

COMMUNITY ASSISTANCE
PLANNING REPORT NO. 167

A LAND USE PLAN
FOR THE CITY OF
WEST BEND: 2010

WASHINGTON COUNTY
WISCONSIN

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Special acknowledgement is due Richard R. Kania, SEWRPC Principal Planner, for his contribution to the preparation of this report.

**COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 167**

**A LAND USE PLAN FOR THE CITY OF WEST BEND: 2010
WASHINGTON COUNTY, WISCONSIN**

Prepared by the

**Southeastern Wisconsin Regional Planning Commission
P. O. Box 1607
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916 N. East Avenue
Waukesha, Wisconsin 53187-1607**

July 1992

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Outside Region	\$20.00

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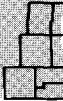
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July 15, 1992

The Honorable Michael R. Miller
Mayor of the City of West Bend
and Members of the Common Council
and City Plan Commission
City Hall
1115 S. Main Street
West Bend, Wisconsin 53095

Ladies and Gentlemen:

By contractual agreement dated November 16, 1987, the City of West Bend requested that the Southeastern Wisconsin Regional Planning Commission assist the City in the preparation of a land use plan together with certain related plan implementation devices for the City and environs. The planning effort was initiated in 1989 and the Regional Planning Commission staff, working with City of West Bend staff and officials, has now completed the requested plan, which is presented in this report. The adopted plan is intended to be used over time by West Bend officials as a point of departure in the making of development decisions affecting the City and environs.

In addition to setting forth an adopted land use plan and supporting plan implementation devices for the City, this report presents pertinent information on many factors affecting land use development in the West Bend area, including existing and probable future resident population and employment levels, the natural resource base, existing land uses, and existing local plan implementation devices, all of which constitute important considerations in any local planning effort. The plan includes a set of recommended land use development objectives, together with supporting principles, standards, and urban design criteria. By applying these objectives and standards to the present and anticipated future needs of the West Bend area and its population, the plan seeks to serve as an effective guide for the development of the area. The recommended land use plan presented in this report was adopted by the City Plan Commission on May 12, 1989, and subsequently endorsed by the City Common Council on June 1, 1992.

The Regional Planning Commission staff is appreciative of the assistance provided by City of West Bend staff and officials in the preparation of this plan. The Commission staff stands ready to assist the City in implementing the adopted plan over time.

Sincerely,

Kurt W. Bauer
Executive Director

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Chapter I

INTRODUCTION

BACKGROUND

The city planning enabling act, as set forth in Section 62.23 of the Wisconsin Statutes, provides for the creation of city plan commissions and charges those commissions with the duty and function of making and adopting a "master"—or comprehensive—plan for the physical development of the city, including any areas outside its boundaries which may impact on the development of the city. The scope and content of the comprehensive plan, as set forth in the Statutes, is very broad, extending to all aspects of the physical development of a community. The Statutes indicate that the master plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the City which will, in accordance with existing and future needs, best promote the public health, safety, morals, order, prosperity, and general welfare, as well as efficiency and economy in the process of development.

Acting in accordance to this statutory charge, the City of West Bend, on November 16, 1987, asked the Southeastern Wisconsin Regional Planning Commission to assist the City Plan Commission in the development of the land use and supporting transportation system elements of a comprehensive plan for the City, together with the implementing zoning ordinance and map. This report, referred to herein as the "land use plan," sets forth the findings and recommendations of the planning efforts undertaken in response to that request.

The planning effort involved extensive inventories and analyses of the factors and conditions affecting land use and transportation system development within the West Bend planning area, including extensive inventories of the existing cultural and natural resource base of the City and the surrounding area, the formulation of a set of recommended land use and transportation development objectives for the City, the preparation of forecasts of population and economic activity in the planning area, the preparation of alternative land use plans which could accommodate the forecast population and employment levels, and the selection of a recommended plan which best meets the agreed-upon

land use and transportation system development objectives. The plan, when adopted by the City Plan Commission and endorsed by the Common Council, is intended to serve as a guide to the making of land use development decisions within the West Bend planning area. The plan also includes suggested amendments to the City of West Bend Zoning Ordinance to help carry out the recommended land use plan over time.

THE PLANNING AREA

The planning area considered herein is located in the north-central portion of Washington County, as shown on Map 1, and consists of the City of West Bend and the Town of West Bend, as well as portions of the Towns of Barton, Farmington, and Trenton. The total planning area consists of U. S. Public Land Survey Sections 31 through 36 in Township 12 North, Range 19 East; Sections 31 through 33 in Township 12 North, Range 20 East; Sections 1 through 36 in Township 11 North, Range 19 East; and Sections 4 through 9, 16 through 21, and 28 through 33 in Township 11 North, Range 20 East. The total planning area encompasses an area of approximately 63.4 square miles. The City of West Bend—based on 1989 corporate limits—comprises about 10.2 square miles, or about 16 percent of the total planning area; the Town of Barton comprises about 13.7 square miles, or about 21 percent of the planning area; the Town of Farmington comprises about 3.1 square miles, or about 5 percent of the planning area; the Town of Trenton comprises about 17 square miles, or about 27 percent of the planning area; and the Town of West Bend comprises about 19.4 square miles, or about 31 percent of the planning area.

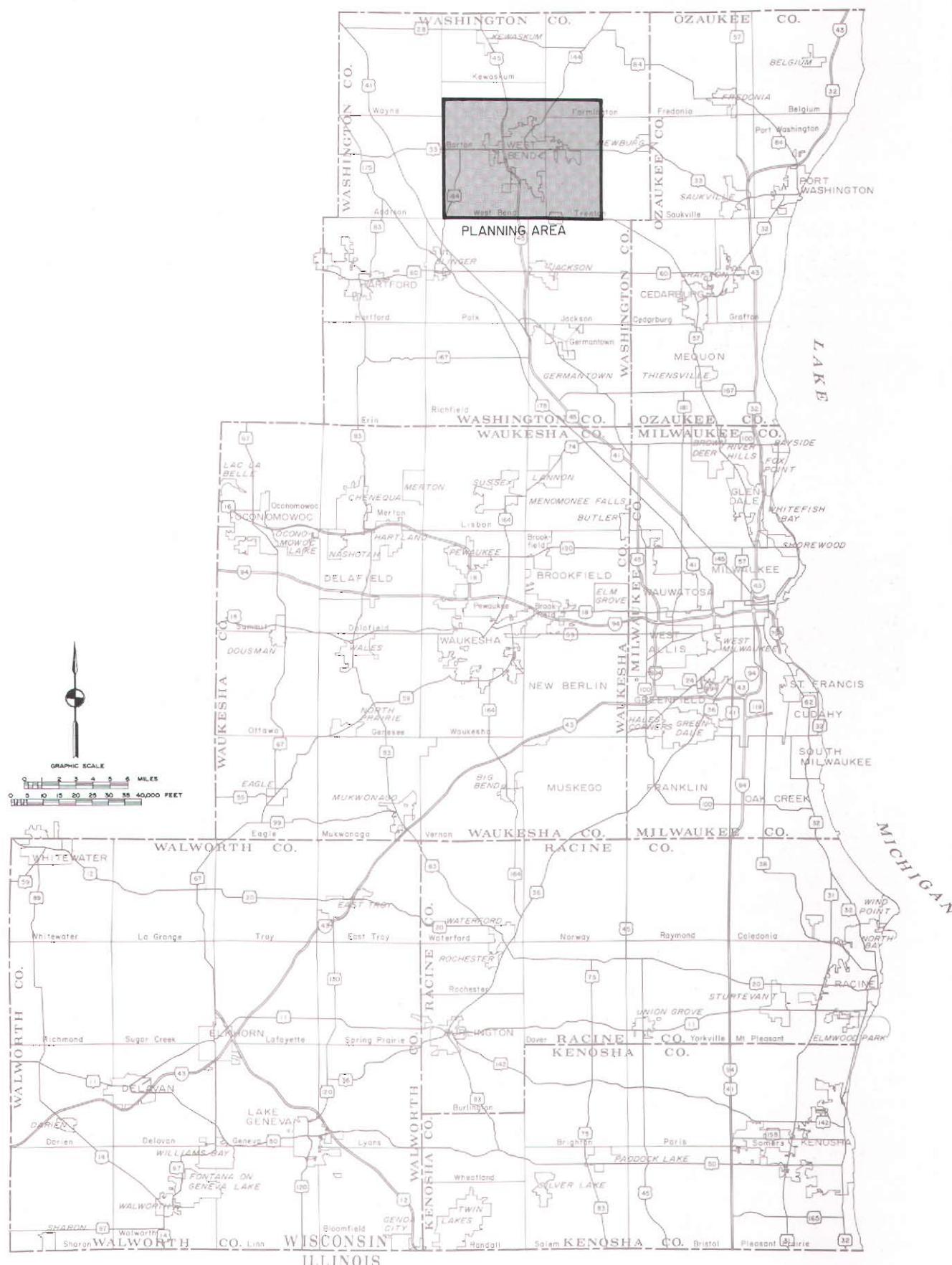
HISTORIC URBAN GROWTH OF THE CITY OF WEST BEND PLANNING AREA¹

The settlement of southeastern Wisconsin by Europeans began in about 1836. In the West

¹Rathbun Associates, Final Report: Intensive Architectural/Historical Survey: West Bend Wisconsin, March 1988.

Map 1

LOCATION OF THE CITY OF WEST BEND PLANNING AREA IN THE SOUTHEASTERN WISCONSIN REGION



Source: SEWRPC.

Bend planning area, this settlement was accompanied by the conversion of land from the native vegetation to agricultural and urban use.

In the fall of 1845, the Territorial Legislature of Wisconsin commissioned three Milwaukee men, Byron Kilbourn, James Kneeland, and Dr. Eratus B. Wolcott, to lay out a road from Milwaukee to Fond du Lac—the Milwaukee-Fond du Lac Road. While laying out the road, the survey party selected a site for a town—which eventually became the City of West Bend—at a point 40 miles northwest of Milwaukee where the road first came adjacent to the Milwaukee River. The site was selected for two reasons—first, it was approximately half way between Milwaukee and Fond du Lac and would provide a convenient stopping place for travelers between these two cities; and second, the rapid current of water in this stretch of the river had potential for water power and thus could facilitate industrial growth. An unincorporated village was platted around the Milwaukee-Fond du Lac Road in 1845 by Jasper Vliet, a member of this survey party. Vliet laid out the new streets in a grid pattern.

Immediately thereafter, Byron Kilbourn—seeing the economic advantages of locating a mill at the newly platted village—secured the financial support of Kneeland, Wolcott, and E. N. Higgins. Kilbourn, Kneeland, and Higgins purchased eight 80-acre tracts of land. As Wolcott's part of the investment in the new settlement, he agreed to finance and build a sawmill and a gristmill. After all four men entered into a partnership agreement in September 1845, they chose the name West Bend for the new village. By 1848 a dam was constructed across the Milwaukee River, as well as a sawmill and a gristmill near Beech Street.

Simultaneously with the 1845 founding of West Bend, Barton Salisbury also noticed the economic potential of the West Bend area for industrial development based upon the fall of the Milwaukee River through the area. Salisbury built a sawmill on the Milwaukee River near its confluence with Pigeon Creek. The site of this sawmill eventually became the Village of Barton so named after Barton Salisbury.

During the 1850's and 1860's the settlements located around these mills grew rapidly and became trading centers for the largely rural population of the Towns of West Bend and Barton. In 1870, the Village of West Bend was

incorporated as the City of West Bend from a part of the Town of West Bend.

In 1872-1873 the Chicago & North Western Railway's Milwaukee to Fond du Lac line was constructed through West Bend and subsequently served as a catalyst for continuing development of the West Bend area. In addition to fostering the growth of the West Bend area, the railway altered the pattern of urban growth in the area. The directors of the Chicago & North Western located a depot on the east side of the Milwaukee River. Prior to that, much of West Bend's commercial, industrial, and residential land uses were located on the west side of the Milwaukee River in the pattern established by the initial plat of the Village of 1845. Between 1890 and 1930, West Bend experienced significant industrial expansion. In 1925, the Village of Barton was incorporated from a part of the Town of Barton.

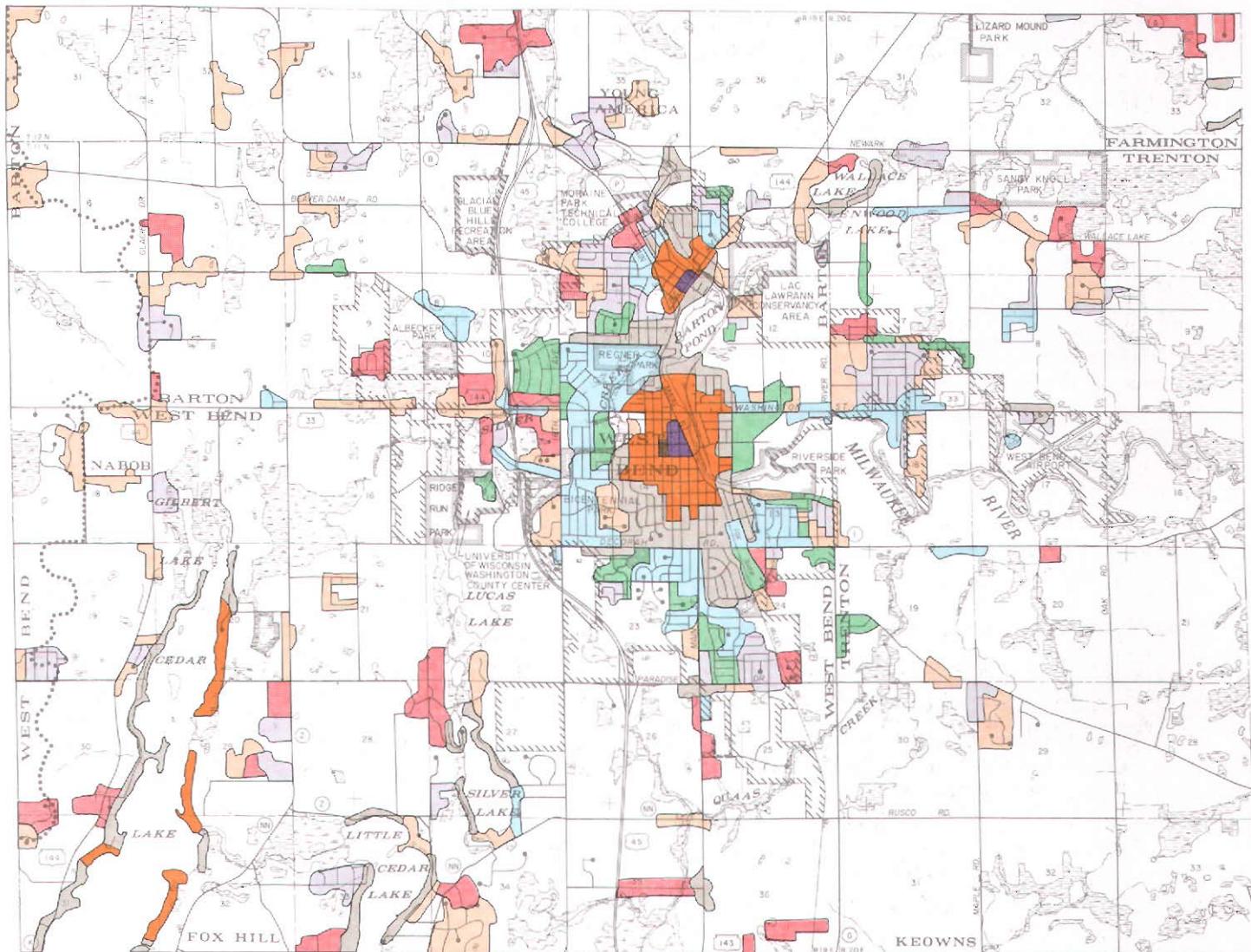
The location and extent of urban development in 1850 and selected succeeding years in the West Bend planning area are shown on Map 2. From 1850 to 1920, only a small amount of land within the West Bend planning area—located in the City of West Bend, in the Village of Barton, and around Big Cedar—was devoted to urban uses. After 1920, however, urban development increased rapidly in the area, not only spreading out from the City of West Bend, but occurring in many scattered locations throughout the planning area. The City of West Bend and the Village of Barton consolidated on November 1, 1961.

PLANNING INFLUENCES

Sound planning practice dictates that local plans be prepared within the framework of adopted areawide plans. The Southeastern Wisconsin Regional Planning Commission (SEWRPC) is the official areawide planning agency for the seven-county Southeastern Wisconsin Region, which includes Washington County and the City of West Bend and its environs. The Commission has, since its creation in 1960, pursued the preparation of an advisory plan for the physical development of the Region through the systematic formulation of those elements of such a plan most important to the units and agencies of government operating within the Region. The salient recommendations of the regional, subregional, county, and local land use plan elements applicable to the City of

Map 2

HISTORIC URBAN GROWTH IN THE CITY OF WEST BEND PLANNING AREA: 1850-1985



Source: SEWRPC.

West Bend planning area are shown on Maps 3 through 6.

The findings and recommendations of the following regional, subregional, county, and local plan elements all have important implications for any comprehensive planning effort for the City of West Bend area. Pertinent recommendations of these plan elements are reflected in the plans presented herein, and are considered further in the inventory and analysis sections of this document.

Regional Land Use Plan

The adopted regional land use plan, as set forth in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, and related amendments thereto, provides recommendations regarding the amount, spatial distribution, and general arrangement of the various land uses required to serve the needs of the existing and probable future resident population and economic activity levels in the Region. Particularly pertinent to the preparation of a land use plan for the City of West Bend planning area are the recommendations for the preservation of the primary environmental corridors and prime agricultural land of the Region, and for the encouragement of a more compact pattern of urban development, with such development being encouraged to occur in those areas of the Region which are covered by soils suitable for such use; which are not subject to hazards, such as flooding; and which can be readily served by such essential urban facilities as public sanitary sewerage and water supply. These three major recommendations of the regional land use plan elements provided the basic framework around which the recommended land use plan for the City of West Bend planning area was developed. The adopted regional land use plan as it pertains to the City of West Bend planning area is shown on Map 3.

Regional Transportation System Plan

The adopted regional transportation system plan, also presented in SEWRPC Planning Report No. 25, describes how the regional land use plan can best be served by highway and transit facilities. It recommends a functional and jurisdictional system of arterial streets and highways to serve the Region through the design year 2000, together with a functional network of various types of transit lines. The regional transportation system plan was developed on

the basis of careful quantitative analyses of existing and probable future traffic movements, and of existing highway and transit system capacity and use.

Washington County

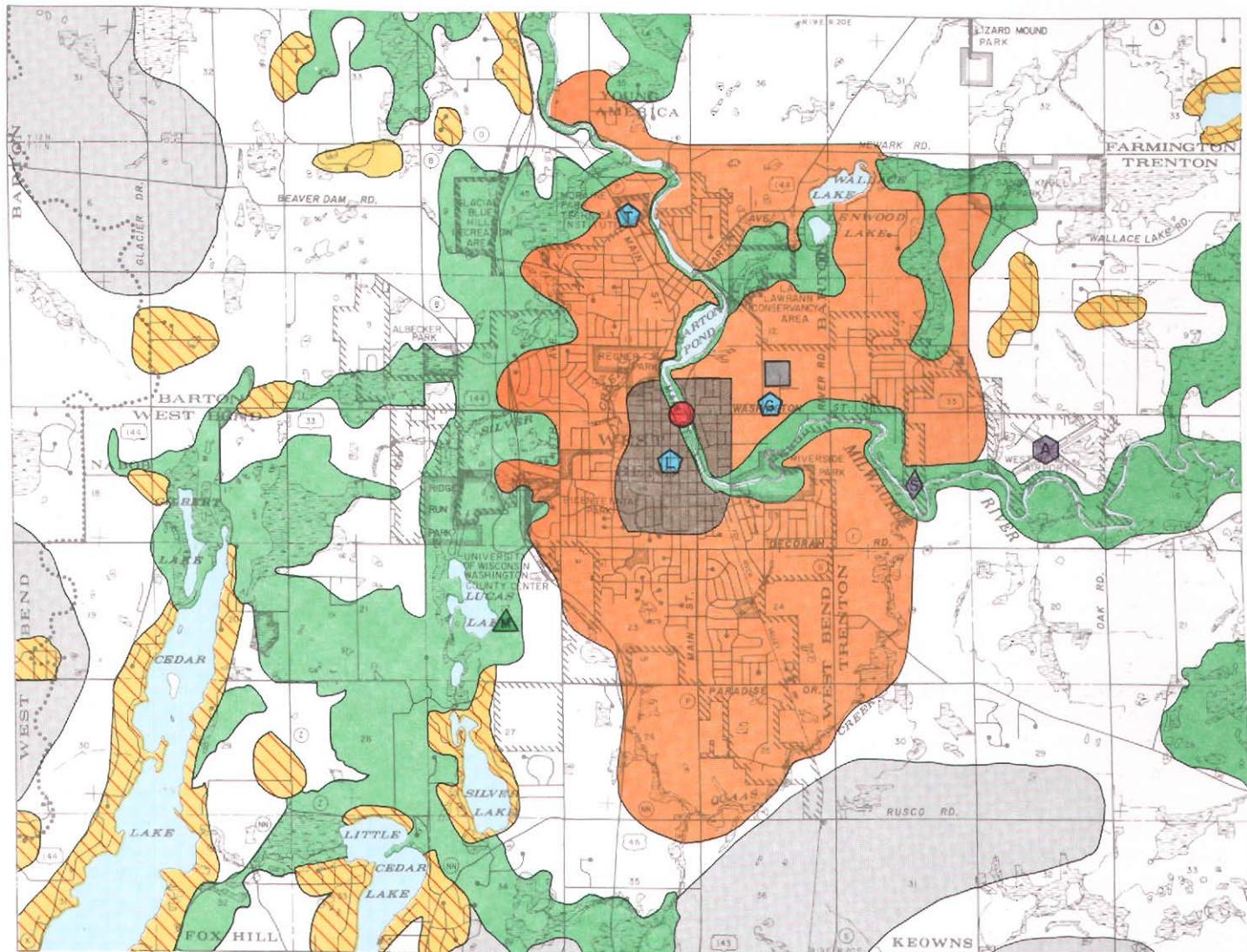
Jurisdictional Highway System Plan

On July 8, 1975, the Washington County Board of Supervisors adopted a jurisdictional highway system plan. That plan, set forth in SEWRPC Planning Report No. 23, A Jurisdictional Highway System Plan for Washington County, was based on a comprehensive study of the jurisdictional responsibilities for the construction, maintenance, and operation of arterial streets and highways in Washington County, including the City of West Bend. The plan was intended to help provide the County with an integrated highway transportation system that would, over time, effectively serve and promote a desirable land use pattern in the County; abate traffic congestion; reduce travel time and costs; reduce accident exposure; and help concentrate appropriate resources and capabilities on corresponding areas of need, thus assuring the most effective use of public resources in the provision of highway transportation.

In June 1987, the Mayor of the City of Hartford requested that the Regional Planning Commission reexamine the arterial street and highway needs of the County, particularly with respect to the need for additional arterial capacity in the western portion of the County. The Regional Planning Commission, acting in response to the request, prepared an amendment to SEWRPC Planning Report No. 23 which is documented in a Commission report entitled Amendment to the Washington County Jurisdictional Highway System Plan—2000, November 1989. The report summarizes the original Washington County jurisdictional highway system plan as adopted and amended to date; summarizes the major actions taken to date to implement both the functional highway improvement and the jurisdictional responsibility elements of the plan; documents proposed revisions to the plan emanating from the current study effort; and serves as a description of the Washington County jurisdictional highway system plan for use in the preparation of a new regional highway system plan. The recommended Washington County jurisdictional highway system plan as it pertains to the City of West Bend planning area is shown on Map 4.

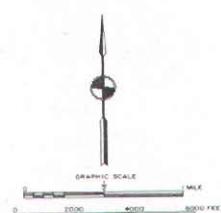
Map 3

ADOPTED REGIONAL LAND USE PLAN AS RELATED TO THE CITY OF WEST BEND PLANNING AREA: 2000



LEGEND

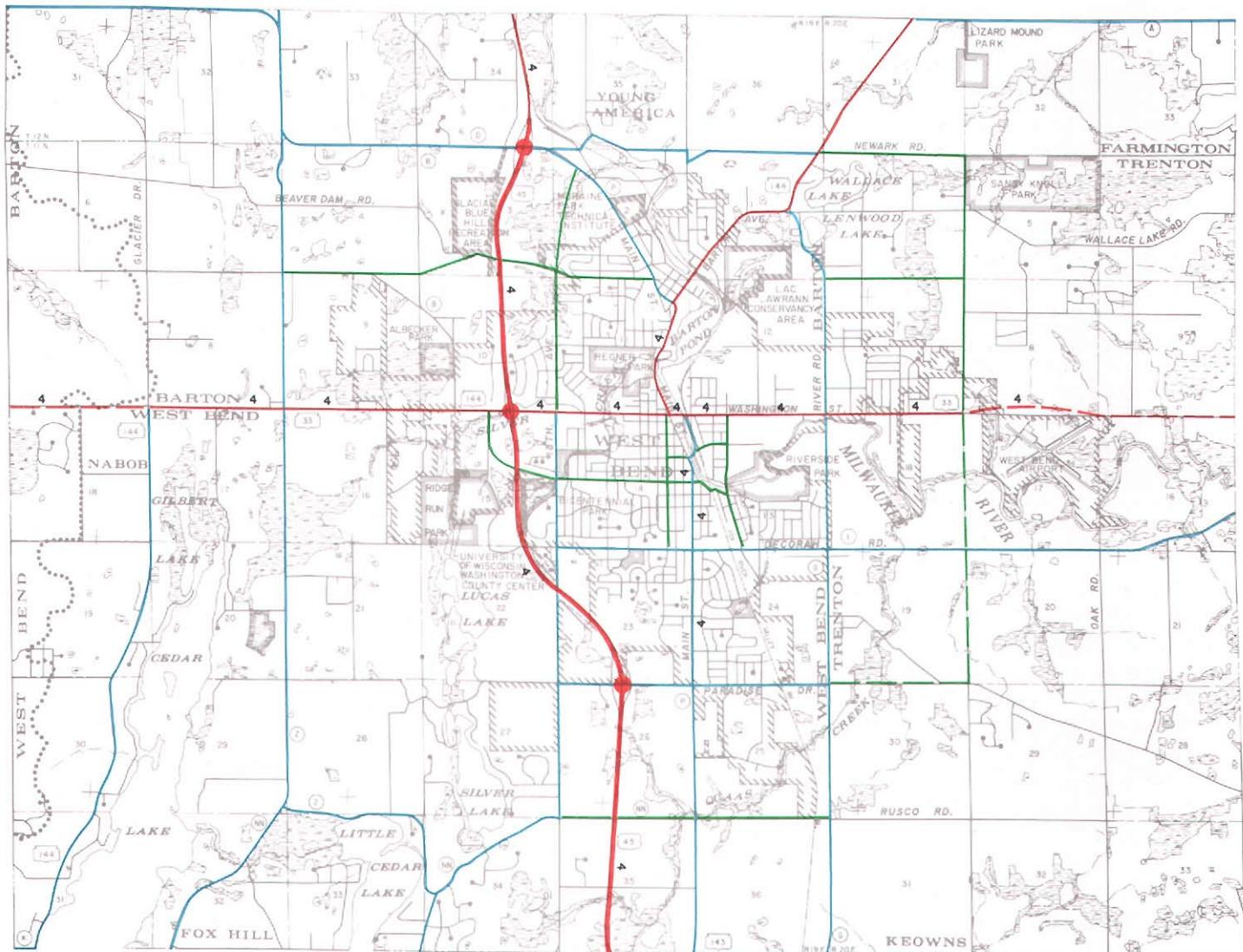
- [Yellow Box] SUBURBAN RESIDENTIAL (0.2-0.6 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Orange Box] LOW DENSITY URBAN (0.7-2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Red Box] MEDIUM DENSITY URBAN (2.3-6.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Brown Box] HIGH DENSITY URBAN (7.0-17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Red Circle] MAJOR RETAIL AND SERVICE CENTER
- [Grey Square] MAJOR INDUSTRIAL CENTER
- [Green Triangle] MAJOR PUBLIC OUTDOOR RECREATION CENTER
- [Purple Hexagon] MAJOR TRANSPORTATION CENTER A - AIRPORT
- [Purple Diamond] MAJOR UTILITY CENTER S - PUBLIC SEWAGE TREATMENT PLANT
- [Blue Pentagon] MAJOR GOVERNMENTAL OR INSTITUTIONAL CENTER
G - COUNTY, STATE, OR FEDERAL ADMINISTRATIVE OFFICE
T - TECHNICAL / VOCATIONAL
L - LIBRARY
- [Green Line] PRIMARY ENVIRONMENTAL CORRIDOR
- [Light Blue Box] WATER
- [Light Grey Box] PRIME AGRICULTURAL LAND
- [White Box] OTHER AGRICULTURAL AND RURAL LAND



Source: SEWRPC.

Map 4

RECOMMENDED WASHINGTON COUNTY JURISDICTIONAL HIGHWAY
SYSTEM PLAN AS RELATED TO THE CITY OF WEST BEND PLANNING AREA: 2000



LEGEND

CURRENT PLAN

FREEWAY

— STATE TRUNK HIGHWAY

● INTERCHANGE

STANDARD ARTERIAL

— STATE TRUNK HIGHWAY

— COUNTY TRUNK HIGHWAY

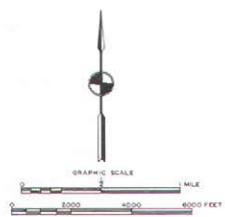
— LOCAL TRUNK HIGHWAY

NEW PLAN AMENDMENTS

— STATE TRUNK HIGHWAY

— LOCAL TRUNK HIGHWAY

4 NUMBER OF TRAFFIC LANES
(2 WHERE UNNUMBERED)



Source: SEWRPC.

Regional Airport System Plan

The adopted regional airport system plan, as set forth in SEWRPC Planning Report No. 38, A Regional Airport System Plan for Southeastern Wisconsin: 2010, recommends a coordinated set of airport facility and service improvements intended to provide the Southeastern Wisconsin Region with an airport system able to serve the commercial and general aviation needs of the area in an efficient and cost-effective manner. The report thus identifies the airports required in southeastern Wisconsin to provide the Region with necessary air transportation services. This plan was adopted by the City of West Bend Common Council on October 19, 1987.

Park and Open Space Plans

The adopted regional park, outdoor recreation, and related open space plan, as described in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, identifies existing and probable future park and open space needs within the Region and recommends a system of large regional resource-oriented parks, recreational corridors, and smaller urban parks, together with their attendant recreational facility requirements to provide form and structure to urban development within the Region. The regional park and open space plan was refined and detailed for West Bend by the Commission staff in response to a request from the City of West Bend Park and Recreation Commission and Common Council on April 19, 1983. The resulting park and open space plan for the City is documented in SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for the City of West Bend. The plan was adopted by the Common Council on July 15, 1985. That report addresses the park, recreation, and open space facility needs of the City of West Bend. The recommended park and open space sites and facilities in the West Bend planning area, as shown on Map 5, were incorporated into the land use plan presented herein for the City of West Bend. In 1984, the Washington County Park and Planning Commission requested that a similar detailed park and open space plan be prepared for the County. This plan was prepared and documented in SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County.

