

- RESIDENTIAL DISTRICTS**
- LDR Low Density (0 - 15 units/acre)
 - MDR Medium Density (16 - 40 units/acre)
 - HDR High Density (41 - 60 units/acre)

- MIXED USE DISTRICTS**
- NMU Neighborhood Mixed-Use
 - CMU Community Mixed-Use
 - RMU Regional Mixed-Use

- COMMERCIAL/EMPLOYMENT DISTRICTS**
- GC General Commercial
 - RC Regional Commercial
 - E Employment
 - I Industrial

- OPEN SPACE - AGRICULTURE DISTRICTS**
- P Park and Open Space
 - A Agriculture/Rural Uses

- SPECIAL DISTRICTS**
- SI Special Institutional
 - AP Airport
 - C Campus

NPA Neighborhood Planning Area (TND Encouraged)

- SPECIAL OVERLAY DESIGNATIONS**
- TOD Transit-Oriented Development (Conceptual Locations)
 - * TND Traditional Neighborhood Development (May be applied to NPA and residential districts as specified in neighborhood and special area plans.)
- Not Shown
- (0)** Land Use Note Reference Number

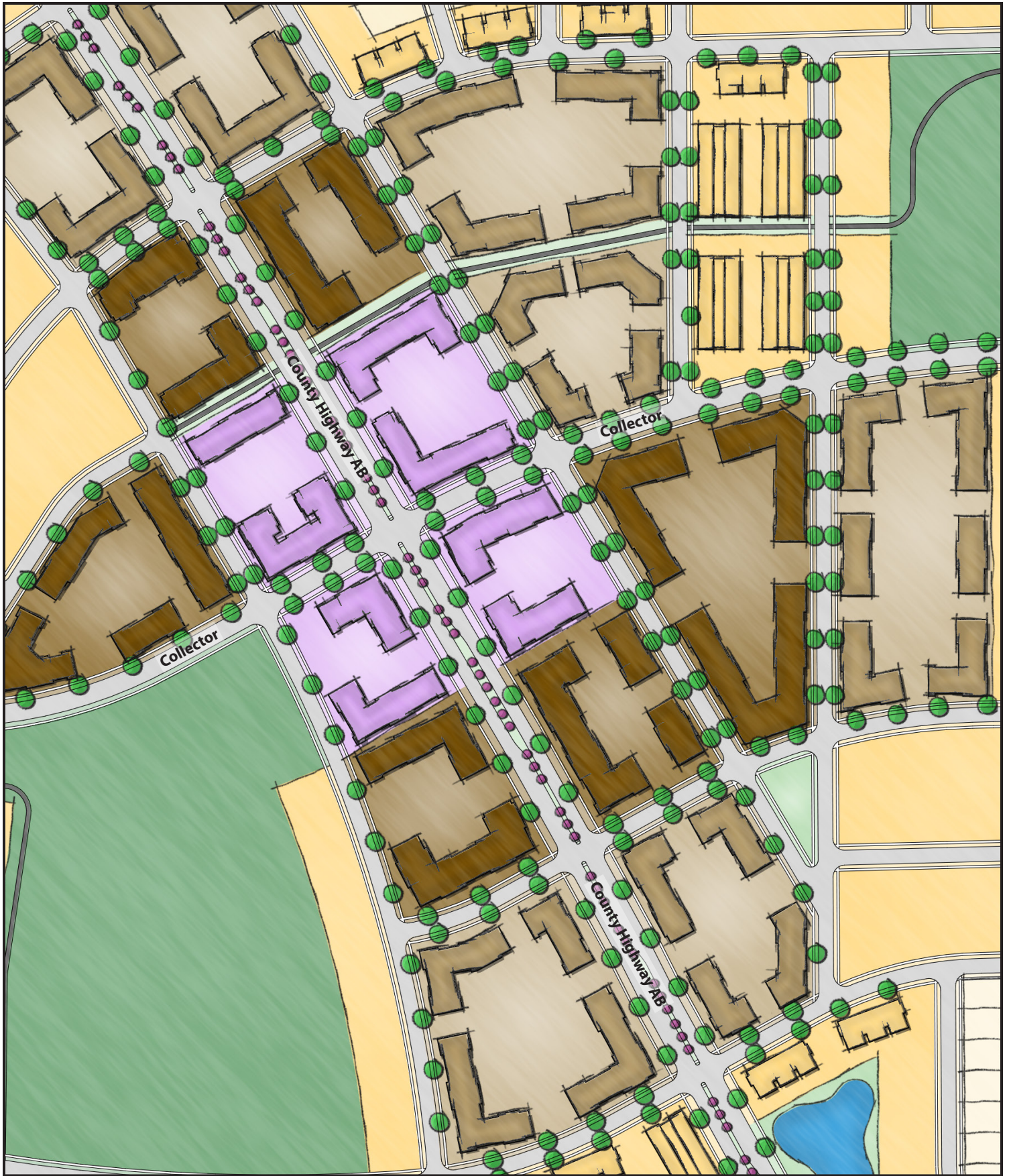










Figure 1:
Neighborhood Core

- | | | | |
|---|---------------|---|--|
|  | Housing Mix 1 |  | Mixed Use Neighborhood |
|  | Housing Mix 2 |  | Park |
|  | Housing Mix 3 |  | Other Open Space and Stormwater Management |
|  | Housing Mix 4 |  | Potential Stormwater Location |

