FELLAND NEIGHBORHOOD DEVELOPMENT PLAN

CITY OF MADISON
DEPARTMENT OF PLANNING AND DEVELOPMENT
PLANNING UNIT

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City of Madison

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Department of Planning and Development
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Felland Neighborhood Development Plan

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Introduction and Summary

Purpose

The *Felland Neighborhood Development Plan* will guide future urban development within a new neighborhood on Madison's northeast side. The Felland Neighborhood is generally bounded by Interstate 90/94/39 and the Canadian Pacific Railroad on the west, Lien Road on the south, Reiner Road on the east, and Burke Road on the north. *Plan* preparation involved the participation of neighborhood property owners and residents; Midland Builders and its consultants; City staff, officials, and consultants; and other affected governments, organizations, and individuals. These different stakeholders had opportunities throughout the planning process to exchange ideas and establish the direction of this *Plan*. This *Plan* incorporates many of the concepts from Midland Builders' earlier proposal for a large portion of the study area, called the "Village of Owasse."

Planning Context

Preparation of the *Felland Neighborhood Development Plan* is one phase of the City's effort to plan for logical urban expansion on its periphery. The 1990 *City of Madison Peripheral Area Development Plan* recommends long-term land use and the staging of development for lands near the City's edges. The *Peripheral Area Development Plan* showed as either Urban Expansion "A" or "B" Districts lands recommended for eventual urban development within the City. "A" Districts were mapped where the City could most efficiently provide urban services in the near term. "B" Districts were also mapped as suitable locations for future urban growth once development in the "A" districts was at or near completion. The Felland Neighborhood area is within a "B" district, to be served by utility and street extensions from development areas to the west. The *Peripheral Area Development Plan* also recommended that detailed neighborhood plans be adopted for all designated Urban Expansion areas prior to the City requesting to include them within the Central Urban Service Area and granting approval of private development proposals. Most "A" districts on Madison's east side are either developed or ready for development in accordance with an adopted neighborhood development plan, including:

- *Nelson Neighborhood Development Plan* (1992) for lands south of U.S. Highway 151 and north of the Canadian Pacific Railway.
- *East Towne – Burke Heights Neighborhood Development Plan* (1987) for lands between East Washington Avenue, State Highway 30, Interstate 90 and Stoughton Road.
- *Sprecher Neighborhood Development Plan* (1998) for lands south of Interstate 94, east of Interstate 90/39, and north of Cottage Grove Road.
- *Cottage Grove Neighborhood Development Plan* (1992) for lands between Cottage Grove Road and East Buckeye Road, east of Interstate 90/39.
- *Rattman Neighborhood Development Plan* (1992) for lands between Interstate 90/94/39 and Highway 151, south of Hoepker Road.

All or most of these planned neighborhoods have been added to the Central Urban Service Area and development has been occurring generally consistent with the respective neighborhood plan. With development pressures spreading to other Urban Expansion areas, preparing a neighborhood development plan for the Felland Neighborhood is timely.

Summary

The *Felland Neighborhood Development Plan* envisions a future neighborhood on the City of Madison's northeast side that will feature a mix of residential and civic land uses oriented to a water resource; new development carefully integrated with wooded slopes, streams, and other natural features; and a living environment designed to promote a walkable, vibrant place.

Image courtesy of Midland Builders and Downing Thorpe and James

Most of the Felland Neighborhood is planned for residential development. New housing will provide convenient living opportunities near Madison's east side commercial and job centers. West of Felland Road, the developer's intent is to orient many of these residential areas toward a new lake that the developer will create, reminiscent of historic lakeside communities in Wisconsin. This form suggests clusters of cottages and public uses near the lake, served by an irregular street pattern. The Felland Neighborhood is planned to be a place where connections among its residents are paramount. To achieve this goal, future development will be designed at the human scale, meaning sensitive placement of buildings, thoughtful treatment of streetscaping, and gearing other physical elements for people rather than cars.

The neighborhood is planned to accommodate a diversity of housing types, densities and styles to satisfy a range of incomes and lifestyles. The neighborhood will include housing types like single family homes, condominiums, duplexes, town homes, and apartments. This diversity of housing options, densities, and related architectural styles will further reinforce the mixed-use nature of the neighborhood.

Any neighborhood needs a heart, where residents can gather to meet, shop, and relax. The Felland Neighborhood is no different. That is why this *Plan* recommends a gathering place near the proposed lake to serve residents. The gathering place will be a compact, walkable, street- and lake-oriented place where residents can come together and find a limited amount of commercial and service uses. The *Plan* provides an elementary school site and public park alongside the gathering place to reinforce this function. This *Plan* also conceptually recommends a larger activity center at the southeast edge of the study area to serve this and other future residential neighborhoods. Subject to more detailed planning, this larger activity center should become a mixed-use cluster of buildings where residents will find a range of

complementary uses that supply day-to-day goods and services. This center could also contain residential uses and larger-scale institutional uses.

Linking these residential, civic, and commercial uses together is an interconnected network of streets and pathways that place pedestrians and bicyclists on equal footing with drivers. Recommended major circulation routes frequently line the edges of open space corridors, enhancing driving experiences. The connected street pattern will soften and meander along these natural open spaces. Planned extensions to Lien Road and City View Drive will provide essential connections to other key destinations on the east side of Madison. Local paths and sidewalks should also connect with a regional path network. In the future, residents in the Felland Neighborhood may also be a short distance away from one or two commuter rail transit stops in the area.

The neighborhood's rolling topography, woodlands, creeks, and ridges will provide a variety of recreational opportunities for its residents. A large public park is planned near the southeastern edge of the neighborhood to accommodate larger active recreational facilities, such as field sports. This park will also provide access to a planned trail system within the Starkweather Creek corridor and connect with activity centers. Several smaller parks are also planned for the Felland Neighborhood.

Image courtesy of Midland Builders and Downing Thorpe and James

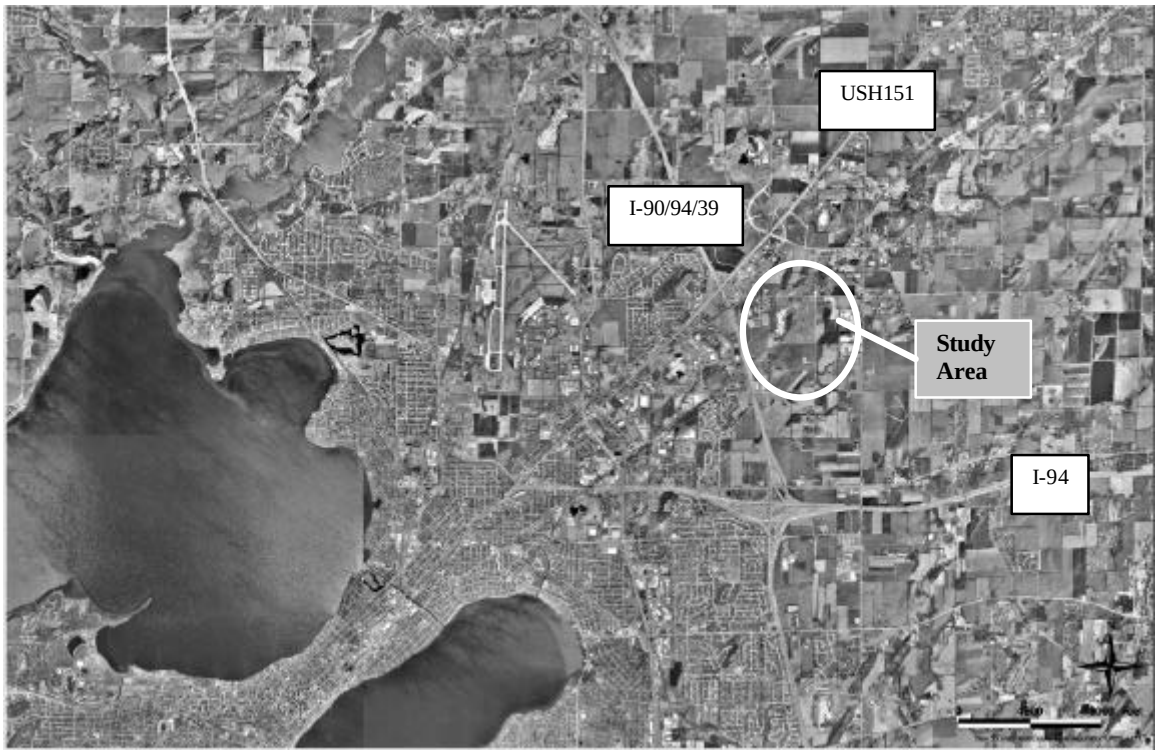
In summary, the *Felland Neighborhood Development Plan* envisions a neighborhood that reflects the opportunities and constraints created by its location; the natural and built attributes of the land; the goals and expectations of the area property owners and residents; and the objectives, policies, and neighborhood design characteristics that are the hallmark of the City of Madison's adopted plans.

Existing Conditions

The Felland Neighborhood Study Area

The nearly 600-acre Felland Neighborhood general study area is bounded by Interstate 90/94/39 and the Canadian Pacific Railway on the west, Lien Road (and a planned extension of Lien Road) on the south, Reiner Road on the east, and Burke Road on the north. The general study area is identified with relation to the larger region on the graphic below, and depicted more specifically in Map 1. This document provides detailed development recommendations for a portion of that general study area, called the detailed planning area. At the time of writing, Midland Builders controlled a majority of the detailed planning area.

Figure 1. Location Map



The general study area consists primarily of agricultural, sand and gravel extraction, and open space uses. Terrain varies from steep wooded ridges adjacent to the railroad tracks and Felland Road to relatively low and flat agricultural lands west of Felland Road. Topography on the east side of the general study area continues to change due to an extensive extraction operation. The general study area includes the headwaters of Starkweather Creek, which runs generally from east to west.

Municipal Jurisdiction and Property Ownership

Figure 2 summarizes property ownership by municipal jurisdiction in the 583-acre general study area. About 323 acres, or 55 percent, of the general study area is within the City of Madison. About 260 acres, or 45 percent, is currently within the Town of Burke. As shown

in Map 1, most of the general study area consists of relatively large, unplatted land holdings. A number of smaller, primarily residential parcels located along Felland Road, Lien Road, Reiner Road, and Wynter Lane are represented as "other small parcels" in Figure 2. The entire study area is within the Sun Prairie Area School District. Its boundary with the Madison Metropolitan School District is located generally along Interstate 90/94/39.

Figure 2. Net Property Ownership by Jurisdiction within General Study Area

Jurisdiction/Ownership	Acres
City of Madison	
Felland Family Farm LLC	216.4
Wisconsin Capital Land Fund	59.6
Copart, Inc. (auto salvage)	27.8
United Brick and Tile, Inc.	6.5
Street rights-of-way	13.0
City of Madison Sub-Total	323.3
Town of Burke	
Calvin Ziegler (mainly extraction)	146.2
Morris Link	33.2
Glenda Carryl	22.7
Sandy Marrier	17.0
Madison Crushing & Excavating Co., Inc.	5.5
Other small parcels and street rights-of-way	35.1
Town of Burke Sub-Total	259.7
TOTAL	583.0

Note: The general study area is bounded by Interstate 90/94/39 and the Canadian Pacific Railway on the west, Lien Road on the south, Reiner Road on the east, and Burke Road on the north. (See Map 1).

Existing Zoning and Land Use

Most properties within the general study area are used for agriculture, sand and gravel extraction, or open space uses. A few parcels are used for commercial or institutional uses, and the balance of the land area consists of rural home sites. Most of the land within the general study area is zoned within an agriculture district, which in the City of Madison is primarily a holding district and in the Town of Burke allows residential development. Map 1 shows existing land uses and zoning designations in the general study area. Maps 2 and 3 show other key land coverage features. Figure 3 summarizes existing land use by type and jurisdiction.

MAP 1: STUDY AREA SUMMARY

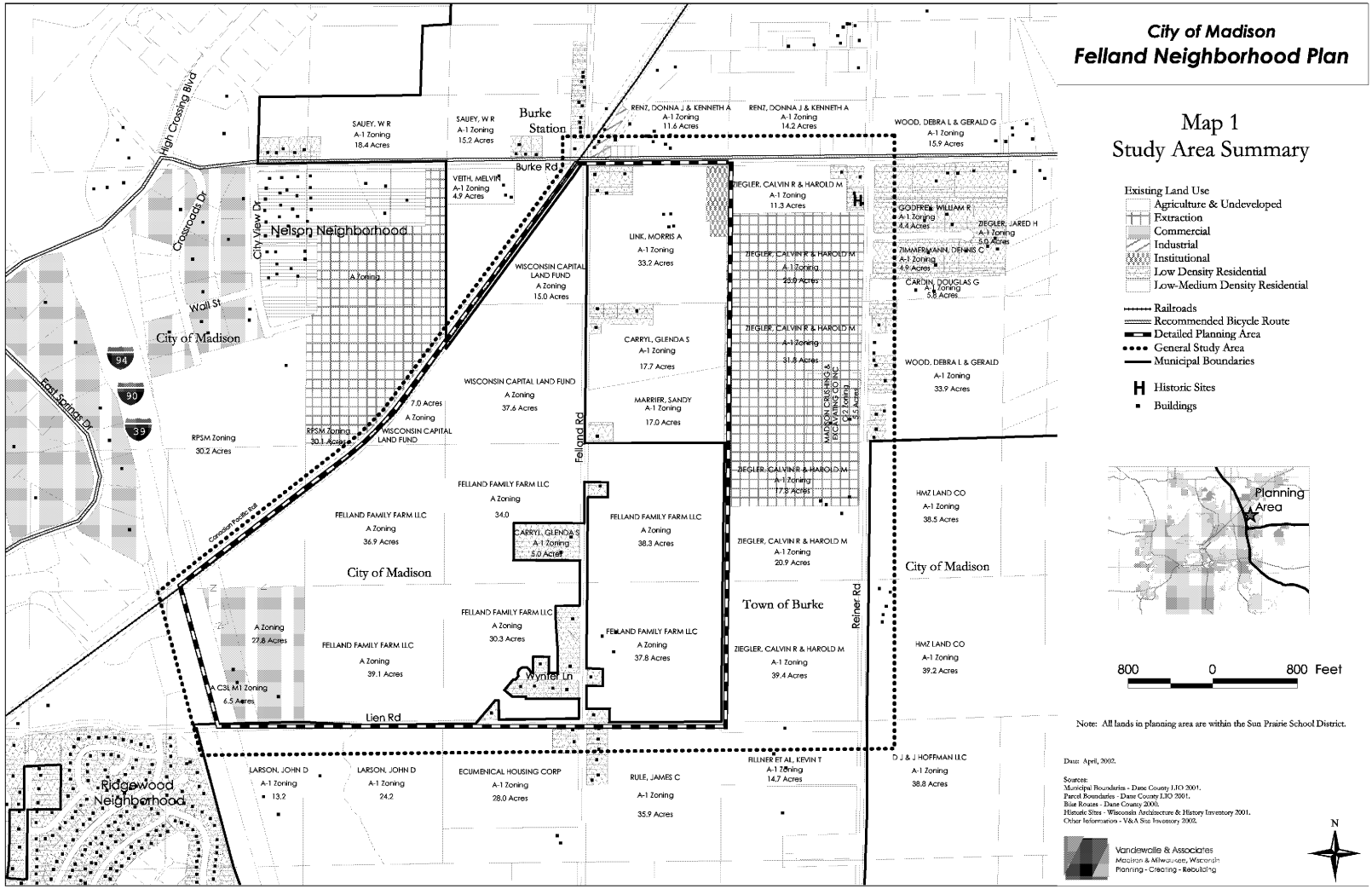


Figure 3. Existing (2002) Land Use Excluding Rights-of-Way Within the General Study Area

	Acres	% of Total
City of Madison		
Agriculture & Undeveloped	276.0	92.2
Commercial	23.5	7.8
TOTAL	299.5	100.0
Town of Burke		
Agriculture & Undeveloped	159.6	60.4
Mineral Extraction	82.0	31.1
Low Density Residential	22.0	8.3
Institutional (cemetery)	0.5	0.2
TOTAL	264.1	100.0

The Felland Neighborhood general study area is characterized by flat to rolling farmland and wooded hillsides.

All general study area parcels located within the City of Madison are zoned A-Agriculture District. Farming and other agricultural uses—the predominant current land use—are allowed as permitted uses in that zoning district. The City's Agriculture District also functions as an interim zoning district pending the availability of urban services and assignment of permanent zoning consistent with the recommendations of an adopted neighborhood development plan. Two parcels on the north side of Lien Road adjacent to the Interstate are used for commercial and outdoor storage uses (brick & block shop and auto salvage yard). There is a closed landfill in a portion of the westernmost commercial property. An overhead transmission line follows the northwest edge of the study area along the railroad tracks. Other overhead power lines follow Lien Road and Felland Road. A new cell tower has been approved on the west edge of the study area near the railroad tracks.

Most of the lands within the Town of Burke are under Dane County's A-1 Agriculture District. In addition to agricultural uses, this district allows residences as permitted-by-right uses and mineral extraction operations as conditional uses. Large parcels along the west side

of Reiner Road are used for sand and gravel extraction and processing, including blasting, crushing, and washing. Several single-family homes have been built along Felland Road and Wynter Lane, served by private well and septic systems. The Town of Burke owns a Civil War-era cemetery and former schoolhouse site along Burke Road at the north edge of the study area. The historic Burke Station area is located at the intersection of Burke Road, Felland Road, and the railroad tracks. There is also an historically significant barn located near the intersection of Reiner and Burke Roads.

Burke Station and other historic sites and structures add character to the Felland Neighborhood area.

Existing Transportation Facilities

The Felland Neighborhood general study area is bounded by major transportation facilities (see Map 1). Interstate 90/94/39 forms the western edge of the study area, but does not and is not expected to provide direct access into the study area. Its elevated grade relative to the planning area, combined with prevailing winds, results in a fair amount of noise in the detailed planning area. Access to and within the general study area is provided by Burke Road (which forms its northern edge), Reiner Road (eastern edge), Lien Road (southern edge), and Felland Road. All four of these roadways are designated in Dane County plans as current collector streets. At present, these are all two-lane rural roads.

The *Dane County Land Use and Transportation Plan* (1997) recommends expanding Reiner Road to a 4-lane arterial roadway, becoming the primary north-south arterial serving future development and transportation needs on the east side of the Madison urban area. Expansion of Reiner Road is recommended as being required within the next decade. Consideration should be given to adding this segment to the County Trunk Highway system.

Lien Road is the major route from the general study area into the East Towne commercial area. The City's *Nelson Neighborhood Development Plan* recommended that Lien Road eventually be extended east beyond Felland Road to at least Reiner Road. This recommended extension was incorporated into the City's Official Map. According to the pending *East Side Arterial and Collector Street Study*, the City expects that Lien Road will ultimately need to be expanded to four lanes to accommodate expected future traffic as a result of neighborhood growth.

City View Drive is located within the Nelson Neighborhood (High Crossing area) north of the railroad tracks. The *Nelson Neighborhood Development Plan* recommended that City View Drive be extended as a collector street connecting High Crossing Boulevard to Lien Road and lands further south as warranted. The extension of City View Drive through the western portion of the Felland Neighborhood detailed planning area would also help moderate traffic volume increases on Felland Road, which is a scenic, rolling road bounded alternately by steep wooded hillsides and expansive views.

Lien Road forms the southern edge of the future neighborhood and provides the most direct access into the East Town commercial area.

Presently, there is no public transit service within the general study area. The closest bus line is the Madison Metro "Route 3" line serving the East Transfer Point and the East Towne commercial area out as far as City View Drive in the Nelson Neighborhood. This route also serves the intersection of North Thompson Drive and Lien Road.

The Canadian Pacific Railway tracks, which connect Madison to Sun Prairie and points beyond, are still in use for freight operations. The Wisconsin & Southern Railroad currently operates about six freight trains a week. A 10-mph speed limit is currently in effect over this single-track line. This line has been identified in both regional and statewide studies for potential future passenger rail service. Ongoing studies conducted by the City of Madison, the Wisconsin Department of Transportation, Dane County and the Madison Metropolitan Planning organization have identified this line as a potential commuter rail route between Madison and Sun Prairie. Possible stations near East Towne and Nelson Road have been suggested. Concurrently, the State of Wisconsin has identified this line as serving as part of the Chicago-Milwaukee-Madison-Minneapolis high-speed train route. Substantial track upgrades, safety improvements, and coordination with freight rail operations would be necessary for either of these services to be implemented.