Regional Water Quality Management Plan

The findings and recommendations of the water quality management planning program for

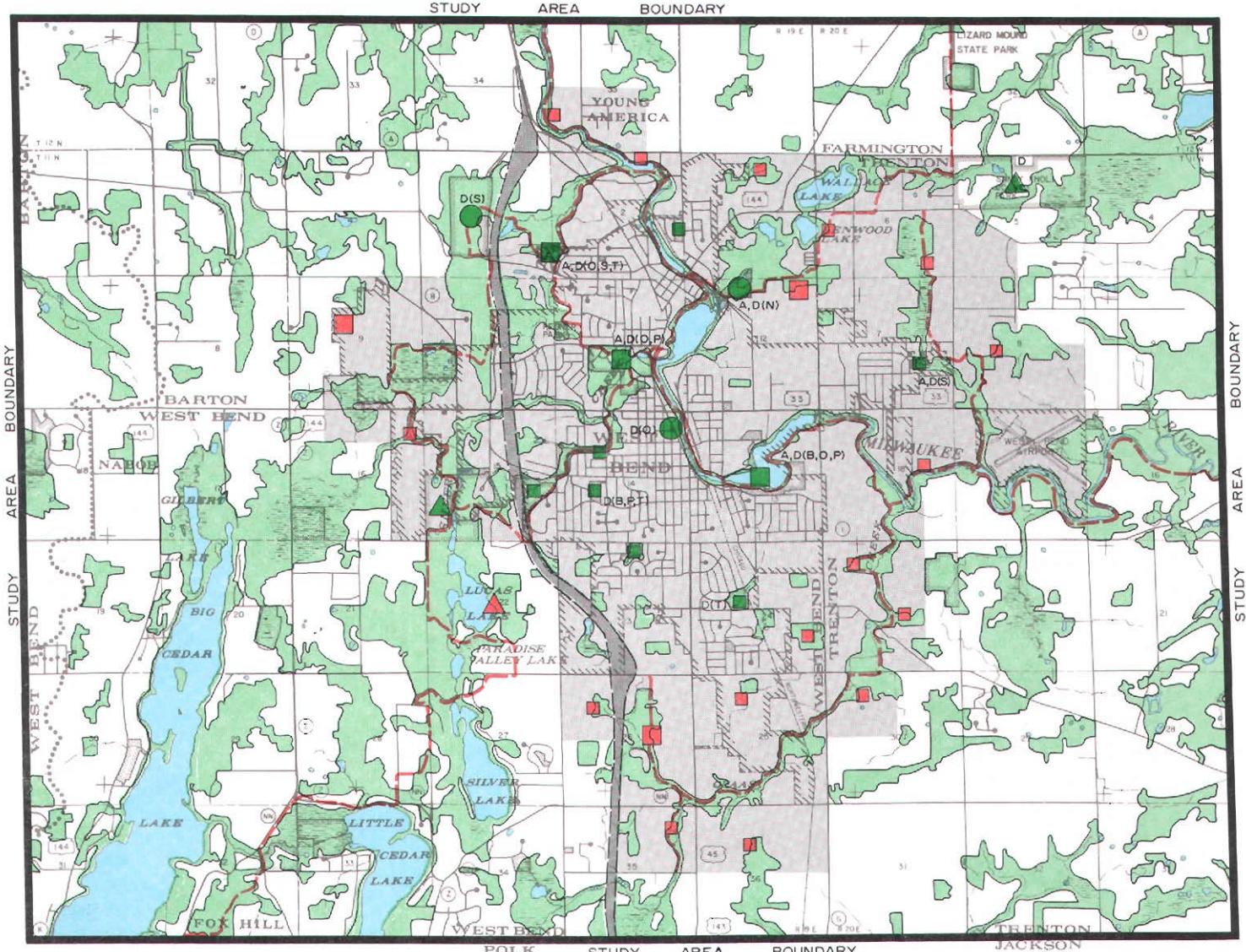
southeastern Wisconsin are described in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000. The plan documented in this report consists of a land use and sanitary sewer service area element, a point source water pollution abatement element, a nonpoint source water pollution abatement element, a wastewater sludge management element, and a water quality monitoring element. The regional water quality management plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility in the Region. These initially recommended sanitary sewer service areas were based upon the urban land use configuration identified in the Commission-adopted regional land use plan for the year 2000. As such, the delineation of the areas was necessarily general, and did not reflect detailed local planning considerations.

City of West Bend Sanitary Sewer Service Area Plan

In order to properly reflect local, as well as areawide, planning considerations relative to these sanitary sewer service areas, the Regional Planning Commission, in adopting the areawide water quality management plan, recommended that steps be taken to further refine and detail these sanitary sewer service areas in cooperation with the local units of government affected. Acting in response to these recommendations, the City of West Bend; the Towns of Barton, Trenton, and West Bend; and the Washington County Park and Planning Commission, with the assistance of the Regional Planning Commission, refined and further detailed a joint sanitary sewer service area tributary to the City of West Bend sewage treatment plant. The refined sanitary sewer service area is documented in SEWRPC Community Assistance Planning Report No. 35, Sanitary Sewer Service Area for the City of West Bend, December 1982. The City of West Bend Common Council adopted this plan on June 20, 1983. Since that time, the City Common Council has adopted extensions to the West Bend sanitary sewer service area plan in 1985, 1987, and 1988. These extensions were requested in order to resolve onsite sewage disposal system problems and to provide adequate sanitary sewer services to urban developments. Certain water quality management plan recommendations, particularly those related to the delineation of a sanitary sewer service area for the West Bend planning area, are reflected

Map 5

RECOMMENDED PARK AND OPEN SPACE SITES AND FACILITIES IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

- [Green Box] ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS
- [Blue Box] SURFACE WATERS
- [Red Dashed Line] RECREATION CORRIDOR
- [Grey Box] URBAN SERVICE AREA
- [Grey Line] USH 45 RIGHT-OF-WAY

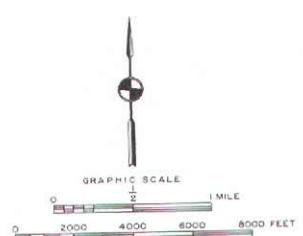
EXISTING PARK AND OPEN SPACE SITE

- ▲ MAJOR
- COMMUNITY
- NEIGHBORHOOD
- OTHER EXISTING PUBLIC OPEN SPACE SITE

PROPOSED PARK

- ▲ MAJOR
- COMMUNITY
- NEIGHBORHOOD

- A PROPOSED ADDITIONAL ACQUISITION
- D PROPOSED ADDITIONAL DEVELOPMENT
- B BALL DIAMOND OR PLAYFIELD
- N NATURE CENTER
- O OTHER FACILITIES
- P PLAY APPARATUS AREA
- S SHELTER OR RESTROOMS
- T TENNIS COURTS



Source: SEWRPC.

in the recommended land use plan as documented herein.

Comprehensive Plan for the Milwaukee River Watershed

In addition to the regional plan elements, there is a subregional plan element which is also of importance to the City of West Bend planning area. This plan is the Milwaukee River watershed plan as documented in SEWRPC Planning Report No. 13, A Comprehensive Plan for the Milwaukee River Watershed. This subregional plan contains recommendations for floodland management, water pollution abatement, and water supply which pertain to the City of West Bend planning area.

City of West Bend

Comprehensive Land Use Plans

In the past, two comprehensive land use plans have been prepared for the City of West Bend. In 1962, Mead & Hunt, Inc., of Madison prepared a report for the City entitled Master Plan - West Bend, Wisconsin. This comprehensive plan included information on the City's natural features, demographic and economic conditions, land use pattern, transportation system, public utilities, capital improvements program, and plan implementation tools. The plan was designed to meet the needs of a resident population of 25,000 to 30,000 persons. The plan set forth recommendations for the guidance and growth of the City to the plan design year 1980. This plan was adopted by both the City Plan Commission and the Common Council on August 19, 1963.

The plan called for orderly and progressive land use development through the year 1980. To achieve this goal, the plan recommended that the City identify and reserve the land areas suitable for single- and multi-family residential, commercial, industrial, institutional, and recreational development; provide the related services, such as public sanitary sewer and water facilities and police and fire protection; develop high-capacity traffic facilities for both local and interregional circulation; and offer a high quality of life for the resident population.

The 1962 plan indicated a need for, and was successful in attaining, more neighborhood parks and playgrounds and a new school—Green Tree Elementary School—to serve the community. In addition, the plan recommended the development of additional parkland areas,

including the Lac Lawrann Conservancy Area and Riverside Park, and the acquisition of parkway along the Milwaukee River.

As recommended in the comprehensive plan, a number of new public facilities were constructed subsequent to plan adoption. The City of West Bend Police and Fire Departments were both relocated on December 1, 1966, from the City Hall to a common facility located at 325 N. 8th Avenue. The public library was relocated on June 22, 1969, from an older building which was originally constructed as the city high school to the new West Bend Community Memorial Library located at 230 S. 6th Avenue. The City's sewage treatment facility originally constructed in 1936 was abandoned in 1980 and a new, larger facility was constructed at the same location on the Milwaukee River on the east side of the City.

The 1962 plan also recommended improvement and expansion of the City's transportation system, including the construction of the USH 45 bypass and interchanges, and extensions to a number of collector and surface arterial streets. A general location for the USH 45 bypass was identified in the plan. The actual bypass was located about 2,000 feet farther to the west than recommended in the plan, bordering development in the western portion of the City. Improvements to the surface arterial system of the City have been made in accordance with the 1962 comprehensive plan, including: the extension of 18th Avenue between Chestnut Street and Park Avenue; the extension of Silverbrook Drive south to 13th Avenue and continuing south to Hawthorn Drive; the connection of Evergreen and Chestnut Streets; the connection of Walnut Street and Park Avenue; the partial extension of Indiana Avenue north one and one-half blocks past Washington Street; and the extension of River Road (CTH G) from just south of Washington Street to Paradise Drive.

In 1977, the City formed four subcommittees consisting of concerned citizens and public officials, and charged these subcommittees with the responsibility of formulating general development goals for the City of West Bend. Goals were to be developed for land use, transportation, open space and parks, and the central business district. In 1979, the subcommittees completed their initial work, and, with the assistance of Joseph F. Mangiameli, a Milwaukee planning consultant, published a report entitled The Land

Use Management Plan - City of West Bend. The plan was adopted by the City Plan Commission on March 12, 1979. The plan set forth goals pertaining to industrial development, annexation, land use development, downtown development, transportation facility development, and public utility development, and measures and procedures for plan implementation. The plan was designed to meet the needs of a resident population of about 48,000 persons by the design year 2000. Pertinent policy goals set forth in the 1979 report have been incorporated into Chapter VI of this planning report.

City of West Bend Downtown/ Central Business District Plans

A subarea plan was completed for the West Bend central business district in 1973 by Max Anderson Associates of Madison, and was documented in three reports. The first report, entitled Research and Analysis, Downtown Plan, West Bend, Wisconsin, described the existing conditions, and identified the growth potentials for and development costs of revitalizing the central business district of the City of West Bend. The second report, entitled Zoning Recommendations, West Bend, Wisconsin, identified proposed zoning changes for the downtown area. The third report, entitled Downtown Plan - West Bend, presented design recommendations and a strategy for implementing the plan. The downtown plan was designed to be implemented over the 1979 through 1983 time period. Significant improvements completed as a result of these planning efforts included: construction of the Walnut Street and pedestrian bridges; installation of the Mill Street, 5th and Walnut Street, and Hickory Street parking lots; reconstruction of the Island Avenue parking lot adjacent to the outlet mall; acquisition of the West Bend Equipment Company and Triangle Park properties; improvements to Main Street; creation of a traffic loop to reduce pedestrian-vehicular conflicts in the central business district; and development of landscape plans for both Milwaukee River banks.

Two traffic analysis studies and one parking study were completed for selected areas of the City of West Bend. In July 1981, the Regional Planning Commission completed a special study of the City of West Bend central business district. The findings and recommendations of this study are documented in SEWRPC Community Assistance Planning Report No. 62,

A Traffic Circulation Plan for the West Bend Central Business District. The study described the travel patterns and traffic operating conditions in the central business district and analyzed the probable future impact on those conditions of the planned construction of the West Bend Freeway and the extension of CTH G, as well as the impact of the proposed downtown mall on the arterial facilities serving the West Bend central business district. The study described and compared the traffic-carrying efficiency and operating characteristics of each of the six alternative arterial street systems.

Significant improvements completed as a result of the circulation plan include the closure of that segment of Main Street between Washington Avenue and 7th Avenue and its attendant reconstruction as an off-street parking facility; the closure of Main Street from Walnut Street to Washington Street and its attendant reconstruction as a commercial shopping area, with two-way traffic operation permitted and with the provision of a northbound right-turn-lane exit from Main Street onto Washington Street; and the implementation of such traffic engineering measures as exclusive turn lanes, signing, and signalization for preferential traffic progression to encourage those vehicles diverted from Main Street to use relocated Island Avenue.

The findings and recommendations of the second transportation-related study, prepared by the Regional Planning Commission in 1987, are set forth in SEWRPC Memorandum Report No. 25, Traffic Impact Study of Proposed Development Along Paradise Drive Between the USH 45 Bypass and S. Main Street. The study analyzed the traffic impacts of, and access which should be provided to, planned urban development along Paradise Drive between the USH 45 bypass and S. Main Street, including the proposed expansion of Paradise Mall. The study recommended collector street extensions and the location and type of access that should be provided to the lands abutting Paradise Drive to both the north and south. The study also recommended improvements to Paradise Drive and to the intersection of Paradise Drive with Main Street given proposed developments adjacent to these facilities and in the City of West Bend and environs. Alternative three for the extension of Silverbrook Drive was adopted by the Plan Commission on September 1, 1987.

Under this alternative, Silverbrook Drive would be extended to the southeast to connect to 7th Avenue. The properties north of Paradise Drive between 7th Avenue and the USH 45 bypass which are currently proposed to be developed for commercial uses would be served by a single driveway which would be located approximately 550 feet east of the USH 45 bypass and 1,000 feet west of 7th Avenue extended. Access to these commercial land uses would also be provided from the extensions of Silverbrook Drive and 7th Avenue. The extension of 7th Avenue is scheduled for completion by the end of 1990. The timing of the extension of Silverbrook Avenue will be determined by future development needs.

A parking study was completed for the the City of West Bend central business district in October 1988 by Howard, Needles, Tammen and Bergendoff of Milwaukee. The findings and recommendations of the study were documented in a report entitled City of West Bend - Downtown Parking Study. The study contained objectives addressing future parking needs and identified existing and potential parking conditions and recommendations for parking improvements in downtown West Bend. Specific study elements included an evaluation of the existing parking system; a description of anticipated future conditions, including downtown growth and increased parking demand; an evaluation of and recommendations for alternative parking improvement strategies; and an outline of parking system operation and maintenance costs and financing alternatives for implementing the parking improvements. Specific parking improvements are anticipated to be completed in subsequent years.

The following general conclusions were drawn from the parking study: Both short- and long-term parking problems exist along the central segment of Main Street between 5th Avenue and Elm Street; long-term parking problems exist in the vicinity of the B. C. Ziegler Company and M & I Bank areas; problems exist relating to evening, on-street parking in the vicinity of Main Street and Mill Street; and short-term parking problems exist in the outlet mall lot. Alternative parking improvement strategies recommended by the consultant include: providing an additional 40 long-term unrestricted parking spaces along the east side of the Milwaukee River and restricting all other spaces to two-hour limits; constructing a parking structure

over the Walnut Street public parking lot to accommodate 50 additional parking spaces; allowing nonpermit parking to occur in the Mill Street public lot after 5:00 p. m.; changing the two-hour parking regulation on the west side of 7th Avenue between Elm and Cedar Streets and on the east side of 7th Avenue between Hickory and Elm Streets to all day, unrestricted parking; and replacing the existing public parking lot signage with more informative signs.

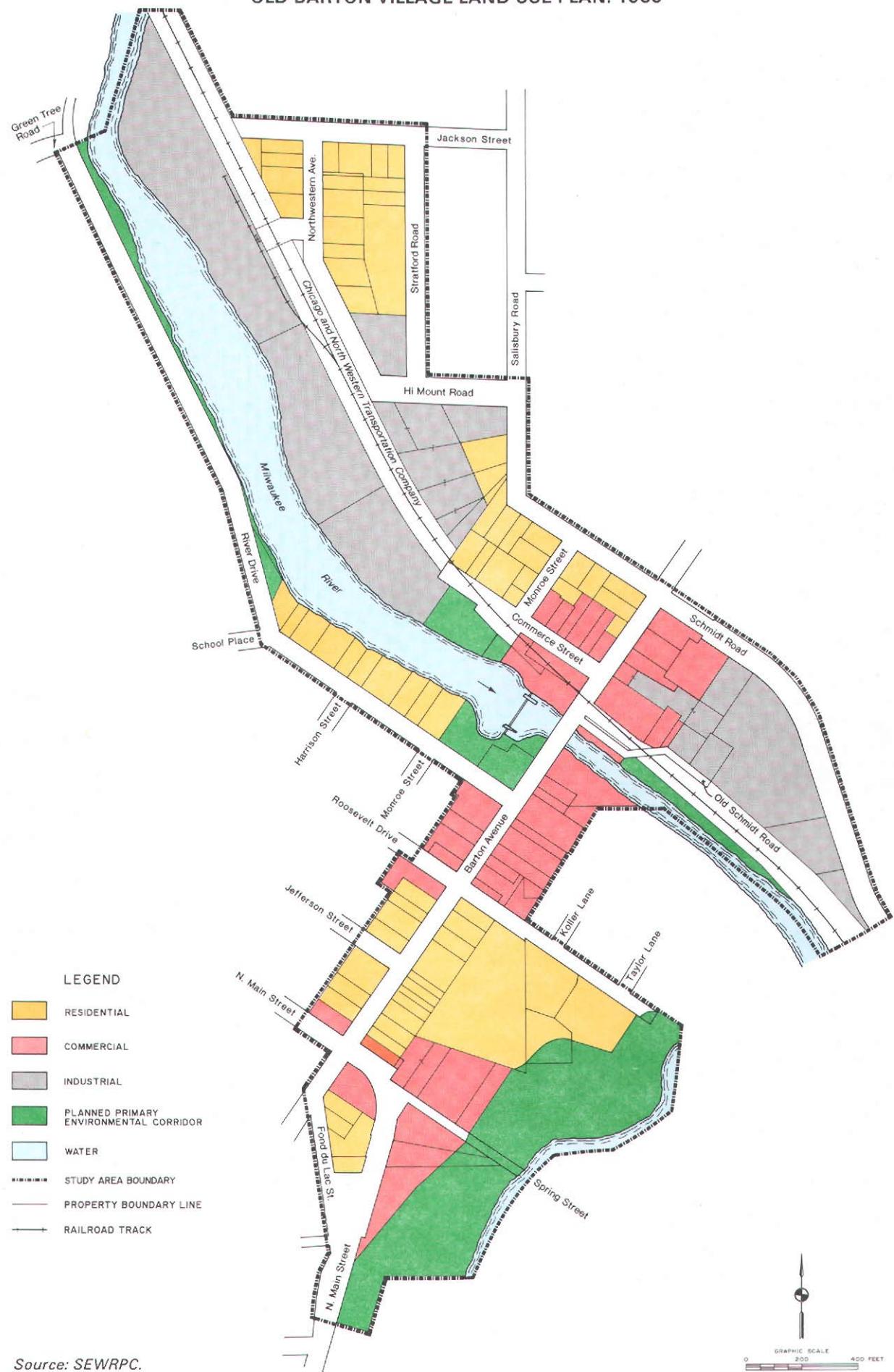
Old Barton Village Redevelopment Plan

A subarea planning study was also completed for the northern portion of the City West Bend. At the request of the City, the staff of the Regional Planning Commission prepared a redevelopment plan for the Old Barton Village area. The Old Barton Village Redevelopment Plan, as set forth in a SEWRPC Planning Staff Memorandum dated August 12, 1985, presented a land use inventory and an exterior structural conditions survey, and identified project plans for the elimination of blight and the revitalization of the area that could be implemented by the public and private sectors. The Old Barton Village redevelopment plan was adopted by the City of West Bend Plan Commission on August 19, 1985.

The Commission staff conducted a detailed exterior structural conditions survey of all the principal buildings located within the Old Barton Village area. Included in the survey were the appearance of the lot upon which the structure was located, roof structure and materials, exterior wall structure, exterior wall material, foundation walls, windows, frames, doors, and exterior porches. Based upon the survey documentation and onsite field survey work, a project land use plan was prepared, and is reproduced as Map 6. The four detailed project plan areas included: 1) the former Mallard Coach property and environs; 2) the historic Gadow's Mill area; 3) the Commerce Street and Barton Avenue business district; and 4) the N. Main Street and Fond du Lac Street area on the far south side of the redevelopment area.

General recommendations for the redevelopment area which have been implemented as a result of the study include: a \$1 million project involving the improvement of storm sewers, curbs and gutters, street pavements, and sidewalks in the dedicated public rights-of-way; street lighting and the planting of trees along Barton Avenue between Main Street on the south and the City

Map 6
OLD BARTON VILLAGE LAND USE PLAN: 1985



of West Bend's corporate limits on the north; the demolition of two principal structures and the rehabilitation of three principal structures in the redevelopment area which were rated as poor or fair in the structural conditions survey; and the conduct of detailed historic investigations of the entire Old Barton Village redevelopment area and submittal of an application nominating the Barton area for historic district status.

Other redevelopment recommendations for each project area were made. The former Mallard Coach property and building have been rehabilitated for use as an "incubator" business and industry property. Improvements were made to the Barton Dam. The repair of building facades, the planting of street trees and landscape plantings, and the relocation of all above-ground utilities underground along Barton Avenue were completed.

City of West Bend

Comprehensive Utility System Plans

At the request of the City of West Bend, two separate studies analyzing the City of West Bend water system and sanitary sewer system were completed in August 1985, by Donohue & Associates, Inc., of Sheboygan. The first study, entitled Comprehensive Water System Plan, City of West Bend, Wisconsin, set forth the findings of an investigation of the adequacy of the existing water supply system and the capability of the water distribution system to meet both the existing and future water supply needs. The plan presented recommendations for staged improvements for adequate service in the City to the design year 2020. The plan was adopted by the City of West Bend Common Council on January 20, 1986. City of West Bend water supply system improvements resulting from these analyses during the January 1986 through December 1988 time period were associated with recent subdivision developments and the new West Bend Industrial Park South.

The second study, entitled Comprehensive Sanitary Sewer Plan, West Bend, Wisconsin, described the existing sanitary sewer system, identified the major drainage basins and proposed trunk sewers attendant to each drainage basin, and identified cost recovery alternatives for proposed trunk sewer construction. The plan identified anticipated development areas that may benefit from the proposed trunk sewer improvements, and investigated assessment procedures and a methodology for recovering

future trunk sewer improvement costs. The plan, which was designed for the design year 2020, was adopted by the Common Council on January 20, 1986.

In 1989, a recommended major trunk sewer improvement was completed to serve the West Bend Mutual Insurance Company development site. This improvement involved extending the south branch of the existing west trunk sewer from the trunk on 18th Avenue, following across the USH 45 bypass, and continuing in a southerly direction to connect with the Paradise Drive sewer main.

In 1990, a major trunk sewer improvement was planned for construction in the City of West Bend. A northeast trunk sewer is proposed to be constructed along the north side of the Milwaukee River from an existing 36-inch trunk sewer extending north from the city sewage treatment facility, and continuing in a northerly direction along the west side of West Bend Municipal Airport across Washington Street (STH 33) to Creek Road, with additional extensions farther north dependent upon the development demand.

STUDY PURPOSE

City of West Bend officials recognize that conditions have changed significantly from those prevailing during the preparation of the previous city plans, and that the land use and supporting transportation elements of this plan should reflect those changes. Accordingly, the planning effort herein documented assembled and analyzed current data pertinent to land use development in the West Bend planning area, and prepared a land use plan with supporting arterial street system proposals to the design year 2010. This effort also reexamined the City's development goals and objectives and investigated the degree to which these objectives may have changed over time.

This planning effort is intended to provide the City of West Bend with the most basic and important element of a comprehensive development plan—the land use element. The land use plan set forth herein, while primarily intended to meet local development objectives, is also intended to carry related regional plan elements into greater depth and detail as necessary for sound local and regional planning. In conducting this planning effort, care was taken to

identify the physical development constraints imposed upon, and development opportunities open to, the City of West Bend and its environs; to set forth an integrated set of land use and supporting transportation system development objectives and related standards and urban design criteria for the City of West Bend and environs; to determine the probable future land use and related facility requirements within the City and environs to the plan design year 2010; and to recommend a land use pattern that can effectively meet those requirements in an economical and environmentally sound manner. Finally, implementation measures and devices needed to effectively carry out the recommended land use plan are identified, with particular emphasis upon needed revisions to the City Zoning Ordinance.

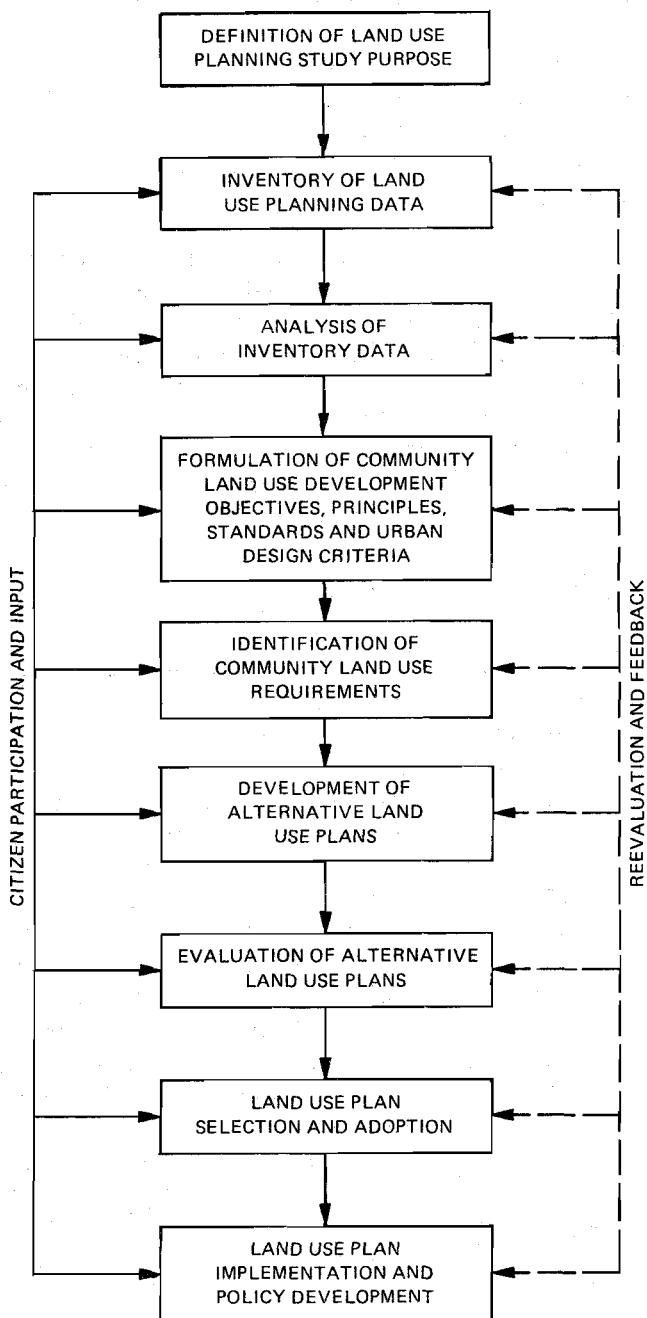
THE COMMUNITY LAND USE PLANNING PROCESS

The recommended plan presented in this planning report was developed through a community land use planning process consisting of the following steps: 1) a comprehensive inventory of the factors affecting land use development and redevelopment in the City and environs; 2) a careful analysis of the inventory data; 3) the formulation of development objectives, principles, standards, and related urban design criteria; 4) the identification of land use and related facility needs in the planning area through the year 2010 based, in part, upon the population and employment forecasts and the agreed-upon development objectives and standards; 5) the development and evaluation of alternative plans; 6) the selection of a recommended plan; and 7) the recommendation of plan implementation measures. The community land use planning process utilized is graphically summarized in Figure 1. Imperative to any sound community planning process is the active participation of local public officials and interested and concerned citizens in each stage of the process. Also important to the process is the periodic reevaluation of adopted community plans, alternatives thereto, and any refinements thereof based upon the emergence of new information and changing public attitudes and opinions.

Inventory and Analysis

Reliable basic planning data are essential to the formulation of workable land use plans. Consequently, inventory becomes the first operational

Figure 1
THE COMMUNITY LAND USE PLANNING PROCESS



Source: SEWRPC.

step in the community land use planning process. The crucial nature of factual information in the planning process should be evident, since no intelligent forecasts can be made or alternative courses of action evaluated without knowledge of the current state of the system being planned.

The sound formulation of a land use plan for the City of West Bend requires that factual data be developed on the existing development pattern, on the potential demand for each of the various major land use categories, on the major determinants of these demands, and on local land use development potentials and constraints, as well as on the underlying natural resource and public utility base and its ability to support development.

The necessary inventory and analyses not only provide data describing existing conditions, but also provide a basis for identifying existing and potential problems in the planning area, as well as opportunities and potentials for good development. The inventory data are also crucial to the forecasting of community land use and public facility needs, and to the formulation and evaluation of alternative plans.

Formulation of Development Objectives, Principles, Standards, and Related Urban Design Criteria

An objective may be defined as a goal or end toward the attainment of which plans and policies are directed. Planning is a rational process for formulating and attaining objectives. The objectives developed serve as a guide to the preparation of alternative plans and provide an important basis for the selection of a recommended plan from among the alternatives considered. The community land use plan should be clearly related to the defined objectives through a set of standards and urban design criteria. Objectives may change as new information is developed, as objectives are fulfilled through plan implementation, or as objectives fail to be implemented owing to changing public attitudes and values. The formulation of objectives should involve the active participation of local officials and citizens. To this end, the City Plan Commission includes citizen members and provides active guidance throughout the course of the plan.

Identification of Land Use and Facility Requirements

Although the preparation of forecasts is not planning, such preparation is essential to sound planning. In any planning effort, forecasts are required of future events and conditions which are outside the scope of the system to be planned. A land use plan must, to the extent possible, anticipate future land and facility

requirements as a basis for the development of alternative plans. The future demand for land and facilities will depend primarily upon the size of the future population and the nature of future economic activity within the City. Control of changes in population and economic activity levels, however, lie largely—although not entirely—outside the scope of government activity at the local level, and therefore outside the scope of the local planning process. Therefore, future population and economic activity levels must be forecast. These levels, in turn, can be used to determine the probable future demand for various types of land uses and facilities. This is not to say that governmental policies at the local level cannot influence the course of urban growth and development, and, consequently, of population and economic activity growth rates.

Development and Evaluation of Alternative Plans and Selection and Adoption of the Recommended Plan

Having estimated the probable future demand for a variety of land use types and supporting facilities, alternative plans which meet the demand can be developed. The alternative plans should be evaluated based upon their relative ability to attain the agreed-upon development objectives, and the plan which is judged best to meet those objectives should be selected for adoption. The evaluation should be made by the City Plan Commission. Such evaluation and selection involves the use of the information obtained during the inventory and analysis stages of the planning process as well as during the later plan design stages.

Plan Implementation

Implementation of the adopted land use plan requires the use of several planning tools of a legal nature. A zoning ordinance and accompanying zoning map should be used to legally assure that private development and redevelopment occur in conformance with the adopted plan and plan elements. The zoning regulations should govern not only the types of land uses permitted in various parts of the community but the height and arrangement of buildings on the land, the intensity of the use of land, and the supporting facilities required to carry out the intent of the land use plan. Land subdivision regulations should be applied to assure that any proposed land subdivision plats and certified survey maps conform to the plan both with respect to the proposed land uses to be accom-

modated and with respect to such details as street, block, and lot layout and required infrastructure improvements. An official map should be used to assure that the land required for the streets, parkways, parks, playgrounds, and public transit facilities required to serve the recommended land use pattern is reserved for future public use. Implementation of the plan should also be furthered by the formulation of public policies which will ensure plan implementation. A capital improvements program is one particularly effective expression of such policies relating to the physical development and redevelopment of the community.

FORMAT OF THE PLAN REPORT PRESENTATION

The planning report consists of 10 chapters. Following this introductory chapter, Chapter II, "Population and Employment Inventories, Analyses, and Forecasts," presents relevant data regarding the current and historic resident population and employment levels and characteristics of the City of West Bend, as well as of the West Bend planning area, Washington County, and the Southeastern Wisconsin Region. In addition, Chapter II provides a range of population and employment forecasts to the year 2010 which were used to estimate probable future land use and facility needs. Chapter III, "Natural Resource Base Inventory and Analysis," presents relevant data pertaining to the natural resource base of the City of West Bend and its

environs, including data on soils, watersheds and topography, drainage, wetlands, floodlands, scenic overlooks, woodlands, wildlife habitat, agricultural lands, parks, and other relevant features. Chapter IV, "Inventory and Analyses of Existing Land Uses and Man-Made Features," presents relevant data on significant man-made features of the City of West Bend and environs, including data on existing land use, community facilities, and public utilities. Chapter V, "Existing Local Plan Implementation Devices," describes and analyzes the existing city zoning and land subdivision ordinances, as well as certain other legal instruments that facilitate plan implementation in the City. Chapter VI, "Development Objectives, Principles, Standards, and Related Urban Design Criteria," presents a set of recommended land use and transportation system development objectives and supporting principles and standards used in the analyses and plan design processes. Chapter VII, "Year 2010 Community Land Use and Facility Requirements," presents land use and facility needs to the year 2010 based upon the forecast population and employment levels and the objectives and standards presented in Chapter VI. Chapter VIII, "The Land Use Plan," presents the key elements of a recommended land use development plan for the City of West Bend and environs. Chapter IX, "Plan Implementation," describes the legal instruments needed to implement the plan. Finally, Chapter X, "Summary," provides a summary of the significant findings and recommendations of the planning effort.

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Chapter II

POPULATION AND EMPLOYMENT INVENTORIES, ANALYSES, AND FORECASTS

INTRODUCTION

Information on the size, characteristics and distribution of the resident population, on economic activity, and on anticipated changes in these socioeconomic factors over time is essential to the preparation of a sound community land use plan. In the final analysis, a land use plan should benefit the resident population of the community by helping to maintain and enhance living and working conditions. The size and characteristics of the existing and probable future resident population and of employment in the planning area have a direct influence on land use requirements and needs. The primary purpose of the land use plan is to meet those requirements and needs in an environmentally sound as well as efficient and effective manner.

POPULATION AND EMPLOYMENT FORECASTS

The population and employment forecasts that were selected for use in the planning for the West Bend area were based upon consideration of a range of alternative future population and employment levels postulated by the Commission for the Region. Three alternative future scenarios were postulated for the purpose of preparing the new regional land use plan, with two intended to identify reasonable extremes—pessimistic and optimistic scenarios—and one intended to identify a most probable future that lies between the extremes—the intermediate scenario. Population and employment changes attendant to each future were projected for the purpose of this report; however, only two of the alternative future scenarios—the intermediate and optimistic scenarios—were considered as being likely population scenarios for the West Bend planning area.¹

Optimistic Future Scenario

The optimistic future scenario envisions that the Region as a whole will experience only a slight decline in household size with a return to more conventional lifestyles and somewhat higher birthrates. This future also assumes that the Region will be economically competitive with other areas of the United States over the next two decades, and that the pattern of out-migration of population and of economic activities and jobs experienced in the recent past will subside. This greater attractiveness would be due to such factors as the availability of an ample high-quality water supply; availability of certain raw materials, particularly agricultural materials; the presence of a well developed and maintained transportation network; low-cost public utilities, including sanitary sewerage, public water supply, and electric power; a high-quality environment; ample recreational opportunities; a high-quality labor force; an improved tax structure; and receptive community attitudes toward the needs of business and industry.

Intermediate Future Scenario

The intermediate future assumes that even though some out-migration of population and jobs will continue, the relative attractiveness of the Region will result in a stabilization of population and employment. Aggressive marketing of selectively targeted industries would serve to stimulate some new job growth within the planning area. The assumptions underlying this future include replacement level birthrates and a slight decline in household size. There would be some decrease in the younger age groups, and the retirement age population would be expected to show a significant increase under this alternative future.

Degree of Centrality

An additional variable considered in the preparation of land use plans for each scenario was the degree of centrality of incremental urban land use development as measured by the relative nearness of new urban land uses to the major population centers in the Region. Two alternative population distributions, referred to as centralized and decentralized population distributions, were developed.

¹For a description of the methodology used to develop these projections, see SEWRPC Technical Report No. 25, Alternative Futures for Southeastern Wisconsin; Technical Report No. 11 (2nd Edition), The Population of Southeastern Wisconsin; and Technical Report No. 10 (2nd Edition), The Economy of Southeastern Wisconsin.

Table 1

**ALTERNATIVE POPULATION AND EMPLOYMENT FORECASTS FOR
SOUTHEASTERN WISCONSIN, WASHINGTON COUNTY, THE WEST BEND PLANNING
AREA, AND THE CITY OF WEST BEND URBAN SERVICE AREA: 1985 AND 2010**

Demographics	1985 Estimate	Alternative Future Scenario: 2010	
		Intermediate	Optimistic
Region ^a			
Population	1,742,700	1,872,200	2,316,100
Jobs	871,900	1,051,300	1,251,600
Washington County			
Population	87,250	111,700	185,000
Jobs	30,100	45,200	67,900
West Bend Planning Area			
Population	30,940	39,360	61,110
Jobs	14,370	20,680	25,900
City of West Bend Urban Service Area			
Population	23,800 ^b	32,050	52,880
Jobs	12,040	18,550	23,210

^aRegion includes Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties.

^bThe 1985 population estimate for the City of West Bend is approximately 21,993.

Source: Wisconsin Department of Industry, Labor and Human Relations; Wisconsin Department of Administration; and SEWRPC.

The centralized distribution concentrates population in the older urban centers of the Region and adjacent suburbs, with proportionately fewer people in outlying areas. The centralized distribution assumes that a significant proportion of the population will prefer to reside in an urban setting that provides a full range of urban facilities and services, such as public water supply and sanitary sewers. The decentralized distribution accommodates proportionately less people in the older urban centers of the Region and adjacent suburbs, and proportionately more in the outlying areas. The decentralized distribution assumes that a significant proportion of the population will prefer to reside in a suburban or rural setting with relatively large lots and few, if any, urban services.

Intermediate-Centralized and Optimistic-Decentralized Forecasts

For the purposes of the West Bend land use plan, two of the possible alternative future scenarios postulated by the Commission in its regional planning efforts were considered: an inter-

mediate-centralized scenario and an optimistic-decentralized scenario. These two particular alternative future scenarios were believed to best represent the range of possible futures with respect to growth and development in the West Bend planning area. The forecast population and employment levels envisioned under the two scenarios described above for the Southeastern Wisconsin Region, Washington County, the West Bend planning area, and the City of West Bend urban service area, are set forth in Table 1.

Population and employment forecasts for the City of West Bend assume that the corporate boundaries of the City will be larger in the year 2010 than they are at present. Areas will be annexed into the City in order to extend urban services, such as public water supply and sanitary sewers, to developing areas and thereby accommodate population growth in an environmentally sound manner. For this reason, population and employment forecasts are based on an "urban service area" that is larger than the existing corporate boundaries. The urban service

area used to prepare the estimates of 1985 population and employment data encompasses the corporate limits of the City in 1985, adjusted to the nearest quarter section line. Historic population and employment census data for the City of West Bend are based on the corporate boundaries of the City.

Intermediate-Centralized Forecasts: The intermediate-centralized scenario envisions that the resident population of the Region will increase from about 1,742,700 persons in 1985 to about 1,872,200 persons in 2010, an increase of about 129,500 persons, or about 7 percent over the 1985 level; and that the number of jobs will increase from about 871,900 jobs in 1985 to about 1,051,300 jobs by 2010, an increase of about 179,400 jobs, or about 21 percent. In Washington County the intermediate-centralized scenario envisions that the resident population will increase from about 87,250 persons in 1985 to about 111,700 persons in 2010, an increase of about 24,450 persons, or about 28 percent; and that the number of jobs will increase from about 30,100 jobs in 1985, to about 45,200 jobs by 2010, an increase of about 15,100 jobs, or about 50 percent.

In the 63.4 square mile West Bend planning area, the intermediate-centralized scenario envisions that the resident population will increase from about 30,940 persons in 1985 to about 39,360 persons in 2010, an increase of about 8,420 persons, or about 27 percent; and that the number of jobs will increase from about 14,370 jobs in 1985 to about 20,680 jobs in the year 2010, an increase of about 6,310 jobs, or about 44 percent. For the City of West Bend urban service area, this scenario envisions that the resident population will increase from about 23,800 persons in 1985 to about 32,050 persons in 2010, an increase of about 8,250 persons, or about 35 percent over the 25-year period; and the number of jobs would increase from about 12,040 jobs in 1985 to about 18,550 jobs in 2010, an increase of about 6,510 jobs, or about 54 percent.

Optimistic-Decentralized Forecasts: The optimistic-decentralized scenario envisions that the resident population of the Region will increase from about 1,742,700 persons in 1985 to about 2,316,100 persons in the year 2010, an increase of about 573,400 persons, or about 33 percent; and that the number of jobs will increase from about 871,900 in 1985 to about 1,251,600 by the

year 2010, an increase of about 379,700 jobs, or about 44 percent. In Washington County, the optimistic-decentralized scenario envisions that the resident population will increase from about 87,250 persons in 1985 to about 185,000 persons by the year 2010, an increase of about 97,750 persons, or about 112 percent; and that the jobs will increase from about 30,100 jobs in 1985 to about 67,900 jobs by the year 2010, an increase of about 37,800 jobs, or about 126 percent.

In the West Bend planning area, the optimistic-decentralized scenario envisions that resident population will increase from about 30,940 in 1985 to about 61,110 in the year 2010, an increase of about 30,170 persons, or about 98 percent; and that jobs will increase from about 14,370 jobs in 1985 to about 25,900 jobs by the year 2010, an increase of about 11,530 jobs, or about 80 percent. For the City of West Bend urban service area the optimistic-decentralized scenario envisions that the resident population will increase from about 23,800 persons in 1985 to about 52,880 persons in 2010, an increase of about 29,080 persons, or about 122 percent; and that the number of jobs will increase from about 12,040 jobs in 1985 to about 23,210 jobs in the year 2010, an increase of about 11,170 jobs, or about 93 percent.

Urban Growth Pattern: With respect to urban growth patterns for the Region, Washington County, West Bend planning area, and City of West Bend, the optimistic alternative future scenario projects modest growth for the Region and significant growth for Washington County, the West Bend planning area, and the City of West Bend urban service area over the plan design period while the intermediate alternative future scenario projects slight growth for the Region and modest growth for Washington County, the West Bend planning area, and the City of West Bend urban service area.

In order to set these two alternative future scenarios in perspective, the historic population levels of the State, the Region, Washington County, and the City of West Bend are presented in Table 2. This table indicates that the City of West Bend has experienced steady increases in resident population since its incorporation as a City in 1885. Figure 2 graphically shows the historic and forecast future resident population levels for the City of West Bend urban service area based upon the two alternative future scenarios.

Table 2

COMPARISON OF HISTORIC POPULATION LEVELS FOR THE STATE OF WISCONSIN, THE SOUTHEASTERN WISCONSIN REGION, WASHINGTON COUNTY, AND THE CITY OF WEST BEND: 1850-1989

Year	Wisconsin		Region		Washington County		City of West Bend ^a	
	Population	Percent Change from Previous Period	Population	Percent Change from Previous Period	Population	Percent Change from Previous Period	Population	Percent Change from Previous Period
1850	305,391	--	113,389	--	19,485 ^b	--	--	--
1860	775,881	154.1	190,409	67.9	23,644	2.1	--	--
1870	1,054,670	35.9	223,546	17.4	23,919	1.3	--	--
1880	1,315,497	24.4	277,119	24.0	23,422	-2.0	--	--
1890	1,693,330	28.7	386,774	39.6	22,751	-2.9	1,296	--
1900	2,069,042	22.2	501,808	29.7	23,589	3.7	2,119	63.5
1910	2,333,860	12.8	631,161	25.8	23,784	0.8	2,462	16.2
1920	2,632,067	12.8	783,681	24.2	25,713	8.1	3,378	37.2
1930	2,939,006	11.7	1,006,118	28.4	26,551	3.3	4,760	40.9
1940	3,137,587	6.8	1,067,699	6.1	28,430	7.1	5,452	14.5
1950	3,434,575	9.5	1,240,618	16.2	33,902	19.2	6,849	25.6
1960	3,952,771	15.1	1,573,620	26.8	46,119	36.0	9,969	45.6
1970	4,417,933	11.8	1,756,086	11.6	63,839	38.4	16,555	66.1
1980	4,689,055	6.1	1,764,919	0.5	84,848	32.9	21,484	29.8
1985 ^c	4,779,021	1.9	1,742,742	-1.3	87,249	2.8	21,993	2.4
1989 ^c	4,863,154	1.8	1,767,757	1.4	92,971	6.6	24,119	9.7

^aThe City of West Bend was originally incorporated as the Village of West Bend in 1868. In 1885, the Village was incorporated as a City. In 1961, the Village of Barton was consolidated with the City of West Bend, adding 1,569 residents to the City.

^bIn 1853, seven towns (Belgium, Cedarburg, Fredonia, Grafton, Mequon, Port Washington, and Saukville) and the Village of Port Washington, then in Washington County and which contained a resident population of 8,281 persons in 1850, were detached from the remainder of Washington County to form Ozaukee County.

^cThe 1985 and 1989 population data are estimates.

Source: Wisconsin Department of Administration, U. S. Bureau of the Census, and SEWRPC.

Selected Forecast: During the May 29, 1990, and June 5, 1990, City Plan Commission meetings, City officials indicated that, based upon historic population trends for the City of West Bend from 1960 to 1989, the City expressed a desire to use a design population level higher than that under the intermediate-centralized scenario for preparing the City land use plan and determining facility requirements. The City indicated at these meetings that a population level of about 35,000 persons by the year 2010 for the City of West Bend should be used in the planning effort. This figure is approximately 3,000 persons, or about 9 percent, higher than the approximately 32,000 persons postulated under the intermediate-centralized scenario. The forecast employment level is not expected to increase significantly if the higher design population level is selected.

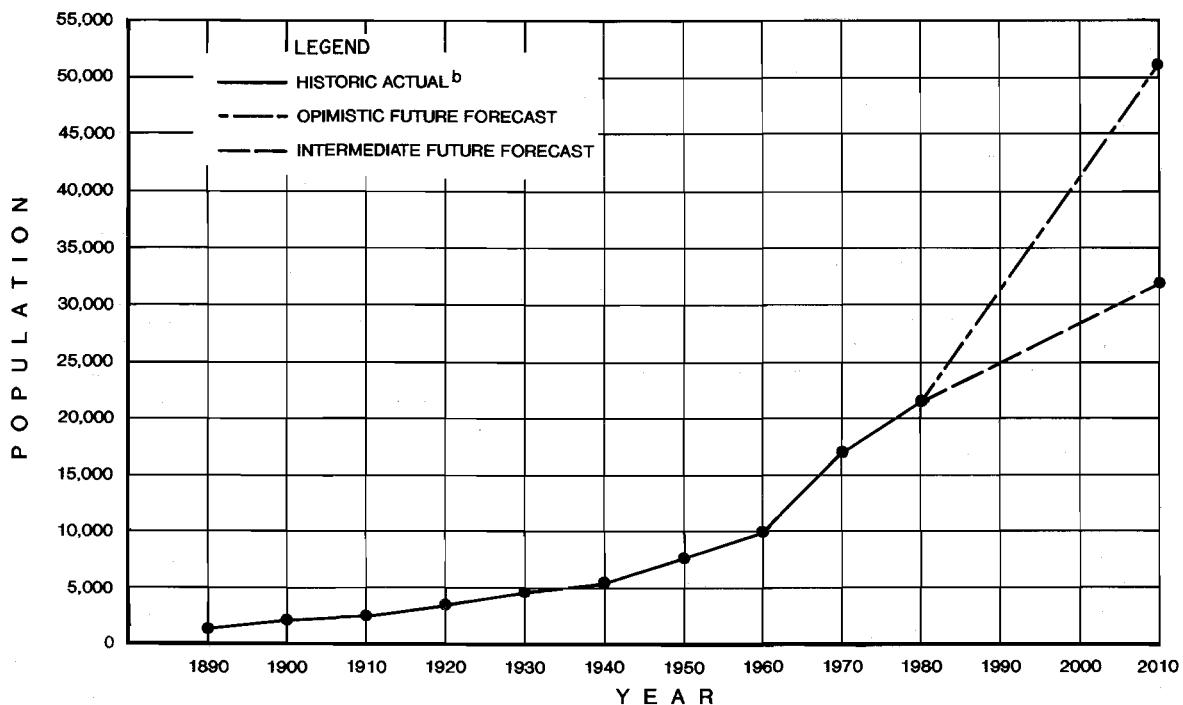
Accordingly, the employment level of approximately 18,550 postulated under the intermediate-centralized scenario would be used in the planning effort.

HISTORICAL AND ALTERNATIVE FUTURE AGE DISTRIBUTION

The historical and probable future resident population levels for the Southeastern Wisconsin Region, Washington County, the West Bend planning area, and the City of West Bend urban service area by age and sex for both the intermediate-centralized and optimistic-decentralized scenarios are set forth in Table 3. The tables indicate distinctly different population growth rates and changes for the various age groups

Figure 2

HISTORIC AND FORECAST FUTURE POPULATION LEVELS
FOR THE CITY OF WEST BEND URBAN SERVICE AREA: 1890-2010



^aThe City of West Bend was originally incorporated as the Village of West Bend in 1868. In 1885, the Village was incorporated as a City. In 1961, the Village of Barton was consolidated with the City of West Bend.

^bHistoric population within the City of West Bend corporate limits.

Source: Wisconsin Department of Administration, U. S. Bureau of the Census, and SEWRPC.

under the two alternative scenarios set forth. While a design population level slightly higher than the intermediate forecast centralized land use scenario was selected for use in the plan preparation, the age and sex data provided for the optimistic forecast decentralized land use scenario is useful in considering the need for certain public facilities in the area to the plan design year 2010.

The anticipated changes in the age composition of the resident population of the City of West Bend urban service area as set forth in Table 3 have important implications for land use. The intermediate forecast for the City area indicates that there may be a need for additional elemen-

tary educational facilities, as well as ancillary recreational facilities, for children between the ages of 5 and 14. Table 3 also indicates that the 20 to 64 age group is expected to increase from about 12,320 to about 19,090 persons, an increase of about 6,770 persons, or 55 percent. This increase may be expected to contribute to a significant increase in the number of people seeking work within the West Bend planning area. Finally, the changes indicate that, given the dramatic increase in population that is 65 years of age and older, a general aging of the population will occur which may be expected to affect the demand for elderly housing units, special transportation service, and health care within the planning area.

Table 3

HISTORIC AND ALTERNATIVE FORECAST RANGE FOR COMPOSITION OF THE RESIDENT POPULATION BY AGE GROUP AND SEX IN THE SOUTHEASTERN WISCONSIN REGION, WASHINGTON COUNTY, THE WEST BEND PLANNING AREA, AND THE CITY OF WEST BEND URBAN SERVICE AREA: 1980 AND 2010

Southeastern Wisconsin Region: 1980						
Age Group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Under 5	65,588	7.7	62,497	6.9	128,085	7.3
5 to 14	139,738	16.3	134,348	14.8	274,086	15.5
15 to 19	84,952	10.0	83,945	9.2	168,897	9.6
20 to 64	487,407	57.0	511,150	56.1	998,557	56.4
65 and Older	76,440	9.0	118,854	13.0	195,294	11.2
All Ages	854,125	100.0	910,794	100.0	1,764,919	100.0

Southeastern Wisconsin Region Alternative Forecast Range: 2010 ^a						
Age Group	Intermediate and Optimistic Future Scenarios					
	Male		Female		Total	
Age Group	Number	Percent	Number	Percent	Number	Percent
Under 5	56,481-76,709	6.2-6.8	54,347-73,831	5.6-6.2	110,828-150,540	5.9-6.5
5 to 14	113,654-151,724	12.6-13.5	109,487-145,845	11.3-12.2	223,141-297,569	11.9-12.8
15 to 19	63,740-82,371	7.0-7.3	61,308-79,282	6.3-6.7	125,048-161,653	6.7-7.0
20 to 64	566,739-686,009	62.7-61.0	581,495-696,770	60.1-58.5	1,148,234-1,382,779	61.3-59.7
65 and Older	103,777-128,041	11.5-11.4	161,056-195,503	16.7-16.4	264,833-323,544	14.2-14.0
All Ages	904,391-1,124,854	100.0-100.0	967,693-1,191,231	100.0-100.0	1,872,084-2,316,085	100.0-100.0

Washington County: 1980						
Age Group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Under 5	3,637	8.6	3,471	8.1	7,108	8.4
5 to 14	8,177	19.3	7,724	18.1	15,901	18.7
15 to 19	4,343	10.3	4,239	10.0	8,582	10.1
20 to 64	23,106	54.7	23,026	54.1	46,132	54.4
65 and Older	3,000	7.1	4,125	9.7	7,125	8.4
All Ages	42,263	100.0	42,585	100.0	84,848	100.0

Washington County Alternative Forecast Range: 2010 ^a						
Age Group	Intermediate and Optimistic Future Scenarios					
	Male		Female		Total	
Age Group	Number	Percent	Number	Percent	Number	Percent
Under 5	3,884-6,470	7.1-7.1	3,742-6,214	6.6-6.6	7,626-12,684	6.8-6.9
5 to 14	8,105-13,293	14.7-14.6	7,818-12,726	13.8-13.6	15,923-26,019	14.3-14.1
15 to 19	4,168-6,832	7.6-7.5	4,030-6,534	7.1-7.0	8,198-13,366	7.3-7.2
20 to 64	32,642-53,951	59.4-59.0	32,793-53,205	57.8-56.8	65,435-107,156	58.6-57.9
65 and Older	6,139-10,803	11.2-11.8	8,377-14,973	14.7-16.0	14,516-25,776	13.0-13.9
All Ages	54,938-91,349	100.0-100.0	56,760-93,652	100.0-100.0	111,698-185,001	100.0-100.0

Table 3 (continued)

West Bend Planning Area: 1980						
Age Group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Under 5	1,308	8.9	1,291	8.4	2,599	8.7
5 to 14	2,746	18.8	2,629	17.0	5,375	17.9
15 to 19	1,471	10.1	1,445	9.4	2,916	9.7
20 to 64	7,849	53.7	8,120	52.6	15,969	53.1
65 and Older	1,250	8.5	1,948	12.6	3,198	10.6
All Ages	14,624	100.0	15,433	100.0	30,057	100.0

West Bend Planning Area Alternative Forecast Range: 2010 ^a						
Age Group	Intermediate and Optimistic Future Scenarios					
	Male		Female		Total	
Age Group	Number	Percent	Number	Percent	Number	Percent
Under 5	1,413-2,194	7.3-7.3	1,363-2,109	6.8-6.8	2,776-4,303	7.1-7.0
5 to 14	2,857-4,404	14.9-14.7	2,756-4,216	13.7-13.6	5,613-8,620	14.3-14.1
15 to 19	1,452-2,240	7.6-7.5	1,402-2,144	6.9-6.9	2,854-4,384	7.2-7.2
20 to 64	11,481-17,783	59.7-59.2	11,781-17,819	58.5-57.3	23,262-38,063	59.1-62.3
65 and Older	2,018-3,405	10.5-11.3	2,840-4,800	14.1-15.4	4,858-5,744	12.3-9.4
All Ages	19,221-30,026	100.0-100.0	20,142-31,088	100.0-100.0	39,363-61,114	100.0-100.0

City of West Bend Urban Service Area: 1980						
Age Group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Under 5	976	9.4	980	8.8	2,078	9.0
5 to 14	1,889	18.2	1,799	16.2	4,005	17.4
15 to 19	1,045	10.1	1,016	9.1	2,218	9.6
20 to 64	5,574	53.7	5,913	53.3	12,318	53.5
65 and Older	896	8.6	1,396	12.6	2,415	10.5
All Ages	10,380	100.0	11,104	100.0	23,034	100.0

City of West Bend Urban Service Area Alternative Forecast Range: 2010 ^a						
Age Group	Intermediate and Optimistic Future Scenarios					
	Male		Female		Total	
Age Group	Number	Percent	Number	Percent	Number	Percent
Under 5	1,161-1,865	7.4-7.3	1,119-1,791	6.8-6.8	2,291-3,744	7.1-7.1
5 to 14	2,289-3,667	14.6-14.4	2,206-3,504	13.4-13.3	4,517-7,396	14.1-14.0
15 to 19	1,171-1,883	7.5-7.4	1,131-1,796	6.9-6.8	2,309-3,775	7.2-7.1
20 to 64	9,443-15,225	60.4-59.7	9,663-15,193	58.9-57.6	19,094-30,930	59.6-58.5
65 and Older	1,573-2,861	10.1-11.2	2,294-4,105	14.0-15.5	3,843-7,032	12.0-13.3
All Ages	15,637-25,501	100.0-100.0	16,413-26,389	100.0-100.0	32,054-52,877	100.0-100.0

^aThe first number shown in the range represents forecasts based upon the intermediate population scenario—centralized development pattern; and the second number shown in the range represents forecasts based upon the optimistic population scenario—decentralized development pattern.

Table 4

COMPARISON OF HISTORIC AND PROBABLE FUTURE POPULATION PER OCCUPIED HOUSING UNIT IN THE SOUTHEASTERN WISCONSIN REGION, WASHINGTON COUNTY, THE WEST BEND PLANNING AREA, AND THE CITY OF WEST BEND URBAN SERVICE AREA: 1960-2010

Year	Southeastern Wisconsin Region	Washington County	West Bend Planning Area	City of West Bend Urban Service Area
1960	3.30	3.64	.. ^a	3.41 ^b
1970	3.20	3.63	3.44	3.37 ^b
1980	2.75	3.14	3.01	2.90 ^b
1985 ^c	2.64	3.03	2.95	2.87 ^b
2010 Forecast				
Intermediate . . .	2.40	2.78	2.61	2.59
Optimistic . . .	2.67	2.93	2.89	2.87

^aData are not available.

^bData are based on the City of West Bend corporate limits.

^cThe 1985 data are estimates.

Source: Wisconsin Department of Administration, U. S. Bureau of the Census, and SEWRPC.

HISTORICAL AND PROBABLE FUTURE HOUSEHOLD SIZE

Table 4 compares historical and probable future household sizes in the Southeastern Wisconsin Region, Washington County, the West Bend planning area, and the City of West Bend urban service area under the intermediate and optimistic population forecasts for the year 2010. The intermediate growth forecast—centralized land use scenario—household size was selected for use in the preparation of the land use plan for the West Bend planning area.

Table 4 indicates that in 1985, the average household size in the City of West Bend was 2.87, compared to 2.95 in the City of West Bend planning area, 3.03 in Washington County, and 2.64 in the Region. The table also indicates that the average household size, under the intermediate forecast, may be expected to decline for all of the areas considered. This is in keeping with the trend exhibited from 1960 to 1985. These changes in average household size have important implications for housing and residential land use planning since the average household size is used to convert a population forecast to the number of dwelling units needed over the planning period. Based upon a City of West Bend decrease in average household size from 2.87 persons per household in 1985 to 2.59 by

2010 under the intermediate-centralized scenario, approximately 5,535 additional housing units, or an average of approximately 213 units per year, may be expected to be needed over the period 1985 to 2010 in order to meet the housing needs of the selected resident population level of the City of West Bend urban service area of about 35,000 persons.

HOUSING CHARACTERISTICS

As shown in Table 5, the available data show a steady increase in housing units as well as population in the Southeastern Wisconsin Region, Washington County, the City of West Bend planning area, and the City over the period 1960 to 1985. Table 5 indicates that, while the total number of housing units increased by about 2.5 percent in the Region during the period between 1980 and 1985, Washington County, the West Bend planning area, and the City experienced an increase in housing units during this same period of about 6.6, 5.4, and 4.1 percent, respectively. Table 5 indicates that between 1980 and 1985 the total number of persons per occupied housing unit has decreased by about 4.2 percent in the Region, about 3.5 percent in Washington County, about 1.9 percent in the West Bend planning area, and about 1.0 percent in the City of West Bend.

Table 5

**HISTORIC POPULATION AND HOUSING CHARACTERISTICS OF THE SOUTHEASTERN WISCONSIN REGION,
WASHINGTON COUNTY, THE WEST BEND PLANNING AREA, AND THE CITY OF WEST BEND: 1960-1985^a**

Southeastern Wisconsin Region								
Characteristics	Year				1970-1980		1980-1985	
	1960	1970	1980	1985	Change	Percent	Change	Percent
Total Population	1,573,620	1,756,083	1,764,919	1,742,742	8,836	0.5	-22,177	-1.2
Total Housing Units	500,761	566,756	664,973	681,555	8,217	17.3	16,582	2.5
Persons per Occupied Housing Unit	3.30	3.20	2.75	2.64	-0.45	-14.1	-0.11	-4.2

Washington County								
Characteristics	Year				1970-1980		1980-1985	
	1960	1970	1980	1985	Change	Percent	Change	Percent
Total Population	46,119	63,829	84,848	87,249	21,019	32.9	2,401	2.8
Total Housing Units	14,519	18,692	28,363	30,243	9,671	51.7	1,880	6.6
Persons per Occupied Housing Unit	3.64	3.63	3.14	3.03	-0.49	-13.5	-0.11	-3.5

West Bend Planning Area								
Characteristics	Year				1970-1980		1980-1985	
	1960	1970	1980	1985	Change	Percent	Change	Percent
Total Population	-- ^b	22,249	30,057	30,939	7,708	34.5	885	2.9
Total Housing Units	-- ^b	-- ^b	10,437	11,001	--	--	564	5.4
Persons per Occupied Housing Unit	-- ^b	3.44	3.01	2.95	-0.42	-12.2	-0.06	-1.9

City of West Bend								
Characteristics	Year				1970-1980		1980-1985	
	1960	1970	1980	1985	Change	Percent	Change	Percent
Total Population	9,969	16,555	21,484	21,993	4,929	29.8	509	2.4
Total Housing Units	3,061	4,913	7,483	7,790	2,570	52.3	307	4.1
Persons per Occupied Housing Unit	3.41	3.37	2.90	2.87	-0.5	-13.5	-- ^c	-1.0

^aThe 1985 data are estimates.

^bData are not available.

^cLess than 0.1 percent.

Source: Wisconsin Department of Administration, U. S. Bureau of the Census, and SEWRPC.

Table 6

RESIDENTIAL BUILDING ACTIVITY IN THE CITY OF WEST BEND: 1962-1989

Year	Single-Family Dwelling Units	Two-Family Dwelling Units	Multi-Family Dwelling Units	Total Dwelling Units
1962	61	10	0	71
1963	74	2	0	76
1964	95	4	43	142
1965	116	2	28	146
1966	109	24	68	201
1967	126	8	27	161
1968	127	48	12	187
1969	101	10	86	197
1970	93	40	142	275
1971	159	36	177	372
1972	177	14	329	520
1973	124	26	44	194
1974	146	22	18	186
1975	142	12	112	266
1976	118	50	142	310
1977	108	38	153	299
1978	95	26	4	125
1979	40	12	66	118
1980	22	20	122	164
1981	17	16	74	107
1982	11	8	51	70
1983	45	8	18	71
1984	44	4	0	48
1985	53	12	176	241
1986	53	14	166	233
1987	57	18	289	364
1988	36	26	246	308
1989	65	10	112	187
Total	2,414	520	2,705	5,639

Source: City of West Bend and SEWRPC.