No special facilities to accommodate bicycle traffic presently exist within the general study area. The *Dane County Parks and Open Space Plan 2001-2005* advises a recreational trail east of the Felland Neighborhood study area, connecting the Blooming Grove Drumlin area to McCarthy Park and eventually Sun Prairie via the Door Creek corridor. The *Bicycle Transportation Plan for the Madison Urban Area and Dane County* (2000) identifies Burke Road as an important bicycle route in and out of Madison. That plan also recommends the development of a multi-use path along the Canadian Pacific Railway corridor, connecting Madison to Sun Prairie, and the same recreational trail in the Blooming Grove Drumlin area.

Topography and Natural Features

As shown in Map 2, the Felland Neighborhood general study area is characterized by gently to moderately rolling topography punctuated by two corridors of steep wooded slopes. Ground elevations range from between 900 and 1,050 feet. One of the steep slope corridors runs parallel and generally north of the railroad tracks, with the second running near Felland Road in the middle of the study area. The Felland Road slope area contains oak woods and rock outcroppings. The woods are too disturbed to preserve as public conservancy land, but contain many fine trees that should be preserved as part of the natural character of the neighborhood. Mineral extraction activities have altered the natural topography in the general study area's eastern portion, near Reiner Road. Limestone is present near the surface at the rears of the commercial properties near the Interstate at Lien Road, where extraction and filling has occurred in the past. Smaller, isolated wooded areas also exist in other parts of the study area, including strips around the extraction site and Lien Road commercial sites that are and can be used as buffers.

Forks of the Starkweather Creek east of Felland Road remain in their natural state, within major ravines.

The general study area is within the Upper Starkweather Creek Watershed. As mentioned above, the navigable headwaters of the Starkweather Creek bisect the study area, including two undisturbed forks east of Felland Road. With the exception of the Lien Road corridor, the study area drains from the northeast to the southwest. In the northern portion of the study area, water drains down into the valley west of Felland Road, shown on Map 3 as a large area of hydric soils (i.e. soils formed under wet conditions). Parts of this valley have been drained in the past for agricultural uses. In the southeastern portion of the study area, water drains directly into springs and seeps that form the headwaters of Starkweather Creek. These springs and seeps feed two steeply-wooded drainage ravines that cross Felland Road near Wynter Lane, where the navigable Starkweather Creek flows west beneath the Interstate and through Madison's east side neighborhoods before draining into Lake Monona at Olbrich Park. There are scattered areas of mapped wetland within the study area, particularly west of Felland Road.

Stormwater Drainage

Overall, drainage in the Upper Starkweather Creek Watershed consists of an irregular network of drainageways and streams draining from relatively steep slopes into large, relatively flat natural storage and infiltration areas. Large portions of the general study area are underlain by sand, gravel, and fractured bedrock at shallow depths. There is a possibility of Karst topography in the area due to reports of stormwater "disappearing" in certain

locations. These characteristics suggest that the study area as a whole serves as a groundwater recharge area, with scattered areas of surface discharge from groundwater perched above a clay layer. These discharges occur mainly in wetland areas.

Specific stormwater management issues that will need to be addressed as this study area develops include:

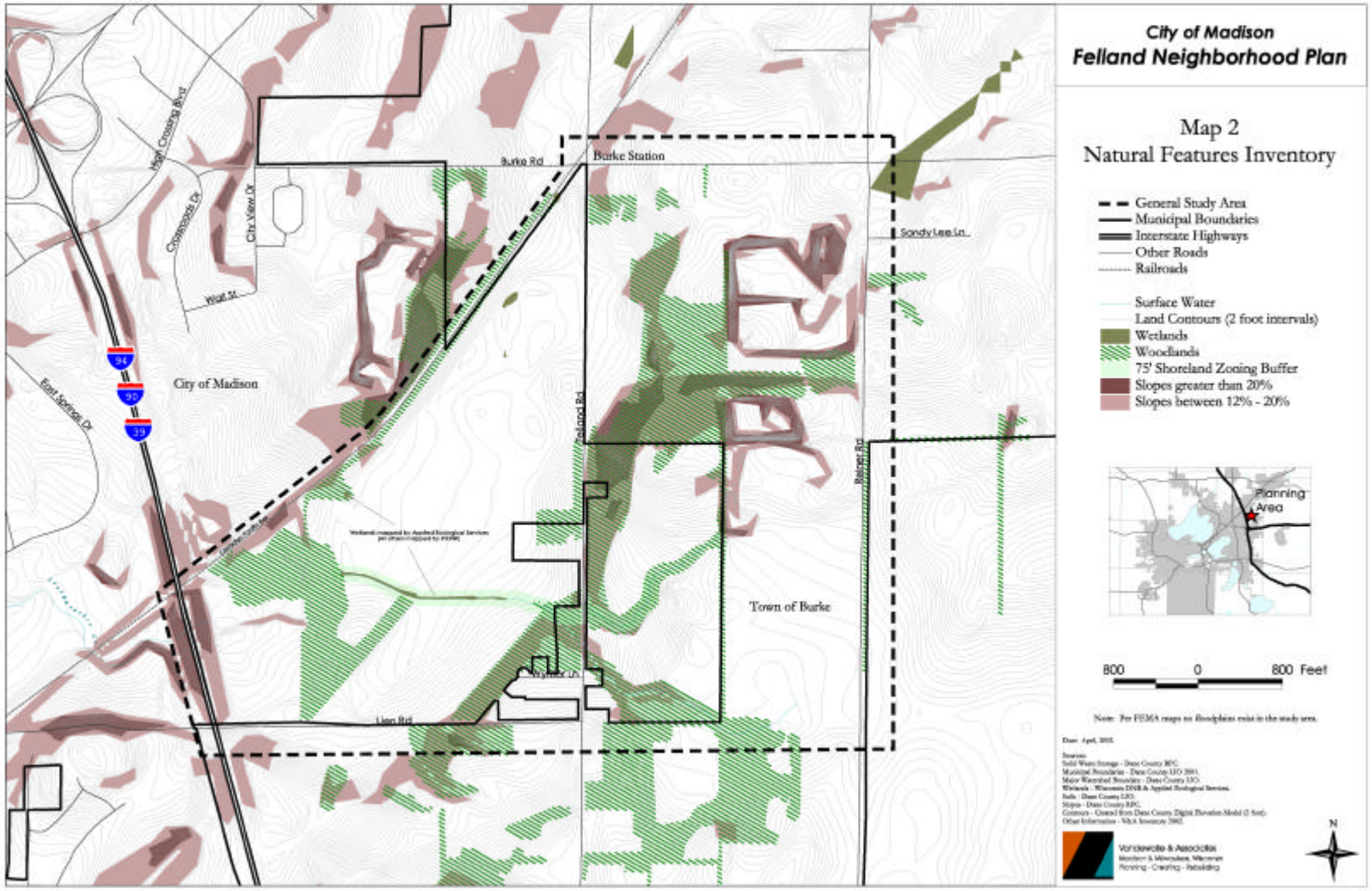
- *Maintaining Groundwater Recharge:* Any development will increase the impervious area coverage of the watershed. If improperly planned, this may increase the peak discharge and volume of surface runoff and reduce the amount of groundwater infiltration. Measures will be necessary to maintain groundwater recharge to the maximum extent possible if and when a lake is created in the study area.
- *Protecting Groundwater Quality:* If improperly protected, water from future detention basins could infiltrate into underlying sand and gravel pockets and fractures in the bedrock. Measures will be necessary to minimize the risk of exfiltrated stormwater runoff contaminating groundwater sources.
- *Protection of Wooded Ravines:* The two ravines east of Felland Road are heavily wooded with oak trees and may be susceptible to erosion when development occurs upstream. Measures to minimize future stormwater peak and volume increases within these ravines are warranted. One alternative is future construction of a new storm sewer facility running westerly along an extended Lien Road to carry excess stormwater flows.
- *Other Issues:* Ditches along Nelson and Burke Roads are steep and erosive. These ditches may be difficult to stabilize with increased urban development. Flooding has been reported near homes on Felland Road north of Burke Road. This may be associated with the capacity of culverts under these roads. Understanding the overall impact of a proposed lake on stormwater management and hydrology is critical. A summary of the analysis completed by Midland Builders' "Lake Feasibility Team" is included as Appendix C.

Concurrent to the preparation of the *Felland Neighborhood Development Plan*, the City commissioned a stormwater management master plan for the entire watershed. In addressing the above issues, stormwater management facility design standards comply with the City's erosion and stormwater runoff control ordinance, the County's erosion control and stormwater management ordinance, and the Wisconsin Department of Natural Resource's rules for construction activities impacting navigable streams and large acre land disturbances. A summary of the Stormwater Management Plan is included as Appendix B.

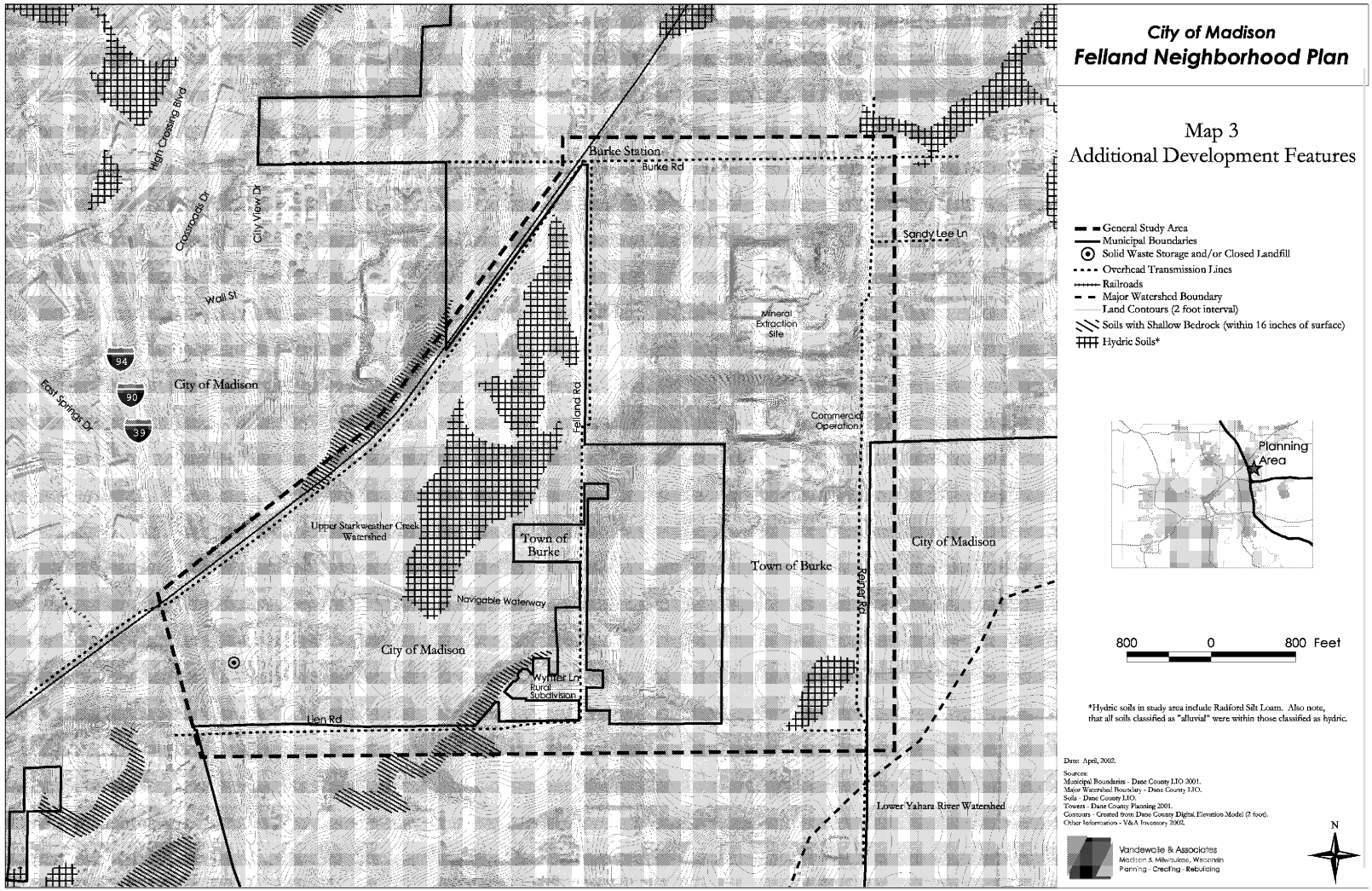
Existing Public Utility Systems

There are presently no public sanitary sewer or municipal water services in the general study area. With the exception of approximately 40 acres in the far southeast corner, the entire study area is included within the tributary area identified for the Madison Metropolitan Sewerage District's (MMSD) Lien Interceptor (LI) as depicted in a 1995 planning study prepared by RUST. This interceptor presently terminates at Interstate 90/94/39 near the railroad crossing. The study area would be served by extensions to existing water mains along City View Drive from the north and Lien Road from the west.

MAP 2: NATURAL FEATURES INVENTORY



MAP 3: ADDITIONAL DEVELOPMENT FEATURES



Regional and Site Analysis

Regional Context and Opportunities

A detailed understanding of the Felland Neighborhood's place in the larger city and region is critical before the neighborhood development plan can be responsibly prepared. As shown in Map 4, the Felland Neighborhood lies within a larger context of the City's east side. Located near a major confluence of transportation systems and economic activity in Wisconsin, this larger sector is one of Madison's major gateways and will become one of the City's primary growth sectors over the next 20 to 30 years.

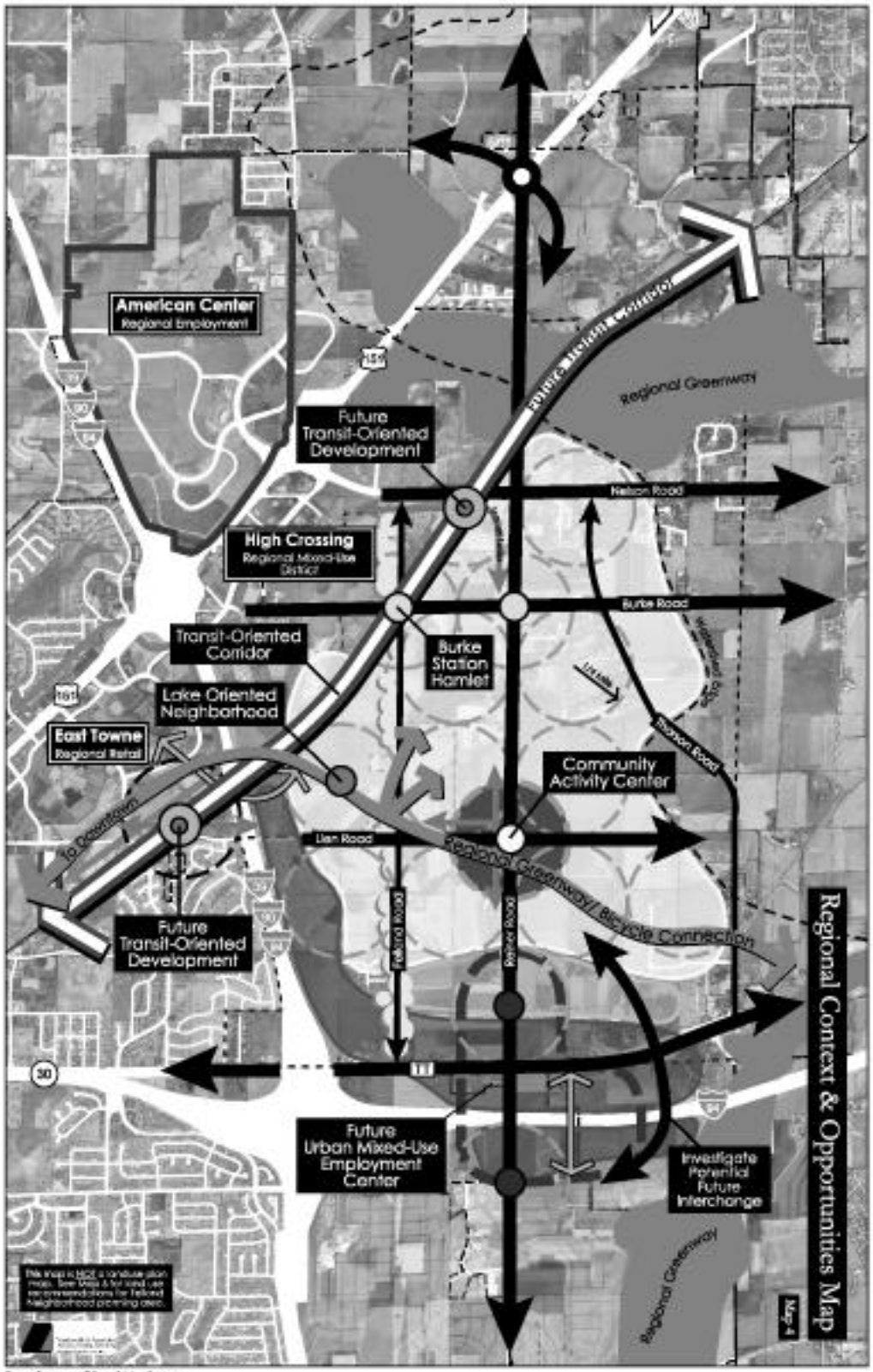
The Felland Neighborhood is well positioned to take advantage of existing and planned regional transportation facilities. Its borders are within one mile of both the Badger Interchange (90/94/39) and the interchange of Interstate 90/94/39 and Highway 151, directly adjacent to a planned high-speed and commuter rail route, and within ten minutes of the State's second largest airport. These transportation systems, coupled with other public infrastructure and state and regional initiatives, will continue to prompt the economic and retail development of the larger sector. In particular, there is an opportunity to develop higher-density mixed-use areas around possible future commuter rail stops in the East Towne commercial area and near Nelson Road. There is also potential for a future bus transit loop serving future rail stops, as well as major job, shopping, and residential districts.

The retail market is currently dominated by East Towne mall and nearby stores, directly across the Interstate from the Felland Neighborhood. Other current and emerging retail opportunities extend north along High Crossing Boulevard to Nelson Road. These areas will continue to satisfy the primary shopping needs of the larger sector, including the Felland Neighborhood. However, the development form, character, density should become more urban over time in response to regional transit opportunities, aging commercial building stock, and the growing desire for more community- and pedestrian-oriented shopping opportunities. These regional shopping areas will not take the place of more convenient, neighborhood-oriented shopping opportunities in and near the Felland Neighborhood.

Sector-wide economic development is presently focused on corporate and general office uses in the American Center and High Crossing districts north of the Felland Neighborhood. Improved access from the Felland Neighborhood to these districts will be important. There is another opportunity for a future employment center developed along Interstate 94 and Reiner Road that will have to be explored in greater detail in the future.

Located between these economic development and regional shopping centers is a large area which can accommodate several planned neighborhoods to supply a variety convenient housing options. Future development opportunities within the Felland Neighborhood and surrounding areas to the south and east should fill that role (see areas colored yellow on Map 4). At the heart of these future neighborhoods, and at the future convergence of two major roads, lies an opportunity to develop a mixed use Community Activity Center.

MAP 4: REGIONAL CONTEXT AND OPPORTUNITIES



Base Source: City of Madison

This Community Activity Center could serve as a community gathering place, including institutional (e.g., schools), community-scale commercial (e.g., grocery), and recreational uses designed in compact, pedestrian-friendly forms. A large park and trail connections to other regional destinations should be featured in this area.

When fully developed, the future neighborhoods north of Interstate 94 (shown on Map 4) may be home to up to 25,000 people, including perhaps 3,500 school-aged children. To serve this many children, there may ultimately be a need for up to three new elementary schools and the equivalent of one middle school and one high school. These schools could become hybrid learning centers. For example, they could be focused on technology education if located near the employment centers or on an environmental curriculum if located near significant natural features. The Community Activity Center shown on Map 4 provides an excellent opportunity for future school siting.