City Housing Construction Activity 1962 to 1989

Table 6 provides a summary of residential building activity in the City of West Bend from 1962 through 1989. During this 28-year period, a total of 5,639 dwelling units were constructed, of which 2,414 units, or 43 percent, were single-family dwelling units; 520 units, or 9 percent, were two-family dwelling units; and 2,705, or 48 percent, were multi-family dwelling units. Since 1980, a total of 1,793 dwelling units were constructed, of which 403 units, or 22 percent, were single-family dwelling units; 136 units, or 8 percent, were two-family dwelling units; and 1,254 units, or 70 percent, were multi-family dwelling units. The table indicates that since

1980 multi-family dwelling units have been constructed in the City of West Bend at a higher rate than either single-family or two-family dwelling units. The table shows 1972 as the peak year of building activity in the City of West Bend during the 28-year period, with 1987 the second highest year in residential construction. During the 1962 to 1989 period, an average of approximately 201 dwelling units were constructed each year.

Housing Occupancy and Vacancy Rates

Table 7 provides data on the total number of both owner-occupied year-round housing units and renter-occupied year-round housing units. Between 1960 and 1980—the latter year being

Table 7

**HOUSING VACANCY RATE FOR OWNER- AND RENTER-OCCUPIED YEAR-ROUND HOUSING UNITS
IN SOUTHEASTERN WISCONSIN, WASHINGTON COUNTY, AND THE CITY OF WEST BEND: 1960-1980**

Southeastern Wisconsin								
Housing Unit Type	1960		1970		1980		1960-1980	
	Total Units	Percent of Total	Total Units	Percent of Total	Total Units	Percent of Total	Change	Percent
Owner-Occupied Year-Round Housing Units	284,707	56.8	331,339	58.5	389,381	59.4	104,674	36.8
Renter-Occupied Year-Round Housing Units	181,206	36.2	205,147	36.2	238,574	36.4	57,368	31.7
Vacant Year-Round Housing Units for Sale	9,386	1.9	2,379	0.4	4,478	0.7	-4,908	-52.3
Vacant Year-Round Rental Units	3,526	0.7	9,101	1.6	11,205	1.7	7,679	217.8
Other Vacant Year-Round Housing Units	21,936	4.4	18,790	3.3	12,108	1.8	-3,146	-14.3
Total	500,761	100.0	566,756	100.0	655,746	100.0	154,985	30.9

Washington County								
Housing Unit Type	1960		1970		1980		1960-1980	
	Total Units	Percent of Total	Total Units	Percent of Total	Total Units	Percent of Total	Change	Percent
Owner-Occupied Year-Round Housing Units	9,139	62.9	13,123	70.2	20,314	73.3	11,175	122.3
Renter-Occupied Year-Round Housing Units	3,393	23.4	4,262	22.8	6,402	23.1	3,009	88.7
Vacant Year-Round Housing Units for Sale	287	2.0	100	0.5	288	1.0	-187	-65.2
Vacant Year-Round Rental Units	151	1.0	124	0.7	240	0.9	89	58.9
Other Vacant Year-Round Housing Units	1,549	10.7	1,083	5.8	481	1.7	1,068	-68.9
Total	14,519	100.0	18,692	100.0	27,725	100.0	13,206	91.0

City of West Bend								
Housing Unit Type	1960		1970		1980		1960-1980	
	Total Units	Percent of Total	Total Units	Percent of Total	Total Units	Percent of Total	Change	Percent
Owner-Occupied Year-Round Housing Units	1,950	63.7	3,278	66.7	4,753	63.6	2,803	143.7
Renter-Occupied Year-Round Housing Units	976	31.9	1,529	31.1	2,540	34.0	1,564	160.2
Vacant Year-Round Housing Units for Sale	20	0.7	28	0.6	82	1.1	62	310.0
Vacant Year-Round Rental Units	75	2.4	37	0.8	67	0.9	-8	-10.7
Other Vacant Year-Round Housing Units	40	1.3	41	0.8	35	0.4	-5	-12.5
Total	3,061	100.0	4,913	100.0	7,477	100.0	4,416	144.3

Source: U. S. Bureau of the Census and SEWRPC.

the latest year for which definitive housing data are available—the Southeastern Wisconsin Region experienced an increase in owner-occupied year-round housing units of about 37 percent while Washington County, and the City experienced increases of about 122 and 144 percent, respectively—increases over three times as high as that experienced by the Region as a whole. With respect to renter-occupied year-round housing units during this same period, the Region experienced an increase of about 32 percent, while the County and the City experienced significantly higher increases of about 89 and 160 percent, respectively.

Housing vacancy rates for both owner-occupied and rental housing units in 1980—again, the latest year for which definitive data are available—for Southeastern Wisconsin, Washington County, and the City of West Bend are shown in Table 7. The overall vacancy rate for owner-occupied housing in the City—that is, for formerly owner-occupied housing units that were for sale—was about 1.7 percent, or 82 of the total of 4,753 units concerned. In the Region this percentage was about 1.1, and for Washington County, 1.4.

The overall vacancy rate of rental units in 1980 for the City of West Bend was 67 dwelling units out of a total of about 2,540 units, or about 2.6 percent. The vacancy rate for rental units in the City was somewhat lower than the rate for Southeastern Wisconsin and Washington County, which were about 4.7 and 3.7 percent, respectively.

Standards contained in SEWRPC Planning Report No. 20, A Regional Housing Plan for Southeastern Wisconsin, suggest that local housing vacancy rates be maintained at a minimum of 4 percent and a maximum of 6 percent for rental units; and at a minimum of 1 percent and a maximum of 2 percent for owner-occupied units over a full range of housing types, sizes, and costs. These vacancy proportions are desirable to facilitate population mobility and to enable households to exercise choices in the selection of suitable housing. The City vacancy rate of 1.7 percent for owner-occupied housing falls within the recommended standard of between 1 and 2 percent. The City vacancy rate of 2.6 percent for rental housing, however, falls slightly below the recommended standard of between 4 and 6 percent. It may accordingly be concluded that the City of West Bend was in

1980 in need of additional renter-occupied year-round housing units. This need may have been met in whole or in part by the additional 1,254 multiple-family dwelling units constructed in the City between the years 1980 and 1989.

EMPLOYMENT CHARACTERISTICS AND FORECASTS

Place of Work

Table 8 shows the place of work for workers 16 years of age and older living in Washington County and in the City of West Bend in 1980, the latest year for which definitive data are available. Table 8 indicates that, for the City of West Bend, 6,107 persons, or about 64 percent of the labor force, worked in the City of West Bend; while 2,983 workers, or about 31 percent, worked outside of the City. A total of 396 workers, or about 4 percent living in the City of West Bend, did not report their place of work. For Washington County, 21,409 workers, or about 55 percent of the labor force living in the County, worked in Washington County; while 14,928 workers, or about 38 percent, worked outside Washington County. A total of 2,519 workers, or about 7 percent, living in Washington County did not report their place of work. The data for both Washington County and the City of West Bend, as shown in Table 8, indicate that in both the County and the City about one-third of the residents were employed outside the community.

Employment Types and Forecasts

Table 9 sets forth forecast employment levels for the City of West Bend urban service area to the year 2010 under the intermediate and optimistic future scenarios for the six major employment categories: retail trade; service; industrial; institutional, governmental, and educational; transportation, communication, and utilities; and agricultural. Each of these employment categories may be related to specific land use requirements, and are, therefore, useful in the allocation of land to various land use categories such as commercial, industrial, and governmental related uses. Figures 3 and 4, respectively, show the future employment levels for the City of West Bend urban service area to the year 2010 under the intermediate and optimistic future scenarios for each of the six major employment categories, and the total forecast employment levels for the City of West Bend urban service area based on the two future scenarios.

Table 8

**PLACE OF WORK OF WORKERS 16 YEARS AND OLDER LIVING
IN WASHINGTON COUNTY AND THE CITY OF WEST BEND: 1980**

Place of Work	Washington County		City of West Bend	
	Number of Workers	Percent of Total	Number of Workers	Percent of Total
Worked in Community of Residence	21,409	55.1	6,107	64.4
Worked Outside Community of Residence				
City of Cudahy	11	.a	--	--
City of Milwaukee	5,803	14.9	592	6.2
City of Wauwatosa	1,299	3.3	199	2.1
City of West Allis	197	0.5	12	0.1
Village of West Milwaukee	116	0.3	52	0.5
Remainder of Milwaukee County	939	2.4	80	0.9
Ozaukee County	2,213	5.7	520	5.5
Remainder of Washington County	--	--	1,035	10.9
City of Brookfield	544	1.4	31	0.3
City of Waukesha	115	0.3	12	0.1
Remainder of Waukesha County	2,858	7.4	243	2.6
Worked Elsewhere	833	2.1	207	2.2
Subtotal	14,928	38.4	2,983	31.4
Not Reported	2,519	6.5	396	4.2
Total	38,856	100.0	9,486	100.0

^aLess than 0.1 percent.

Source: U. S. Bureau of Census and SEWRPC.

Table 9

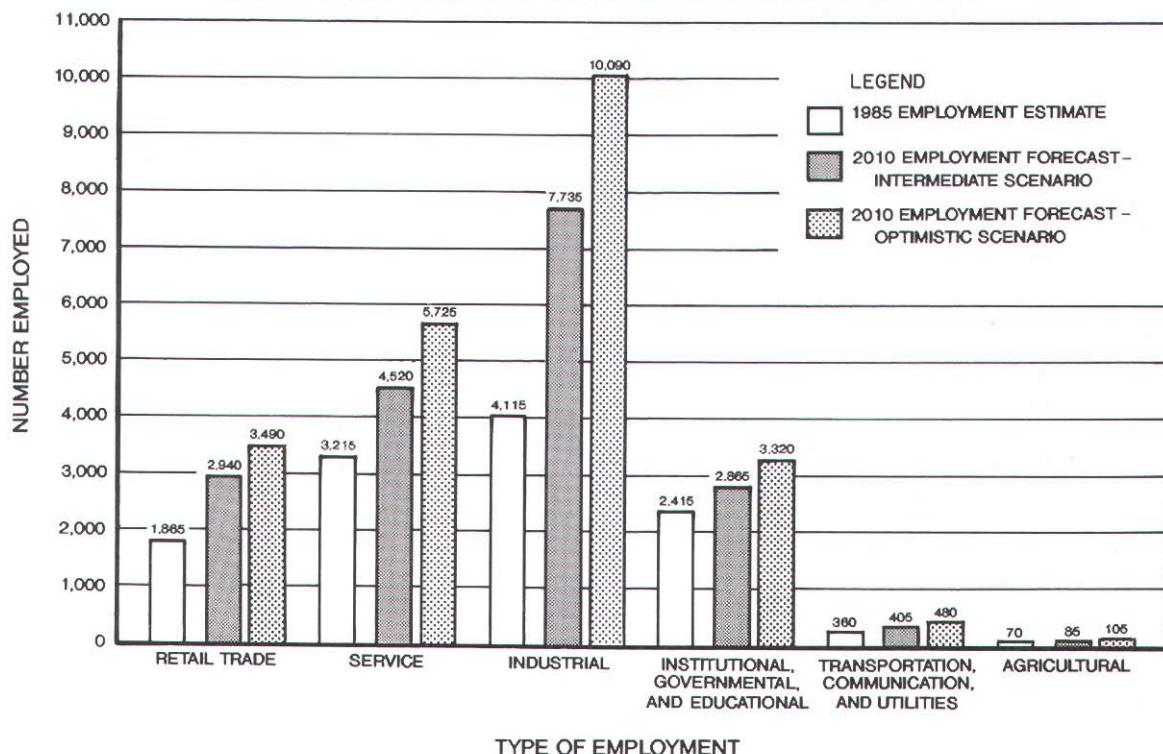
**ESTIMATED AND FORECAST EMPLOYMENT BY TYPE IN
THE CITY OF WEST BEND URBAN SERVICE AREA: 1985-2010**

Year	Employment Type						
	Retail Trade	Service	Industrial	Institutional, Governmental, and Educational	Transportation, Communication, and Utilities	Agricultural	Total
1985 Estimate	1,865	3,215	4,115	2,415	360	70	12,040
2010 Forecast Intermediate	2,940	4,520	7,735	2,865	405	85	18,550
Optimistic	3,490	5,725	10,090	3,320	480	105	23,210

Source: Wisconsin Department of Industry, Labor and Human Relations; and SEWRPC.

Figure 3

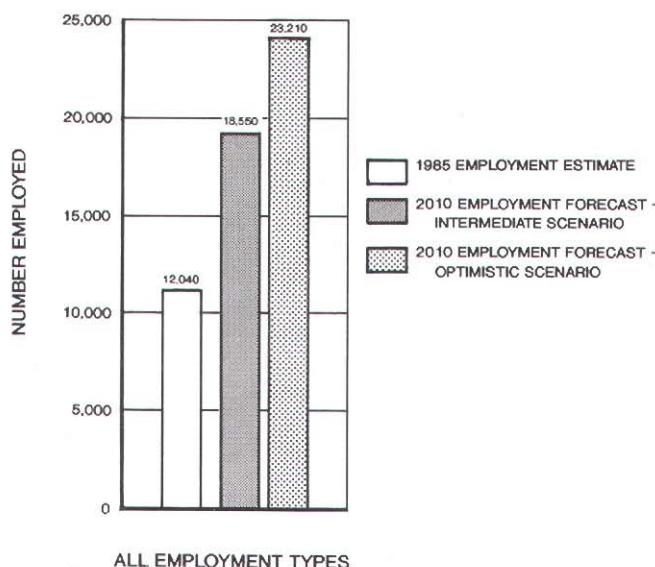
ESTIMATED AND FORECAST EMPLOYMENT BY TYPE IN THE CITY OF WEST BEND URBAN SERVICE AREA: 1985 AND 2010



Source: Wisconsin Department of Industry, Labor and Human Relations and SEWRPC.

Figure 4

ESTIMATED AND FORECAST EMPLOYMENT LEVELS FOR THE CITY OF WEST BEND URBAN SERVICE AREA: 1985 AND 2010



Source: Wisconsin Department of Industry, Labor and Human Relations and SEWRPC.

Employment in the City of West Bend urban service area may be expected to increase from 12,040 jobs in 1985 to about 18,550 jobs, or about 54 percent, by the year 2010 under the intermediate growth scenario, and to about 23,210 jobs, or about 93 percent, by the year 2010 under the optimistic scenario. The distribution of employment under the intermediate forecast, which is the selected forecast for planning purposes, is as follows: about 2,940 jobs, or 16 percent, in retail trade employment; about 4,520 jobs, or about 24 percent, in service employment; about 7,735 jobs, or about 42 percent, in industrial employment; about 2,865 jobs, or about 15 percent, in institutional, governmental, and educational employment; about 405 jobs, or about 2 percent, in transportation, communication, and utilities employment; and about 85 jobs, or about 1 percent, in agricultural employment.

Chapter III

NATURAL RESOURCE BASE INVENTORY AND ANALYSIS

INTRODUCTION

The conservation and wise use of the natural resource base is vital to the physical, social, and economic development of any area and to the continued ability of the area to provide a pleasant and habitable environment for life. The anticipated population and employment growth envisioned for West Bend area and the attendant land use development may be expected in the absence of sound planning to subject the natural resource base of the area to substantial deterioration and even destruction. Consequently, a sound land use plan for the City of West Bend planning area should identify areas with concentrations of natural resources deserving protection from intensive urban development for ecological reasons and also areas having natural resource characteristics which may impose severe limitations on urban development as well as those which have characteristics suitable for urban development.

For the purpose of this planning program, the principal elements of the natural resource base requiring consideration in the land use planning process were identified as 1) physiography and associated soil and topographic characteristics; 2) water resources, including surface water resources such as lakes, rivers, streams, and associated floodlands and wetlands; plus related watersheds and subwatersheds; and groundwater resources; 3) woodlands; and 4) wildlife habitat areas. Elements closely related to the natural resource base and considered in the planning process include scenic viewpoints, natural areas having scientific value, and park and open space sites.

Areas of the landscape containing concentrations of high value elements of the natural resource base have been identified and termed "environmental corridors" by the Regional Planning Commission. The environmental corridors presented herein encompass those areas in southeastern Wisconsin in which concentrations of recreational, aesthetic, ecological, and cultural resources occur, and which, therefore, should be preserved and protected in essentially natural, open uses.

Without a proper understanding of the significance of these elements of the natural resource base for sound land use, human alteration of the natural environment proceeds at the risk of excessive costs in terms of both monetary expenditures and environmental degradation. The natural resource base is highly vulnerable to misuse through improper land use development. Such misuse may lead to severe environmental problems, which are difficult and costly to correct, and to the deterioration and destruction of the natural resource base itself. Intelligent selection of the most desirable land use plan from among the alternatives available must, therefore, be based in part upon a careful assessment of the natural resource base. The following discussion summarizes the inventory findings in this respect.

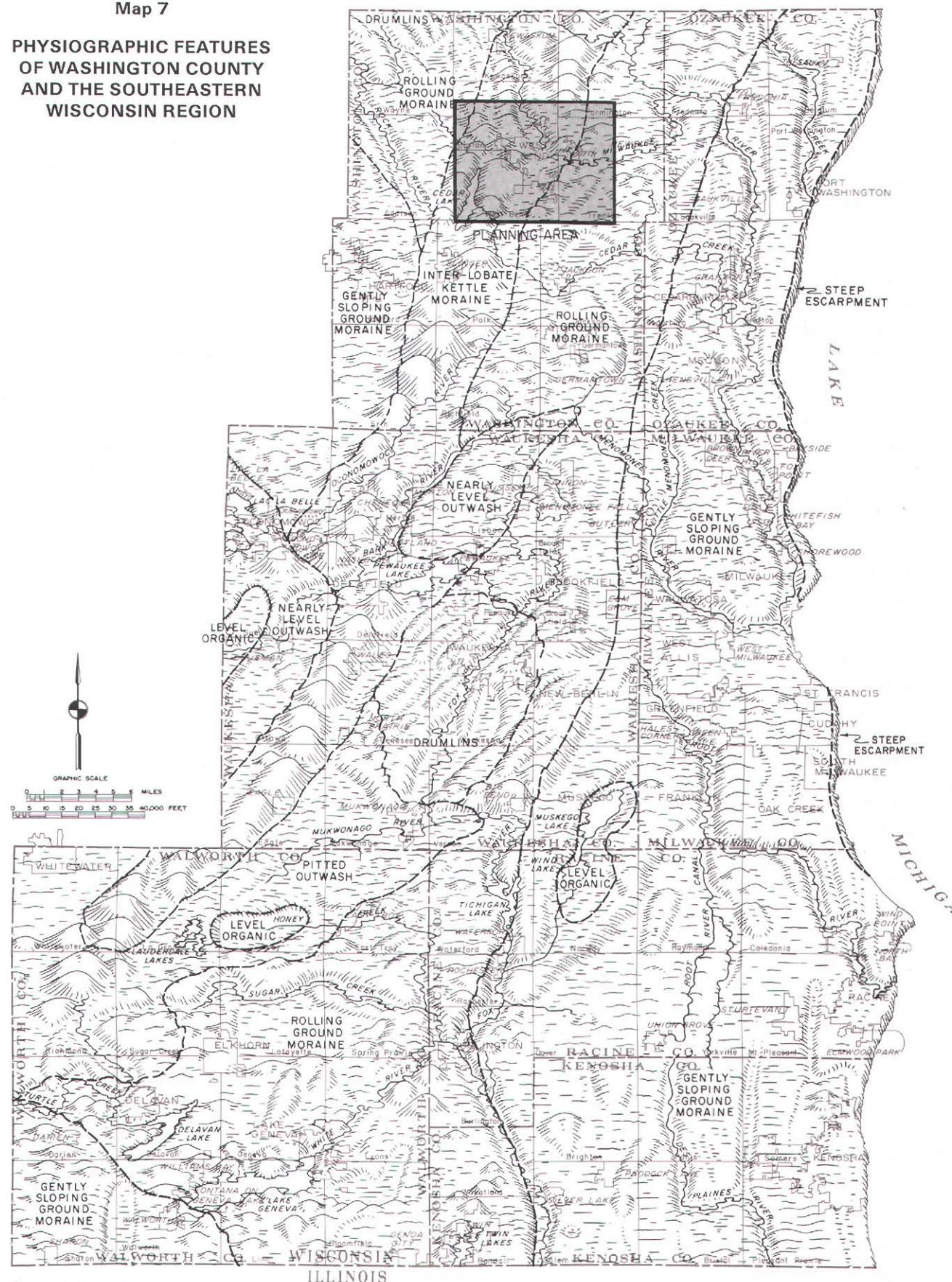
PHYSIOGRAPHY AND ASSOCIATED SOILS AND TOPOGRAPHIC CHARACTERISTICS

Physiography

Glaciation has largely determined the physiography and topography of southeastern Wisconsin, including the West Bend area. The physiographic features, or surficial land forms, of southeastern Wisconsin are shown on Map 7. The dominant physiographic feature is the Kettle Moraine, an interlobate glacial deposit, or moraine, formed between the Green Bay and Lake Michigan tongues, or lobes, of the continental glacier which moved in a generally southerly direction from its origin in what is now Canada. The Kettle Moraine, which is oriented in a general northeast-southwest direction across western Washington, Waukesha, and Walworth Counties, is a complex system of kames, or crudely stratified conical hills; kettle holes marking the site of glacial ice blocks that became separated from the ice mass and melted to form depressions; and eskers, consisting of long, narrow ridges of drift deposited in abandoned drainageways. Most of the remainder of Washington County is covered by other glacial land forms and features, including gently sloping and rolling ground moraines, heterogeneous material deposited beneath the ice; outwash plains, formed by the action of flowing glacial meltwater; and glacial lake basin deposits.

Map 7

**PHYSIOGRAPHIC FEATURES
OF WASHINGTON COUNTY
AND THE SOUTHEASTERN
WISCONSIN REGION**



Source: SEWRPC.

Soils

Soil properties exert a strong influence on the manner in which the land is utilized. Soils are an irreplaceable resource, and mounting pressures upon land are constantly making this resource more and more valuable. A need exists, therefore, in any land use planning effort to examine not only how land and soils are presently used, but also how they can best be used and managed for future use. This requires a detailed soil survey, which maps the geographic locations of various types of soils; identifies their physical, chemical and biological properties; and interprets these properties for land use and public facilities planning. The resulting comprehensive knowledge of the character and suitability of the soils is extremely valuable in every phase of the planning process. A soil survey of the Southeastern Wisconsin Region was completed in 1965 by the U. S. Department of Agriculture, Soil Conservation Service (SCS), under contract to the Regional Planning Commission.

The information on soils presented therein was of particular importance in the preparation of the land use plan for the City of West Bend planning area, because it was essential to the proper analysis of existing land use patterns; to alternative plan design and evaluation; and to plan selection. The soil assessments were used in conjunction with other data in the design of desirable spatial patterns for various residential, commercial, industrial, agricultural, and recreational land uses and in the evaluation of alternative locations for various kinds of public works. Maps showing the limitations of the soils of the study area for certain uses were prepared for this report based upon the findings of the soil survey.

Soil Suitability for Conventional and Mound Sewage Disposal Systems: Interpretations of relative limitations of the various soils for specific types of urban land uses are important to land use planning in southeastern Wisconsin. Among the more important types of land uses to be considered in this respect are residential development with public sanitary sewer service and residential development with onsite sewage disposal systems. The most significant soil properties relating to these land uses are depth to bedrock, depth to the water table, permeability, presence of coarse textured sands and gravels, flooding hazard, and slope. All these

characteristics are important considerations in the development of an area for urban use, particularly for residential use utilizing septic tanks for sewage disposal.

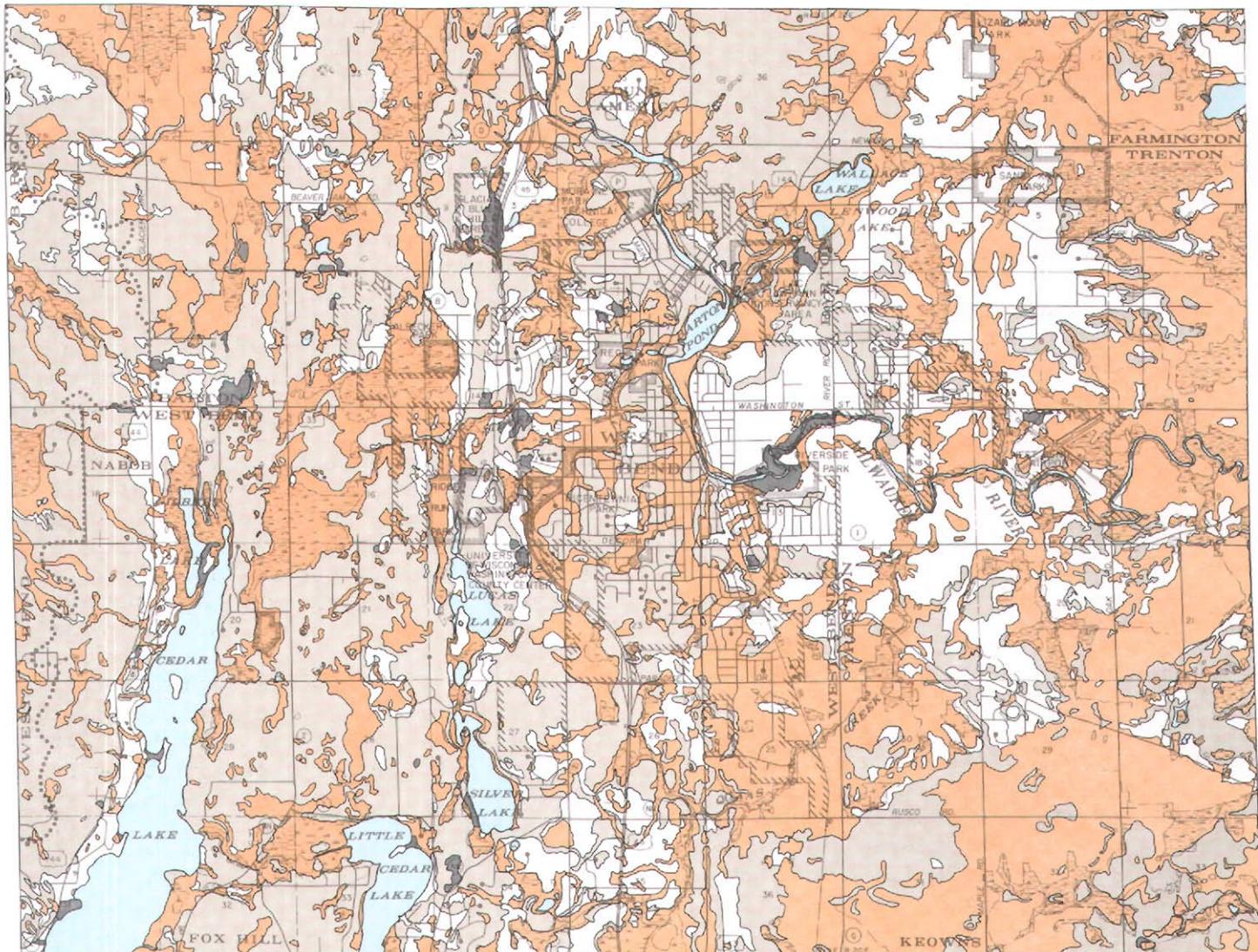
State regulations governing onsite sewage disposal systems are set forth in Chapter ILHR 83 of the Wisconsin Administrative Code. Soil and site specifications in Chapter ILHR 83 provide a basis for interpreting map units of the detailed soil surveys of southeastern Wisconsin to determine the suitability of a site for accommodating a sewage disposal system.

Maps 8 and 9 display the suitability of soils in the planning area for onsite sewage disposal systems based upon state requirements. Specifically, Map 8 shows the suitability of soils in the planning area for conventional onsite systems, and Map 9 shows the suitability of soils in the planning area for mound systems. Areas shown as "suitable" on Map 8 and 9 depict areas covered by soils that have a high probability of meeting state requirements for onsite systems. Areas shown as "unsuitable" depict areas covered by soils that have a high probability of not meeting these requirements. Areas shown as "undetermined" include soils that span the range from unsuitable to suitable for characteristics that affect the operation of onsite systems. For instance, such soils may exhibit a wide range of slopes or a wide range of percolation rates. Onsite investigation is required to determine the suitability of "undetermined" areas. Areas shown as "unclassified" are disturbed areas, such as quarries and gravel pits, for which no interpretive data are available. It should be recognized that Maps 8 and 9 are only intended to illustrate the overall pattern of soil suitability for onsite systems. Detailed site investigations based on the requirements of Chapter ILHR 83 are necessary to determine if the soils on a specific tract of land are suitable for development with onsite sewage disposal systems. In general, areas covered by soils that are classified as unsuitable for both conventional and mound systems should not be considered for urban development unless public sanitary sewers are provided.

Map 8 indicates that about 16,436 acres, or about 40 percent of the total planning area, are covered by soils that are unsuitable for the use of conventional onsite sewage disposal systems. These soils are located throughout the planning area, but primarily in association with rivers,

Map 8

SOIL SUITABILITY FOR CONVENTIONAL ONSITE SEWAGE
DISPOSAL SYSTEMS IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

UNSUITABLE: AREAS COVERED BY SOILS WHICH HAVE A HIGH PROBABILITY OF NOT MEETING THE CRITERIA OF CHAPTER ILHR 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING CONVENTIONAL ONSITE SEWAGE DISPOSAL SYSTEMS

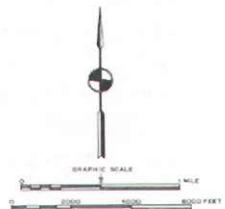
UNDETERMINED: AREAS COVERED BY SOILS HAVING A RANGE OF CHARACTERISTICS AND/OR SLOPES WHICH SPAN THE CRITERIA OF CHAPTER ILHR 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING CONVENTIONAL ONSITE SEWAGE DISPOSAL SYSTEMS; ONSITE INVESTIGATIONS ARE REQUIRED TO DISTINGUISH SUITABLE FROM UNSUITABLE AREAS

SUITABLE: AREAS COVERED BY SOILS HAVING A HIGH PROBABILITY OF MEETING THE CRITERIA OF CHAPTER ILHR 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING CONVENTIONAL ONSITE SEWAGE DISPOSAL SYSTEMS

UNCLASSIFIED: AREAS CONSISTING FOR THE MOST PART OF DISTURBED LAND FOR WHICH NO INTERPRETIVE DATA ARE AVAILABLE

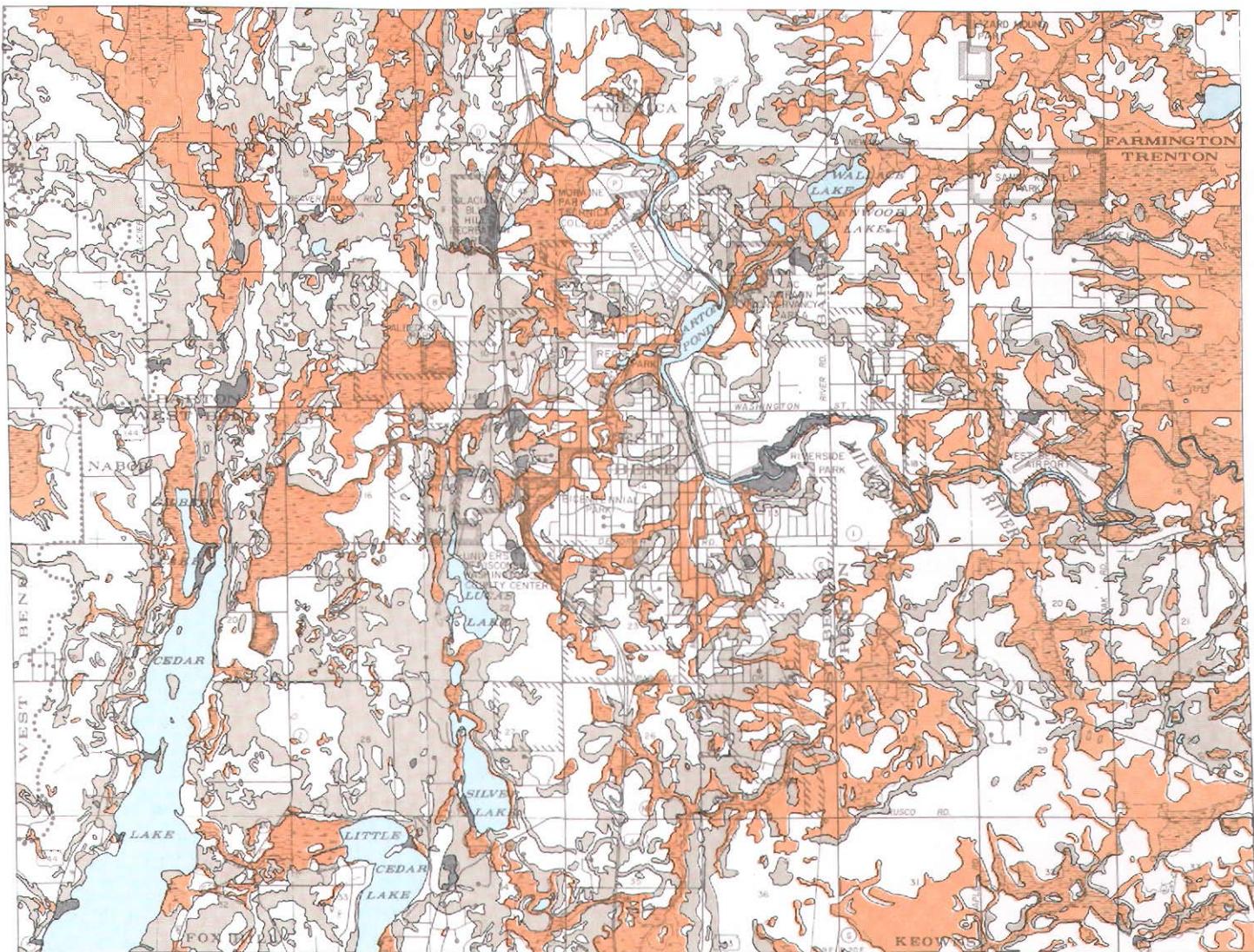
SURFACE WATER AREA

NOTE: ONSITE INVESTIGATIONS ARE ESSENTIAL TO THE DETERMINATION OF WHETHER ANY SPECIFIC TRACT OF LAND IS SUITABLE FOR DEVELOPMENT SERVED BY A CONVENTIONAL ONSITE SEWAGE DISPOSAL SYSTEM.



Source: Wisconsin Department of Industry, Labor and Human Relations; U. S. Soil Conservation Service; and SEWRPC.

Map 9
**SOIL SUITABILITY FOR MOUND SEWAGE DISPOSAL
SYSTEMS IN THE CITY OF WEST BEND PLANNING AREA**



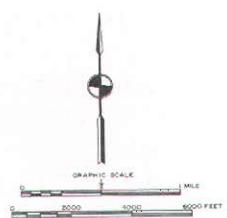
LEGEND

- UNSUITABLE: AREAS COVERED BY SOILS WHICH HAVE A HIGH PROBABILITY OF NOT MEETING THE CRITERIA OF CHAPTER ILHR 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING MOUND SEWAGE DISPOSAL SYSTEMS
- UNDETERMINED: AREAS COVERED BY SOILS HAVING A RANGE OF CHARACTERISTICS AND/OR SLOPES WHICH SPAN THE CRITERIA OF CHAPTER ILHR 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING MOUND SEWAGE DISPOSAL SYSTEMS. ONSITE INVESTIGATIONS ARE REQUIRED TO DISTINGUISH SUITABLE FROM UNSUITABLE AREAS
- SUITABLE: AREAS COVERED BY SOILS HAVING A HIGH PROBABILITY OF MEETING THE CRITERIA OF CHAPTER ILHR 83 OF THE WISCONSIN ADMINISTRATIVE CODE GOVERNING MOUND SEWAGE DISPOSAL SYSTEMS

UNCLASSIFIED: AREAS CONSISTING FOR THE MOST PART OF DISTURBED LAND FOR WHICH NO INTERPRETIVE DATA ARE AVAILABLE

SURFACE WATER AREA

NOTE: ONSITE INVESTIGATIONS ARE ESSENTIAL TO THE DETERMINATION OF WHETHER ANY SPECIFIC TRACT OF LAND IS SUITABLE FOR DEVELOPMENT SERVED BY A MOUND SEWAGE DISPOSAL SYSTEM.



Source: Wisconsin Department of Industry, Labor and Human Relations; U. S. Soil Conservation Service; and SEWRPC.

streams, floodlands, wetlands, and other low-lying areas. Areas covered by soils suitable for conventional onsite systems, also shown on Map 8, encompass about 8,021 acres, or about 20 percent of the total planning area. Suitable areas include much of the developed portion of the City and upland areas in the remainder of the planning area. About 14,119 acres, or about 35 percent of the total planning area, are covered by soils whose suitability or unsuitability for conventional onsite systems is undetermined. About 2,015 acres, or about 5 percent of the total planning area, are covered either by surface water or by soils that have not been classified.

The technology and practices of onsite sewage disposal continue to change rapidly. In the past 15 years, mound sewage disposal systems have been designed and tested, and, in some cases, approved for use under more limiting soil conditions than those for which conventional systems would be acceptable. For example, mound systems may be feasible in areas with shallow bedrock or high water tables which would preclude the use of conventional systems. These alternative systems include shallow in-ground, at-grade, and mound soil absorption systems. Mound systems are similar to conventional septic tank systems in that they consist of a septic tank and a soil absorption field; however, mound systems are constructed above the surface of the ground and covered with soil, while conventional systems are located beneath the surface of the ground. In addition, a conventional septic tank system distributes sewage through the absorption field by gravity while a mound system uses a pump to purge the absorption field two or three times per day. Shallow in-ground systems or at-grade systems distribute sewage by either gravity or pressure, with dosing pumps systems preferred.

The general pattern of soil suitability for mound sewage disposal systems is shown on Map 9. Approximately 10,966 acres, or about 27 percent of the total planning area, are covered by soils unsuitable for mound sewage disposal systems, as compared to approximately 40 percent unsuitable for conventional systems. Soils shown on Map 9 as suitable for mound disposal systems encompass approximately 18,913 acres, or about 47 percent of the total planning area, while only 20 percent of the total planning area is classified as suitable for conventional systems. About 8,697 acres, or about 21 percent of the total planning

area, are covered by soils whose suitability or unsuitability for mound systems cannot be determined without onsite investigation.

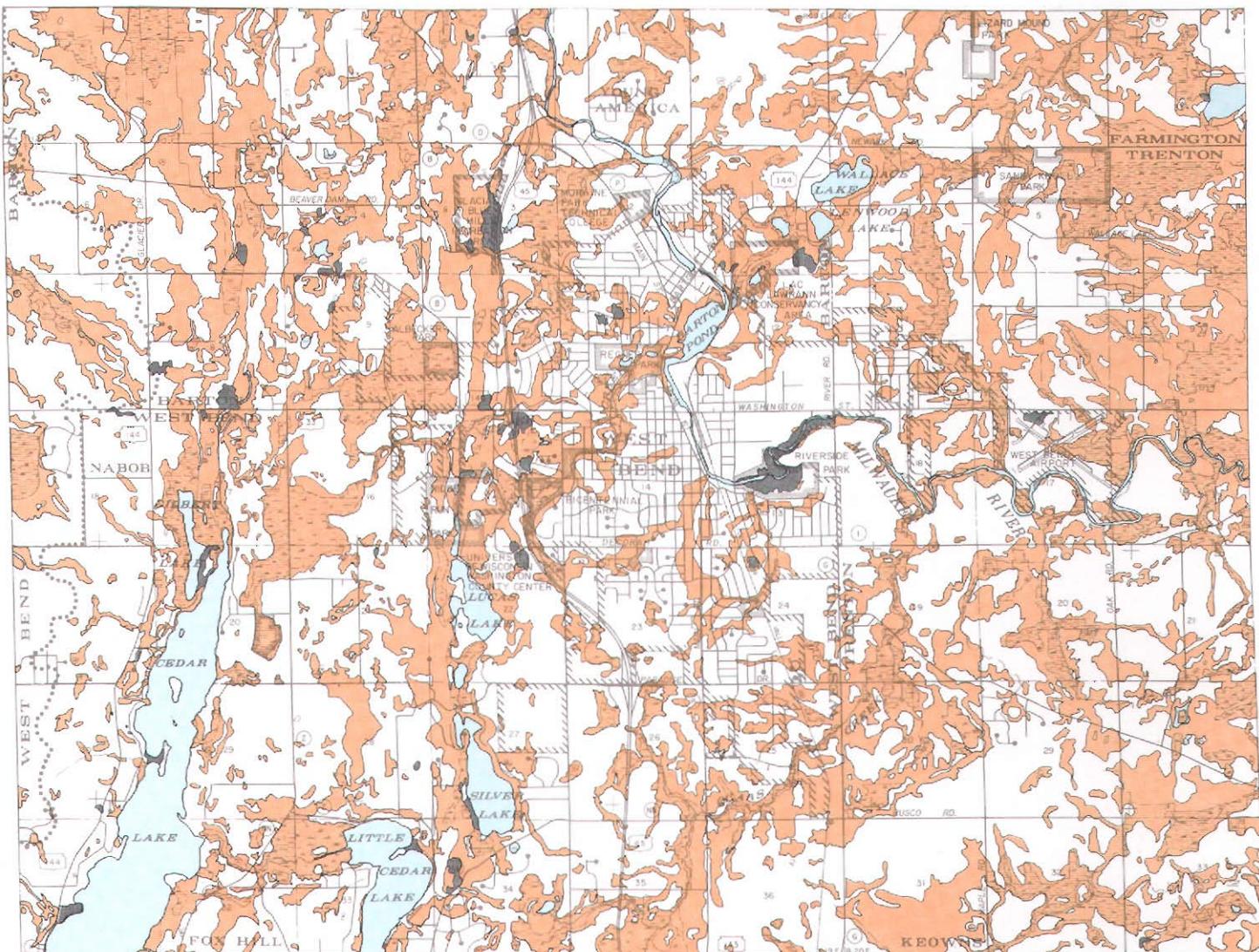
Soil Suitability for Residential and Commercial Developments: Map 10 shows the areas covered by soils with slight, moderate, or severe limitations for residential development served by public sanitary sewer facilities; while Map 11 shows the areas covered by soils with slight, moderate, or severe limitations for small commercial buildings of less than three stories without basements. In both cases, the severe limitations are due to such soil properties as high water table, slow permeability rates, erodibility on slopes, low bearing capacity, high shrink-swell potential, and frost heave potential. These soils are found throughout the planning area, but primarily in steeply sloped areas and in association with rivers, streams, floodlands, wetlands, and other low-lying areas. The development of these areas for residential or commercial uses requires particularly careful planning and above average design and management to overcome the limitations; such developments may be expected to be more costly and difficult than developments in areas with more suitable soils.

Map 10 indicates that about 15,362 acres, or about 38 percent of the total planning area, are covered by soils that have severe limitations for residential development served by public sanitary sewer facilities. Soils shown on Map 10 as having slight or moderate limitations for such developments encompass approximately 23,214 acres, or about 57 percent of the total planning area. Map 11 indicates that about 25,164 acres, or about 62 percent of the total planning area, are covered by soils having severe limitations for small commercial buildings; while approximately 13,412 acres, or about 33 percent of the total planning area, are covered by soils having slight or moderate limitations for small commercial buildings.

Soils Well Suited for Agricultural Use: Prime agricultural lands have been identified by the Regional Planning Commission as those lands which are well suited for agricultural use and which meet specific criteria regarding agricultural soil capabilities and farm size. These criteria include: 1) the farm unit must be at least 35 acres in area; 2) at least 50 percent of the farm unit must be covered by soils which meet U. S. Soil Conservation Service national standards for

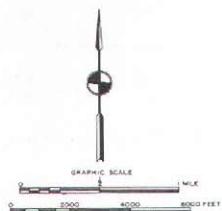
Map 10

SOIL SUITABILITY FOR RESIDENTIAL DEVELOPMENT WITH PUBLIC SANITARY SEWER SERVICE IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

- AREAS COVERED BY SOILS HAVING SEVERE LIMITATIONS FOR RESIDENTIAL DEVELOPMENT WITH SANITARY SEWER SERVICE
- AREAS COVERED BY SOILS HAVING SLIGHT OR MODERATE LIMITATIONS FOR RESIDENTIAL DEVELOPMENT WITH PUBLIC SANITARY SEWER SERVICE
- UNCLASSIFIED SOILS
- SURFACE WATER AREA



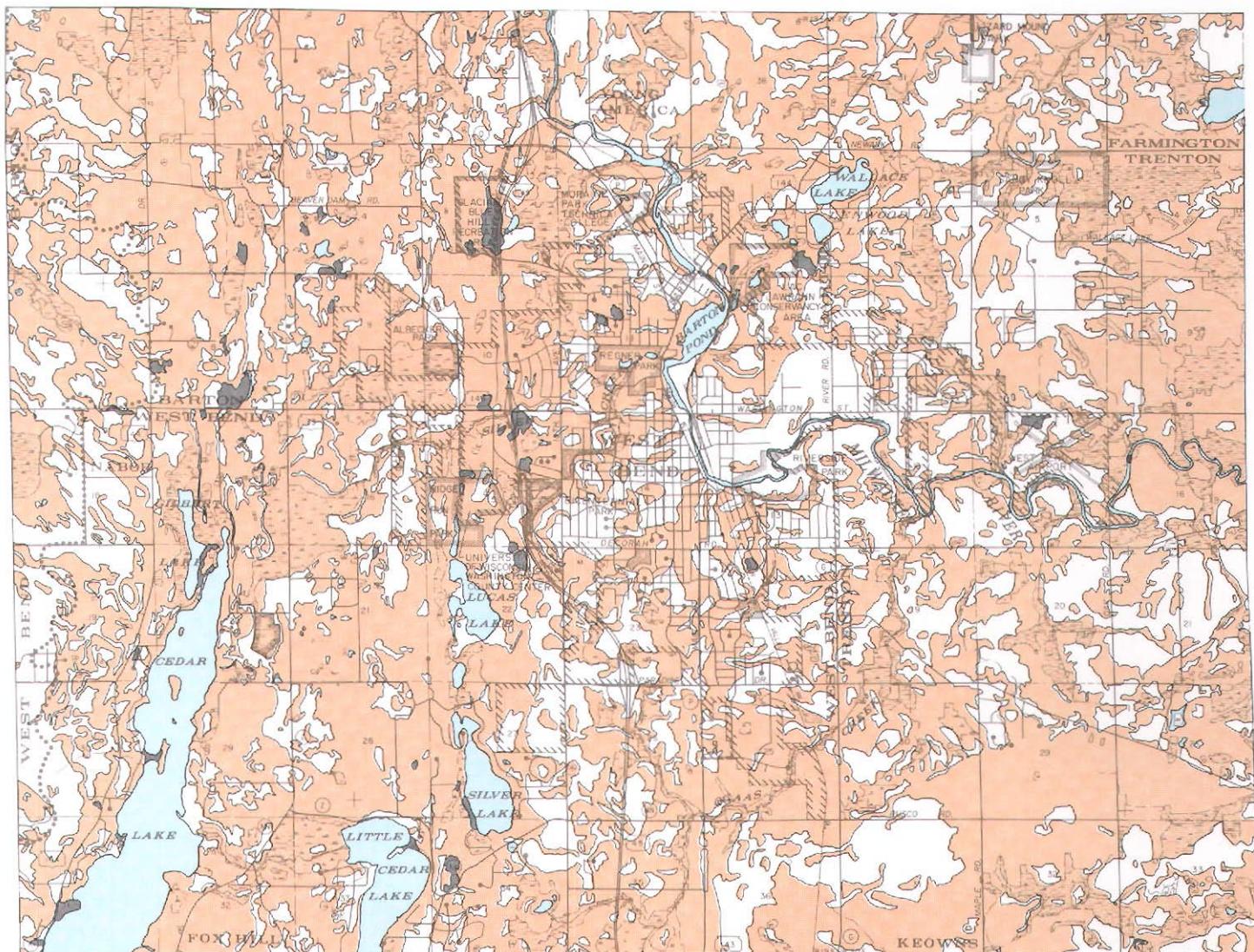
Source: U. S. Soil Conservation Service and SEWRPC.

prime farmland or farmland of statewide importance; and 3) the farm unit should be located in a block of farmland at least 100 acres in size. Areas that meet these criteria within the West Bend planning area in 1985 are shown on Map 12. In 1985, prime farmlands totaled about 10,661 acres, or about 26 percent of all lands in the West Bend planning area.

Rapid conversion of farmland to urban use has recently become a matter of increasing public concern. Partly in response to this concern, the Wisconsin Legislature in 1977 adopted a law commonly known as the "Farmland Preservation Act." It encourages the preparation of county farmland preservation plans and provides grants of state income tax credits for the

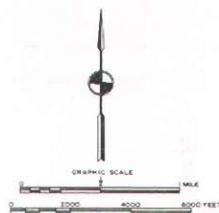
Map 11

SOIL SUITABILITY FOR SMALL COMMERCIAL BUILDINGS IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

- [Orange square] AREAS COVERED BY SOILS HAVING SEVERE LIMITATIONS FOR SMALL COMMERCIAL BUILDINGS
- [White square] AREAS COVERED BY SOILS HAVING SLIGHT OR MODERATE LIMITATIONS FOR SMALL COMMERCIAL BUILDINGS
- [Dark grey square] UNCLASSIFIED SOILS
- [Light blue square] SURFACE WATER AREA



Source: U. S. Soil Conservation Service and SEWRPC.

maintenance of farmlands in delineated preservation areas. Ultimately, only those farmers owning lands within delineated prime agricultural areas zoned for exclusive agricultural use, and, in southeastern Wisconsin, in an area for which a farmland preservation plan has been prepared are eligible for the full state income tax credits provided under the law.

In 1981, the Washington County Board of Supervisors adopted Washington County Farmland Preservation Plan, a report prepared by the consulting firm of Stockham & Vandewalle of Madison. The adopted farmland preservation plan for Washington County is intended to serve as a guide to the preservation of agricultural lands in the County. In addition, the plan

recommends the protection of environmentally significant areas, and makes further recommendations regarding the location and intensity of urban development within the County through 2000. The plan also presents recommendations concerning implementation of the farmland preservation plan.¹

Topographic Features

The topography, or relative elevation of the land surface, within the City of West Bend planning area has been determined, generally, by the configuration of the bedrock geology, and, more specifically, by the overlying glacial deposits. In general, the topography of the planning area is level to gently rolling, with the low-lying areas associated with the perennial stream valleys or wetland areas.

Slope is an important determinant of the practicability of certain land uses on a given parcel of land. Lands with steep slopes are generally poorly suited for urban development and for most agricultural purposes; therefore, they should be maintained in a natural state for water quality protection, wildlife habitat, and erosion control purposes. Lands with less severe slopes may be suitable for certain agricultural uses, such as pasture, and for certain urban uses, such as carefully designed low-density residential areas. Lands which are gently sloping or nearly level are best suited to agricultural

production and to high-density residential, industrial, or commercial uses. It should also be noted that slope is directly related to water runoff and erosion hazards and, therefore, the type and extent of both urban and rural land uses should be carefully adjusted to the slope of the land. In general, lands with slopes of 12 percent or greater should be maintained in essentially natural, open uses. Urban development, if allowed on these lands, would require careful planning and above average site-specific design and management.

Map 13 provides a slope analysis of the City of West Bend planning area. This analysis serves to identify areas which have slopes ranging from 0 to 11 percent, 12 to 20 percent, and greater than 20 percent. Soils with slopes of 12 percent or greater present major obstacles to the preparation of these areas for development, and generally require excessive earth moving and grading, a practice which destroys natural cover, including trees. Most slopes of 12 percent or greater are found in the western half of the planning area and occupy about 7,194 acres, or about 18 percent of the total planning area.

WATER RESOURCES

Watersheds and Subwatersheds

A subcontinental divide traverses the southeastern Wisconsin region and the western portion of the West Bend planning area. As shown on Map 14, the City of West Bend planning area is located largely within the Milwaukee River watershed, which is a part of the Great Lakes-St. Lawrence River drainage system. The portion of the Milwaukee River watershed in the planning area can be divided into several subwatersheds, as shown on Map 14, including the Cedar Creek, Cedar Lake, Kewaskum Creek, Middle Milwaukee River, North Branch of the Milwaukee River, Silver Creek (Town of West Bend), and Upper Milwaukee River subwatersheds. A small portion of the study area is located within the Rock River watershed, a part of the Mississippi River drainage system. The two subwatersheds of the Rock River watershed within the planning area are the Kohlsville River and East Branch of the Rock River subwatersheds.

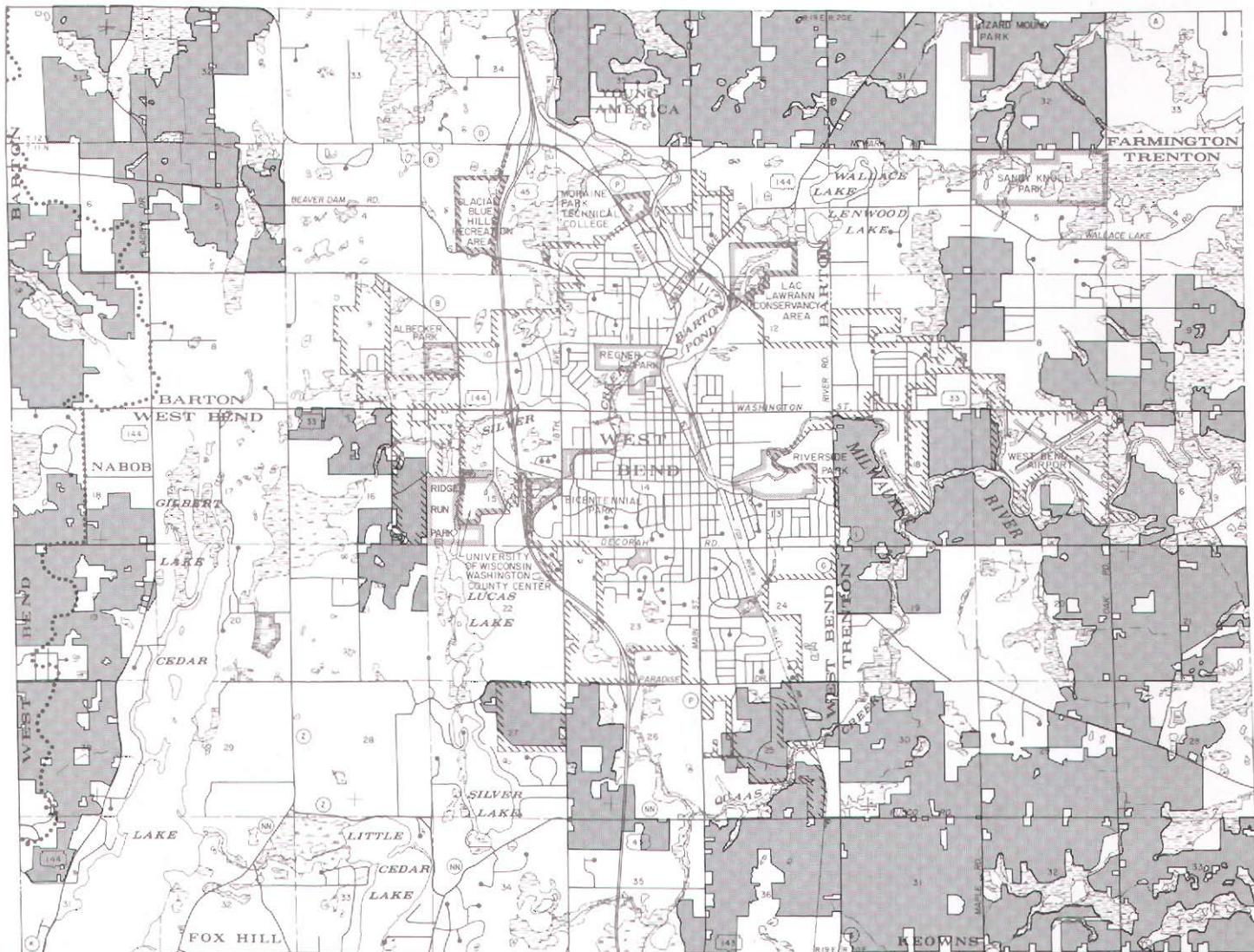
Surface Water Resources

Surface water resources consisting of lakes, rivers and streams, and associated floodlands

¹The Washington County farmland preservation plan identifies farmland preservation areas within the unincorporated areas of the County. The farmland preservation areas identified under that plan are further categorized as "primary" farmland and "secondary" farmland. Primary farmlands, as defined under the County plan, with minor exceptions, meet the criteria for prime agricultural land established by the Regional Planning Commission and, accordingly, all primary farmlands identified under the County plan are included in the configuration of prime agricultural land shown in Map 12. Some areas identified under the County plan as secondary farmland, however, include farmland which does not meet the Regional Planning Commission criteria for prime agricultural land. Only those secondary farmlands which meet the Regional Planning Commission criteria have been included in the configuration of the prime agricultural land identified on Map 12.

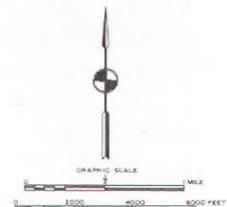
Map 12

PRIME AGRICULTURAL LANDS IN THE CITY OF WEST BEND PLANNING AREA: 1985



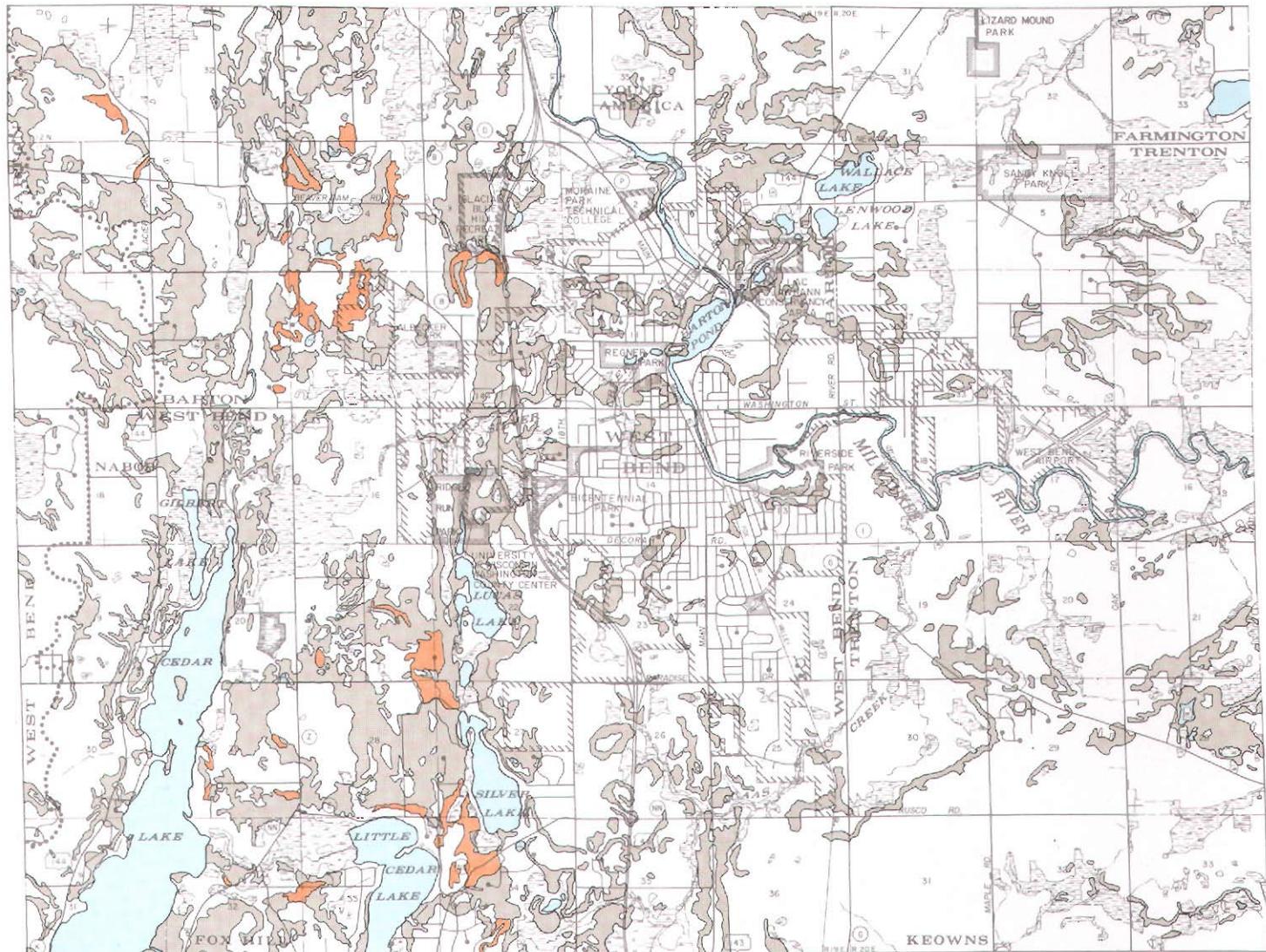
LEGEND

■ PRIME AGRICULTURAL LANDS



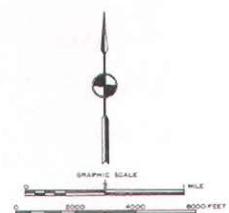
Source: U. S. Soil Conservation Service and SEWRPC.

Map 13
SLOPE ANALYSIS FOR THE CITY OF WEST BEND PLANNING AREA



LEGEND

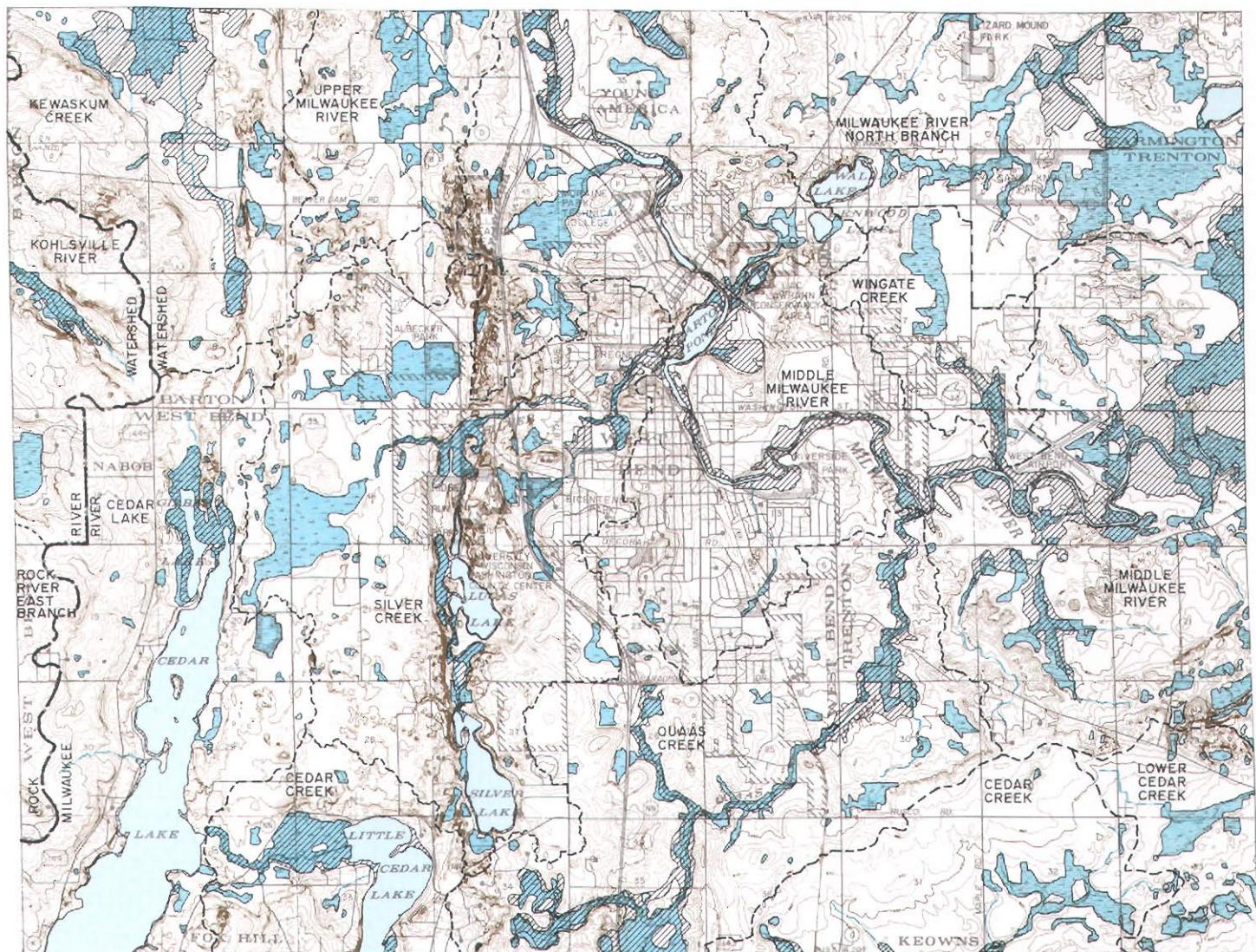
- SLOPES RANGING FROM 0 TO 11 PERCENT
- SLOPES RANGING FROM 12 TO 20 PERCENT
- SLOPES GREATER THAN 20 PERCENT
- SURFACE WATER AREA



Source: U. S. Soil Conservation Service and SEWRPC.