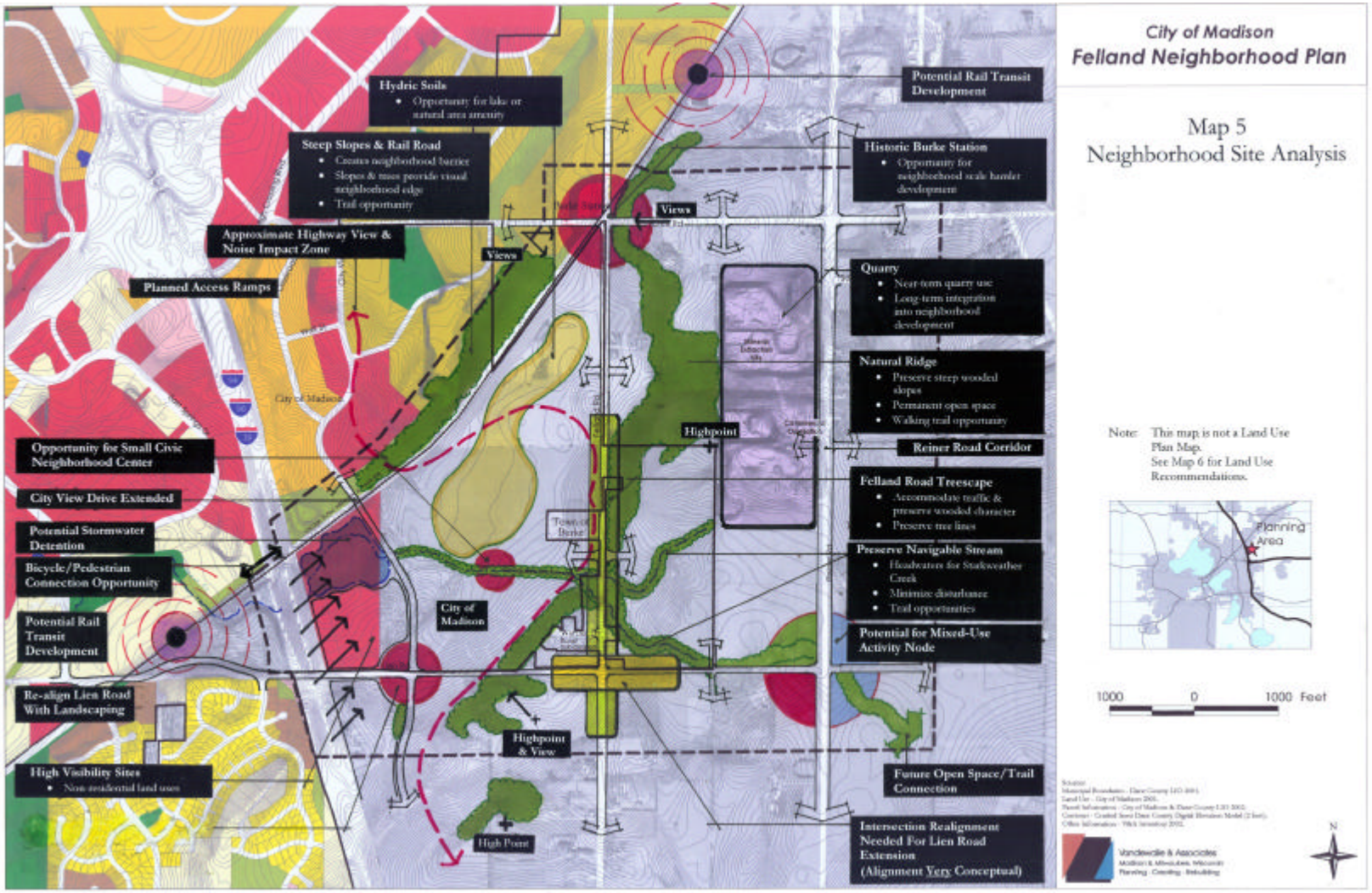
This sector will also require several parks in close proximity to future residential areas. This sector's rolling topography, woodlands, creeks, and ridges should accommodate a variety of active and passive recreational opportunities. As each individual neighborhood develops, special attention should be given to create links between all planned parks and open spaces via bike trails, hiking paths or greenways. The sector shown in Map 4 is particularly well-positioned to contain an open space network that includes a possible Starkweather Creek multi-purpose trail back into Madison, an overpass of Highway 151 envisioned in the *Nelson Neighborhood Development Plan,* and regional trails to Sun Prairie and other area communities.

Neighborhood Site Analysis

Also critical in the preparation of a responsible neighborhood development plan is an understanding of specific opportunities and limitations presented by the site. As depicted in Map 5, the Felland Neighborhood general study area is characterized by natural and built features that present both opportunities and challenges for future development.

The study area's rolling terrain and wooded slopes create special opportunities for future development. The study area's steep slopes, occasional rock outcroppings, and creek corridors create constraints on private development, utility extensions, and road locations. However, these same features can create neighborhood edges, provide an opportunity to preserve the beauty of the area in developing the neighborhood, serve as permanent open space areas and recreational corridors, enhance views, provide hiking trail locations, and define the character of the neighborhood. In particular, the wooded hillsides near Felland Road should be preserved to the greatest extent possible and the number of intersections should be limited in order to maintain this road's rural feel while at the same time accommodating future traffic increases.

MAP 5: NEIGHBORHOOD SITE ANALYSIS



A water feature in areas of existing hydric soils would provide an exciting recreational and development amenity.

Hydric soils in the valley west of Felland Road also limit the development of roads and homes, but more importantly create a tremendous opportunity to design a new neighborhood around a lake or marsh. Surrounding uses could include a mix of housing types and densities, privately maintained parks and trails, small-scale commercial uses, and civic uses.

The historic hamlet of Burke Station, located on the north edge of study area, provides a setting for limited mixed use development that should complement the historic scale and form of this crossroad community. Revitalization of this hamlet would be advanced by more housing in the area and a potential commuter rail station to the north. If commuter rail is implemented and a station is sited in this vicinity, properties to the northeast of Burke Station have the potential for higher-density, transit-oriented development and regional park and ride facilities. However, there are lowlands between Burke Station and Nelson Road near the rail line that may not be developable.

Other built features affecting the future development of the Felland Neighborhood include the Interstate and railroad line. Interstate 90/94/39 and the railroad tracks create physical barriers that limit neighborhood access to the west and north. A southerly extension of City View Drive, improvements to and expansion of the Lien Road underpass, a recommended bicycle and pedestrian connection across the Interstate near the rail crossing, and a previously-planned bike and pedestrian connection across Highway 151 would all improve connectivity. Traffic noise generated by the Interstate is significant, especially where visible. Non-residential redevelopment of the Lien Road lands adjacent to the Interstate is advisable because the topography of these lands provides high visibility to the Interstate.

Addressing potentially incompatible existing land uses at neighborhood edges will also be challenging. The mineral extraction operation on Reiner Road has the potential for 20 to 30 additional years of use; indeed its materials will be required for future development in the study area. Extraction activities will impact planned land uses on neighboring properties. To mitigate these impacts, substantial berming and landscaping are recommended for the quarry site perimeter and within surrounding residential subdivisions. Once extraction is complete, the quarry site should be redeveloped and integrated into the larger neighborhood.

Design Recommendations for Detailed Planning Area

Adherence to certain design principles are critical to the successful implementation of the *Felland Neighborhood Development Plan* as a unique neighborhood, as opposed to a collection of marginally related land uses and roads. The design principles described and illustrated below are directed to promoting both the City's desires and those of the developer that controls a majority of the land within the study area. Those desires include:

- Creating a lake-oriented neighborhood in the heart of the detailed planning area, provided that the developer is willing to construct and maintain the lake,
- Designing the neighborhood and its individual components at a human scale,
- Providing a broad array of housing types, styles, and densities which accommodate a wide range of household incomes and which seamlessly integrate market rate and affordable housing within the neighborhood,
- Creating a community activity center at Reiner and Lien Roads, and a neighborhood gathering place oriented to the proposed lake,
- Providing connections within the neighborhood and to surrounding destinations, and
- Creating desirable places to live, with a focus on the quality of human life, through innovative land use and transportation design.

Lake-oriented Neighborhood

As suggested earlier, the large area of wet soils west of Felland Road presents an opportunity for creation of a lake within the detailed planning area. Creation of lake suggests a development form reminiscent of historic lake-oriented small communities in Wisconsin. This form suggests clusters of cottages and public uses near lake edges, served by an irregular street pattern. Street patterns can become somewhat more formal away from the lake, but irregularities to conform to the natural landscapes should continue, often creating small open spaces.

Image courtesy of Midland Builders & Downing Thorpe and James

This concept of a lake-oriented neighborhood permeates many of the recommendations of this *Plan*. Subtle development nuances, particularly near the lake, will create the desired sense of place. The street pattern should be allowed to meander along the lake and other natural

areas. What is important is connectivity, rather than strict adherence to a formal street grid. Public access and compatible architectural design along the lake is promoted. The lake should be ecologically managed to create a high-quality neighborhood feature—not a glorified detention basin.

All costs of construction and ongoing maintenance of the lake should be borne by the developer and later a Property Owners' Association. In the event the developer decides not to construct the lake under these terms, the City should revisit the recommendations of the *Felland Neighborhood Development Plan*.

Human Scale Design

The Felland Neighborhood is planned to be developed as a place oriented to promoting the health, quality of life, and sense of connection among its residents. The detailed neighborhood planning area and its components are designed at a human scale to achieve these goals. Human scale design addresses the placement of buildings, streetscaping, and other physical elements within the neighborhood. Neighborhoods designed at the human scale create safe, connected, and walkable places. Examples of designing at the human scale that are emphasized with the development of the detailed planning area for the Felland Neighborhood include:

- promoting building setbacks for homes that create active streets;
- building homes with usable front porches, bays, and balconies;
- orienting front doors towards the public street;
- installing landscaping in front yards;
- installing trees along street terraces;
- ensuring that streetscapes are dominated by living spaces rather than garage doors;
- orienting development towards parks and open spaces, while still promoting public use; and
- designing smaller parking lots and neighborhood-scale buildings rather than expansive parking lots and oversized warehouse-type buildings.

Housing Diversity

The overall Felland Neighborhood study area is planned to include a mix of housing types, lot sizes, and densities, including single family detached and attached housing, condominiums, garden apartments, and senior housing. This diversity of housing options, densities, and related architectural styles further reinforces the mixed-use focus of the neighborhood. This diversity also offers the ability for residents to find housing that fits both their price range and housing needs throughout their lifetime in the neighborhood. As the general study area develops, it will be important to accommodate a wide range of housing types targeted toward a broad range of income levels, and to seamlessly integrate market rate housing with affordable housing.

Architectural styles and integrated site designs should address building scale, massing, relationships between the buildings and street, and the architectural character of all the components of the neighborhood. The detailed neighborhood planning area street plan is designed to provide lots with front yard setbacks which are not excessive and homes with porches to encourage community interaction. Homes served by private alleys should be provided as part of the housing mix in the detailed planning area. There should be varying garage locations and garage doors should be directed away from primary streets wherever possible to improve the streetscape. Consideration should be given to having terrace areas extend into street intersections and at mid-blocks to reduce width of the pavement and improve the streetscape. Bold colors and high-quality materials should be provided to create variety along the street, yet a common architectural theme should be maintained within the detailed planning area.

Community Activity Center and Neighborhood Gathering Place

A well designed neighborhood has a heart, where the residents can gather to meet, shop, and take care of their daily errands. This *Plan* advises the creation of two such activity centers or gathering places within the study area.

The planned Neighborhood Gathering Place is recommended near the heart of the detailed planning area. It would be located adjacent to and southeast of the planned lake, and along the main road through the neighborhood. Building and site design should follow the principles for "human scale design" above. The *Plan* provides an elementary school site adjacent to a public park near the lake. This site and its accompanying park space have been designed to accommodate a two-story elementary school, and its outdoor recreational requirements, parking, and loading.

The larger Community Activity Center is recommended at the southeast edge of the general study area, near the future intersection of Lien and Reiner Roads. This Center might include a mixture of institutional, recreational, and moderate-scale commercial uses to serve residents of several surrounding residential neighborhoods. Site layouts, development scale, and building groupings should be designed to promote a proper relationships between the different land uses within the Center. Development of this Community Activity Center is likely several years away—more detailed planning and design attention should be directed to this area before development occurs.

Images courtesy of Midland Builders & Downing Thorpe and James

Interconnectivity

The Felland Neighborhood is planned with an interconnected network of public ways to provide options to the major streets in the area and to place pedestrians and bicyclists on equal footing with drivers. In the recommended development plan (Map 6), major circulation routes are aligned with open space edges to provide views and enhance driving experiences. Formal street grid networks are allowed to soften and meander along natural open spaces. Varied street alignment and interesting green spaces are planned to promote unique sub-neighborhood areas. Where public street connections are impractical, bike and pedestrian connections should still be provided.

These design recommendations are incorporated in the detailed development plan recommendations that follow, and should be referenced when specific development proposals are brought forward for this detailed planning area.

Detailed Neighborhood Development Plan Recommendations

Summary

The *Felland Neighborhood Development Plan* recommends a land use pattern, a transportation network to serve this pattern, a staging and utility plan for development over time, and the steps needed to implement these planning recommendations in a coordinated manner. This *Plan* seeks to create an orderly transition from office uses planned along Interstate 90/94/39, to a mix of civic and residential uses oriented around the proposed lake west of Felland Road, to the sensitive relationship between residential uses and mineral extraction activities in the eastern portions of the study area.

The recommended land use pattern for the Felland Neighborhood takes advantage of the natural features to define sub-neighborhoods and create buffer areas between incompatible uses. The majority of the study area will be used for residential development. New housing will provide convenient living opportunities near Madison's growing east side commercial and job centers.

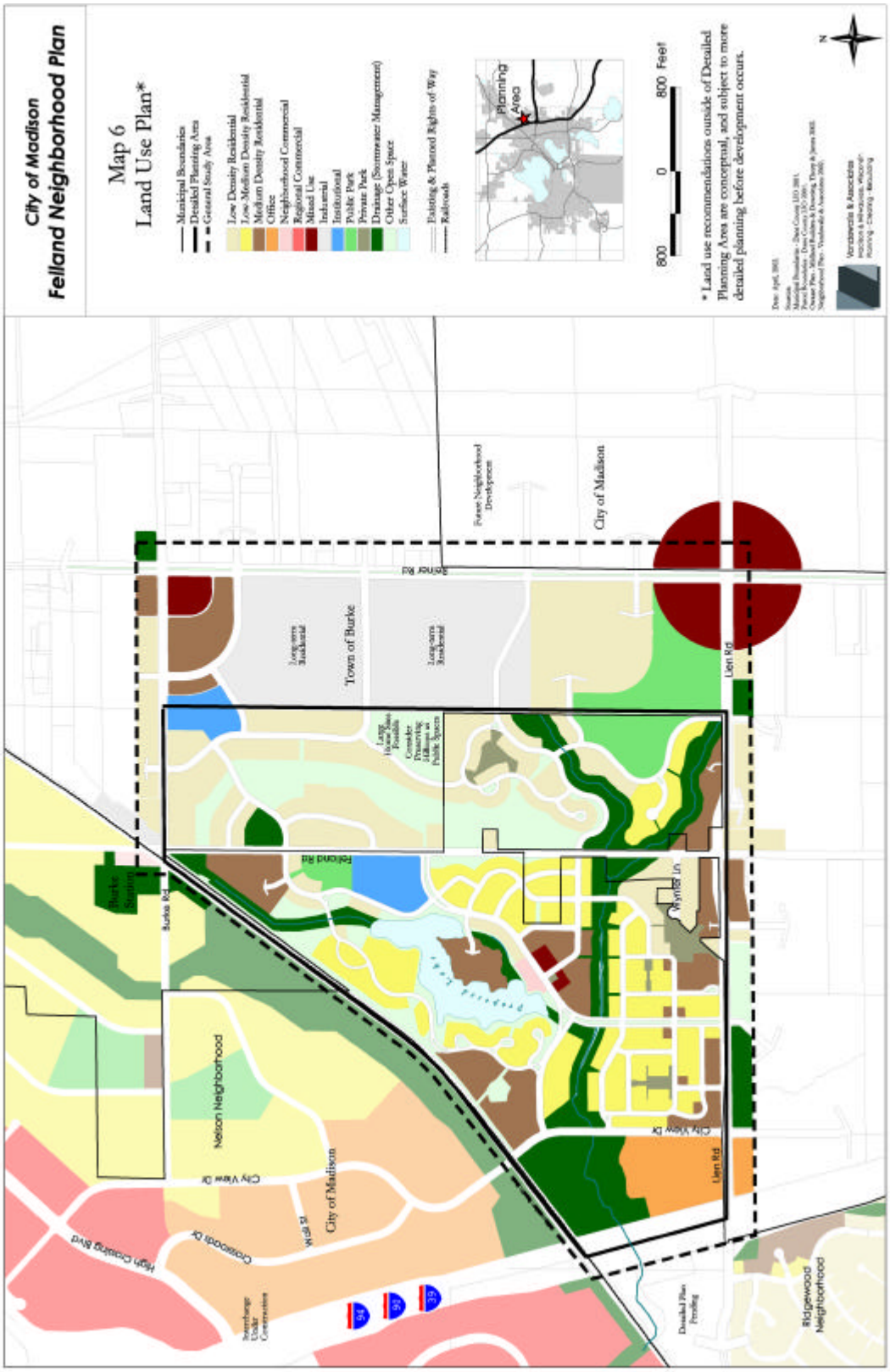
Map 6 depicts the planned land use pattern. This recommended development pattern has been provided in detail for the detailed planning area, and conceptually for the rest of the general study area. Figure 4 summarizes the acreage within proposed land use categories depicted on that map within the Detailed Planning Area.

Figure 4. Proposed Land Use for Detailed Planning Area*

Land Use Category	Acres	% of Total
Residential		
Low Density Residential (8 or fewer units/acre)	70.5	16.2
Low-Medium Density Residential (8 to 15 units/acre)	63.2	14.4
Medium Density Residential (16 to 25 units/acre)	39.6	9.1
Commercial		
Office	14.1	3.2
Neighborhood Commercial	1.0	0.2
Mixed Use (Residential and Commercial)	1.3	0.2
Institutional	10.4	2.4
Park and Open Space		
Public Park	12.2	3.5
Private Park	6.6	1.5
Drainage (Stormwater Management)	54.7	12.5
Surface Water	15.3	3.5
Other Open Space	56.0	12.8
Street Rights-of-Way	91.0	20.8
TOTAL	435.9	

Note: * Detailed Planning Area is as depicted on Map 6.

MAP 6: LAND USE PLAN



Residential Uses

When implemented, this *Plan* will create a range of housing types and residential densities in the study area. The *Plan* recommends a total of 173 net acres for residential uses in the detailed planning area for the Felland Neighborhood, not including residential uses within planned Mixed Use development areas. The diversity of housing types and densities are represented on Map 6 by designating sub-areas within the detailed planning area for low, low-medium, and medium density residential development. The mapped locations for housing in different density ranges are illustrative of the recommended development pattern, but some flexibility in implementing the recommendations is assumed. For example, it is not expected that every residential development will necessarily correspond exactly to the specific density range indicated, but rather that the general pattern and distribution of densities and housing types will be consistent with the intent of this *Plan's* land use recommendations. The mix of housing types anticipated within the detailed planning area include:

- Single Family Homes
- Townhomes
- Duplexes
- Triplexes
- Multi-Family Apartments
- Row Houses
- Condominiums
- Lake Edge "Cottages"
- Manor Homes (higher-end rental and/or owner-occupied units)

In the detailed planning area, the 71 acres of land planned for Low Density Residential development, at an average density of 4 units per acre, will yield approximately 284 housing units at full build out. The 63 acres of land planned for Low-Medium Density Residential development (assumed average density of 9 units per acre) will yield about 567 housing units. The 40 acres planned for Medium Density Residential development (average density of 16 units per acre) will yield about 640 housing units. This totals 1,491 units planned for 173 net acres of residential development, resulting in a net density of 8.6 units per acre.

West of Felland Road, a broad mix of residential development types is recommended. Medium Density Residential uses are recommended for several areas to provide increased community interaction possibilities and increased support of neighborhood service, transit, and civic facilities. These areas include:

- The southern and southwestern portion of the neighborhood near Lien Road and City View Drive. Townhouse development near both of these roads will help transition from heavier traffic routes to lower-density residential development planned near the lake and will be conveniently served by future transit service.
- Lands near the planned Neighborhood Gathering Place near the lake. These areas are viewed as appropriate locations for row houses, townhomes, and multi-story apartment buildings. Attached residential housing could extend to other locations around the lake.
- An area south of Burke Station, where townhouse development may be appropriate.

The remainder of land west of Felland Road is recommended for Low Density Residential and Low-Medium Density Residential uses. A wide range of housing types, sizes, and price ranges are still possible in these areas. It also is intended that a variety of lot sizes be provided—including smaller lot sizes suitable for lots typical of "traditional neighborhood development." Some of these smaller lots could be loaded from private alleys.