Map 14

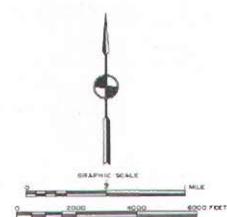
TOPOGRAPHY, SURFACE DRAINAGE, WETLANDS, FLOODLANDS, AND WATERSHED FEATURES IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

- LEGEND

 - CONTOUR INTERVAL LINES - 10 FEET
 - WATERSHED BOUNDARY
 - SUBWATERSHED BOUNDARY
 - PERENNIAL STREAM OR WATERCOURSE
 - INTERMITTENT STREAM OR WATERCOURSE
 - 100-YEAR RECURRENCE INTERVAL FLOODLANDS
 - WETLANDS
 - SURFACE WATER



Source: Federal Emergency Management Agency and SEWRPC.

and wetlands, form a particularly important element of the natural resource base of the West Bend area. Surface water resources influence the physical development of an area, provide recreational opportunities, and enhance the aesthetic quality of the area. Lakes and streams constitute a focal point for water-related recreational activities, provide an attractive setting for properly planned residential development, and when viewed in the context of the total landscape and cityscape, greatly enhance the aesthetic quality of the environment. But lakes and streams are readily susceptible to degradation through improper rural, as well as urban, land use and land management. Water quality can be degraded by excessive pollutant loads, including nutrient loads; from malfunctioning and improperly located onsite sewage disposal systems, sanitary sewer overflows, and urban runoff, including runoff from construction sites; and from careless agricultural practices. The water quality of lakes and streams may also be adversely affected by the excessive development of riverine areas and the filling of peripheral wetlands, which removes valuable nutrient and sediment traps while adding to nutrient and sediment sources. Surface water resources within the West Bend planning area are shown on Map 14.

Lakes: Lakes have been classified by the Regional Planning Commission as either major or minor. Major lakes have 50 acres or more of surface area, while minor lakes have less than 50 acres of surface area. Minor lakes with a surface water area of less than five acres in were generally located within another natural resource base element, primarily wetlands, and were included with the delineation of that element of the natural resource base.

In 1989, major lakes located wholly or partially in the City of West Bend planning area were Barton Pond, 67 acres; Big Cedar Lake, 932 acres; Little Cedar Lake, 246 acres; Lucas Lake, 78 acres; Silver Lake, 118 acres; Wallace Lake, 52 acres; and Green Lake, 71 acres.

Rivers and Streams: Rivers and streams may be classified as perennial or intermittent. The perennial and certain intermittent streams within the City of West Bend planning area are also shown on Map 14. Perennial streams are defined as watercourses which maintain, at a minimum, a small continuous flow throughout the year except under unusual drought condi-

tions. Intermittent streams are defined as watercourses which do not maintain such a continuous flow throughout the year. Within the planning area, a total of 72 linear miles of perennial and intermittent rivers and streams were identified.

Floodlands: The floodlands of a river or stream are the wide, gently sloping areas contiguous to, and usually lying on both sides of, the river or stream channel. Rivers and streams occupy their channels most of the time. However, during even minor flood events stream discharges increase markedly, and the stream channels may not be able to contain and convey all of the flow. As a result, stages increase and the river or stream spreads laterally over the floodland. The periodic flow of a river onto its floodlands is a normal phenomenon and, in the absence of costly structural flood control works, will occur regardless of whether or not urban development exists on the floodland.

For planning and regulatory purposes, floodlands are normally defined as the areas, excluding the stream channel, subject to inundation by the 100-year recurrence interval flood event. This is the event that may be expected to be reached or exceeded in severity once in every 100-years; or, as stated another way, there is a 1 percent chance of this event being reached or exceeded in severity in any given year. Floodland areas are generally not well suited to urban development, not only because of the flood hazard, but also generally because of the presence of high water tables and of soils poorly suited to urban uses. The floodland areas, however, generally contain such important elements of the natural resource base as high-value woodlands, wetlands, and wildlife habitat and, therefore, constitute prime locations for needed park and open space areas. Every effort should be made to discourage indiscriminate and incompatible urban development on floodlands, while compatible park and open space use is encouraged.

Because of the importance of floodland data to sound land use and land management decisions, the identification of the 100-year recurrence interval flood hazard areas in the West Bend area is important to the preparation of a sound land use plan. Floodland delineations were prepared by the Regional Planning Commission as part of its Milwaukee River watershed planning program, the findings and recommendations of which are set forth in SEWRPC

Planning Report No. 13, A Comprehensive Plan for the Milwaukee River Watershed. In addition, several studies have been undertaken by the Federal Emergency Management Agency (FEMA) and the former U. S. Department of Housing and Urban Development, Federal Insurance Administration (FIA), to provide supplemental flood hazard data to be used in the identification of flood-prone areas for flood insurance purposes. In areas for which detailed hydrologic and hydraulic data were available from the Regional Planning Commission, these federal studies utilize such data. For areas in which such data were not available, the data necessary for the determination of flood hazards were developed.

The floodland delineations within the City of West Bend planning area, which reflect the removal of the Woolen Mills Dam in 1988, are shown on Map 14 and encompass an area of about 5,196 acres, or about 13 percent of the total planning area. This figure includes approximately 1,839 acres of surface water in lakes, rivers, and stream channels within the floodlands.

Wetlands: Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency, and with a duration, sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include swamps, marshes, bogs, and similar areas. Precipitation provides water to wetlands by falling either as rain or snow, and then becoming surface water runoff or percolating through the soil as groundwater seepage. The location of a wetland in the landscape affects the type of water received. Wetlands can occur on slopes as well as in depressions.

Wetlands located in the City of West Bend planning area are identified on Map 14. Wetlands perform several important natural functions which make them a particularly valuable resource. These functions may be summarized as follows:

1. Wetlands enhance water quality. Aquatic plants change inorganic nutrients, such as phosphorus and nitrogen, into organic material, storing it in their leaves or in the peat composed of their remains. The stems, leaves, and roots of these plants also slow the flow of water through a wetland,

allowing suspended solids and related water pollutants to settle out. Thus, the destruction of wetlands may be expected to adversely affect the quality of surface waters in the area.

2. Wetlands regulate surface water runoff, storing water during periods of flood flows and releasing such waters during periods of dryer weather. Wetlands thus help to stabilize stream flows.
3. Wetlands provide essential breeding, nesting, resting, and feeding grounds and predator-escape cover for many forms of wildlife, and thus contribute to the overall ecological health and quality of the environment of the study area, as well as providing recreational, research, and educational opportunities and adding to the aesthetic quality of the community.
4. Wetlands may serve as groundwater recharge and discharge areas.

Recognizing the important natural functions of wetland areas, continued efforts should be made to protect these areas by discouraging costly, both in monetary and environmental terms, wetland draining, filling, and urbanization.

As shown on Map 14, wetlands within the City of West Bend planning area in 1985 covered about 4,499 acres, or about 11 percent of the total planning area. It should be noted that such areas as tamarack swamps and other lowland wooded areas are classified as wetlands, rather than woodlands, because the water table is located at, near, or above the land surface and such areas are generally characterized by hydric soils supporting hydrophytic trees and shrubs. Wetland areas are distributed throughout the planning area, particularly in areas adjacent to Big and Little Cedar Lakes.

Groundwater Resources

An adequate supply of high quality water is essential to sound community development. The source of such a water supply for residential, commercial, industrial, and agricultural uses in the West Bend planning area currently is groundwater. The availability of groundwater can be reduced by the loss of recharge areas, excessive or overly concentrated pumping, and changes in ground cover. In additional, groundwater quality is subject to degradation from

onsite sewage disposal systems, surface water pollution, improper agricultural practices, and other soil and water pollutants. An understanding of the relationship between groundwater resources and proper land use planning is, therefore, important to prevent future developments from adversely affecting the availability and quality of groundwater.

Groundwater within the West Bend planning area is obtained from two main water-bearing geologic units. The upper unit includes the shallow limestone, referred to as the Niagara aquifer, and the overlying glacial deposits, referred to as the sand and gravel aquifer. These two interconnected aquifers are often called collectively the shallow aquifer, or shallow groundwater system. Separated from the shallow aquifer by the relatively impervious Maquoketa shale formation is the deeper sandstone aquifer. The shallow aquifer is typically under atmospheric water table conditions within the study area, while the deep sandstone aquifer is confined and under pressure.

Sand and Gravel Aquifer: The sand and gravel aquifer consists of the permeable, saturated part of the unconsolidated glacial material from the Quaternary Age deposited over bedrock. See Table 10 for a graphic presentation of the stratigraphy, i.e., that aspect of geology which deals with the origin, composition, distribution, and succession of strata—in this case, glacial deposits—of Washington County. The yield of this aquifer is affected by both the character of the unconsolidated glacial material, consisting of sand, sand and gravel, clay, and silt materials, and also the thickness of these unconsolidated deposits, which vary with surface and bedrock topography. Borings performed for the preparation of a ground water study for the City of West Bend indicate that the thickness of the glacial material in the West Bend area ranges from about 19 to about 257 feet, with an average depth to bedrock of 98 feet. The aquifer within these unconsolidated deposits may be exposed at the ground surface, or may be buried by relatively impermeable materials. Water table levels within this drift material vary seasonally and with topography.

Properly constructed wells can obtain significant yields of groundwater from the shallow sand and gravel aquifer. In August 1985 approximately 76 percent of the City's water supply was obtained from this aquifer, provided

by six of the eight active municipal wells. Two inactive wells were previously constructed so as to utilize the groundwater from the sand and gravel aquifer.

Niagara Aquifer: This limestone aquifer is composed of the water saturated portions of the Silurian and Devonian dolomite bedrock lying above the relatively impermeable Ordovician Maquoketa Shale, as indicated in Table 10. This aquifer is found throughout the planning area, except within deep bedrock valleys. The groundwater yield from this aquifer varies significantly due to changes in hydraulic conductivity as affected by variations in the degree of fracturing, jointing, solution features, and lithologic composition. As already noted, the Niagara aquifer, together with the overlying sand and gravel aquifer, constitute the shallow aquifer system underlying the planning area. The depth to the Niagara aquifer is highly variable because the bedrock surface is very irregular. The City of West Bend, in August 1985, had two active municipal wells sunk into and pumping from this aquifer which supplied approximately 24 percent of the City's public water supply.

Sandstone Aquifer: The deep sandstone aquifer is confined by the Maquoketa shale formation above and the crystalline Precambrian rock below. This aquifer is composed of Cambrian and Ordovician sandstone, dolomite, siltstone, and shale, as indicated in Table 10. This aquifer, which can yield large quantities of groundwater, underlies the entire planning area. Due to the generally adequate yields of groundwater from the overlying shallow aquifers and the higher costs entailed in utilizing the deeper sandstone aquifer, the latter aquifer is not used as a source of domestic water supply in the West Bend area, although it is so used extensively elsewhere in the Region. The City of West Bend had no wells pumping from this aquifer in August 1985.

Groundwater Recharge: Local precipitation is the major form of groundwater recharge for the aquifers of the shallow system. Groundwater moves from the local recharge areas, primarily the wetlands and lakes located west of the City, eastward, discharging into the Milwaukee River and adjoining streams and wetlands. The amount of recharge is dependent upon local surficial geology and topography. Due to this dependence on local recharge, the availability and quality of groundwater from the shallow

Table 10
STRATIGRAPHY OF WASHINGTON COUNTY

System	Rock Unit	Lithology
Quaternary	Holocene deposits	Clay, silt, sand, gravel, and organic matter, unconsolidated
	Pleistocene deposits	Clay, silt, sand, gravel, cobbles, boulders, and organic matter, unconsolidated
Devonian	Dolomite and shale, undifferentiated	Dolomite, brown to gray, and shale, gray. Crevices and solution channels abundant, but discontinuous
Silurian	Dolomite, undifferentiated	Dolomite, white to gray. Crevices and solution channels abundant, but discontinuous
Ordovician	Maquoketa shale	Shale, dolomitic, blue-gray. Dolomitic beds as thick as 65 feet occur at the top
	Galena dolomite, Decorah formation, and Platteville formation, undifferentiated	Dolomite and some slightly shaly dolomite, light gray to blue-gray
	St. Peter sandstone	Sandstone, fine- to medium-grained, white to light gray. Dolomitic in some places, shaly at base in some places
	Prairie du Chien group	Dolomite, gray or white. Some sandstone and sandy dolomite
Cambrian	Trempealeau formation	Sandstone, very fine- to medium-grained. Dolomite, light gray, interbedded with siltstone
	Franconia sandstone	Sandstone, very fine- to medium-grained; siltstone or dolomite; sandstone, dolomitic at base, medium- to coarse grained
	Galesville sandstone	Sandstone, fine- to medium-grained, light gray
	Eau Claire sandstone	Sandstone, fine- to medium-grained, light gray to light pink, dolomitic; some shale beds
	Mount Simon sandstone	Sandstone, white to light gray, fine- to coarse-grained, mostly medium; some beds dolomitic, some interbedded shale
Precambrian	Precambrian rocks, undifferentiated	Crystalline rocks

Source: Wisconsin Geological and Natural History Survey and SEWRPC.

system may be degraded by changes in land use and climatic alteration within the recharge area.

The deep sandstone aquifer's groundwater is recharged by the downward movement of water through the overlying rock formations where the relatively impervious overlying Maquoketa shale

is absent. Thus the principal recharge areas of the deep aquifer lie to the west of the City. Within the Region, water moves through the sandstone aquifer in a generally southeasterly direction, primarily because of heavy pumping from this aquifer within the Milwaukee and Chicago metropolitan areas.

WOODLANDS

Woodlands are defined as those upland areas one acre or more in size having 17 or more deciduous trees per acre, each measuring at least four inches in diameter at breast height and having 50 percent or more canopy coverage. In addition, coniferous tree plantations and reforestation projects are identified as woodlands as well.

Woodlands have value beyond any monetary return as forest products. Under good management, woodlands can serve a variety of beneficial functions. In addition to contributing to clean air and water and regulating surface water runoff, the presence of woodlands within the area can contribute to the maintenance of a diversity of plant and animal life in association with human life. The existing woodlands of an area, which required a century or more to develop, can be destroyed through mismanagement within a comparatively short time. The deforestation of hillsides contributes to rapid stormwater runoff, the siltation of lakes and streams, and the destruction of wildlife habitat. Woodlands can and should be maintained for their total values, which include scenic, wildlife habitat, open space, educational, recreational, and ecological, especially air and water quality protection, benefits.

Located primarily on ridges and slopes, along lakes and streams, and in wetlands, woodlands provide an attractive natural resource of immeasurable value. Not only is the beauty of streams and glacial land forms of the area accentuated by woodlands, but, as already noted, woodlands are essential to the maintenance of the overall quality of the environment in the area. Inventories of woodlands in the West Bend area were conducted by the Regional Planning Commission as part of its 1963, 1970, 1975, 1980, and 1985 land use and woodland cover inventories. Woodlands, as shown on Map 15, occur in scattered locations throughout the planning area. Lowland wooded areas, such as tamarack swamps, were classified as wetlands because the water table in such areas is located at, near, or above the land surface and because such areas are generally characterized by hydric soils which support vegetation adapted to saturated soil conditions. As indicated on Map 15, in 1985 woodland areas covered about 4,177 acres, or about 10 percent of the total planning area.

WILDLIFE HABITAT AREAS

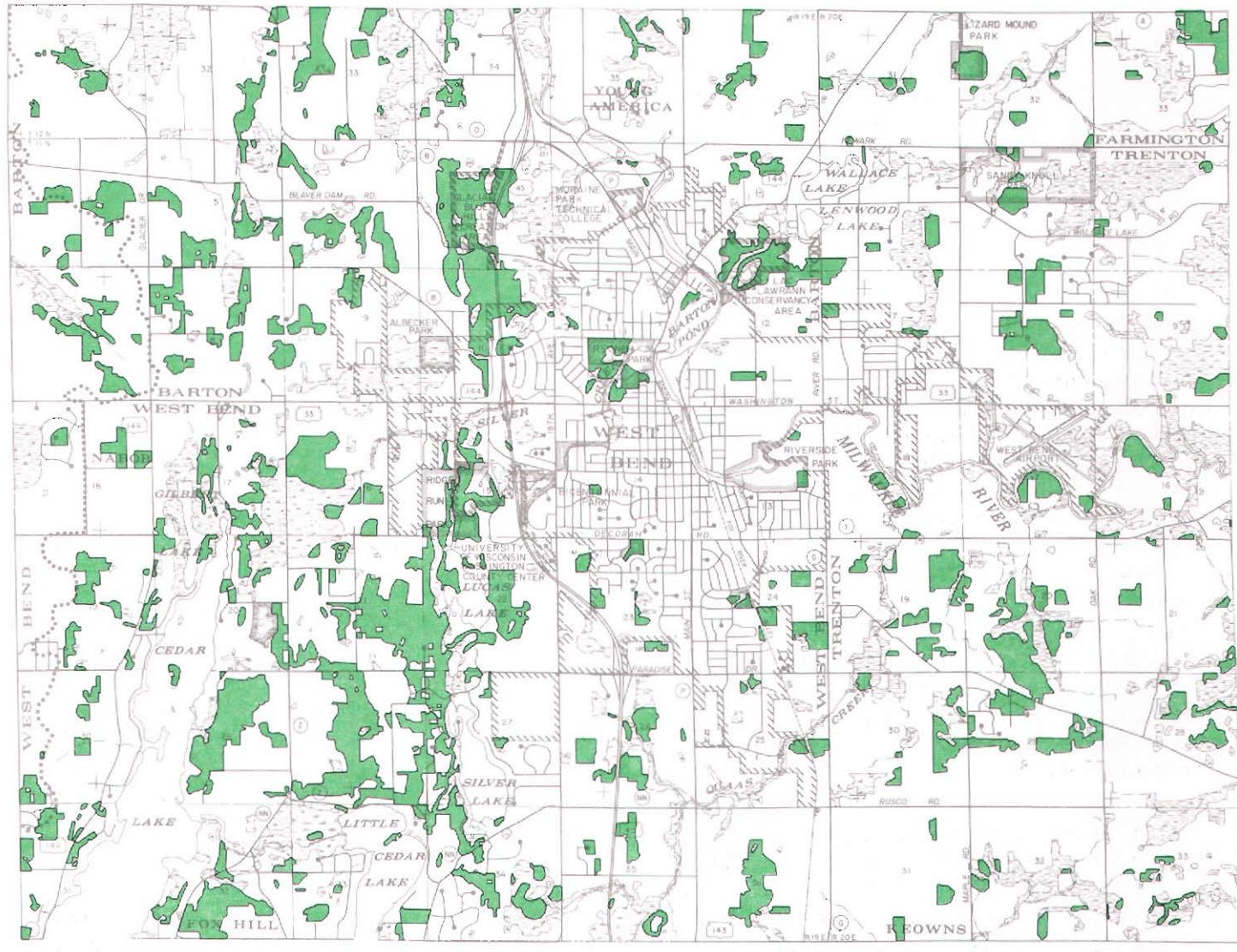
Wildlife in the West Bend area includes such upland game such as squirrel, game birds, including pheasant, and waterfowl. The remaining wildlife habitat areas provide valuable recreation opportunities and constitute an invaluable aesthetic asset to the planning area. The spectrum of wildlife species originally found in the West Bend area has, along with the habitat, undergone tremendous alterations since settlement of the area which is now the City and environs by Europeans. These alterations were the direct result of the changes in land use and wildlife habitat made by the European settlers, beginning with the clearing of forests and the draining of wetlands for agricultural purposes, and ending with the development of intensive urban land uses. This process of change, which began in the early nineteenth century, is still operative today. Successive cultural uses and attendant management practices, both rural and urban, have been superimposed on the land, bringing changes which have also affected the wildlife and wildlife habitat. In agricultural areas, these cultural management practices include land drainage by ditching and tiling and the increased use of fertilizers and pesticides. In the urban areas, cultural management practices that affect wildlife and wildlife habitat include the excessive use of fertilizers and pesticides, road salting, disruptive noise levels and damaging air pollution from heavy automotive traffic, and the introduction of domestic animals.

In 1985, the Regional Planning Commission and the Wisconsin Department of Natural Resources cooperatively conducted an inventory of the wildlife habitat of the Region underlying the West Bend area. The results of that inventory as it pertains to the City of West Bend planning area are presented in Map 16. The following five major categories were used to help classify the value of these wildlife habitats.

1. Diversity: An area must maintain a high but balanced diversity of species for a temperate climate, balanced in the sense that the proper predator-prey relationships occur; in addition, a reproductive interdependence must exist.
2. Territorial Requirements: The territorial requirements of the major species within a particular habitat must be met so as to provide for a minimum population level.

Map 15

WOODLANDS IN THE CITY OF WEST BEND PLANNING AREA: 1985



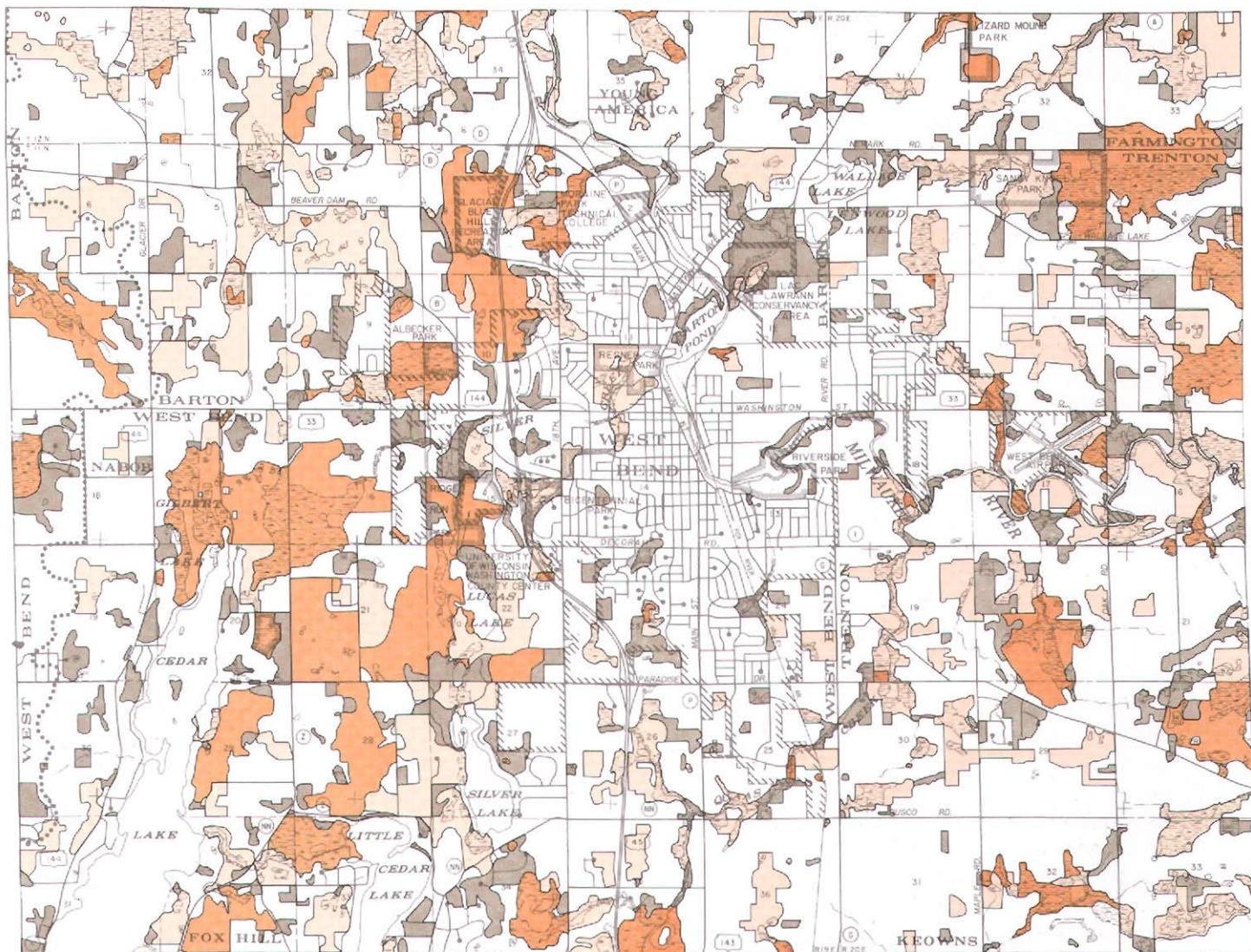
Source: SEWRPC.

3. Vegetation: The vegetal composition and structure must be such that the required levels for provision of nesting, travel routes, concealment, and weather impact modifications are met.
4. Location: Proximity to other wildlife habitat areas is highly desirable.
5. Disturbance: Minimal levels of disturbance from man's activities are necessary other than those activities of a wildlife management nature.

Based upon these five major factors, the inventory identified and delineated three classes of wildlife habitat: 1) Class I: wildlife habitat areas

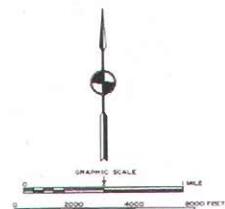
Map 16

WILDLIFE HABITAT IN THE CITY OF WEST BEND PLANNING AREA: 1985



LEGEND

- CLASS I
- CLASS II
- CLASS III



Source: Wisconsin Department of Natural Resources and SEWRPC.

containing good diversity of wildlife, of such size to meet all of the habitat requirements for each species, and generally located in proximity to other wildlife habitat areas; 2) Class II: wildlife habitat areas generally lacking one of the three criteria necessary for a Class I designation; and 3) Class III: wildlife habitat areas that are generally remnant in nature and lack two of the three criteria for placement in the Class I.

As shown on Map 16, wildlife habitat areas in the City of West Bend planning area generally occur in association with existing surface water, wetland, and woodland resources located along the Big and Little Cedar Lakes, Lucas Lake, and the Milwaukee River. In 1985 such areas covered about 13,231 acres, or about 33 percent of the total planning area. Of this total habitat acreage, about 4,342 acres, or about 33 percent, were

rated as Class I; about 5,542 acres, or about 42 percent, were rated as Class II; and about 3,347 acres, or about 25 percent, were rated as Class III. Class I wildlife habitat areas should be maintained in essentially natural, open uses.

SCENIC VIEWPOINTS

Scenic viewpoints are defined as areas that provide a panoramic or picturesque view. There are two important components of a scenic viewpoint: the picturesque view itself, which usually consists of a diversity of natural or cultural features, and, secondly, the vantage point from which the scene and its features are observed. In identifying the scenic viewpoints in the West Bend area three basic criteria were applied: 1) a variety of features to be viewed should exist harmoniously in a natural or rural landscape; 2) there should be one dominant or particularly interesting feature, such as a river or lake, which serves as a focal point of the picturesque view; and 3) the viewpoint should permit an unobstructed observation area from which the variety of natural features can be seen.

A special inventory of scenic viewpoints meeting the aforementioned criteria was conducted. Using the best available topographic maps, areas with a relief greater than 30 feet and a slope of 12 percent or greater were identified. Those areas of steep slope so identified, with a ridge of at least 200 feet in length and a view of at least three features, including surface water, wetlands, woodlands, or agricultural lands within approximately one-half mile of the ridge, were identified as scenic overlooks. In the City of West Bend planning area, 161 scenic viewpoints were identified. Many of these were long, continuous ridge lines located west of the City of West Bend, around the major lakes, and along the Milwaukee River and its tributaries. The topography and locations of the scenic viewpoints in the City of West Bend planning area are shown on Map 17.

SCIENTIFIC AND NATURAL AREAS

Scientific and natural areas, as defined by the Wisconsin Scientific Areas Preservation Council, are tracts of land or water so little modified by human activity, or sufficiently recovered from the effects of such activity, that they contain intact native plant and animal communities believed to be representative of the pre-European

settlement landscape. Scientific and natural area sites are classified into one of the following four categories: 1) state scientific areas; 2) natural areas of statewide or greater significance; 3) natural areas of countywide or regional significance; and 4) natural areas of local significance.

Classification of a scientific and natural area into one of these four categories is based upon consideration of the diversity of plant and animal species and community types present; the structure and integrity of the native plant or animal community; the extent of disturbance from human activity such as logging, grazing, water level changes, and pollution; the commonness of the plant and animal community's presence and any unique natural features within the area; the size of the area; and its educational value.

While a comprehensive inventory of scientific and natural area sites in Washington County has not yet been conducted, in 1984 an inventory of natural area sites in the West Bend area was conducted by the Commission staff. Additional scientific and natural area sites have been identified recently by area naturalists and Commission staff. As shown on Map 18 and identified in Table 11, in 1985 these inventories indicate that there were 35 known scientific and natural area sites, encompassing a total area of about 3,299 acres, or about 8 percent of the total West Bend planning area, in that area. Of this total, one site, encompassing 25 acres, was classified as a natural area of statewide or greater significance; 15 sites, encompassing a total of 1,122 acres, were classified as natural areas of county-wide or regional significance; and 15 sites, encompassing a total of 1,995 acres, were classified as natural areas of local significance. The classification of the remaining four sites, encompassing the remaining 157 acres, could not be determined, pending the completion of further field survey work at these sites.