East of Felland Road, Medium Density Residential uses are planned along an extended alignment of Lien Road. These residential areas will have convenient access to the planned greenway system and parks. Development in these areas could include a mix of apartment buildings, townhouses or condominiums. The balance of land within the detailed planning area east of Felland Road is recommended for Low and Low-Medium Density Residential development, particularly detached single family homes. Such development is appropriate for this area given its topography and open space features, along with a desire to provide some additional higher-end housing choices in the neighborhood.

The mineral extraction operation in this portion of the study area is expected to continue for several years. As a result, berming and vegetative buffers should be planted and maintained. The restoration plan for the mineral extraction operation should plan for eventual residential development, and the future extension of an inter-connected roadway system as conceptually suggested on Map 6.

Commercial, Office, and Mixed Land Uses

Recommended commercial, office, and mixed uses in the Felland Neighborhood general study area are concentrated in four locations:

- between City View Drive and Interstate 90/94/39,
- at the intersection of Lien Road and Reiner Road in the southeastern corner of the study area (conceptualized as a "Community Activity Center"),
- in the Neighborhood Gathering Place adjacent to the proposed lake, and
- in and around Burke Station.

<u>Office (Re)development Adjacent to Interstate Highway</u>

Approximately 20 acres of land between Interstate 90/94/39 and a planned extension of City View Drive are recommended for multi-story office development, serving as a continuation of office uses located to the north in the Nelson Neighborhood/High Crossing area. This planned office area should be developed according to attractive, lasting design and amenity standards appropriate to its highly-visible location. Important factors to consider include ensuring that the office site and building designs create an attractive appearance on all sides, especially the elevations visible from the Interstate; that adequate site landscaping is provided on all sides; that parking areas do not dominate views; and that design features and scale remain generally compatible with residential uses to the east.

Multi-story office development at this location would serve to buffer the planned residential areas from traffic noise levels from the Interstate. Recommended office uses also would provide a desired alternative to an extension of regional-scale commercial uses, which would not be in keeping with the desired neighborhood scale or character. If contamination may have occurred on any portion of properties proposed for redevelopment, the City should require a proper environmental assessment and clean-up before granting final project approval.

Community Activity Center (Conceptual)

Although not within the detailed planning area, there is a long-term opportunity to develop a Community Activity Center on properties surrounding the future intersection of Lien Road and Reiner Road, at the Felland Neighborhood's southeast corner. This corner is represented conceptually on Map 6; more detailed planning will be required before development. In addition to institutional and recreational uses, this Center is planned to contain a mixture of commercial uses designed to supply the day-to-day goods and services for residents living in the Felland Neighborhood and in future neighborhoods planned to the east and south.

This Center might include uses like a deli, coffee shop, specialty retail, dry cleaners, drug store, restaurant, and grocery store. Development in this mixed-use center could include first floor retail, accented by the potential for upper story office space and residential units.

The Community Activity Center near the future intersection of Reiner and Lien Roads could serve as a community gathering spot with special attention directed toward its design and relationship to surrounding neighborhoods.

Overall, it is recommended that, to the extent possible, this mixed-use center at the junction of two major transportation routes be planned to create compact, pedestrian-friendly clusters of complementary uses. In evaluating proposed neighborhood-scale stores and institutional uses at this location, important factors to consider include the proximity and ease of pedestrian access from residential areas, pedestrian-bicycle connections and routes throughout the entire neighborhood, the range of convenience goods and services available, hours of operation, and the level of amenity provided.

Neighborhood Gathering Place

The Neighborhood Gathering Place, west of Felland Road within the detailed planning area, is envisioned as a compact, walkable, street- and lake-oriented center. Located off of main

roads, the Neighborhood Gathering Place is not likely to attract a broad array of commercial uses. However, the Neighborhood Gathering Place and nearby sites are planned for public uses such as an elementary school and limited retail and service uses such as a daycare, coffee shop, design center, and destination restaurant. A mix of residential uses among these commercial opportunities should be promoted. No large-scale commercial uses should be permitted.

Burke Station

Most of Burke Station is just outside the detailed planning area. Consistent with adopted plans for adjacent neighborhoods, this *Plan* recommends small-scale neighborhood commercial development and redevelopment in this historic crossroads "hamlet." The core of this hamlet should be devoted to convenience retail uses, local service offices, restaurants, taverns, and entertainment uses.

Given the historic lot patterns, topography, drainage limitations, and the alignment of roadways and railroad tracks, large-scale uses would be inappropriate for the Burke Station area. The development of two- to four-story buildings within this hamlet is appropriate if properly designed and oriented to the public streets and to surrounding and opposite buildings. As homes and traffic increase in the area, there will be increasing opportunities to redevelop and rehabilitate existing hamlet properties. Before granting approval for redevelopment projects on possible contaminated "brownfield" sites, the City should require a proper environmental assessment and any required clean-up.

Institutional Land Uses

Map 6 shows a 10-acre combined elementary school and park site west of Felland Road, adjacent to the planned lake. The site is designed to accommodate a two-story school and its outdoor space, parking, and loading requirements. The recommended elementary school site is located where the curriculum can, by request to the lake owner, take advantage of the lake (e.g., experiments, and collections) and where the school can become a visual focal point for the neighborhood. This school could have a strong focus on environmental education given its unique location. If the School District ultimately does not select this location for a school, the school site could instead be made available for single-family residential development. It may also be appropriate to review the configuration of the public park in this area in that event.

The *Plan* also advises the slight expansion of the cemetery/former school site on Burke Road for passive recreational and buffering purposes. The conceptual Community Activity Center at the southeast corner of the study area would also provide appropriate locations for a future middle and/or high school, day care centers, a library, religious institutions, or other civic uses. Some of these types of uses may also be appropriate (on a small-scale) in the Neighborhood Gathering Place near the proposed lake.

Parks and Open Spaces

This *Plan* advises a system of public and private parks to provide convenient recreational opportunities and open space amenities to residents of the Felland Neighborhood. In

addition, this *Plan* recommends public shoreline access around the lake, a greenway trail system along Starkweather Creek, and a recreational/commuter path along the southeast side of the railroad corridor.

A planned Area Park is located in the southeastern portion of the neighborhood along Lien Road extended. This 20+ acre proposed park (9 acres on Midland Builders controlled lands) is shown to include relatively flat terrain to accommodate larger active recreational facilities such as soccer fields. The park would also provide access to a planned trail system within the Starkweather Creek corridor and connect with and be a part of the planned Community Activity Center near Reiner Road. The park will provide good access and parking for cars from surrounding neighborhoods. The future boundaries are somewhat imprecise at this point, particularly east of the detailed planning area properties controlled by Midland Builders. In cooperation with affected property owners, the City should prepare a detailed park master plan or work with developers in the platting stage to finalize boundaries and future park facilities.

A smaller public neighborhood park is also planned for the detailed planning area as part of the combined school/park site along Felland Road. Map 6 shows several pocket parks which may be privately owned and managed. The unique nature of the site also lends itself to creating a network of hiking trails in private natural areas winding through the neighborhood. The system of pocket parks and trails should largely be provided by private developers and landowner associations, and some credits toward park dedication should be given for these facilities.

The lake is planned to be an important open space amenity for the Felland Neighborhood. Characteristics that will assure this amenity value include:

- Public access to and around the lake, perhaps including a privately maintained trail system and features like overlooks, benches, and small pocket parks.
- Natural shoreline treatments, such as the establishment of natural, adaptive, and non-invasive vegetation.
- High water quality in at least parts of the lake to meet "fishable" standards.
- Minimal variation in lake levels during all four seasons, particularly during wet and dry periods.

Other Open Space areas shown on Map 6 generally reflect the locations of steep, mainly wooded slopes where development is not recommended. However, hiking trails may be appropriate in many of these areas. Drainage areas shown on Map 6 include the Starkweather Creek environmental corridor and likely stormwater management areas. Also, the cemetery/old school site along Burke Road may be expanded somewhat to serve passive recreational purposes and provide a development buffer in that area.

Recommended Transportation Facilities

A system of arterial, collector, and local streets is recommended to provide external access and internal circulation within the Felland Neighborhood. The City has prepared the Felland Neighborhood Regional Transportation Impact Analysis as part of this planning process (see Appendix D). Map 7 summarizes recommended improvements to transportation facilities to serve the study area in the future. American Association of State

Highway and Transportation Officials (AASHTO) design standards or the Institute of Transportation Engineers' Traditional Neighborhood Design Street Standards should be used in the geometric design of all new and expanded streets based on the speed limits anticipated for the various roads. Anticipated speed limits for arterial streets are 40 to 45 miles per hour, for collector streets 30 miles per hour, and for local streets 25 miles per hour.

Arterial Streets

Two emerging major arterial streets will provide primary access to and through the Felland Neighborhood--Reiner Road and Lien Road.

In accordance with City and regional plans and traffic forecasts, Reiner Road will require at least four travel lanes in the future, plus additional turning lanes at some intersections. The recommended right-of-way width within the study area is 130 feet, which will accommodate a median. Additional private access to Reiner Road should be limited; access into adjacent properties should be provided by planned local street intersections wherever possible. Bike lanes and sidewalks should be provided.

Lien Road currently provides access to and from the west. Consistent with other adopted regional and City plans and the Official Map, this *Plan* recommends that Lien Road be extended eastward to at least Reiner Road. Connecting this roadway to Reiner Road is considered essential for future regional transportation access and distribution, and should redirect some through-traffic that would otherwise have to use Felland Road. As shown in Map 6, the recommended alignment for the Lien Road extension is generally due east, with a small northerly curve near Felland Road to minimize impacts on existing developed properties. An alternative straight east alignment remains feasible if additional developed property acquisitions are made. Future neighborhood plans should consider the desirability of continuing Lien Road eastward to Thorson Road. Lien Road is expected to function as an arterial road as traffic increases as a result of planned development. Anticipated traffic increases will likely necessitate expansion to four lanes, associated widening of the Interstate underpass, traffic signals at Reiner Road, and possibly signals at Felland Road. The recommended right-of-way width for Lien Road is 100 feet; 110 feet is desirable where Lien Road intersects Felland Road, Reiner Road, and City View Drive to accommodate full turn lanes and pedestrian refuge medians. Access to Lien Road should be carefully controlled. Accessing adjacent properties should be provided by planned local street intersections wherever possible, except where isolated parcels have no other reasonable access opportunities. Bike lanes and sidewalks should be provided.

Collector Streets

An extended City View Drive, Felland Road and Burke Road will likely change in functional classification from local connector streets to collector streets. Private access limitations to these streets should be considered. While the recommended rights-of-way below are generally adequate, additional right-of-way widths may be needed at selected locations for turn lanes, medians, and other traffic control and pedestrian facilities.

The Transportation Plan map (Map 7) recommends that City View Drive will extend south from its present terminus in the Nelson Neighborhood area, cross the railroad tracks, follow

the western Felland Family Farms property line down to Lien Road, and eventually extend south of Lien Road. City View Drive will serve as a collector street and provide direct access between the Felland and Nelson Neighborhoods. Sidewalks and sufficient street width for bicyclists should be provided. The recommended right-of-way width for City View Drive is 80 feet. Enough right-of-way width should be provided on lands controlled by the developer east of the salvage yard to allow for a minimum of two lanes of traffic on the current developer-controlled lands, plus a sidewalk, terrace area, and bike lanes.

It will be important to maintain Felland Road with two travel lanes and limited driveway accesses to preserve the wooded, scenic character of that corridor. The wooded hillsides that line segments of this roadway, particularly near Lien Road, should remain intact to greatest extent possible in order protect this road's "treescape" character. The recommended right-of-way width for Felland Road is 80 feet. Sidewalks and sufficient street width for bicyclists should be provided.

Burke Road provides access into the northern portions of the neighborhood from the east and west. It will serve as an important collector roadway. The recommended right-of-way width is 80 feet. Sidewalks and sufficient street width for bicyclists should be provided.

Local Streets

All other planned streets depicted on Map 7 are expected to be classified as local or local connector streets. This *Plan* shows the general planned location of most of the local streets in the detailed planning area, but only some of the recommended local connector streets in portions of the study area outside the detailed planning area. Outside of the detailed planning area and study area, arrows are used to indicate future extension of key streets into adjacent future neighborhoods. The complete local street system serving the neighborhood will be determined in conjunction with plats and engineering studies prepared in advance of private development.

The modified grid local street pattern shown west of Felland Road creates relatively small blocks. It is intended that planned developments maintain a strong relationship to the public street and sidewalk system. All local public streets should include public sidewalks. Additional mid-block walkways near the Starkweather Creek corridor are recommended to further increase pedestrian accessibility, given the relatively limited number of public street crossings planned. Other pedestrian path connections are proposed at the ends of cul-de-sac streets.

Local connector streets may require traffic-calming measures to help minimize the design speeds of many of the roadways in the neighborhood. These measures, when coupled with narrower street cross sections, also help minimize pedestrian/automobile conflicts and increase the sense of safety among pedestrians. Specific traffic-calming measures that may be appropriate in this neighborhood include intersection bump-outs, reduced curb radii, and neighborhood boulevards. These measures should be designed into the streets at the time of initial development.

Transit Service

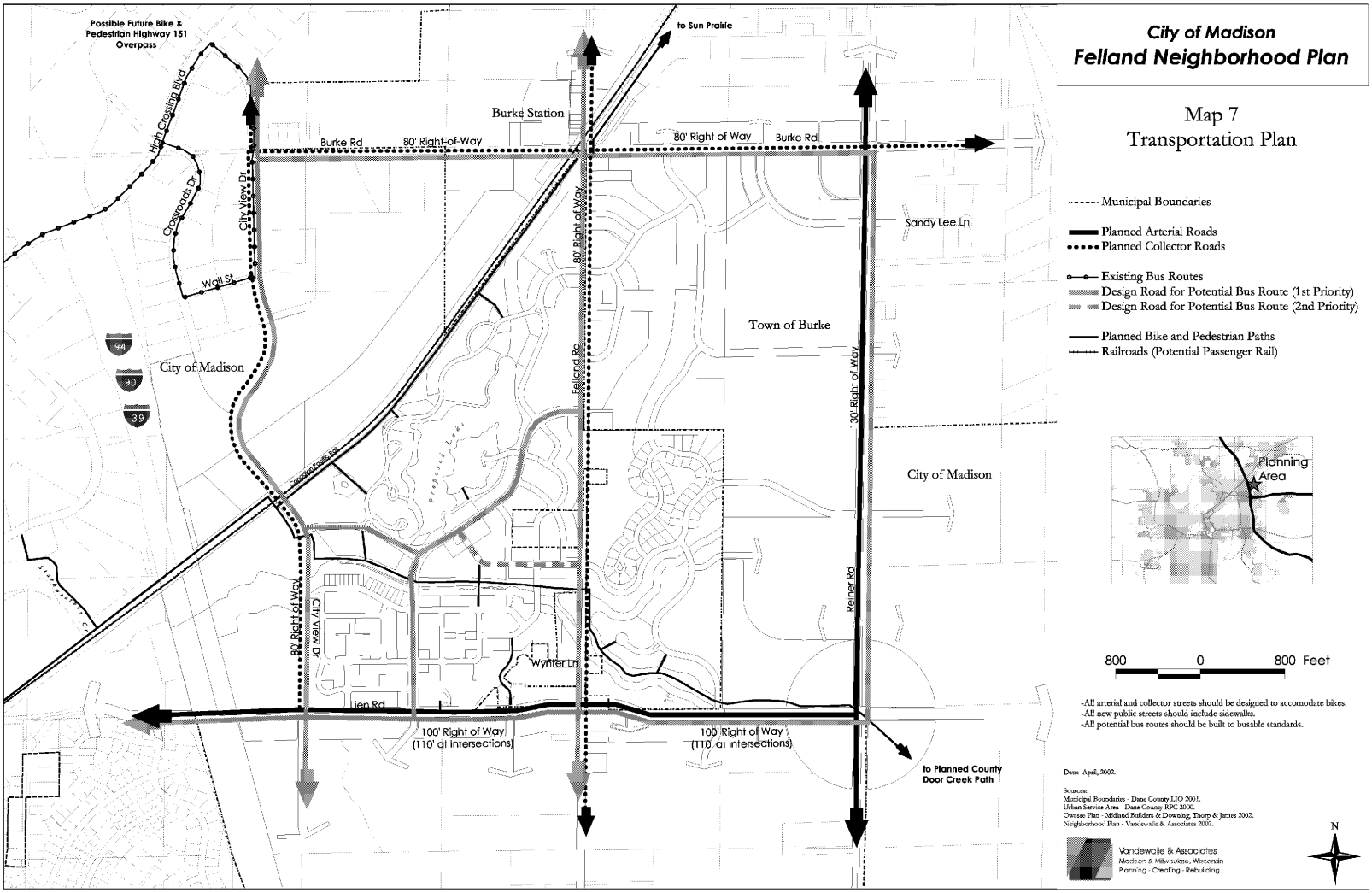
When bus service to the Felland Neighborhood becomes feasible, several alternative routes will be available for consideration due to the interconnected street system. Like most newly developing areas, public transit service is unlikely to be extended to the Felland Neighborhood initially, due to the relatively higher costs and lower ridership participation rates characteristic of peripheral locations. However, the development plan incorporates several provisions to facilitate future transit service. All arterial and collector roads, and the three main neighborhood connector streets planned in the center of the detailed planning area west of Felland Road should be constructed to accommodate possible future bus traffic (see Map 7). Virtually the entire neighborhood will likely be within a ¼ mile walking distance of a future circulating bus route established on parts of this street system.

Bicycle and Pedestrian Facilities

Because the proposed local street system is designed to provide multiple connections within the neighborhood, most bicycle and pedestrian travel will be accommodated within the street rights-of-way. On arterial and collector streets, dedicated bicycle lanes are recommended.

Sidewalks are recommended along all public streets. Other multi-use paths should be provided within the neighborhood where necessary to maintain relatively direct connections between destinations when they are not available on the local street system. This is especially important at the ends of cul-de-sacs and along Starkweather Creek where natural features limit the number and location of local street connections. Multi-use paths designed exclusively to serve the neighborhood should be maintained by a landowners association as a neighborhood amenity.

Proposed regional trail segments are shown on Map 7. This *Plan* incorporates City of Madison and Dane County recommendations to develop a multi-use path along the Canadian Pacific Railway corridor, including an Interstate crossing. This facility would provide bicycle movement to the East Towne Mall commercial area, eventually into the Isthmus, and to Sun Prairie. It is recommended that this bike path run along the southeast side of the railroad tracks, within a 30-foot public easement or dedication, due in part to significant slopes on the northwest side of the tracks. A second regional path should run along the Starkweather Creek to the east through the planned Community Activity Center and ultimately to the planned County Trail along the Door Creek.


City of Madison
Felland Neighborhood Plan
Map 7
Transportation Plan
Municipal Boundaries
Planned Arterial Roads
Planned Collector Roads
Existing Bus Routes
Design Road for Potential Bus Route (1st Priority)
Design Road for Potential Bus Route (2nd Priority)
Planned Bike and Pedestrian Paths
Railroads (Potential Passenger Rail)
Planning Area
800 0 800 Feet
-All arterial and collector streets should be designed to accomodate bikes.
-All new public streets should include sidewalks.
-All potential bus routes should be built to busable standards.
Date: April, 2002.
Sources:
Municipal Boundaries - Dane County LIO 2001.
Urban Service Area - Dane County RPC 2000.
Owasso Plan - Midland Builders & Downing, Thorp & James 2002.
Neighborhood Plan - Vandewalle & Associates 2002.
Vandewalle & Associates
Madison & Milwaukee, Wisconsin
Planning · Creating · Rebuilding
N
Possible Future Bike & Pedestrian Highway 151 Overpass
High Crossing Blvd
Crossroads Dr
City View Dr
Wall St
City of Madison
Burke Rd
80' Right-of-Way
Burke Station
to Sun Prairie
80' Right of Way
Burke Rd
Felland Rd
80' Right of Way
Sandy Lee Ln
Town of Burke
130' Right of Way
City of Madison
Reiner Rd
Wynter Ln
Lien Rd
100' Right of Way
(110' at intersections)
100' Right of Way
(110' at intersections)
to Planned County Door Creek Path

Recommended Utility Improvements

Sanitary Sewer

The 1995 RUST planning report for the Lien Interceptor (LI) projects it to be extended from the railroad underpass at Interstate 90/94/39 to the northeast through the low land between the railroad corridor and Felland Road. Eventually the LI will cross the railroad corridor and Burke Road, approximately 300 feet west of Felland Road. As depicted on Map 8, this extension of the LI has been tentatively sized at 24-inch diameter up to the crossing of the railroad corridor, with slopes ranging from 0.30 percent to 0.12 percent. North of the railroad corridor, the LI is proposed to be reduced to 21-inch diameter at a projected slope of 0.56 percent.

Major trunk lines are projected to extend south and east off the LI. These trunk lines are expected to follow the major overland drainage routes. The trunk lines cross Lien Road between Interstate 90/94/39 and Felland Road, and Felland Road just north of Lien Road. Map 8 shows the recommended size for these lines. All other local sewers should be sized to meet the minimum DNR standard of 8-inch diameter. These preliminary sizes, routes, and slopes should be re-evaluated during the design process for extending these facilities.

The LI eventually discharges to the Madison Metropolitan Sewerage District's (MMSD) Northeast Interceptor. Long-term projections of future flow in downstream segments of the Northeast Interceptor exceed the current capacity. MMSD routinely monitors this situation and will provide additional capacity to their system in order to relieve this situation once actual flows begin to approach current capacities.

Water Supply

The water supply system is controlled by the Madison Water Utility's reservoir. The overflow elevation for this reservoir is approximately 1140 feet, USGS. In order to satisfy the DNR code requirements for minimum and maximum static pressure of 35 PSI and 100 PSI, respectively, areas served by this reservoir must be at elevations between 910 and 1050 feet. The ground elevations within the study area currently range between 900 and 1050. Plumbing code requirements limit maximum operating pressures to 80 PSI at the building. Given these constraints, certain parts within the study area may require adjustments with respect to operating pressures unless significant alterations are made to existing grades. In certain situations, state regulators will allow variances in the maximum operating pressures for an area if pressure reducing valves are installed on the distribution system or on individual service lines. Until specific grading plans and design layouts are proposed for the general study area, it is difficult to determine whether state agencies will require pressure reducing valves for individual service lines (because the high pressure is isolated to a small area) or for the entire distribution system (because the high pressure affects a larger area) In general, the affected area is bounded by Felland Road, Lien Road, and the railroad corridor.

A recent planning report competed for the Madison Water Utility indicates that the distribution system adjacent to the study area is of adequate pressure and capacity to provide service to this area. To maintain adequate supply for the land uses proposed in the detailed planning area, 12-inch transmission mains should be installed in Lien Road, Felland Road,

City View Road (to Lien Road), Reiner Road, and Burke Road (see Map 8). The local system mains should be a minimum 8-inch diameter. All mains should be looped in accordance with standard Madison Water Utility practices to provide proper circulation and reliability.

Stormwater Management

Detailed stormwater management recommendations are included in a separate stormwater management master plan, prepared by Strand Associates, for the upper Starkweather Creek basin which includes this study area. Appendix B is a summary of that Stormwater Plan, and Appendix C reviews relationships between the proposed lake and stormwater management.

Gas and Electric

Gas and electric service to almost all of the study area will be provided by MG&E. Preliminary planning for future service extension to this area suggests that conventional service distribution systems will be adequate. There are no identified needs at this point that would require any major high voltage distribution lines or substitutions to serve this area, and there are no plans to locate such facilities within the study area. All new gas, electric, and communication services should be located underground.

Land-Wired Telecommunications

The vast majority of land-wired telecommunication services to the study area will be provided by SBC/Ameritech. A small area near the intersection of Reiner Road and Burke Road will be serviced by Verizon. Preliminary planning for future service extension to the study area suggests that conventional service distribution systems will be adequate. There are no identified needs that would require any major distribution lines to serve this area. However, SBC/Ameritech has requested a 34 foot by 36 foot easement on the north side of Lien Road between the Interstate and Felland Road for a cabinet to make additional lines available for this area. The location of such lines and facilities should be carefully considered given the complications they present during maintenance operations for other infrastructure elements and their potential visual impacts.

Development Phasing

Development within the detailed planning area for the Felland Neighborhood will occur in phases. The four phases (A through D) shown in Map 8 are proposed as a reasonable sequence for staging urban development in this neighborhood due, in part, to the time needed to extend sewer and water lines or make roadway improvements between one phasing area and the next. All phasing areas shown on Map 8 are currently outside the Central Urban Service Area. Phases A through D will form the basis for the City's first request to expand the Central Urban Service Area because of their inclusion within the City limits, the ready availability of public services, and private developer interest.

Phasing Area A

Area A includes lands recommended for a range of mainly residential development, the proposed Neighborhood Gathering Place, and the planned lake on the Felland Family

Farm/Wisconsin Capital Land Fund properties. Developing the lake feature first will assist both in stormwater management and in marketing the site. The boulevard planned to run from Lien Road up along the lakeshore and curve easterly to intersect Felland Road would be included in the first phase. Before any development occurs, Area A will need to be included within the Central Urban Service Area, rezoned to permit the recommended uses, and platted. Development of Phasing Area A may begin as early as 2002. Public utilities will have to be extended through Phasing Areas B and D to reach Area A.

Phasing Area B

Phasing Area B includes lands recommended for residential development on the Felland Family Farm/Wisconsin Capital Land Fund properties. These lands are located between an extended City View Drive and Area A. City View Drive should be extended south to Lien Road in this phase. Development within Phasing Area B may begin in 2003 or 2004.

Phasing Area C

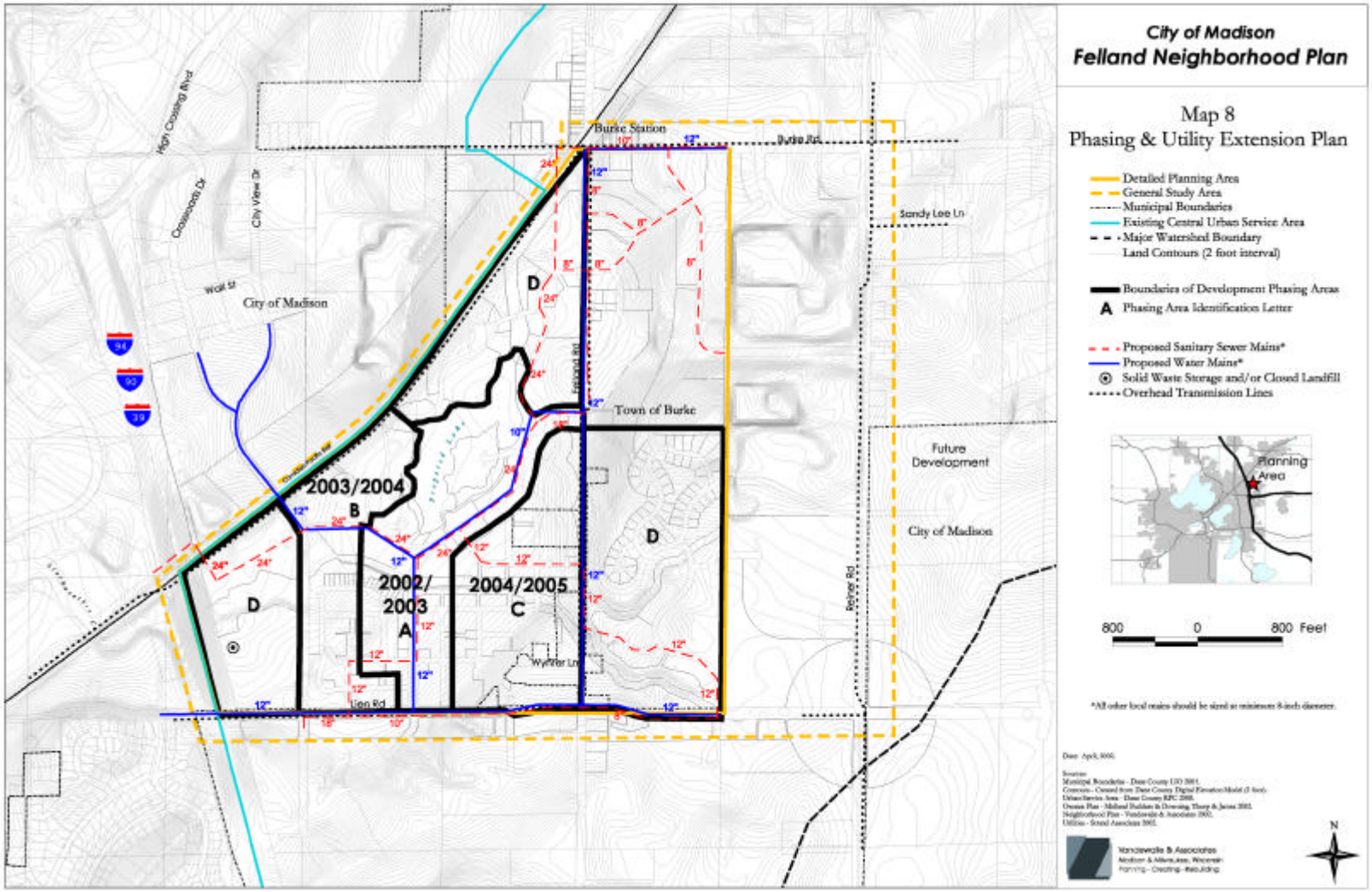
Area C includes lands recommended for predominantly residential uses on the Felland Family Farm/Wisconsin Capital Land Fund properties. These lands are located between Felland Road and Area A. Felland Road and the local street network extending east from the north-south boulevard built in Phase A will provide access to this part of the neighborhood. Development within Phasing Area C may begin in 2004 or 2005.

Phasing Areas D

Area D includes lands within three separate areas. Two are currently owned by the Felland Family Farm or Wisconsin Capital Land Fund. The area north of the proposed lake would include residential uses, an elementary school site, and small-scale commercial uses near Burke Station. The second area east of Felland Road would contain mainly single family residential uses and park and open space lands. These areas are included in Phasing Area D primarily because of their distance from City utilities. The third section of Phasing Area D includes the two existing commercial properties on Lien Road near the interstate. The current uses on these properties (brickyard and vehicle salvage) are not the recommended long-term uses, but it is not known when redevelopment to more intensive office uses might occur. It is difficult to suggest a timeframe for development in Phasing Areas D since this will be largely dependent on the actual pace of development in Phasing Areas A through C.

Future Phases

Remaining portions of the study area are not designated as specific phasing areas. Development in undesignated areas will depend on individual landowner decisions, availability of utilities, and the amount of time the Ziegler property is used for extraction activities. The City should complete more detailed plans for the development of undesignated lands outside of the detailed planning area before requesting the expansion of the Central Urban Service Area or approving developments to include these lands.


City of Madison
Felland Neighborhood Plan
Map 8
Phasing & Utility Extension Plan
Detailed Planning Area
General Study Area
Municipal Boundaries
Existing Central Urban Service Area
Major Watershed Boundary
Land Contours (2 foot interval)
Boundaries of Development Phasing Areas
A Phasing Area Identification Letter
Proposed Sanitary Sewer Mains*
Proposed Water Mains*
Solid Waste Storage and/or Closed Landfill
Overhead Transmission Lines
Planning Area
800 0 800 Feet
*All other local mains should be sized at minimum 8-inch diameter.
N
Burke Station
Burke Rd
Sandy Lee Ln
Town of Burke
Future Development
City of Madison
Reiner Rd
Felland Rd
Wyffer Ln
Uen Rd
Wolf St
City View Dr
Crossroads Dr
High Crossing Blvd
2003/2004
B
2002/
2003
A
2004/2005
C
D
D
D
Vandewalle & Associates

Plan Implementation

Currently, the lands in the Felland Neighborhood consist primarily of large, undivided parcels within two municipal jurisdictions; are zoned for agricultural uses rather than urban uses; and are all outside of the Central Urban Service Area. This section of the development plan recommends specific actions that are needed to prepare the neighborhood for development with the full range of urban services, and ensure that future development is consistent with the recommendations of this *Plan*.

Master Plan Amendment

Lands within the Felland Neighborhood general study area are included in the broad growth recommendations of the City's adopted *Peripheral Area Development Plan*. The *Felland Neighborhood Development Plan* provides detailed land use and transportation recommendations to guide a portion of this area's future growth and urban development.

The Felland Neighborhood Development Plan should be adopted as a detailed component of the City's Master Plan, under §62.23, Wisconsin Statutes. The recommendations of the Plan should also be incorporated in the City's pending Comprehensive Plan. Before development approvals are granted within portions of the general study area outside of the detailed planning area, the Felland Neighborhood Development Plan should be amended to provide more detailed recommendations for these areas. Also, if it is later determined that the developer will not fund the construction or maintenance of the planned lake, this Neighborhood Development Plan should be revisited.

Stormwater Management Master Plan

The City commissioned the completion of a stormwater management master plan for the entire basin that includes the Felland Neighborhood area. Completion of that stormwater plan corresponded with adoption of the *Felland Neighborhood Development Plan*, and is summarized in Appendix B.

The Stormwater Management Master Plan for the Upper Starkweather Creek Watershed should be submitted with the application to amend the Central Urban Service Area, and implemented with specific private development projects.

Central Urban Service Area Amendment

Lands within the Felland Neighborhood general study area are not currently within the Central Urban Service Area. 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, lands proposed for near-term development must first be included within the Urban Service Area.

Following adoption of the Felland Neighborhood Development Plan as an element of the City of Madison Master Plan, the City should prepare and submit to the Dane County Regional Planning Commission an application to amend the Dane County

Land Use and Transportation Plan and Dane County Water Quality Plan to include all of the land included in Phasing Areas A through D in the Central Urban Service Area (see Map 8).

Zoning

All of the land within the Felland Neighborhood, both in the City of Madison and in the Town of Burke, is zoned to an agricultural zoning district. In addition to allowing agricultural uses, the City's Agricultural District zoning is intended as an interim zoning placed on future urban development lands. Permanent zoning will be required in advance of platting. To increase its attractiveness to developers, the City should also consider modifying standards within its R-2(T) zoning district to better accommodate site and building designs with broader market appeal.

Lands within the Felland Neighborhood should ultimately be rezoned to conform to the land use recommendations of the adopted neighborhood development plan. It is further recommended that lands currently zoned Agriculture District be rezoned to another district only at such time as there is a specific subdivision and/or a specific development proposal sufficiently detailed to ensure that development within the district will be consistent with the neighborhood plan. Planned Unit Development zoning should incorporate any additional standards that may be required to ensure consistency with neighborhood plan recommendations and to achieve the vision of the developer to accomplish its objectives to achieve a lake-oriented neighborhood within the detailed planning area. It is also recommended that the City consider modifying its R-2 (T) District to increase its use.

Land Subdivision Regulations

Lands in the Felland Neighborhood will need to be subdivided into smaller parcels before they are developed with urban uses. As these lands are proposed for development, many of the neighborhood plan recommendations can be implemented through the City of Madison's land subdivision regulations. Subdivision regulations establish the location of public streets, parks and stormwater management facilities. The land required for these purposes will mainly be acquired through dedications. The spatial relationships between the proposed streets, parks, and other land uses illustrated in the *Felland Neighborhood Development Plan* reflect important neighborhood planning objectives, and these relationships need to be maintained as the land is developed if these objectives are to be realized.

Subdivisions also establish the sizes and arrangement of individual development parcels, and proposed divisions will be reviewed to ensure that this *Plan's* recommendation regarding provision of a variety of residential housing types, sizes, and densities are implemented. The *Felland Neighborhood Development Plan* also recommends that, within the detailed planning area, building siting and design create a pedestrian-friendly, street-oriented neighborhood character, and not allow the street elevations to be dominated by driveways, garage doors and automobile parking areas.

It is recommended that future subdivisions within the Felland Neighborhood conform to the recommendations of this Plan, particularly regarding the location of

arterial and collector streets, area and neighborhood parks, environmental corridors, stormwater facilities, and building lot dimensions that will help facilitate the development of a variety of housing types and densities. Proposed subdivisions may also be required to provide information (e.g., covenants) showing how the lots may be developed with building designs that maintain the desired street character. It is further recommended that local streets within proposed subdivisions either generally conform to the pattern of local streets shown in this Plan, or otherwise reflect the objectives illustrated in the Land Use Plan map (Map 6) regarding circulation and provision of multiple routes, access to parks, orientation of streets to visual features, and stormwater drainage.

Official Map

The City of Madison Official Map is used to reserve rights-of-way and other sites for specified future public uses until such time as they are required through dedication or other means. The City's Official Map does not show the preferred alignment of the Lien Road extension as proposed in this *Plan*; right-of-way width recommendations for the other proposed arterial and collector streets for this planned neighborhood; or planned parks, stormwater areas or environmental corridors.

The City of Madison Official Map should be revised to identify the proposed alignment and right-of-way width of Lien Road and all other recommended arterial and collector streets, as recommended in this Plan. Recommended stormwater areas and environmental corridors should also be added to the City's Official Map. Finally, it is recommended that the City of Madison compile all of the adopted roadway alignments, right-of-way widths, stormwater greenways, and detention and retention areas for all neighborhoods on the east side onto a single "Official Map" to provide consistent and efficient implementation.

Site Investigations and Remediation

This *Plan* seeks to promote the assessment, clean-up, and reuse of any existing "brownfield" sites within the Felland Neighborhood. The U.S. Environmental Protection Agency defines a brownfield site as an abandoned, idled, or underused industrial or commercial property where expansion or redevelopment is complicated by real or perceived environmental contamination. According to the background information gathered during this planning process, the Wisconsin DNR has identified one contaminated site on the eastern portion of the study area. Other potential contaminated sites, not yet recorded, may be located on older commercial or industrial properties in the planing area near the Interstate.

This *Plan* also seeks to protect and enhance historic and archeological resources when reviewing private development proposals and making public expenditures. During the collection of background inventory data for this neighborhood planning area, participants reported the possible presence of archeological and historical sites in portions of the study area that are not yet included on state or federal lists.

It is recommended that the City require proper environmental assessment and any required clean-up before granting final approval of a development proposal on any

property identified as having real or perceived environmental contamination. In most cases, basic environmental assessments have yet to be performed on these sites to determine the type and extent of contamination. This is a critical first step in ultimately re-using brownfields. In addition, the City should explore the potential for using an environmental remediation or standard redevelopment tax increment financing district to encourage redevelopment of the commercial properties on Lien Road near the Interstate. It is also recommended that, before the City grants final development approvals, the City require detailed site investigations to determine the exact type and location of historic and archeological resources and the appropriate measures needed to ensure that these resources are addressed during site development. These should be approved by the State Historical Society or completed according to the Society's recommended procedures and criteria.

Capital Improvement Program and Capital Budget

The *Felland Neighborhood Development Plan* proposes several types of public improvements and facilities for which public funds may be required. These improvements and facilities might include proposed public parks and open spaces, expansions of arterial or collector streets, multi-use paths, stormwater management facilities, sanitary sewer facilities, water distribution facilities, and similar improvements. Implementation of some of the public improvements recommend in this *Plan*, such as the recreational trail along the railroad corridor, will also require participation and cost sharing by other units of government as private developers.

It is recommended that the responsible City departments include within future capital improvement programs and the capital budget those public improvements and facilities for which public funding is required to implement this Plan.

It is recommended that the City continue to work cooperatively with other agencies, units of government, and private developers to seek their participation in the development planning and the costs of public improvement projects of mutual benefit that are recommended in this Plan. The planned extension and expansion of Lien Road and proposed multi-use trails within the planning area will likely require state or federal cost sharing assistance. As such, they should be added to the MPO's system plan and transportation improvement program when such improvements approach.

It is further recommended that the City establish a transportation improvement impact fee zone for the detailed planning area. Within this zone, the City should conduct a needs assessment of transportation improvements, develop an estimated cost for those improvements including federal funding sources, and then develop a cost-sharing formula for all properties within the zone to share on a proportional, trip-generation basis.

Annexation Policy

About 55 percent of the land within the Felland Neighborhood general study area is currently within the City of Madison. The orderly development of lands within the neighborhood will require extension of public utilities and improvements and provision of

the full range of urban services. It is the City's policy to provide such services only to lands within the City limits.

It is recommended that urban development on lands currently outside the City do not occur until these lands are annexed into the City of Madison. It is also recommended that no subdivision be approved by the City unless there is assurance that the full range of urban services will be provided at the time of such approval.