PARK AND OPEN SPACE SITES

In order to identify needed additional park and open space sites in the City of West Bend planning area, an inventory of the existing sites must first be conducted. This section presents such inventory findings for the City of West Bend planning area. The analysis includes

Map 17

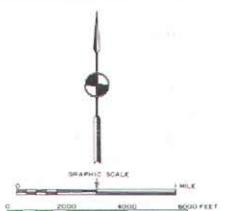
TOPOGRAPHY AND SCENIC VIEWPOINTS IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

CONTOUR INTERVAL LINES -- 10 FEET

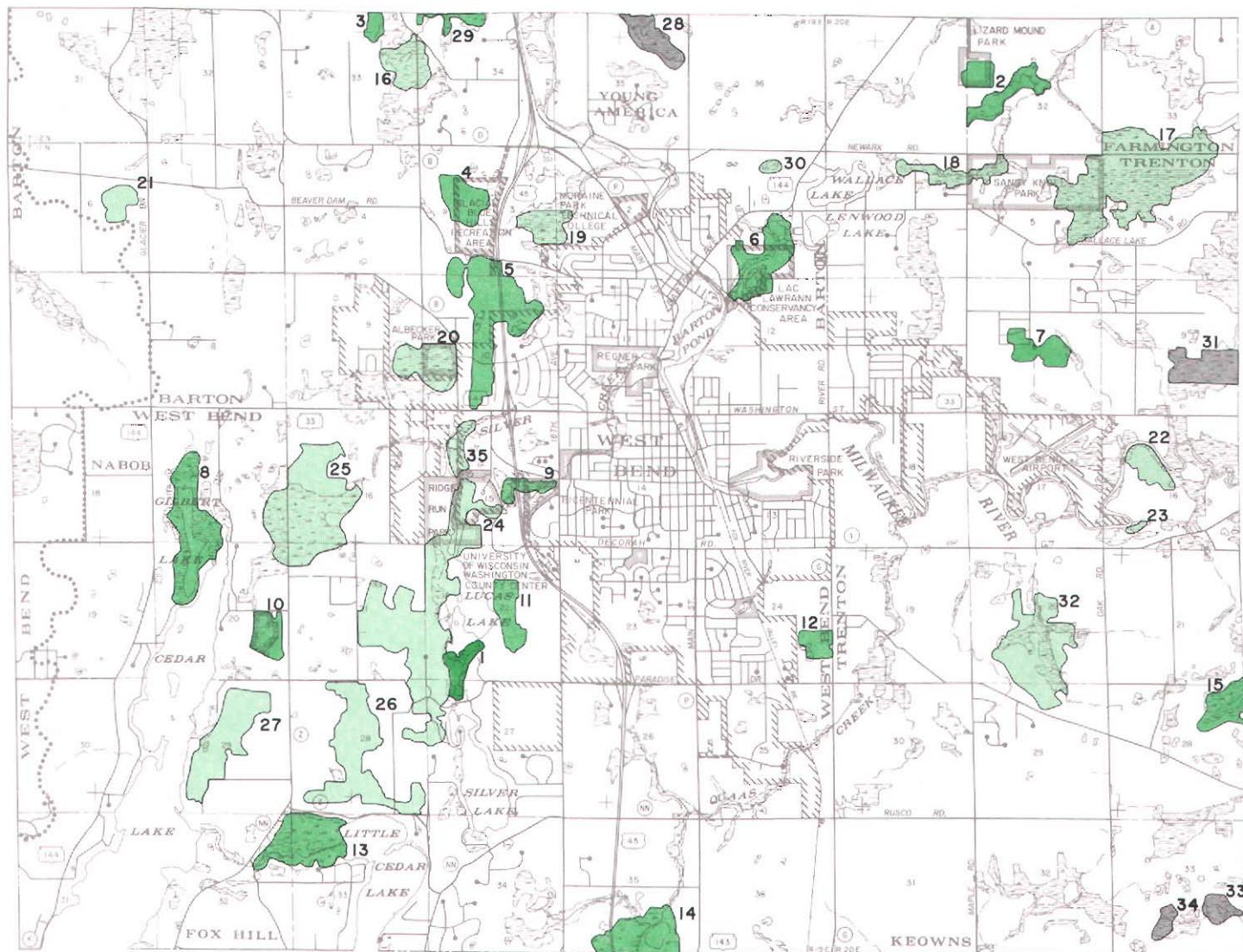
SCENIC VIEWPOINTS AND DIRECTION OF VIEW



Source: SEWRPC.

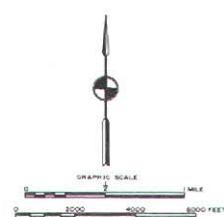
Map 18

KNOWN SCIENTIFIC AND NATURAL AREAS IN THE CITY OF WEST BEND PLANNING AREA: 1985



LEGEND

- NA-1 -- NATURAL AREA OF STATEWIDE OR GREATER SIGNIFICANCE
- NA-2 -- NATURAL AREA OF COUNTYWIDE OR REGIONAL SIGNIFICANCE
- NA-3 -- NATURAL AREA OF LOCAL SIGNIFICANCE
- UNDETERMINED CLASSIFICATION
- 6** REFERENCE NUMBER IN TABLE II



Source: Wisconsin Department of Natural Resources and SEWRPC.

Table 11

KNOWN SCIENTIFIC AND NATURAL AREAS IN THE CITY OF WEST BEND PLANNING AREA: 1985

Number on Map 18	Name	Location	Owner	Acreage	Classification Code ^a	Description
1	Paradise Valley Lake	T11N, R19E, Sections 22 and 27	Private	25	NA-1	An undeveloped nine-acre lake with a good quality calcareous sedge mat, a deep and a shallow marsh
2	Lizard Mound Park	T12N, R20E, Section 32	Washington County and private ^b	82	NA-2	A good quality wet to mesic hardwood forest. The Indian effigy mounds within the mesic forest are of state-wide significance
3	Lang Hardwoods	T12N, R19E, Sections 28 and 33	Private	13 ^c	NA-2	A good quality southern mesic forest
4	Glacial Blue Hills Recreation Area	T11N, R19E, Section 3	City of West Bend	60	NA-2	A good quality beech woods adjacent to the Ice Age Trail
5	Hoffman-Wolter Woods	T11N, R19E, Sections 3 and 10	Private	200	NA-2	A large tract of mesic to dry-mesic hardwoods on a glacial topography of significant relief. The woodland has been disturbed by past grazing and selective cutting
6	Lac Lawrann Conservancy Area	T11N, R19E, Sections 1 and 12	City of West Bend and private	102	NA-2	A good quality wet to dry-mesic hardwoods with a deep and a shallow marsh, shrub carr, and a floating sedge mat around the pond. The area contains a good example of a kame and esker formation
7	Maple Dale Subdivision Hardwoods	T11N, R20E, Section 8	Private	52	NA-2	A good quality southern mesic hardwoods. Disturbances include past selective cutting and grazing. The area is presently threatened by residential development and bike trails
8	Gilbert Lake Tamaracks	T11N, R19E, Sections 17 and 20	Private	171	NA-2	A relatively undeveloped lake surrounded by a wetland complex of tamarack swamp, bog, sedge meadow, and cattail marsh
9	University Fen	T11N, R19E, Section 15	Wisconsin Department of Transportation, University of Wisconsin, and City of West Bend	26	NA-2	A good quality calcareous fen and northern lowland hardwoods. The area is adjacent to the University of Wisconsin-West Bend campus
10	Hacker Road Wildlife Area	T11N, R19E, Section 20	State of Wisconsin	40	NA-2	A good quality wetland complex containing fresh (wet) meadow, southern sedge meadow, shallow marsh, shrub carr, and scattered second-growth tamaracks

Table 11 (continued)

Number on Map 18	Name	Location	Owner	Acreage	Classification Code ^a	Description
11	Silverbrook Hardwoods	T11N, R19E, Section 22	Girl Scouts of Milwaukee and other private	58	NA-2	A good quality southern mesic hardwoods located primarily within the Girl Scout campgrounds
12	Muth Woods	T11N, R19E, Section 24	Private	29	NA-2	A good quality stand of southern mesic hardwoods with a rich ground layer. Located just south of the West Bend High School
13	Little Cedar Lake Wetlands	T11N, R19E, Section 32	Cedar Lake Conservation Foundation and other private	121	NA-2	A large wetland complex, located on the west end of Little Cedar Lake, which contains good quality deep and shallow marshes, sedge meadow, shrub carr, tamarack, and lowland hardwoods
14	Mud Lake	T11N, R19E, Section 35; T10N, R19E, Section 1	Wisconsin Department of Transportation and private	101 ^c	NA-2	An undeveloped calcareous, headwater lake surrounded by lowland hardwoods and tamaracks. The site contains fen and bog floral elements
15	Camp Wowitan Property	T11N, R20E, Sections 27 and 28	YMCA and other private	48 ^c	NA-2	An undeveloped lake and wetland complex with a well developed esker. A good quality calcareous fen, tamarack swamp, and mesic forest occur on the site
16	Wildwood Road Lowlands	T12N, R19E, Sections 33 and 34	Private	167	NA-3	A lowland hardwood forest area
17	Lazy Days Camp-ground Lowland Hardwoods	T12N, R20E, Section 33; T11N, R20E, Sections 4 and 5	Washington County and private	349	NA-3	A large lowland hardwood forest. The site contains some good quality areas of wet-mesic forest ground-layer flora. Disturbances include selective and clear cutting and water level changes due to ditching
18	Sandy Knoll Wetland Complex	T11N, R20E, Sections 5 and 6	Washington County and private	44	NA-3	A small but good quality wetland complex containing tamarack, lowland hardwoods, shrub carr, shallow marsh, and sedge fen associated with a spring-fed stream
19	Sunset Park Wetlands	T11N, R19E, Section 2	City of West Bend and private	49	NA-3	A disturbed wetland complex containing shallow marsh, fresh (wet) meadow, and a good stand of tag alder (<u>Alnus rugosa</u>)

Table 11 (continued)

Number on Map 18	Name	Location	Owner	Acreage	Classification Code ^a	Description
20	Albecker County Park Wetlands	T11N, R19E, Sections 9 and 10	Washington County and private	79	NA-3	A shallow marsh and disturbed fresh (wet) meadow complex with some shrub carr and scattered lowland hardwoods. Much marsh bird activity. Disturbance to the wetland includes water level changes due to past draining efforts and filling
21	Riesch Woods	T11N, R19E, Section 6	Private	35	NA-3	A southern mesic hardwoods with sugar maples (<i>Acer saccharum</i>) and beech (<i>Fagus grandifolia</i>) as codominants
22	Fellenz Floodplain Forest	T11N, R20E, Section 16	Private	43	NA-3	A southern wet to wet-mesic hardwoods forest located within the Milwaukee River floodplain. The area contains bur sedge (<i>Carex grayii</i>) and hop sedge (<i>Carex lupulina</i>). Disturbances include selective cutting and excessive siltation
23	Fellenz Sedge Meadow	T11N, 20E, Section 16	Private	5	NA-3	A small but good quality southern sedge meadow
24	Ridge Run-Paradise Valley Hardwoods	T11N, R19E, Sections 15, 21, 22, 26, and 27	Washington County, Girl Scouts of Milwaukee, and other private	400	NA-3	A large, continuous tract of southern mesic to dry-mesic hardwood forest, dominated by sugar maple (<i>Acer saccharum</i>) and red oak (<i>Quercus borealis</i>) with a 15-acre tract of northern wet hardwood forest. Several areas of good quality ground layer flora occur within the site. Disturbances include selective cutting and past grazing
25	Riesch-Pick Property	T11N, R19E, Section 16	Cedar Lake Conservation Foundation and other private	267	NA-3	An upland and lowland complex containing a southern mesic hardwood dominated by sugar maple (<i>Acer saccharum</i>) and a shallow marsh-shrub carr complex with scattered tamarack lowland hardwoods. Disturbances include selective cutting and water level changes as indicated by the large die-off of lowland hardwoods

Table 11 (continued)

Number on Map 18	Name	Location	Owner	Acreage	Classification Code ^a	Description
26	Ziegler Woods	T11N, R19E, Section 28	Private	191	NA-3	A large stand of southern mesic to dry-mesic hardwoods dominated by sugar maple (<i>Acer saccharum</i>). Similar to No. 24. Disturbances include selective cutting and past grazing
27	Cedar Lake Home Woods	T11N, R19E, Section 29	Private	143	NA-3	A second-growth southern mesic hardwoods. Area contains a small sedge meadow and prairie restoration. Disturbance to the woods include selective cutting and past grazing
28	Smith Lake Wetlands	T12N, R19E, Sections 26 and 35	Private	45 ^c	Undetermined	A deep and a shallow marsh and tamarack swamp
29	Lacustrine Forest	T12N, R19E, Sections 27 and 34	Union Rod and Gun Club and the West Bend Sportmen's Club	19 ^c	NA-2	A large tract of lowland hardwoods and shrub carr
30	Unnamed Wetland	T11N, R19E, Section 1	Private	10	NA-3	A kettle hole wetland
31	Lacustrine Forest	T11N, R20E, Sections 9 and 10	Private	73 ^c	Undetermined	A lowland hardwoods
32	Schoenbeck Woods	T11N, R20E, Sections 20 and 29	Private	187	NA-3	An upland woods
33	Bellin Pond	T11N, R20E, Section 33	Private	22	Undetermined	An undeveloped pond, deep and shallow marshes, and tamarack swamp
34	Schalla Property	T11N, R20E, Section 33	Private	17	Undetermined	A tamarack swamp
35	Unnamed Wetland	T11N, R20E Section 15	Private	26	NA-3	A deep and a shallow marsh

^aClassification code NA-1 denotes natural areas of statewide or greater significance; NA-2 denotes natural areas of countywide or regional significance; and NA-3 denotes natural areas of local significance.

^bIn 1986, the Wisconsin Department of Natural Resources transferred ownership of Lizard Mound Park to Washington County.

^cThis site is located partially inside and partially outside the City of West Bend planning area. This acreage total includes only the site area within the planning area.

Source: Wisconsin Department of Natural Resources and SEWRPC.

descriptions of both publicly- and privately-owned outdoor recreation sites, trails, and facilities, with particular emphasis on the City of West Bend park system.

Existing Parks and Outdoor Recreation Sites

An inventory of the existing park and open space sites and outdoor recreational facilities in the City of West Bend planning area was conducted in 1989. Existing park and open space sites in the City of West Bend planning area were classified in four general categories: general-use outdoor recreation sites, special-use outdoor recreation sites, urban open space sites, and rural open space sites.

General-Use Outdoor Recreation Sites: This type of recreation site may be defined as an area of land and water whose primary function is the provision of space and facilities for outdoor recreational activities. Such general-use outdoor recreation sites include school-related outdoor recreation areas, private golf courses, and campgrounds. As shown on Map 19 and indicated in Table 12, in 1989 there were 55 general-use outdoor recreation sites in the City of West Bend planning area. These 55 sites encompassed a total of approximately 1,857 acres, or about 5 percent of the total planning area. Of this total, 34 sites and about 847 acres were publicly owned, while the remaining 21 sites and 1,010 acres were privately owned. Information on the quantity of selected intensive outdoor recreational facilities provided at the general-use outdoor recreation sites in the City of West Bend planning area is presented in Table 13.

Special-Use Outdoor Recreation Sites: This type of site may be defined as a spectator-oriented, rather than participant-oriented, site, or as providing facilities for unique recreational pursuits. Special-use sites include such facilities as zoos, botanical gardens, and skeet and trap shooting areas. As shown on Map 19 and indicated on Table 14, there were 10 special-use outdoor recreation sites, encompassing a total of 354 acres, or about 1 percent of the total planning area. Of this total, three sites and about 36 acres were publicly owned, and the remaining seven sites and 318 acres were privately owned.

Urban Open Space Sites: This type of open space site may be defined as those open areas, generally publicly owned, which exist in highly developed or densely populated urban settings.

Such sites add variety to, and provide relief from, the surrounding urban uses and are usually developed for passive recreational pursuits. As shown on Map 19, there was one urban open space site, the publicly-owned Old Settler's Triangle in downtown West Bend.

Rural Open Space Sites: This type of site may be defined as woodlands, wetlands, wildlife habitat, or other areas owned by public agencies or private organizations for the primary purpose of preserving the lands in an essentially natural, open state. As shown on Map 19 and indicated in Table 15, the City of West Bend planning area includes 19 rural open space sites totaling about 616 acres, or about 2 percent of the total planning area. Of this total, about 466 acres, or 76 percent, were publicly owned, and about 150 acres, or 24 percent, privately owned.

City of West Bend Park System

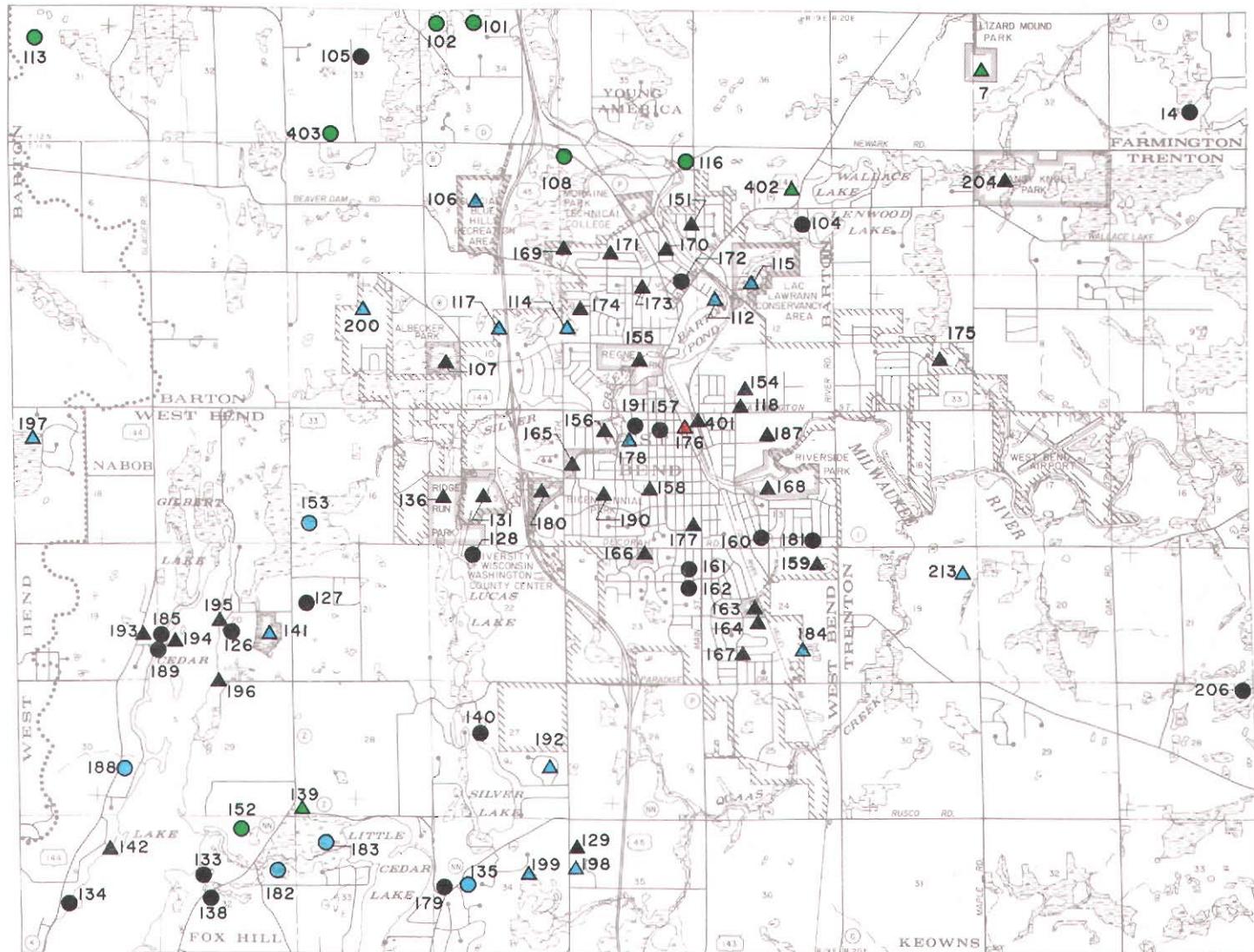
In 1989 the City of West Bend park system consisted of 22 sites, encompassing a total of approximately 605 acres, or about 9 percent of the total area within the corporate limits of the City. As shown on Map 20 and indicated in Table 16, the city-owned sites ranged in size from Regner Park, an 88-acre community park in the center of the City furnishing a variety of outdoor recreational facilities, to Old Settler's Triangle, an urban open space site less than one-half acre in size in the City's downtown; and from the presently undeveloped 120-acre Glacial Blue Hills Recreation Area north of the city limits in a primary environmental corridor, to Forest View Park, a five-acre undeveloped park site located in the extreme southeastern portion of the City in a developing subdivision. A detailed individual description of the existing City of West Bend parks as of 1983, including outdoor recreation facilities and open space areas, is presented in SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for the City of West Bend.

Selected Trail Facilities

Opportunities for extensive land-based outdoor recreation activities, such as bicycling, hiking, nature study, pleasure driving, and ski-touring are provided at trail facilities within park and open space sites in the planning area. As shown on Map 21, a major scenic drive and a national scenic trail are located within the planning area, offering the promise of enhancing the quality of the recreational amenities in the area.

Map 19

PARK AND OPEN SPACE SITES IN THE CITY OF WEST BEND PLANNING AREA: 1989



LEGEND

GENERAL USE

▲ PUBLIC

● NONPUBLIC

SPECIAL USE

▲ PUBLIC

● NONPUBLIC

RURAL OPEN SPACE

URBAN OPEN SPACE

▲ PUBLIC

● NONPUBLIC

168 REFERENCE NUMBER IN TABLES I2, I3, I4, AND I5



Source: Washington County Land Use and Park Department; City of West Bend Park, Recreation, and Forestry Department; and SEWRPC.

Table 12

GENERAL-USE OUTDOOR RECREATION SITES IN THE CITY OF WEST BEND PLANNING AREA: 1989

Site Name	Number on Map 19	Ownership	Acreage
Public			
Albecker County Park	107	County	40
Badger Middle School	177	School district	15
Barton Park	151	City	6
Barton School	170	School district	4
Bicentennial Park	180	City	29
Courthouse Grounds	118	County	3
Decorah Hills Park	166	City	11
Decorah School	164	School district	7
Fair Park School	154	School district	6
Grant Triangle	173	City	1
Greentree School	174	School district	6
Hughes Burckhardt Field	187	County ^a	7
Kenny Park	190	City	9
Maplewynde Playlot	167	City	2
McLane School	158	School district	8
Muenk Playlot	171	City	1
Public Access Parking Lot	193	State	3
Regner Park	155	City	88
Ridge Run County Park	136	County	133
Riverfront Parkway	401	City	2
Riverside Park	168	City	100 ^b
Sandy Knoll County Park	204	County	263
Silverbrook Parkway	165	City	14
Silverbrook School	156	School district	9
Silver Maple School	129	School district	1
Sunset Park	169	City	15
Town Boat Access	142	Town	1
Town Boat Access	194	Town	1
Town Boat Access	195	Town	1
Town Boat Access	196	Town	1
University of Wisconsin-Washington County Center	131	City/County	5
West Bend High School	159	School district	33
Wingate Park	175	City	7
Ziegler Park	163	City	15
Subtotal	--	34 Sites	847
Nonpublic			
Beginnings	179	Commercial	3
Big Cedar Inn	126	Commercial	3
Calvary Assembly of God Church	181	Organizational	1
Cedar Lake Yacht Club	134	Private	4
Fox Hill Ski Hill	138	Private	33
Gonring Marina	185	Commercial	1
Good Shepherd Lutheran School	160	Organizational	1
Hathaway's Silver Lake Resort	140	Commercial	1
Holy Angels School	157	Organizational	2
Keith's Marina	189	Commercial	5
Kettle Moraine YMCA	191	Organizational	9

Table 12 (continued)

Site Name	Number on Map 19	Ownership	Acreage
Nonpublic (continued)			
Lake Lenwood Recreation Park	104	Commercial	53
Lazy Days Campground	14	Commercial	256
St. Francis Cabrini School	162	Organizational	5
St. John's Lutheran School	161	Organizational	3
St. Mary's Immaculate Conception School	172	Organizational	2
Silverbrook GSA Camp	128	Organizational	306
Timber Trail Campground	105	Commercial	24
Timmer's Resort	133	Commercial	8
West Bend Country Club	127	Private	210
YMCA Daycamp	206	Organizational	80 ^c
Subtotal	--	21 Sites	1,010
Total	--	55 Sites	1,857

^aBaseball diamonds are County-owned but are maintained by the City.

^bIncludes 10 acres of undeveloped land north of West Bend Pond.

^cIncludes only that portion of site within the planning area.

Source: Washington County Land Use and Park Department; City of West Bend Park, Recreation, and Forestry Department; and SEWRPC.

Kettle Moraine Scenic Drive: This scenic route is a pleasure-driving facility connecting the Kettle Moraine State Forest—Southern Unit in Jefferson, Walworth, and Waukesha Counties with the Kettle Moraine State Forest—Northern Unit in Fond du Lac, Sheboygan, and Washington Counties. As shown on Map 21, about 10 miles of the Kettle Moraine Scenic Drive are located within the City of West Bend planning area.

Ice Age Trail: The Ice Age Trail, designated as a national scenic trail by Congress in 1982, is planned as a 1,000-mile hiking and bicycling route which will generally follow natural glacial moraines. The trail stretches from Door County in northeastern Wisconsin through the Kettle Moraine area in southeastern Wisconsin to Interstate Park in northwestern Wisconsin. As shown on Map 21, about 11 miles of the planned

Ice Age Trail are located within the City of West Bend planning area.

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS

Environmental corridors are defined by the Regional Planning Commission as linear areas in the landscape which contain concentrations of high value elements of the natural resource base. Preservation of the natural resource base related elements, especially where these elements are concentrated in identifiable geographic areas, is essential to the maintenance of the overall environmental quality of an area, to the continued provision of certain amenities that provide a high quality of life for the resident population, and to the avoidance of excessive costs associated with the development, operation, and maintenance of urban land uses in the area.

Table 13
**SELECTED OUTDOOR RECREATION FACILITIES FOR
GENERAL USE IN THE CITY OF WEST BEND PLANNING AREA; 1989**

Site Name	Number on Map 19	Number of Selected Facilities									
		Regulation Baseball Diamonds	Basketball Goals	Ice- Skating Rinks	Picnic Tables	Playfields	Play Apparatus Areas	League Softball Diamonds	Sandlot Ball Diamonds	Swimming Beach (linear feet)	Tennis Courts
Public											
Albecker County Park	107	--	--	--	15	--	1	--	--	--	--
Badger Middle School	177	--	--	--	--	1	--	--	--	--	4
Barton Park	151	--	2	1	20	1	2	1	--	--	1
Barton School	170	--	2	--	--	1	1	--	--	--	--
Bicentennial Park	180	--	1	--	6	--	1	--	--	--	2
Courthouse Grounds	118	--	--	--	--	1	--	--	--	--	--
Decorah Hills Park	166	--	2	1	10	1	2	--	1	--	2
Decorah School	164	--	2	--	--	1	1	--	--	--	--
Fair Park School	154	--	2	--	--	1	2	--	1	--	--
Grant Triangle	173	--	--	--	--	--	1	--	--	--	--
Greentree School	174	--	1	--	--	--	2	--	1	--	--
Hughes Burkhardt Field	187	2 ^a	--	--	--	--	--	--	--	--	--
Kenny Park	190	--	--	--	--	1	1	--	--	--	--
Maplewynde Playlot	167	--	--	--	--	--	1	--	1	--	--
McLane School	158	--	1	--	--	1	1	--	--	--	--
Muenk Playlot	171	--	1	--	--	--	1	--	--	--	--
Public Access Parking Lot	193	--	--	--	--	--	--	--	--	1,000	3
Regner Park	155	1	--	1	140	1	2	2	--	1,000	3
Ridge Run County Park	136	--	--	1	40	3	2	--	--	--	--
Riverfront Parkway	401	--	--	--	--	--	--	--	--	--	--
Riverside Park	168	1 ^a	4	1	20	1	2	--	--	--	3
Sandy Knoll County Park	204	--	--	1	50	1	2	--	1	--	--
Silverbrook Parkway	165	--	--	1	--	--	1	--	--	--	--
Silverbrook School	156	--	4	--	--	1	--	--	2	--	--
Silver Maple School	129	--	1	--	--	--	1	--	--	--	--
Sunset Park	169	--	--	1	10	1	2	--	1	--	--
Town Boat Access	142	--	--	--	--	--	--	--	--	--	--
Town Boat Access	144	--	--	--	--	--	--	--	--	--	--
Town Boat Access	195	--	--	--	--	--	--	--	--	--	--
Town Boat Access	196	--	--	--	--	--	--	--	--	--	--
University of Wisconsin-Washington County Center	131	--	--	--	--	1	--	--	--	--	--
West Bend High School	159	1	--	--	--	1	--	--	2	--	8
Wingate Park	175	--	2	--	10	--	1	--	1	--	2
Ziegler Park	163	--	--	1	10	1	1	--	1	--	--
Subtotal	--	5	25	9	331	20	31	3	12	1,000	25
Nonpublic											
Beginnings	179	--	--	--	--	--	--	--	1	--	--
Big Cedar Inn	126	--	--	--	10	--	--	--	--	--	--
Calvary Assembly of God Church	181	--	2	--	--	1	--	--	--	--	--
Cedar Lake Yacht Club	134	--	--	--	--	--	--	--	--	--	--
Fox Hill Ski Hill	138	--	--	--	--	--	--	--	--	--	--
Gonring Marina	135	--	--	--	--	--	--	--	--	--	--
Good Shepherd Lutheran School	160	--	--	--	--	--	1	--	1	--	--
Hathaway's Silver Lake Resort	140	--	--	--	10	--	--	--	--	20	--
Holy Angels School	157	--	3	--	--	--	1	--	--	--	--
Keith's Marina	189	--	--	--	5	--	--	--	--	150	--
Kettle Moraine YMCA	191	--	--	--	--	--	1	--	--	--	--
Lake Lenwood Recreation Park	104	--	--	--	70	1	1	--	--	40	--
Lazy Days Campground	14	--	--	--	300	1	1	--	--	200	--
St. Francis Cabrini School	162	--	2	--	--	1	1	--	3	--	--
St. John's Lutheran School	161	--	3	--	--	--	1	--	2	--	--
St. Mary's Immaculate Conception School	172	--	2	--	--	1	1	--	1	--	--
Silverbrook GSA Camp	128	--	--	1	25	1	--	--	--	50	--
Timber Trail Campground	105	--	1	--	--	1	1	--	--	700	--
Timmer's Resort	133	--	--	--	--	--	--	--	--	--	--
West Bend Country Club	127	--	--	--	--	--	--	--	--	--	--
YMCA Daycamp	206	--	--	1	30	1	--	--	--	--	--
Subtotal	--	--	13	2	450	8	9	--	8	1,160	--
Total	--	5	38	11	781	28	40	3	20	2,160	25

^aThese diamonds are regulation Little League baseball diamonds.

Source: Washington County Land Use and Park Department; City of West Bend Park, Recreation, and Forestry Department; and SEWRPC.

Table 14

SPECIAL-USE OUTDOOR RECREATION SITES IN THE CITY OF WEST BEND PLANNING AREA: 1989

Site Name	Number on Map 19	Ownership	Acreage
Public			
Cedar Lake Wayside	139	County	3
Lizard Mound Park	7	County	32
Wayside	402	State	1
Subtotal	--	3 Sites	36
Nonpublic			
Cedar Lake Homes	152	Organizational	141
Faith Haven	113	Organizational	59
Highway 45 Driving Range	108	Commercial	12
Union Rod and Gun Club	102	Organizational	39
Wayside	403	Organizational	1
West Bend BMX Racing, Ltd.	116	Private	3
West Bend Sportsmen's Club	101	Organizational	63
Subtotal	--	7 Sites	318
Total	--	10 Sites	354

Source: Washington Land Use and Park Department; City of West Bend Park, Recreation, and Forestry Department; and SEWRPC.

Seven elements of the natural resource base are considered by the Regional Planning Commission as essential to the maintenance of the ecological balance and overall quality of life in an area. These elements include: 1) lakes, rivers, streams, and associated shorelands and floodlands; 2) wetlands; 3) areas covered by wet, poorly drained, and organic soils; 4) woodlands; 5) wildlife habitat areas; 6) rugged terrain and high relief topography having slopes exceeding 12 percent; and 7) prairie remnants. Six of these seven elements have been described earlier in this chapter as they occur in the planning area. No significant prairie vegetation was identified in the planning area.

As already noted, there are certain other elements which, although not a part of the natural resource base *per se*, are closely related to, or centered on, that base. These elements include: 1) existing parks, outdoor recreation sites, and trails; 2) potential park, outdoor recreation and related open space sites; 3) historic sites and structures; 4) scenic viewpoints; and 5) areas having scientific value.

The delineation of these 12 natural resource and natural resource-related elements on a map results in an essentially linear pattern of relatively narrow, elongated areas which have been termed "environmental corridors" by the Regional Planning Commission. Map 22 shows the location and extent of environmental corridors and other environmentally significant areas, termed "isolated natural areas", within the planning area in 1985.