Interagency Cooperation

The proposed recreational facilities and open space amenities are an important element in this *Plan*. Development of these features will require continued cooperation and coordinated planning by the City of Madison Parks Division and the Dane County Parks Department. Further, the proposed elementary school site within the detailed planning area, and indeed the larger area north of Interstate 94, are within the Sun Prairie Area School District. A discussion of long-term planning goals between the Sun Prairie Area School District and the Madison Metropolitan School District is advised to determine which district will eventually serve all or portions of this larger area. Finally, there is a possibility that a Madison Public Library branch facility could be located within the study area.

It is recommended that the City of Madison work with the Dane County Parks Department and other appropriate agencies to implement this Plan's recommendations for development of recreational path segments that will serve both City and County residents. It is also recommended that the City help facilitate a discussion between the two school districts to determine future school district boundaries in the growing east side of Madison. The City should then work with the appropriate school district on securing appropriate school sites in and near the Felland Neighborhood. Finally, the City Department of Planning and Development should work with the developer and Madison Library Director to identify if the Felland Neighborhood is an appropriate location for a branch library and, if so, identify an appropriate site.

APPENDIX A

Plan Objectives and Policies

There were opportunities for property owners, neighborhood residents and business owners, private developers, City staff, and others to shape this *Felland Neighborhood Development Plan*. These opportunities included a kick-off meeting early in the planning process, a daylong neighborhood design session, an open house to review the draft plan, and two public hearings before appointed and elected City of Madison officials. The resulting objectives and policies guided the more detailed recommendations of this *Plan*.

Land Use Objectives and Policies

Objectives

1. Physically arrange land uses into compact and functional districts, with a mix of uses and densities within each district.
2. Concentrate higher intensity, mixed-use development near major intersections and planned neighborhood gathering points.
3. Embrace the concept, land use mix, and design qualities of the historic model of a community organized around a centrally located lake or water feature.
4. Locate planned land uses with reference to existing transportation facilities and land uses already within the general study area.
5. Promote the assessment, clean up, and reuse of all contaminated "brownfield" sites within the general study area.

Policies

1. Locate residences, neighborhood stores and services, and civic places such as a school and library in close proximity to minimize the need to use a car to access to these areas.
2. Create a Community Activity Center at the southeast corner of the overall neighborhood (near future intersection of Lien and Reiner Roads) to serve civic, shopping, and recreational needs of the Felland Neighborhood and surrounding future neighborhoods.
3. Organize development around the lake, wooded hillsides, the Starkweather Creek corridors, and other open space features, without restricting public access and views of these areas.
4. Create a Neighborhood Gathering Place along the planned lake, to include limited commercial uses, trails, public uses, and a mix of housing choices. This Neighborhood Gathering Place should serve as a focus of internal neighborhood activity and interaction within this detailed planning area.
5. Promote the redevelopment of existing commercial properties near the Interstate to office uses. This will also contribute to noise mitigation, and create buffers and/or sensitive transitions between other existing developed properties and planned residential areas.
6. Recognize that the neighborhood growth plays a part in creating significant expected future traffic increases on Reiner and Lien Roads, and consider this volume when planning for different land uses along these roads.

7. Require proper environmental assessment and any required clean-up before granting approval of development on any brownfield sites in the study area.

Housing Objectives and Policies

Objectives

1. Promote a full range of housing types and locations affordable for persons and households of all income levels and ages.
2. Provide opportunities for "move-up" and senior housing to provide residents with an opportunity to remain in the neighborhood as their life conditions change.
3. Organize housing types and styles around those historically found in lake-oriented Wisconsin communities.
4. Create and maintain adequate opportunities for family-living in the detailed planning area.
5. Create residential developments which have a strong relationship to the public street, sidewalk system, and nearby open spaces.

Policies

1. Promote the implementation of inclusionary and equal opportunity housing policies within the detailed planning area to provide affordable housing opportunities for people of different incomes, ages, and abilities, including low and moderate income households.
2. Locate multi-unit housing on the basis of the site's potential for providing safe, attractive and convenient living, including good access to public transportation, public recreational facilities, and private facilities and services, along with a desire to provide housing diversity within the neighborhood.
3. Encourage multi-family and other attached housing to be designed in a manner which integrates the attached housing into neighborhood settings with single-family detached housing and provides low and moderate income housing opportunities.
4. Promote multi-family attached housing projects which have entryways, windows, and balconies that face the street and relate to the residential streets upon which they are located or to other residential developments across the street.
5. Vary and set back garage locations to avoid the appearance of a "garage-scape" on public streets.
6. Encourage the provision of a mixture of public or common open spaces within very close proximity of each home.

Transportation Objectives and Policies

Objectives

1. Create a flexible transportation system which provides several modes and options of travel to most destinations within the general study area and to surrounding areas.
2. Minimize conflicts among different modes of transportation such as walking, biking, driving, and transit.
3. Improve accessibility to lands west of the Interstate and rail line.
4. Recognize the need to provide increased traffic capacity on certain existing roads.

5. For planned local streets, emphasize access and connectivity over moving traffic quickly.
6. Design and build roads that recognize the study area's rolling, wooded landscape.

Policies:

1. Design the neighborhood in a manner that minimizes the need to use private automobiles; encourages the use of public transportation, walking, and biking; and relates to potential passenger rail transit stops in nearby locations.
2. Design all streets to safely accommodate bicycles, pedestrians, and automobiles.
3. Extend City View Drive to the south and Lien Road to the east to serve planned land uses, increase connectivity, and improve regional traffic flow.
4. Plan for the future expansion of Reiner and Lien Roads to provide an efficient traffic circulation pattern for the region.
5. Plan for the extension of the Madison Metro bus system into the study area as ridership forecasts and funding warrants.
6. Provide a regional and local trail network within and through the study area, including a connection over or under the Interstate.
7. Require a connected local street pattern, while preserving the neighborhood function of those streets as low-slow traffic routes and public spaces through various traffic calming measures, including relatively narrow street cross sections.
8. Coordinate future improvements to Felland Road with the adjacent natural features and land uses to retain the wooded character of this important neighborhood route.

Open Space and Recreation Objectives and Policies

Objectives

1. Create a variety of park and recreational opportunities for the enjoyment and use of all residents.
2. Protect and buffer environmental and archeological resources, and recognize development opportunities and constraints that these features present.
3. Take advantage of natural resources such as steep slopes, stream corridors, and planned lake edges to connect residential areas and larger parks.

Policies

1. Provide parks and other civic spaces as places for social, civic, and recreation activity.
2. Support the development of a lake within the detailed planning area of the Felland Neighborhood if its is designed to serve as a major recreational amenity and neighborhood focal point and if the lake and its shorelines are privately maintained.
3. Pursue the dedication or acquisition of an approximately 20-acre Area Park within the general study area of the Felland Neighborhood, along with smaller neighborhood parks.
4. Pursue the dedication of a strip of land along the railway corridor for the development of a regional path eventually connecting Madison to Sun Prairie, and land along the Starkweather Creek environmental corridor for a segment of a second regional path.
5. Work with the school district on joint park and elementary school facilities.
6. Work with private developers and landowners' associations to preserve connected corridors of open space and to provide an extensive network of public and association

sidewalks and hiking trails to connect to regional paths and create a truly pedestrian-friendly neighborhood.
7. Meet Dane County Regional Planning Commission standards for the mapping and protection of environmental corridors.
8. Preserve and enhance wetlands, planned lake edges, and the Starkweather Creek.

Stormwater Management Objectives and Policies

Objectives

1. Design stormwater management facilities to safely store, clean, and convey stormwater runoff without creating a public hazard or nuisance.
2. Design stormwater management facilities to be aesthetically pleasing and provide multiple uses, where practical.
3. Reserve low-lying areas for stormwater management basins and conveyance routes, and encourage regional (as opposed to single-site) stormwater basins wherever possible.
4. Practice and require progressive stormwater management techniques.
5. Design stormwater management practices to complement neighborhood design features.

Policies

1. Implement the stormwater management master plan for the entire drainage basin including the Felland Neighborhood study area.
2. Require detailed stormwater planning in accordance with the stormwater management master plan as private development occurs.
3. Design the stormwater management system so that peak run-off rates after project completion are not greater than the peak run-off rates before construction when the land was in its undeveloped natural state.
4. Design the stormwater management system to control and, where possible, reduce pollutants entering surface water, considering strategies such as bioretention, vegetated swales, infiltration trenches, and filter/buffer strips.
5. Design the stormwater management system to minimize upstream and downstream impacts, including post-construction water quantity and quality, groundwater recharge, groundwater contamination, stream bank erosion, and construction site erosion.
6. Attempt to utilize natural drainageways to convey stormwater runoff and allow for infiltration and groundwater recharge, except protect the deep wooded ravines east of Felland Road from significantly increased stormwater flows.
7. Integrate planning for a lake with a high water and shoreline quality in the detailed planning area with planning for stormwater management.
8. Carefully consider water quality and quantity issues for Starkweather Creek in stormwater management planning.

APPENDIX B

Summary
Upper Starkweather Creek Watershed
Stormwater Management Study

(Prepared by Strand Associates)

As part of the *Felland Neighborhood Development Plan*, Strand Associates, Inc. has completed a stormwater management study of the Upper Starkweather Creek Watershed. The goal of this study is to recommend best management practices that will enable development of appropriate portions of the watershed while minimizing stormwater runoff-related impacts on nearby water resources. This watershed is identified for development in city, county, and town plans.

In developing this plan, Strand Associates has worked closely with City Planning and Engineering staff, as well as neighborhood planning consultants Vandewalle & Associates. In addition, Strand Associates staff served on a team formed by Midland Builders, the primary development interest in the study area, to evaluate feasibility issues for a proposed lake in the Felland Neighborhood. Many of the elements of this stormwater management study were developed based on conclusions of the Lake Feasibility Team.

The stormwater management study area includes approximately 3.60 square miles of the Upper Starkweather Creek Watershed extending east of Interstate 94, and including the 0.91 square miles in the Felland Neighborhood study area. The area discharges to the East Branch of Starkweather Creek, a 3.5-mile-long stream segment that drains southwesterly, eventually discharging to Lake Monona at Olbrich Park. According to the Yahara-Monona Priority Watershed Plan, historic channel straightening, wetlands drainage and fill, and nonpoint source runoff from urban and rural sources have contributed to significant degradation in the quality of streamflow in the channel. In the Upper Starkweather Creek Watershed, current cropland management practices have resulted in soil losses in excess of 1 ton per acre in many areas. The Creek's headwaters in the Felland Neighborhood area have been channelized and degraded, with no real landscape buffer.

Primary goals with respect to urbanization of the watershed include:

- Preserving and protecting existing water resources.
- Protecting groundwater recharge areas to maintain Starkweather Creek base flows.
- Minimizing discharge of sediment and other pollutants during and after construction.
- Controlling peak storm discharges from the developed area so that the risk of downstream streambank erosion and flooding are not increased as a result of the project.

The stormwater management study recommends measures to protect adjacent and downstream water resources to the maximum practical extent. These measures include the following:

1. Preservation of a 75-foot buffer on each side of the primary waterway bisecting the Felland Neighborhood study area. The buffer zone will be deep-tilled to enhance infiltration characteristics of the soil and planted with native vegetation.

2. Creation of a 1,500-foot-long wetland/conveyance swale to pre-treat stormwater runoff prior to discharging to the planned lake in the Felland Neighborhood, west of Felland Road.

3. Construction of six wet detention basins in appropriate locations in the Felland Neighborhood study area to capture nonpoint source pollutants prior to discharge to adjacent waterways.

4. Incorporation of infiltration areas into each wet detention basin to enhance groundwater recharge.

5. Provision of sufficient flood storage in each detention basin to control discharge rates to predeveloped conditions so that downstream flooding and streambank erosion potential are not increased.

Stormwater management facilities recommended in this report will be constructed over many years as the study area develops. The highest priority detention basins are those located nearest to the western limits of the Felland Neighborhood study area. Sufficient stormwater detention should be provided in these basins to meet incremental stormwater management requirements under each phase of development in the Felland Neighborhood. All stormwater management facilities serving more than one property—including storm sewers, culverts, drainage ways, detention basins, and emergency overland flow routes—should be protected by drainage easements or dedications. Easements should provide the City of Madison with legal authority to access, protect, and maintain stormwater facilities.

Groundwater monitoring wells should be installed upstream of Interstate 94 prior to development of the Felland Neighborhood, as directed by City staff. Groundwater monitoring wells should be sampled as necessary to provide predevelopment data concerning groundwater levels and quality.

Implementing measures recommended in the stormwater management study will reduce downstream total suspended solids loading by at least 80 percent, protect and preserve critical water resource areas, provide additional wetlands and infiltration areas, and control peak discharges to downstream areas. These measures will meet or exceed all existing stormwater management standards established for Dane County and the City of Madison for pollutant capture, peak discharge control, and infiltration. In addition, measures recommended in this report are consistent with the goals of the Yahara-Monona Priority Watershed Plan and the Dane County Water Quality Plan.

APPENDIX C

Felland Neighborhood
Lake Feasibility Overview

(Prepared by RMT, Inc.)

Feasibility Determination

A group of professionals were assembled to evaluate the feasibility of constructing a lake as part of the Felland Neighborhood development planning project. This group determined that the construction of a lake is technically feasible. The preliminary analysis has concluded that the construction and maintenance of the lake will have minimal impacts, if any, to groundwater in the project area, and has the potential to improve downstream surface water quality.

Background

RMT, Inc. (RMT), was retained by Midland Builders, Incorporated, to evaluate the feasibility of constructing a lake as part of the Felland Neighborhood development planning project. RMT assembled a Lake Feasibility Team composed of the following consultants with specialized areas of expertise: Held and Associates; CGC, Inc.; and Applied Ecological Services, Inc. The City of Madison's storm water consultant, Strand Associates, was also part of the Lake Feasibility Team. In addition, the Wisconsin Department of Natural Resources, and a representative from the Dane County Regional Planning Commission and Michael Best & Friedrich, L.L.P., also participated in the feasibility analysis.

Site Setting

The site area is the northwestern corner of Lien Road and Felland Road in Madison, Wisconsin, within the detailed planning area of the *Felland Neighborhood Development Plan*. The site is generally open farmland. A limited number of wetlands have been identified within the proposed development area, and the Wisconsin Department of Natural Resources (WDNR) has determined that there is a navigable waterway that crosses the property. However, water flows only occasionally in this waterway.

Soil Types

Subsurface investigations have been performed at the property to evaluate the types of soil that are present in the vicinity of the proposed lake. In general, the soil types are as follows: topsoil, underlain by up to 20 feet of clay, which is underlain by sand and gravel. Borings and test pits from the site indicate that bedrock is present at a depth of approximately 30 feet below ground surface.

Regional Hydrogeology

The regional hydrogeology in the vicinity of the proposed Felland Neighborhood development is depicted on the conceptual cross section included as Figure 1. Shallow groundwater is present in the sand and gravel unit below the upper clay and sandy clay. This sand and gravel layer likely provides recharge to the springs that are at the headwaters of Starkweather Creek. In some of the lower areas of the site, the shallow clay soil is mottled, indicating that this soil is periodically saturated. Beneath the sand and gravel is a leaky confining unit, which is underlain by the Wonewoc and Eau Claire Sandstone units. Between the Wonewoc and Eau Claire sandstone formations is a low-permeability aquitard called the Eau Claire confining unit.

Conceptual Lake Design

The conceptual lake design would include excavating and grading the proposed development so that there is a separation of at least 3 feet beneath the bottom of the lake and the underlying sand and gravel groundwater aquifer. The existing shallow clay soil will be excavated in the vicinity of the proposed lake, and will be used as a liner for the lake. This liner will be constructed of approximately 2 feet of compacted clay.

An annual water balance has been performed for the lake, which is graphically presented in the attached Figure 2. The vast majority of inflow to the lake will be from upstream surface water runoff, with rainfall also providing water directly to the lake. During periods of drought, pumped water will likely be necessary to maintain water quality and the water level in the lake. As shown on Figure 2, a small fraction of the overall water inputs to the lake is expected to come from pumped groundwater. As shown on Figure 1, the well that will be used to provide this groundwater will be screened in the Eau Claire Sandstone unit, which is separated from the shallow groundwater flow system. Therefore, pumping groundwater from this deep aquifer should not adversely affect shallow groundwater, including the springs that feed Starkweather Creek, nor should the limited volume significantly affect the deep aquifer.

Outputs from the proposed lake will include surface water outflow, evaporation, and groundwater seepage. As is shown graphically on Figure 2, once the lake has been filled, the amount of water entering the system balances with the amount of water leaving the system.

It is important to note that the water level in the lake will be designed to fluctuate, and a constant water level will not be maintained in the lake. This fluctuation is desirable so that the lake can store and attenuate storm water runoff during rainfall events. This has a number of benefits, including reducing peak flows and minimizing downstream erosion and flooding. This will also assist in maintaining more constant flows in Starkweather Creek.

Maintaining good water quality in the lake is very important. A portion of the surface water outflow will be recirculated for aeration and for maintaining desired outflows from the lake. This recirculation of water will also maintain a flow of water into the lake. The conceptual plan for the development and the lake also includes using the existing wetland areas and enhancing them with grass waterways that will treat the surface water that enters the development and the lake. A variety of grasses will be selected and planted along the waterway that will remove phosphorus and nitrogen from the surface water. These wetlands and waterways will also remove suspended solids in the surface water, and will be provide recharge areas for groundwater.

Grassed waterways will also be incorporated into the development for surface water leaving the lake. The preliminary investigation work performed to date indicates that, in the western portion of the development, there is an outcrop of the sand and gravel unit. Conceptually, the waterways from the lake will be diverted through the sand and gravel outcrop, thus using it for recharge of the shallow groundwater. This will assist in maintaining water flow to the springs that feed Starkweather Creek.

For these reasons, the Lake Feasibility Team concluded that it is technically feasible to construct a lake as part of the Felland Neighborhood development project. As a result, a Lake Design Team has been formed and began meeting on May 9, 2002, to begin the preliminary design of the lake.

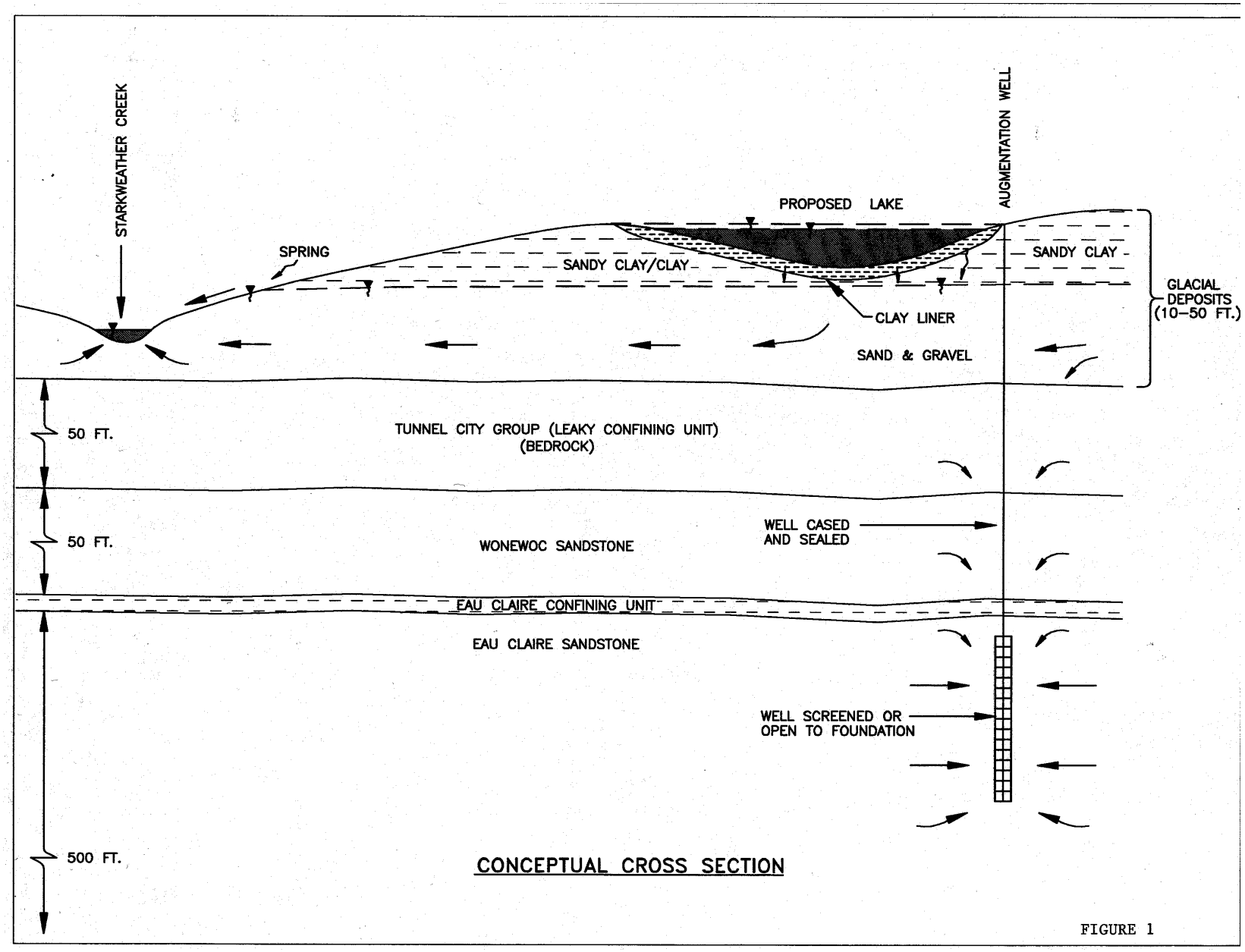

STARKWEATHER CREEK
AUGMENTATION WELL
PROPOSED LAKE
SPRING
SANDY CLAY/CLAY
SANDY CLAY
GLACIAL DEPOSITS (10–50 FT.)
CLAY LINER
SAND & GRAVEL
50 FT.
TUNNEL CITY GROUP (LEAKY CONFINING UNIT) (BEDROCK)
50 FT.
WONEWOC SANDSTONE
WELL CASED AND SEALED
EAU CLAIRE CONFINING UNIT
EAU CLAIRE SANDSTONE
WELL SCREENED OR OPEN TO FOUNDATION
500 FT.
CONCEPTUAL CROSS SECTION

FIGURE 1

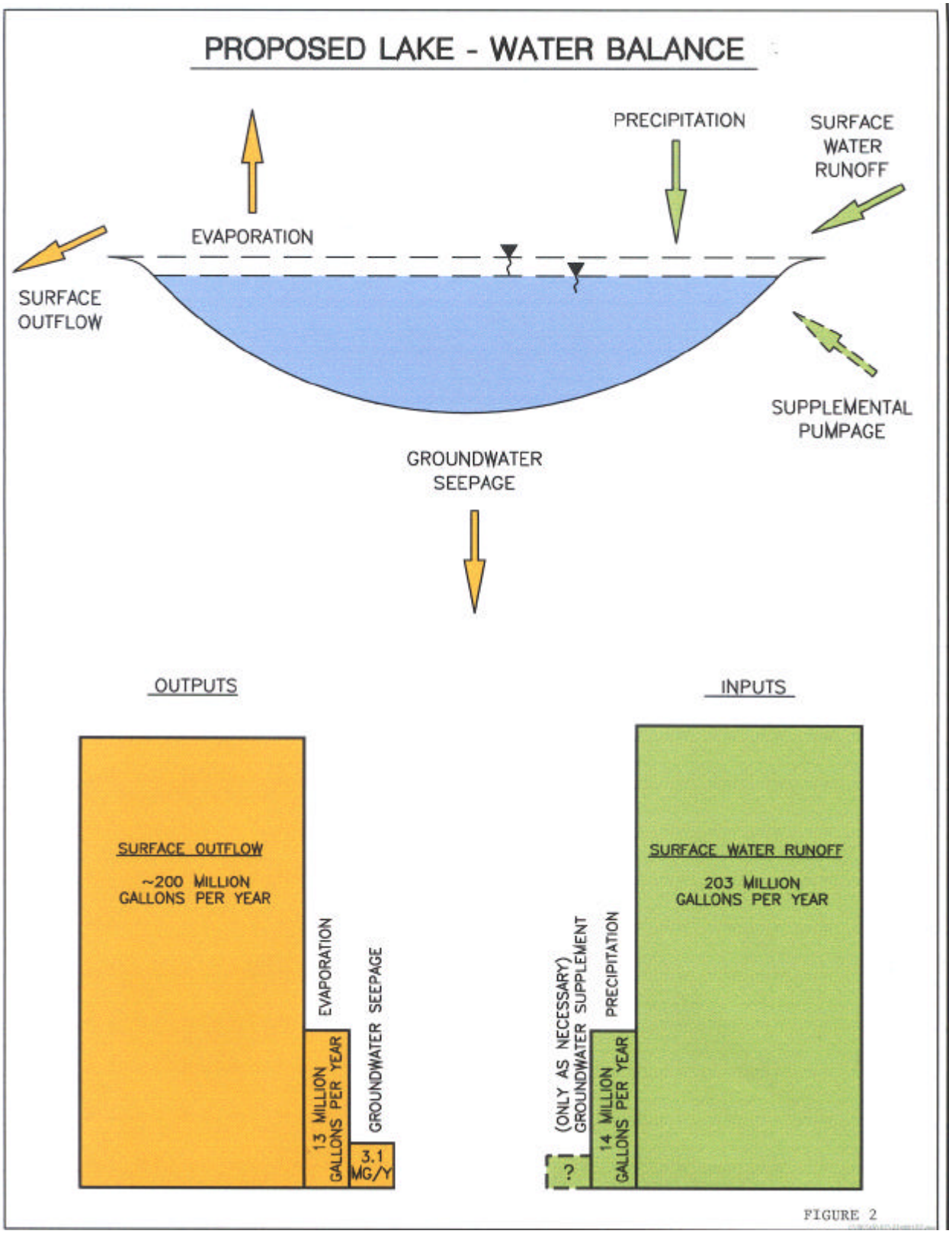

PROPOSED LAKE - WATER BALANCE
PRECIPITATION
SURFACE WATER RUNOFF
EVAPORATION
SURFACE OUTFLOW
SUPPLEMENTAL PUMPAGE
GROUNDWATER SEEPAGE
OUTPUTS
INPUTS
SURFACE OUTFLOW
~200 MILLION GALLONS PER YEAR
EVAPORATION
13 MILLION GALLONS PER YEAR
GROUNDWATER SEEPAGE
3.1 MG/Y
SURFACE WATER RUNOFF
203 MILLION GALLONS PER YEAR
(ONLY AS NECESSARY) GROUNDWATER SUPPLEMENT
PRECIPITATION
?
14 MILLION GALLONS PER YEAR

FIGURE 2

APPENDIX D

Felland Neighborhood
Regional Traffic Impact Analysis

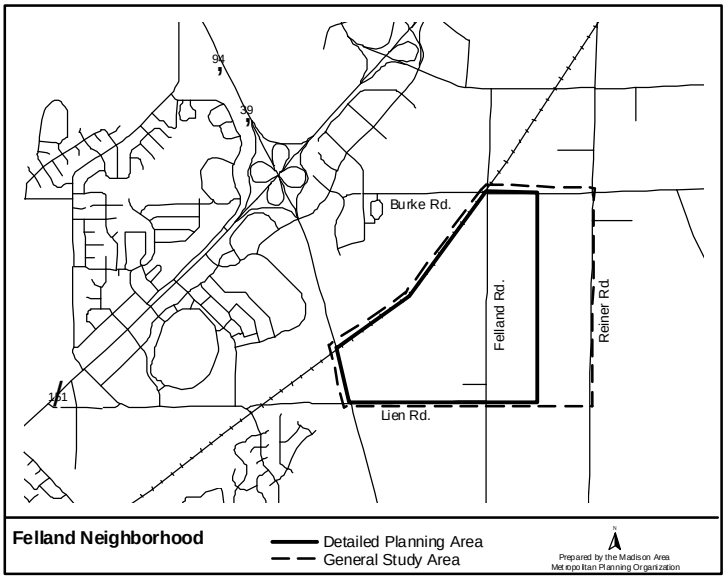
(Prepared by Madison Area MPO Staff)

Introduction

Madison Area Metropolitan Planning Organization (MPO) staff was asked to prepare a regional traffic impact analysis of the Felland Neighborhood, analyzing both the short-term impacts of the initial phases of development of the neighborhood itself and the long-term impacts of the "build out" of the neighbor-hood in the context of other anticipated development on Madison's East Side, using the MPO's regional travel forecast model. The traffic analysis is based upon the proposed land uses in the detailed planning area shown on the map below. The analysis assesses the ability of the regional arterial and collector roadway network to accommodate the anticipated development, but does **not** consider site- or intersection-specific traffic congestion issues. The City of Madison Traffic Engineering Division will address these more detailed traffic issues during the platting and development review processes.

Neighborhood Location and Proposed Land Use

The Felland Neighborhood is bounded by Interstate 39/90/94 to the west, the Soo Rail Line to the north, Lien Road to the south, and Felland Road to the east. The detailed planning area, upon which the regional traffic analysis is based, extends east of Felland Road between Burke and Lien Roads. The general study area extends further east to Reiner Road. The map at right shows the location of the detailed planning and general study areas.



The majority of the detailed planning area within the *Felland Neighborhood Development Plan* is proposed for residential uses. The plan recommends a range of housing types and residential densities. The higher density housing is located primarily along Lien Road and a proposed north-south collector street, including the area surrounding a proposed neighborhood activity center. Commercial office development is proposed between the Interstate and City View Drive extended. An elementary school is planned in the northeast part of the neighborhood west of Felland Road.

The following table lists the proposed land uses based on the March 15, 2002 version of the *Neighborhood Development Plan*:

Proposed Land Uses for Felland Neighborhood
Detailed Planning Area

Land Use Category	Acres	Dwelling Units
Residential		
Low Density (8 or less du/acre)	101	400
Low-Medium Density (8-15 du/acre)	39	450
Medium Density (16-25 du/acre)	38	740
Commercial		
Office	21	-
Neighborhood Commercial/Mixed Use	4	-
Institutional	12	-
Park and Open Space	127	-
Street Rights-of-Way	87	-
Total	429	1,590

Existing Transportation System

The major roadways serving the Felland Neighborhood are:

1) Lien Road, a planned future east-west minor arterial, which is currently two lanes;
2) Felland Road, a two-lane north-south collector street;
3) Reiner Road, currently a two-lane north-south collector, but planned as a future arterial; and
4) Nelson Road, a two-lane east-west collector to the north of the neighborhood.

The closest existing Madison Metro bus route is Route 3, which terminates at City View Drive south of Burke Road, but north of the rail line. Metro plans on moving the Route 3 service east of East Towne to Route 6 as part of service revisions to go into effect in August 2002. The area is covered by the Madison Area MPO's Rideshare, Etc. Program, which provides ride-matching services for individuals interesting in carpooling. The Dane County Department of Human Services contracts with a private transportation provider for limited group ride specialized transportation service (called Group Access Service) for the elderly to nutrition sites, senior center activities, shopping areas, and adult daycare centers. Non-elderly persons with disabilities may receive rides on the bus routes established for the elderly group service.

Lien Road, which provides access to/from the west, and Felland Road and Reiner Road, which provide north-south access, currently have rural cross-sections without bicycle accommodations and sidewalks. Consequently, their suitability for bicycling ranges from borderline to unsuitable based on current traffic volumes and speeds. Nelson Road has a bike lane west of Felland Road. High Crossing Boulevard, the nearest existing bike route, also has bicycle accommodations.

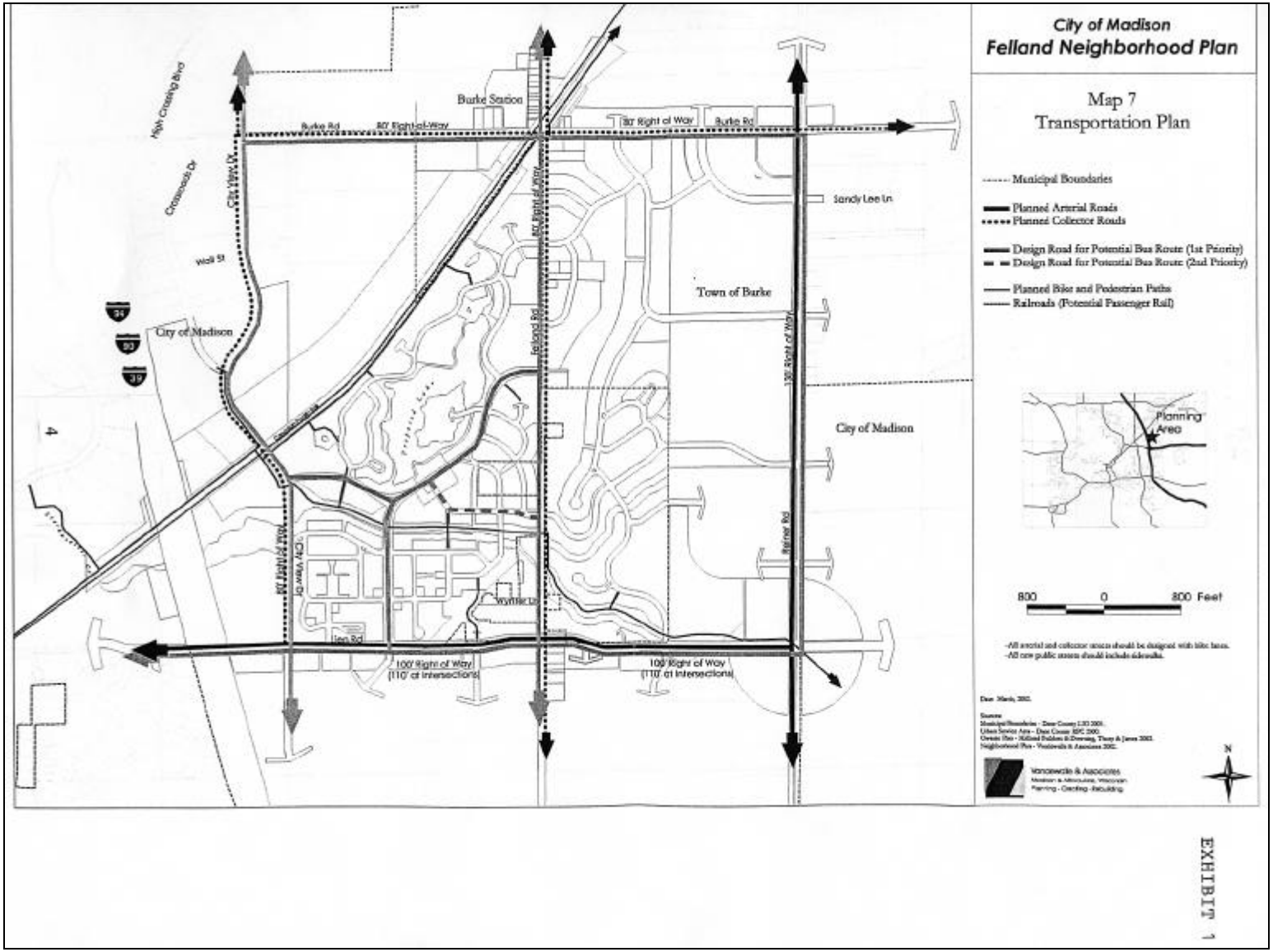
Proposed Transportation System

The proposed street layout in the *Felland Neighborhood Development Plan* provides for the extension of Lien Road east to Reiner Road and the extension of City View Drive south to Lien Road. A proposed north-south local collector street that splits at the proposed lake connects to both City View Drive and Felland Road. There is one main east-west through route between City View Drive and Felland Road. Proposed east-west roadway connections east of Felland Road are somewhat restricted due to topography and existing land uses. Exhibit 1 on the following page shows the existing and proposed streets and other transportation plan features.

The neighborhood plan anticipates the future expansion of Lien Road and Reiner Road to four lanes. Both projects are included in the regional long-range transportation plan. The plan also calls for 100 feet of right-of-way along Lien Road and 130 feet along Reiner Road with additional width at intersections.

It is anticipated that fixed-route bus transit service would be extended to the neighborhood in the future as the neighborhood builds out. Service would likely be provided via routes to/from East Towne and/or the East Transfer Point. There are also two potential future rail transit station locations in close proximity to the neighborhood — one near the North Thompson Drive/Lien Road intersection and the other near the Burke Road/Felland Road intersection.

Bicycle lanes are recommended on all regional arterial and collector roadways in the neighborhood plan. Sidewalks are also recommended along all public streets, as required by city ordinance. A series of proposed pedestrian/bicycle paths provide additional connections to supplement the local street system. These include proposed paths along Starkweather Creek and the rail corridor, which intersect at the rail crossing of City View Drive. To the west, these paths would connect to a planned path in rail corridor extending to the Isthmus path. To the east, the Starkweather Creek path could eventually be connected to the planned path along Door Creek, most likely via an on-street route. A bicycle path in the USH 151 corridor between Reiner Road and Nelson Road with an underpass of USH 151 is programmed for construction in conjunction with the USH 151 freeway conversion project. This will provide convenient bicycle access for the neighborhood to/from the American Center and a planned path to Token Creek Park via City View Drive and High Crossing Boulevard. Extension of the rail corridor path east would provide an additional connection to these areas and Sun Prairie.


City of Madison
Felland Neighborhood Plan
Map 7
Transportation Plan
Municipal Boundaries
Planned Arterial Roads
Planned Collector Roads
Design Road for Potential Bus Route (1st Priority)
Design Road for Potential Bus Route (2nd Priority)
Planned Bike and Pedestrian Paths
Railroads (Potential Passenger Rail)
Planning Area
800 0 800 Feet
Burke Station
Burke Rd
80' Right-of-Way
80' Right of Way
Sandy Lee Ln
Town of Burke
City of Madison
Felland Rd
130' Right of Way
Reiner Rd
City View Dr
Crossroads Dr
High Crossing Blvd
Wall St
Wyntle Ln
Lien Rd
100' Right of Way
(110' at Intersections)
Vanderwalle & Associates
EXHIBIT 1

Transportation System Impacts

The March 15, 2002 draft of the *Felland Neighborhood Development Plan* proposes the following land uses for the detailed planning area:

1) a mix of residential housing with a total of 1,590 dwelling units;
2) twenty-one (21) acres of office development between City View Drive and the Interstate;
3) four (4) acres of neighborhood commercial/mixed-use development; and
4) an elementary school site.

When the entire neighborhood is fully developed, it could be expected to generate approximately 16,400 vehicle trips on an average weekday. It is estimated that 5% or less (around 50) of the trips generated by the neighborhood commercial area would be pass-by trips (i.e., by vehicles already on the adjacent roadway network). Another 5% or 250 of the trips generated by the residential development would be captured internally within the neighborhood by the other land uses. Thus, it is estimated that a total of 16,100 vehicle trips would be generated on the regional roadway system when it is fully developed.

In 2000, the average daily traffic (ADT) volume on Lien Road East of North Thompson Drive was 2,800. The 1999 ADT volumes on Reiner Road and Felland Road were 3,500 and 1,300, respectively. The 2000 ADT on Sprecher Road between CTH T and I-94 was 5,300.

Lien Road, Felland Road, and Reiner Road (once the extension of Lien Road is constructed) will provide the primary access to/from the neighborhood. Given the low existing traffic volumes on these roads, they will be able to accommodate the traffic generated from the initial phases of development. Intersection improvements will be needed, however, on these roads and possibly at other intersections in the vicinity, such as Lien Road and N. Thompson Drive. As the neighborhood reaches full build out, the traffic generated from the neighborhood, along with that from surrounding developing areas, will necessitate the extension of Lien Road to Reiner Road and capacity improvements to Lien and Reiner Roads. As mentioned above, the neighborhood plan anticipates these improvements and proposes to reserve the right-of-way for them.

The draft *East Side Arterial/Collector Roadway Needs Study*, prepared by the Madison Area MPO staff, analyzed the traffic impacts of a "build out" scenario of all East Side neighborhoods and three other anticipated growth areas, including the area encompassed by the *Felland Neighborhood Development Plan*. The total population and dwelling unit assumptions used in the East Side Study for the Felland Neighborhood area were in the same range as that proposed in the draft neighborhood plan.[1] The East Side Study demonstrated the long-term need for capacity improvements to Lien Road and Reiner Road.

Exhibits 2-7 on the following pages show assumed lane configurations and projected future congestion levels (expressed in volume-to-capacity ratio) and average daily traffic (ADT) volumes on the Felland Neighborhood area roadway system under the East Side Study's "build out" land use scenario, using two different assumed future roadway networks: the "Existing + Committed" network and the "Future" planned roadway network. The "Existing + Committed" roadway network includes the current roadway network, plus programmed projects (i.e., with committed funding in the next five years), including the expansion of I-94 (I-39/90 to CTH N) to six lanes and the two access ramps from I-39/90 at High Crossing Boulevard. The "Future" roadway network includes these projects, plus key roadway extensions (including Lien Road to Reiner Road), new collector street connections, and capacity improvements to Reiner/Sprecher/CTH AB (USH 151 to USH 12/18), Lien Road (North Thompson Drive to Reiner Road), and Cottage Grove Road (South Thompson Drive to Sprecher Road). All of the projects in the "Future" roadway network are in the current long-range transportation plan.

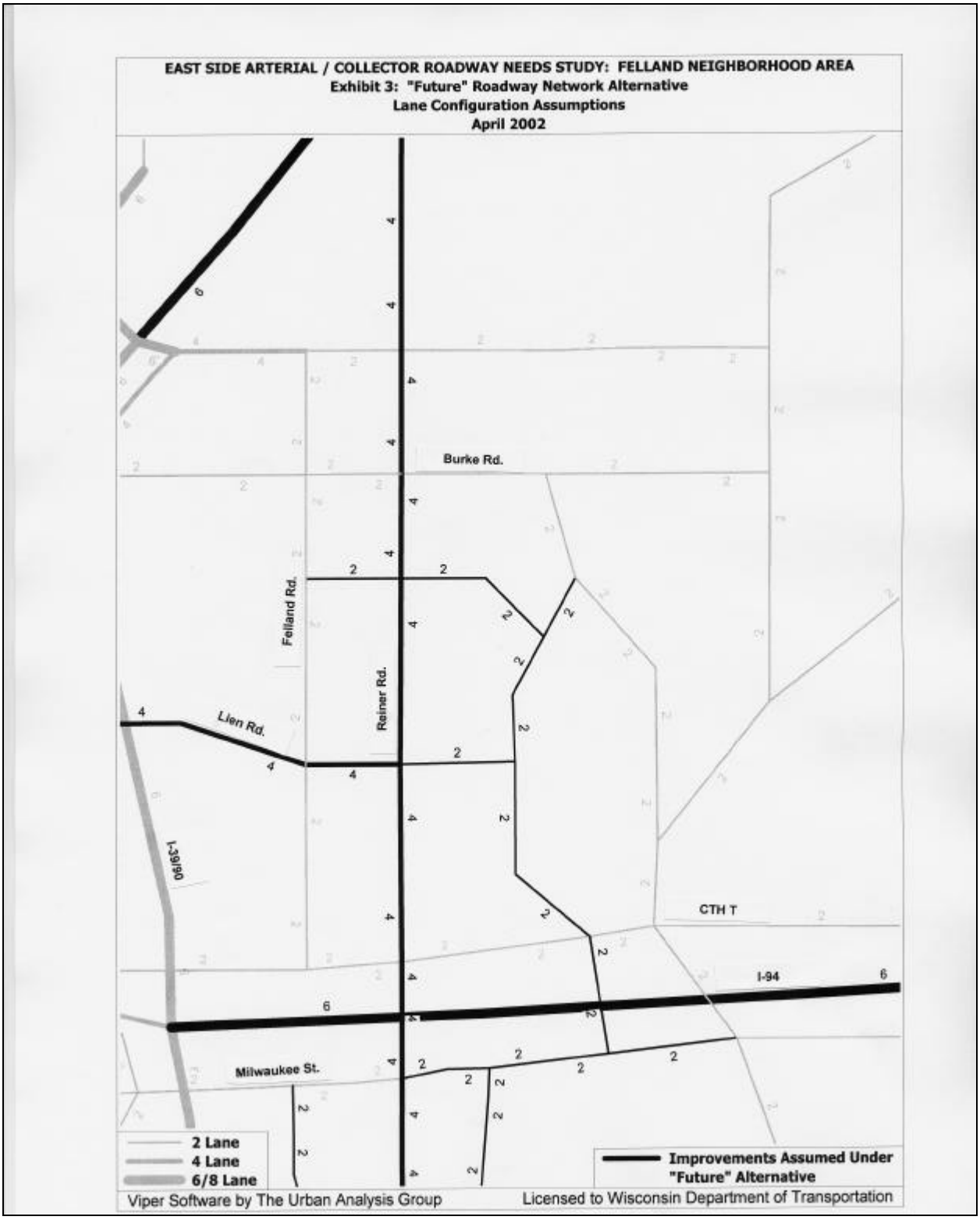
Exhibit 4 shows the heavy congestion on Lien Road, Felland Road, Reiner/Sprecher Road, and CTH T without improvements to the local roadway system. Exhibit 6 shows the future congestion reduction benefits of the roadway improvements in the "Future" network, including the Lien Road and Reiner/Sprecher Road capacity improvements. With these improvements, the area roadway system is generally able to handle the projected traffic. However, certain segments (e.g., Lien Road east of N. Thompson Drive, CTH T west of Reiner Road) remain congested in the peak period.

Conclusions

There appears to be sufficient capacity in the existing roadway system to handle future traffic volumes from the initial phases of development of the Felland Neighborhood. However, an additional impact assessment needs to occur as part of the review of the development proposal to address site-specific intersection and roadway issues in the neighborhood and broader neighborhood area. Extension of Lien Road to Reiner Road and intersection improvements on Lien, Felland, and Reiner Roads will eventually be necessary. At full build out, the traffic generated from the neighborhood in combination with that from surrounding developing areas will require capacity expansions to Lien Road and Reiner Road. CTH T will also need to be considered for a capacity improvement in the future.

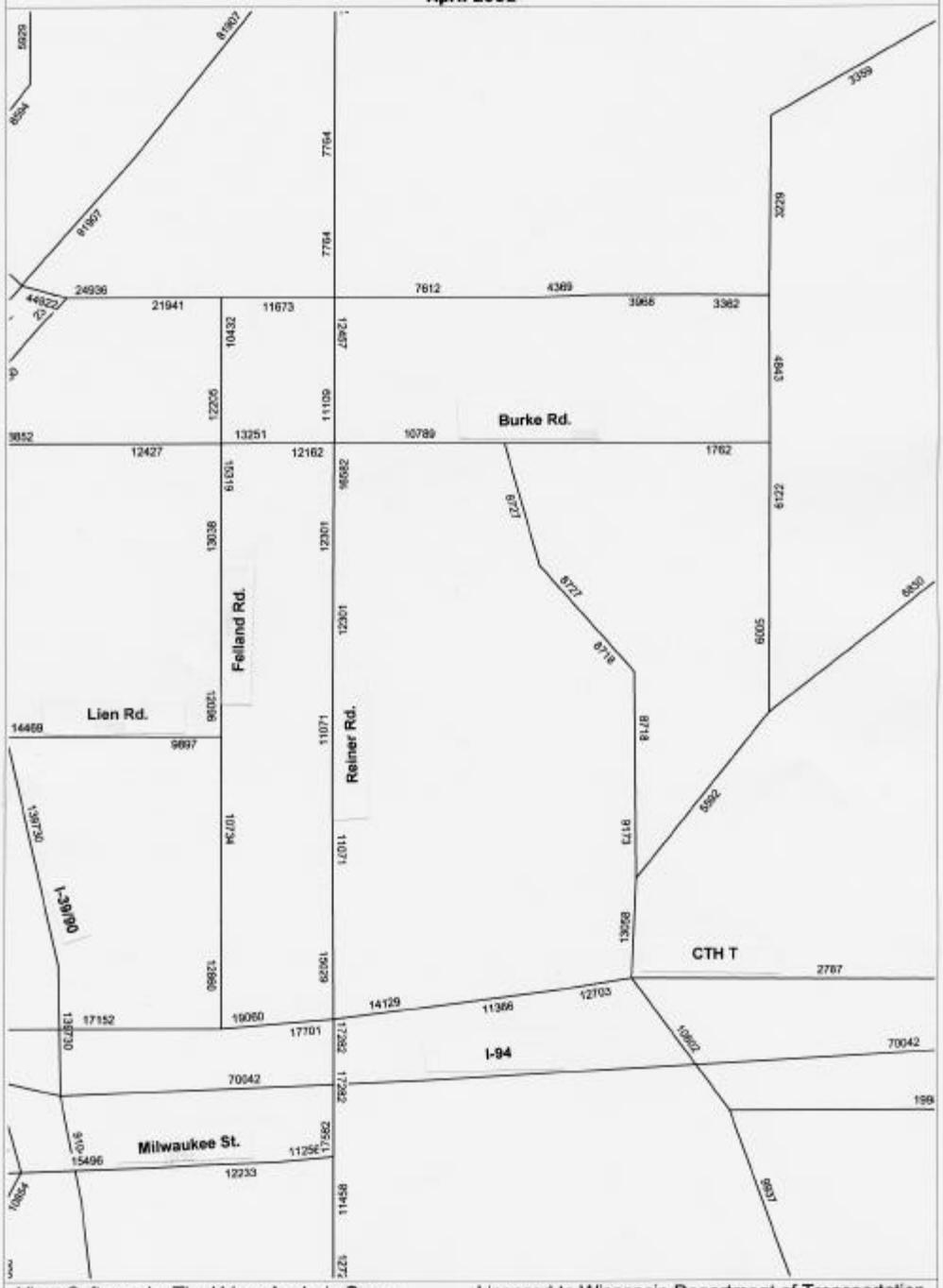
[1] The number of dwelling units assumed in the East Side study was a little higher than in the draft neighborhood plan, however no commercial development was included. Factoring in the commercial development, the trip generation for the area assumed in the study is comparable to that in the neighborhood plan.


EAST SIDE ARTERIAL / COLLECTOR ROADWAY NEEDS STUDY: FELLAND NEIGHBORHOOD AREA
Exhibit 2: "Existing+Committed" Roadway Network Alternative
Lane Configuration Assumptions
April 2002
Burke Rd.
Felland Rd.
Reiner Rd.
Lien Rd.
I-39/90
CTH T
I-94
Milwaukee St.
2 Lane
4 Lane
6/8 Lane
Improvements Assumed Under "Existing+Committed" Alternative
Viper Software by The Urban Analysis Group
Licensed to Wisconsin Department of Transportation


EAST SIDE ARTERIAL / COLLECTOR ROADWAY NEEDS STUDY: FELLAND NEIGHBORHOOD AREA
Exhibit 3: "Future" Roadway Network Alternative
Lane Configuration Assumptions
April 2002
Burke Rd.
Felland Rd.
Reiner Rd.
Lien Rd.
I-39/90
CTH T
I-94
Milwaukee St.
2 Lane
4 Lane
6/8 Lane
Improvements Assumed Under "Future" Alternative
Viper Software by The Urban Analysis Group
Licensed to Wisconsin Department of Transportation


EAST SIDE ARTERIAL / COLLECTOR ROADWAY NEEDS STUDY: FELLAND NEIGHBORHOOD AREA
EXHIBIT 4: "Existing+Committed" Roadway Network Alternative
Volume / Capacity Ratios
April 2002
Burke Rd.
Felland Rd.
Reiner Rd.
Lien Rd.
I-39/90
CTH T
I-94
Milwaukee St.
Volume/Capacity < 1.00
Volume/Capacity = 1.00 - 1.25 (Congested)
Volume/Capacity > 1.25 (Very Congested)
Viper Software by The Urban Analysis Group
Licensed to Wisconsin Department of Transportation

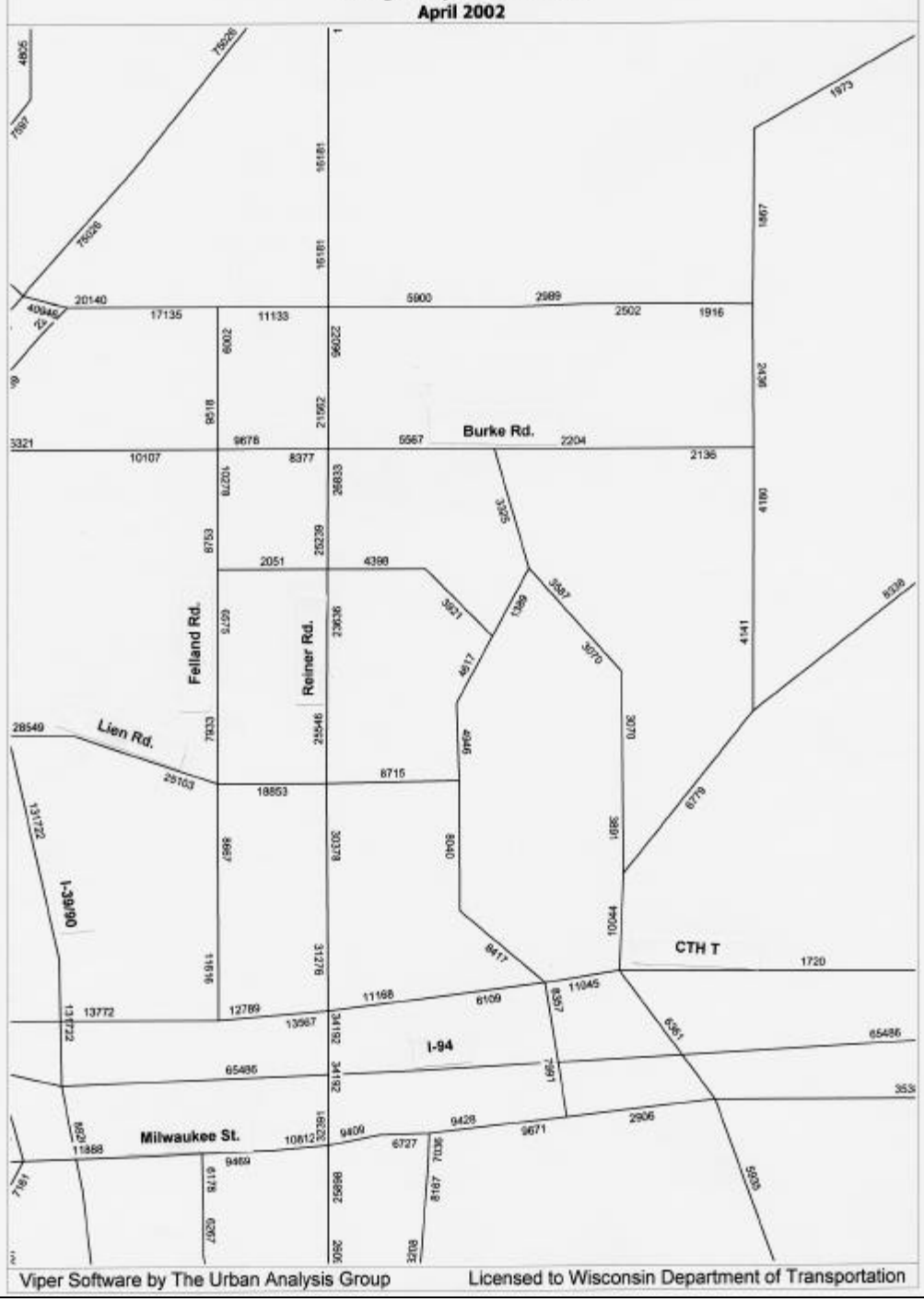
EAST SIDE ARTERIAL / COLLECTOR ROADWAY NEEDS STUDY: FELLAND NEIGHBORHOOD AREA
EXHIBIT 5: "Existing + Committed" Roadway Network Alternative
Average Daily Traffic Volumes
April 2002



Viper Software by The Urban Analysis Group Licensed to Wisconsin Department of Transportation


EAST SIDE ARTERIAL / COLLECTOR ROADWAY NEEDS STUDY: FELLAND NEIGHBORHOOD AREA
EXHIBIT 6: "Future" Roadway Network Alternative
Volume / Capacity Ratios
April 2002
Burke Rd.
Felland Rd.
Reiner Rd.
Lien Rd.
I-39/90
CTH T
I-94
Milwaukee St.
Volume/Capacity < 1.00
Volume/Capacity = 1.00 - 1.25 (Congested)
Volume/Capacity > 1.25 (Very Congested)
Viper Software by The Urban Analysis Group
Licensed to Wisconsin Department of Transportation

EAST SIDE ARTERIAL / COLLECTOR ROADWAY NEEDS STUDY: FELLAND NEIGHBORHOOD AREA
EXHIBIT 7: "Future" Roadway Network Alternative
Average Daily Traffic Volumes
April 2002



Viper Software by The Urban Analysis Group Licensed to Wisconsin Department of Transportation

AGENDA #_____

Copy Mailed to Alderperson_____

City of Madison, Wisconsin

AN AMENDED
~~A~~SUBSTITUTE RESOLUTION _____

Adopting the Felland Neighborhood Development Plan as an element of the Master Plan for the City of Madison to be used as a guide for community planning and development, and amending the City of Madison Land Use Plan to incorporate its recommendations, and authorizing the City's application to amend the Central Urban Service Area to include the lands within the Felland Neighborhood identified as Phase A through Phase D development staging areas.

PRESENTED April 9, 2002
REFERRED Plan Commission; Long-Range Transportation Planning Commission; Park Commission
REREFERRED _____

REPORTED BACK MAY 07 2002

ADOPTED X POF _____
RULES SUSPENDED _____
PUBLIC HEARING _____

APPROVAL OF FISCAL NOTE IS NEEDED
BY THE COMPTROLLER'S OFFICE
Approved By
Comptroller's Office

AMENDED
SUBSTITUTE
RESOLUTION NUMBER 59418
ID NUMBER 31538

Drafted By: Michael Waidelich, Principal Planner

Date: April 2, 2002

Fiscal Note: Local costs associated with development and the provision of urban services in this area will be included in future operating and capital budgets.

Sponsors: Ald. Rosas (District 17), and Alds. Compton, Golden, and Holtzman (Request of the Plan Commission)

WHEREAS the adopted City of Madison Peripheral Area Development Plan presents recommendations for land use and long-term development in the peripheral area beyond the current edge of urban development; and

WHEREAS the Peripheral Area Development Plan assesses the relative priority of peripheral lands for future urban expansion and long-term City of Madison growth; and

WHEREAS the Felland Neighborhood planning area is bounded by Interstate Highway 90-94 and the Soo Line Railroad (Canadian Pacific Rail System) tracks on the west, Lien Road (extended) on the south, Reiner Road on the east, and Burke Road on the north; and

WHEREAS the Felland Neighborhood planning area is located within Peripheral Planning Area E2, identified in the Peripheral Area Development Plan as an Urban Expansion district recommended as a location for future urban expansion and long-term City of Madison growth; and

WHEREAS the Peripheral Area Development Plan also recommends that detailed neighborhood development plans be prepared and adopted for lands designated as the locations for future urban expansion and long-term City of Madison growth prior to approval of urban developments on these lands, and prior to seeking expansion of the Central Urban Service Area to include these lands; and

WHEREAS the City contracted with the planning consulting firm of Vandewalle & Associates to assist in the preparation of a neighborhood plan for the Felland planning area, and with Strand Associates to prepare a comprehensive stormwater management plan for the entire watershed within which the Felland planning area is located; and

WHEREAS land use studies have been conducted and the Felland Neighborhood Development Plan has been prepared which makes detailed recommendations for land uses and urban development; and

WHEREAS during the preparation of the Felland Neighborhood Development Plan, property owners, residents and others with an interest in the planning area were notified of the planning process and provided with opportunities to have input to the development of the plan and to review and comment on the draft plan recommendations, including public meetings held in the neighborhood and public hearings before City commissions; and

WHEREAS the City of Madison Land Use Plan currently does not include detailed land use recommendations for the Felland Neighborhood; and

WHEREAS the City of Madison Plan Commission has an established procedure for amending the City of Madison Land Use Plan; and

WHEREAS the lands in the Felland Neighborhood are currently outside of the Central Urban Service Area.

NOW THEREFORE BE IT RESOLVED that the Felland Neighborhood Development Plan is hereby adopted as an element of the Master Plan for the City of Madison to be used as a guide for community planning and development subject to the following provisions:

1. Approval of the stormwater management plan and lake feasibility study including well siting, use, and management for the Midland development at the time a preliminary plat is considered, recognizing that these studies may require revisions to be made to the land use and street layout, and
2. Approval of the traffic impact study as part of the preliminary plat for the development of the Midland properties, and
3. Final editorial and technical changes to be made by Planning Unit staff; and

BE IT FURTHER RESOLVED that the City of Madison Land Use Plan is hereby amended to incorporate the recommendations of the Felland Neighborhood Development Plan; and

BE IT FINALLY RESOLVED that the City of Madison Plan Commission and Madison Common Council hereby authorize the City's application to amend the Dane County Land Use and Transportation Plan and Dane County Water Quality Plan to include within the Central Urban Service Area all of the land located within the Phase A through Phase D development staging areas identified in the Felland Neighborhood Development Plan.