Criteria for Delineating Environmental Corridors and Isolated Natural Areas

The environmental corridors and other environmentally significant areas of the West Bend planning area were delineated, using the following criteria:

1. Point values between 1 and 20 were assigned to each natural resource and natural resource-related element. These point values were based on the premise that those natural resource elements having intrinsic natural resource values and a

Table 15

RURAL OPEN SPACE SITES IN THE CITY OF WEST BEND PLANNING AREA: 1989

Site Name	Number on Map 19	Ownership	Acreage
Public			
Forest View	184	City	5
Glacial Blue Hills Recreation Area	106	City	120
Glacial Environmental Corridor	117	City	40
Juech Wildlife Area	114	City	7
Lac Lawrann Conservancy Area	115	City	104
North Point Bay	112	City	9
School System Property	178	School district	15
State Wetland Area	141	State	30
Town Land	192	Town	4
Town Land	197	Town	53
Town Land	198	Town	2
Town Land	199	Town	10
Villa Park	200	City	15
West Bend School Forest	213	School district	52
Subtotal	--	14 Sites	466
Nonpublic			
Big Cedar Lake Inland Protection and Rehabilitation District Land	188	Organizational	18
Cedar Lake Conservation Foundation (Site 1)	153	Organizational	40
Cedar Lake Conservation Foundation (Site 2)	182	Organizational	35
Cedar Lake Conservation Foundation (Site 3)	183	Organizational	55
Undeveloped Subdivision Park	135	Private	2
Subtotal	--	5 Sites	150
Total	--	19 Sites	616

Source: Washington County Land Use and Park Department; City of West Bend Park, Recreation, and Forestry Department; and SEWRPC.

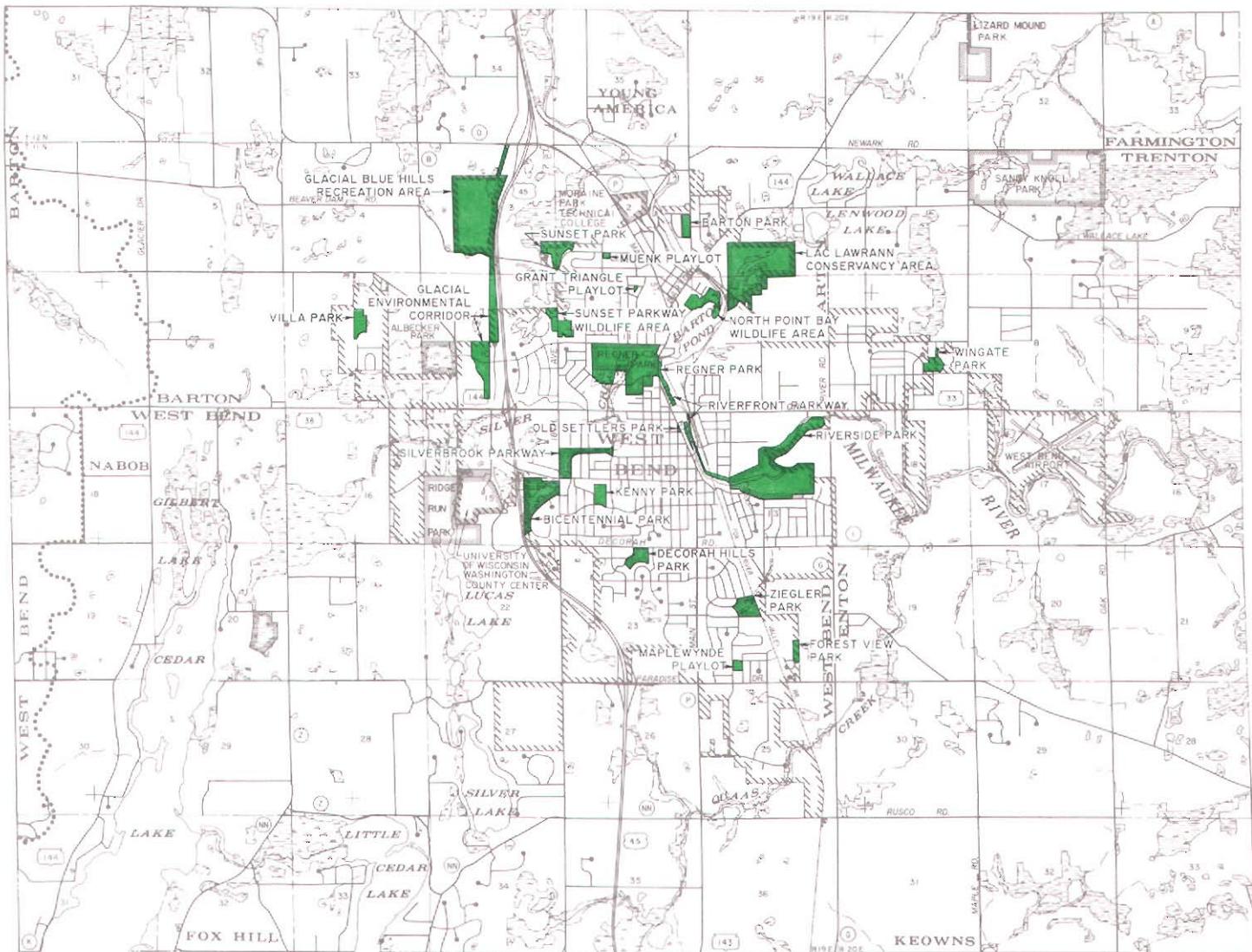
high degree of natural diversity should be assigned relatively high point values, whereas natural resource-related elements, having only implied natural values, should be assigned relatively low point values. These values for each element of corridor are shown in Table 17.

2. Each element was then depicted on 1 inch equals 400 feet scale ratioed and rectified aerial photographs.
3. Cumulative point values were totaled for all areas containing natural resource and natural resource-related elements.

4. Environmental corridors were then delineated on the basis of the following point values and the data set forth in Table 18.

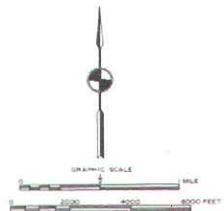
- Areas having a point value of 10 or greater, which are at least of 400 acres in size, two miles in length, and 200 feet in width, were designated as primary environmental corridors.
- Areas having point values of 10 or greater, which are at least 100 acres in size and one mile in length, were designated as secondary environmental corridors.

Map 20
CITY OF WEST BEND PARK SYSTEM: 1989



LEGEND

PARK AND OPEN SPACE SITES



Source: City of West Bend Park, Recreation, and Forestry Department and SEWRPC.

Table 16
CITY OF WEST BEND PARK SYSTEM: 1989

Site Name	Acreage	Site Description
Barton Park	6	Neighborhood park
Bicentennial Park	29	Wetland and wildlife area with small area for intensive recreation
Decorah Hills Park	11	Neighborhood park with large wooded area
Forest View	5	Undeveloped open land
Glacial Blue Hills Recreation Area	120	Steep topography woodlands, ponds, open areas
Glacial Environmental Corridor	40	Woodland and wildlife area
Grant Triangle	1	Playlot
Kenny Park	9	Neighborhood park
Lac Lawrann Conservancy Area	104	Wetland and wildlife area
Maplevynde Playlot	2	Playlot
Muenk Playlot	1	Playlot
North Point Bay	9	Wetland and wildlife area
Old Settlers Triangle	1	Special historic area
Regner Park	88	Community park
Riverfront Parkway	2	River walkway
Riverside Park	100	Neighborhood park
Silverbrook Parkway	14	Wetland and wildlife area
Sunset Park	15	Neighborhood park with adjoining wetland area
Sunset Parkway	11	Wetland and wildlife area
Villa Park	15	Wetland and wildlife area
Wingate Park	7	Neighborhood park
Ziegler Park	15	Neighborhood park with large woodland and wetland areas
22 Sites	605	--

Source: *City of West Bend Park, Recreation, and Forestry Department and SEWRPC.*

- Isolated areas having point values of 10 or greater, which are at least five acres in size and 200 feet in width, were designated as isolated natural areas.
- For isolated areas with corridor values, linking segments were identified to establish corridor continuity when such areas met the qualifications set forth in Table 19.

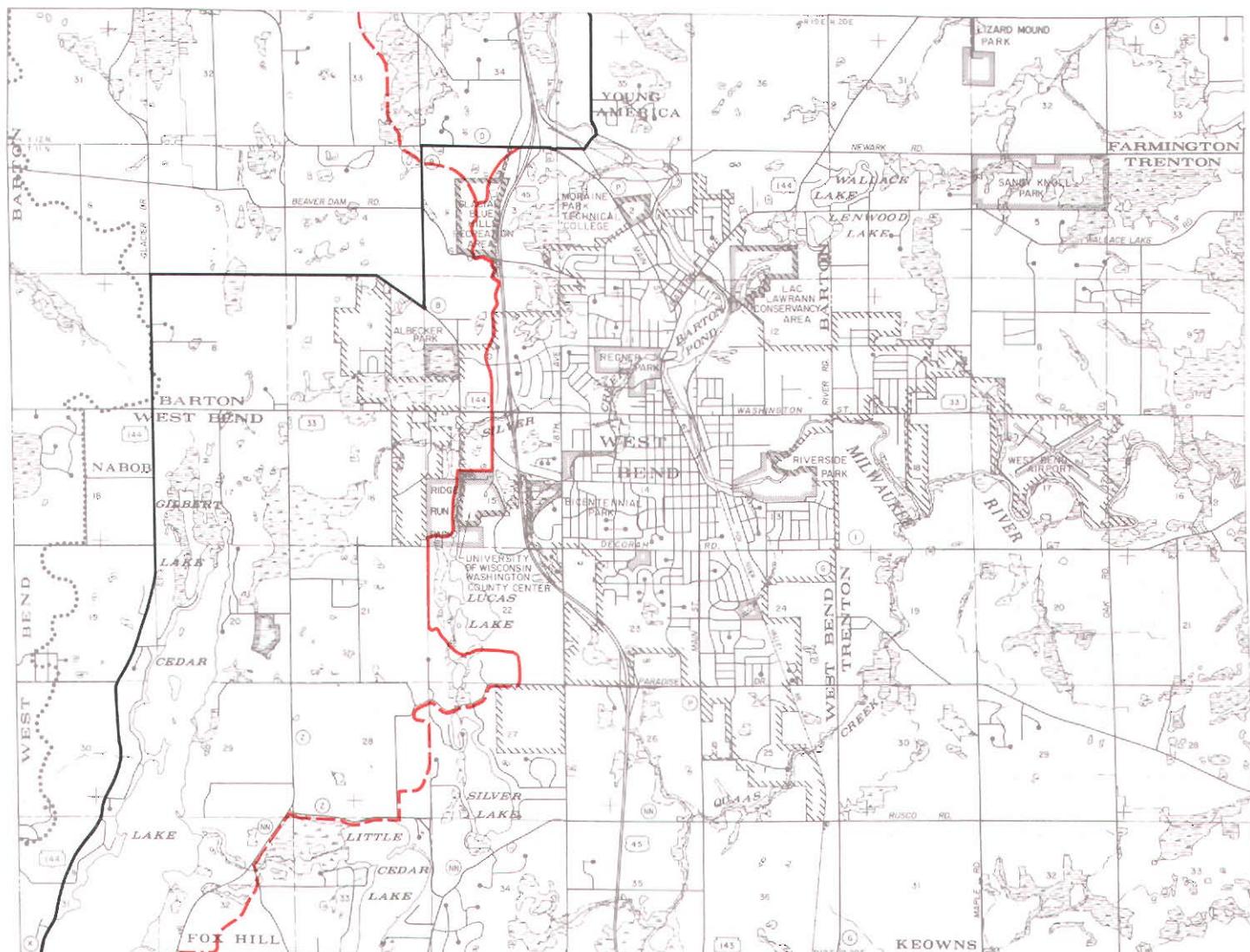
Importance of Preserving Environmental Corridors and Isolated Natural Areas

It is important to note that, because of the many interacting relationships existing between living organisms and their environment, the destruc-

tion or deterioration of any one element of the total natural resource base may lead to a chain reaction of deterioration and destruction. The drainage and filling of wetlands, for example, may destroy fish spawning grounds, wildlife habitat, groundwater recharge areas, and the natural filtration action and flood water storage functions which contribute to maintaining high levels of water quality and stable stream flows and lake stages in a watershed. The resulting deterioration of surface water quality may, in turn, lead to the deterioration of the quality of the groundwater which serves as a source of domestic, municipal, and industrial water supply and on which low flows in rivers and streams may depend. Similarly, the destruction of woodland cover may result in soil erosion and stream

Map 21

SELECTED TRAILS WITHIN THE CITY OF WEST BEND PLANNING AREA: 1989



LEGEND

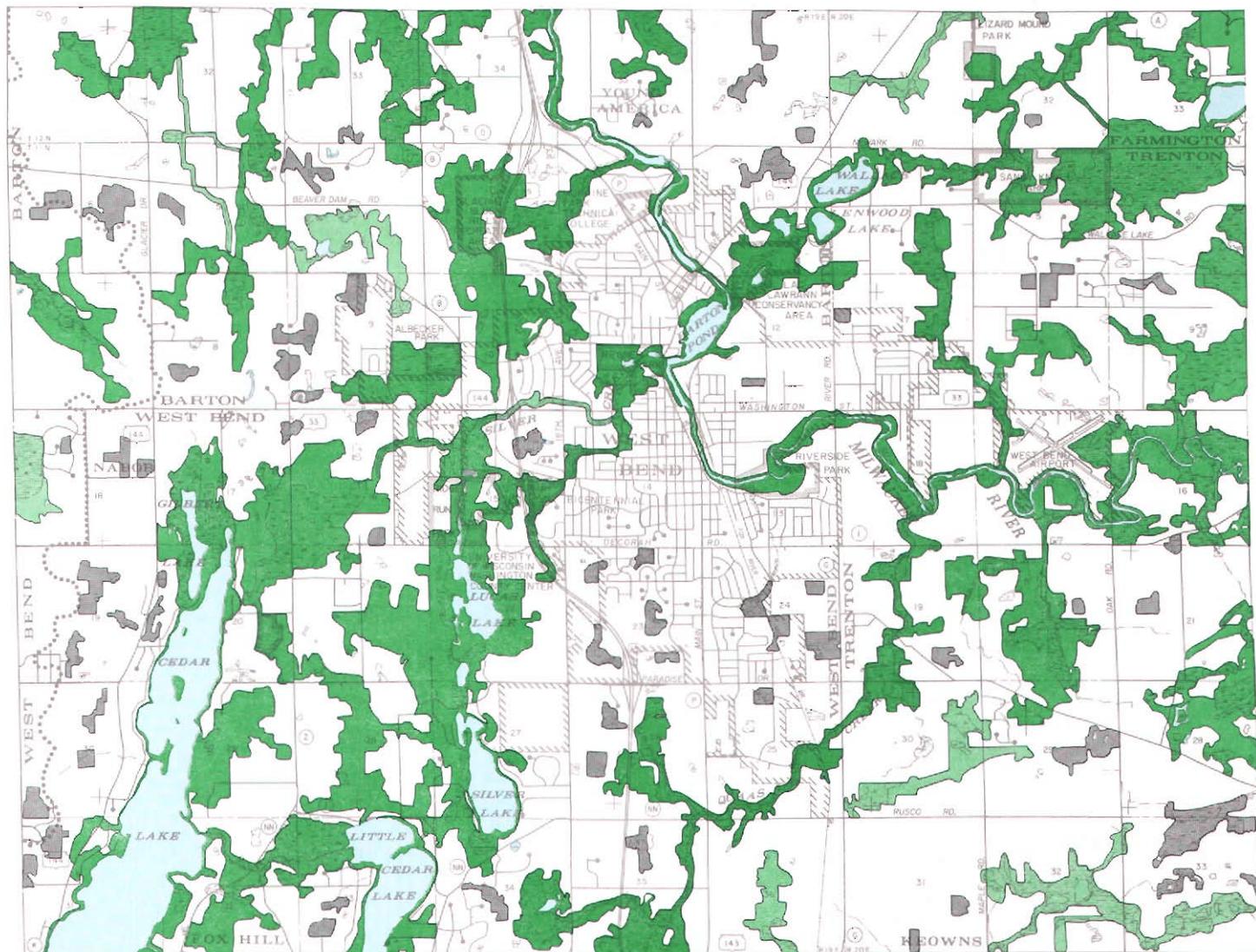
- KETTLE MORAINES SCENIC DRIVE
- ICE AGE TRAIL (EXISTING)
- - ICE AGE TRAIL (PROPOSED)



Source: Washington County Land Use and Park Department; City of West Bend Park, Recreation, and Forestry Department; and SEWRPC.

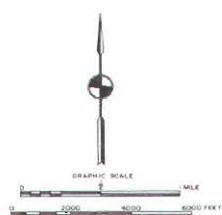
Map 22

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS IN THE CITY OF WEST BEND PLANNING AREA: 1985



LEGEND

- [Dark Green Box] PRIMARY ENVIRONMENTAL CORRIDOR
- [Light Green Box] SECONDARY ENVIRONMENTAL CORRIDOR
- [Dark Grey Box] ISOLATED NATURAL AREA
- [Light Blue Box] SURFACE WATER AREA



Source: SEWRPC.

Table 17
**POINT VALUES FOR NATURAL RESOURCE BASE
AND NATURAL RESOURCE BASE-RELATED ELEMENTS**

Element	Point Value
Natural Resource Base	
Lake	
Major (50 acres or more)	20
Minor (5-49 acres)	20
Rivers or Streams (perennial)	10
Shoreland	
Lake or Perennial River or Stream	10
Intermittent Stream	5
100-Year Floodland	3
Wetland	10
Wet, Poorly Drained, or Organic Soil	- ^a
Woodland	10
Wildlife Habitat	
High Value	10
Medium Value	7
Low Value	5
Steep Slope	
20 Percent or Greater	7
12 Percent to 19 Percent	5
Prairie	10
Natural Resource Base-Related	
Existing Park or Open Space Site	
Rural Open Space Site	5
Other Park and Open Space Sites	2
Potential Park Site	
High Value	3
Medium Value	2
Low Value	1
Historic Site	
Structure	1
Other Cultural	1
Archaeological	2
Scenic Viewpoint	5
Scientific and Natural Area	
State Scientific Area	15
Natural Area of Statewide or Greater Significance	15
Natural Area of Countywide or Regional Significance	10
Natural Area of Local Significance	5

^aPoint values were not assigned for wet, poorly drained, or organic soils. The determination of these types of soils as part of the environmental corridors is discussed in "Refining the Delineation of Environmental Corridors in Southeastern Wisconsin," Technical Record, Vol. 4, No. 2, 1981.

Source: SEWRPC.

Table 18

MINIMUM REQUIREMENTS FOR CLASSIFICATION OF PRIMARY AND SECONDARY ENVIRONMENTAL CORRIDORS AND OTHER ENVIRONMENTALLY SIGNIFICANT LANDS

Natural Resource Features	Minimum Point Value	Minimum Area (acres)	Minimum Length (miles)	Minimum Width (feet)
Primary Environmental Corridor	10	400	2	200
Secondary Environmental Corridor ^a	10	100	1	--
Isolated Natural Areas	10	5	--	200

^a*Secondary environmental corridors may serve to connect primary corridor segments or be linked to primary environmental corridor segments, particularly when such secondary corridors are related to surface drainage (no minimum area, length, or width requirements).*

Source: SEWRPC.

Table 19

REQUIREMENTS FOR LINKING SEPARATED NATURAL AREAS WITH CORRIDOR VALUE

Acres of Separated Corridor-Value Lands	Maximum Continuity Distance Between Separated Areas with Corridor Values
640+	2,640 feet (1/2 mile)
320-639	1,760 feet (1/3 mile)
160-319	1,320 feet (1/4 mile)
80-159	880 feet (1/6 mile)
40-79	660 feet (1/8 mile)
20-39	440 feet (1/12 mile)
5-19	220 feet (1/24 mile)

Source: SEWRPC.

siltation, more rapid stormwater runoff and attendant increased flood flows and stages, as well as destruction of wildlife habitat.

Although the effects of any one of these environmental changes may not in and of itself be overwhelming, the combined effects will eventually create serious environmental and developmental problems. These problems include flooding, water pollution, deterioration and

destruction of wildlife habitat, loss of groundwater recharge, and destruction of the unique natural beauty of the area. The need to maintain the integrity of the remaining environmental corridors and environmentally significant lands thus becomes apparent. The adopted regional land use plan accordingly recommends that the remaining primary environmental corridors be maintained in essentially natural, open uses, which may, in some cases, include limited agricultural and low-density residential uses.

Primary Environmental Corridors

In 1985 about 10,294 acres, or about 25 percent of the total planning area, were encompassed within the primary environmental corridors shown on Map 22. The primary environmental corridors in the West Bend planning area are generally located along those perennial and intermittent streams in the eastern portion of the planning area which are tributary to the Milwaukee River and around Big and Little Cedar, Green, Gilbert, Wallace, Lucas, and Silver Lakes. The primary environmental corridors contain the best remaining woodlands, wetlands, and wildlife habitat areas within the planning area; and are, in effect, a composite of the best individual elements of the natural resource base. As such they have truly immeasurable environmental and recreational value. The protection of the primary environmental corridors from intrusion by incompatible rural and urban uses, and

thereby from degradation and destruction, should be one of the principal objectives of a local development plan. Preservation of these primary corridors in an essentially open, natural state, including park and open space uses, limited agricultural uses, and rural estate-type residential uses, will serve to maintain a high level of environmental quality in the area, protect the natural beauty of the area, and provide valuable recreational opportunities. Such preservation will also avoid the creation of serious and costly environmental and developmental problems such as flood damage, poor drainage, wet basements, failing pavements and other structures, excessive infiltration of clear waters into sanitary sewers, and water pollution.

Secondary Environmental Corridors

As shown on Map 22, in 1985 about 890 acres, or about 2 percent of the total planning area, were included within the secondary environmental corridors. The secondary environmental corridors in the City of West Bend planning area are generally located along intermittent streams or serve as links between segments of primary environmental corridors. These secondary environmental corridors often contain remnant resources from former primary environmental corridors which have been developed for intensive agricultural purposes or urban land uses. Secondary environmental corridors facilitate surface water drainage, maintain pockets of natural resource features, and provide for the

movement of wildlife, as well as for the movement and dispersal of seeds for a variety of plant species. Such corridors should be preserved in essentially open natural uses as urban development proceeds within the planning area, particularly when the opportunity is presented to incorporate such corridors into urban stormwater detention areas, associated drainageways, and neighborhood parks and open spaces.

Isolated Natural Areas

In addition to the primary and secondary environmental corridors, other small concentrations of natural resource base elements exist within the planning area. These elements are isolated from the environmental corridors by urban development or agricultural uses and, although separated from the corridor network, may have important residual natural values. Isolated natural areas may provide the only available wildlife habitat in an area, provide good locations for local parks and nature study areas, and lend aesthetic character and natural diversity to an area. Important isolated natural areas within the City of West Bend planning area include a geographically well distributed variety of isolated wetlands, woodlands, and wildlife habitat. These areas should also be protected and preserved in a natural state whenever possible. Such isolated natural areas five acres or greater in size are also shown on Map 22; they encompassed about 1,134 acres, or about 3 percent of the total planning area in 1985.

Chapter IV

INVENTORY AND ANALYSIS OF EXISTING LAND USES AND MAN-MADE FEATURES

INTRODUCTION

If the City of West Bend land use plan is to constitute a sound and realistic guide for making decisions concerning the physical development of the City and environs, it must be based upon careful consideration of pertinent features of the built environment, as well as of the natural resource base, of the area. For the purposes of this land use planning effort, the pertinent features of the built environment were identified as: 1) existing land uses, 2) historic buildings and sites, 3) existing community public facilities, and 4) existing public utility systems. Each of these cultural features as it affects the physical development of the City and its environs is described in this chapter.

EXISTING LAND USES

In 1985, the Regional Planning Commission conducted detailed inventories of existing land use in the City of West Bend planning area in order to determine the type, amount, and spatial distribution of both the existing urban development and the rural land uses. The data gathered in the present land use survey were mapped and analyzed in order to provide a basis for both land use need and for appropriate patterns of future land use development in the City and environs.

The existing 1985 land uses in the City of West Bend planning area are shown on Map 23. The amount of land devoted to each area is set forth in Table 20. The existing land uses in the 1985 incorporated area of the City of West Bend are also shown on Map 23 and the amount of land devoted to each type of land use in the City is set forth in Table 21.

The planning area totals about 40,591 acres, or about 63.4 square miles. In 1985, urban land uses occupied about 7,513 acres, or about 18 percent of the total planning area. Rural land uses, which include water, wetlands, woodlands, agricultural lands, extractive lands, and other open lands, totaled about 33,078 acres, or about 82 percent of the total planning area. In 1985, the incorporated City of West Bend occupied about 5,904 acres, or about 15 percent of the total

planning area. Within the City in 1985, urban land uses occupied about 3,366 acres, or about 57 percent of the City, while rural land uses occupied about 2,538 acres, or about 43 percent of the area of the City.

Several important elements of the character of the planning area can be noted from an examination of Table 20 and on Map 23. First, the largest single land use category in the planning area is still agriculture-related uses, which represents about 50 percent of the total planning area. The next largest land use in the area is water, wetlands, and woodlands, representing almost 26 percent of the total planning area. The third largest is residential land uses, representing about nine percent of the total planning area.

Urban Land Uses

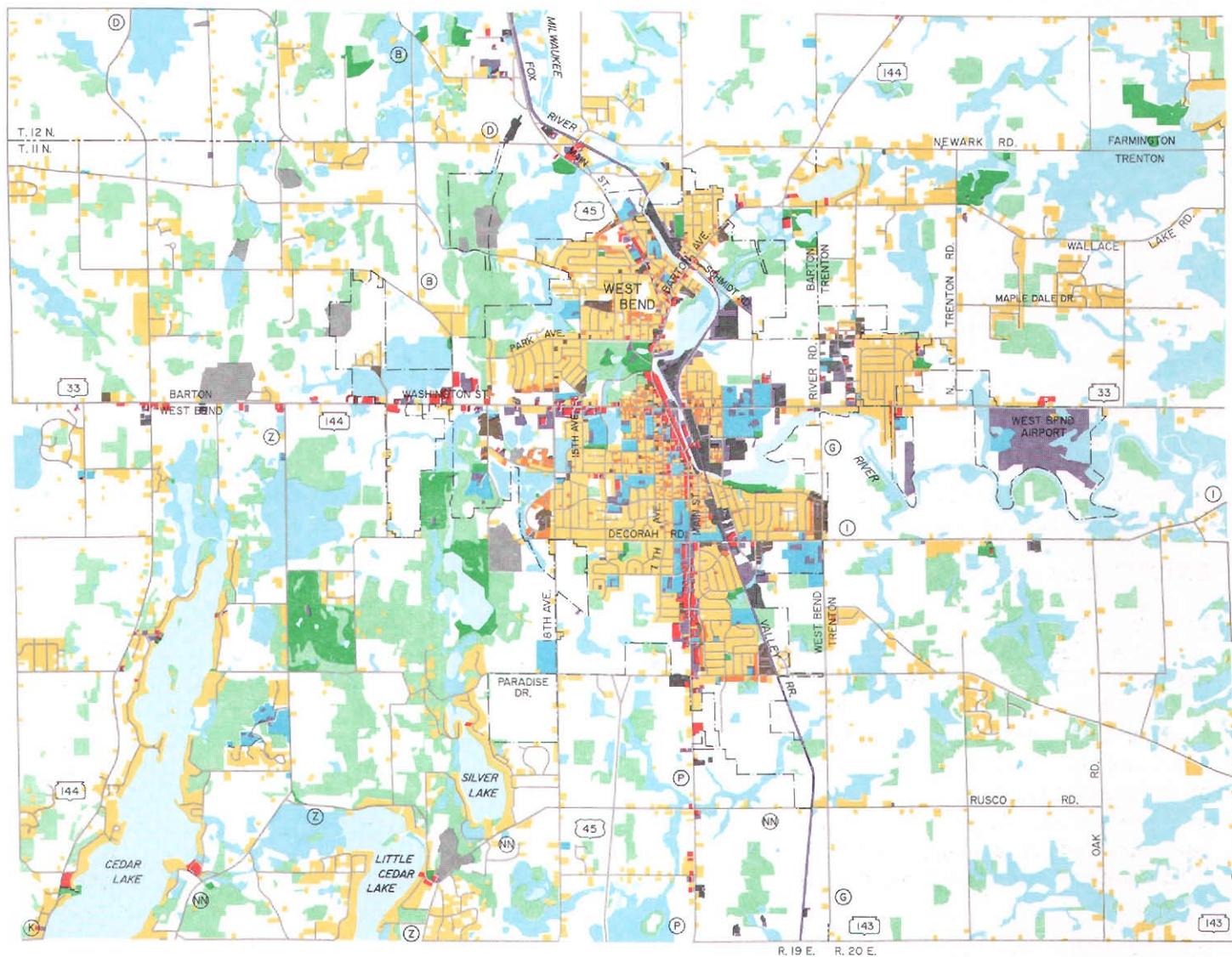
Residential Land Use: Of all the elements of a community land use plan, that portion of the plan which normally holds the interest of the largest number of inhabitants is residential land use. Since the residential land use element of the land use plan seeks primarily to provide a safe, attractive, and comfortable setting for residential development, it is very important that this element be given extremely careful and thoughtful consideration. The nature and extent of residential development is a major determinant of the type and location of community facilities and utilities needed to serve local residents.

In 1985, residential land use accounted for about 3,803 acres, or about 51 percent of the developed urban area in the planning area, but only about 9 percent of the total planning area. Within the City of West Bend 1985 corporate limits, residential land use accounted for about 1,589 acres, or about 47 percent of the urban land uses and about 27 percent of the total land uses in the City. As shown on Map 23, single-family residential land uses were scattered throughout the City. Two-family residential land uses were located predominantly in the central and western sections of the City and multi-family residential uses are scattered throughout the City.

Table 22 provides data on the developed and vacant residential subdivision lots in the West

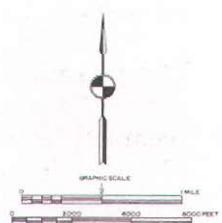
Map 23

EXISTING LAND USE IN THE CITY OF WEST BEND PLANNING AREA: 1985



LEGEND

	SINGLE-FAMILY RESIDENTIAL
	TWO-FAMILY RESIDENTIAL
	MULTI-FAMILY RESIDENTIAL
	COMMERCIAL
	INDUSTRIAL
	EXTRACTIVE AND LANDFILL
	TRANSPORTATION, COMMUNICATIONS AND UTILITIES
	GOVERNMENTAL AND INSTITUTIONAL
	RECREATIONAL
	WETLANDS
	WOODLANDS
	WATER
	AGRICULTURAL AND OTHER OPEN LANDS



Source: SEWRPC.

Table 20

SUMMARY OF EXISTING LAND USE IN THE CITY OF WEST BEND PLANNING AREA: 1985

Land Use Category	Number of Acres	Percent of Subtotal Urban and Rural	Percent of Total
Urban			
Residential			
Single-Family	3,520.4	46.9	8.7
Two-Family	152.0	2.0	0.4
Multi-Family			
Land and Buildings	104.7	1.4	0.2
Parking ^a	25.9	0.3	0.1
Multi-Family Subtotal	130.6	1.7	0.3
Subtotal	3,803.0	50.6	9.4
Commercial			
Land and Buildings	192.4	2.5	0.5
Parking ^a	110.3	1.5	0.3
Subtotal	302.7	4.0	0.8
Industrial			
Land and Buildings	193.1	2.6	0.5
Parking ^a	63.0	0.8	0.1
Subtotal	256.1	3.4	0.6
Transportation and Utilities			
Arterial Streets and			
Highways	504.8	6.7	1.3
Local and Collector Streets	1,363.9	18.2	3.4
Truck and Bus Terminals	18.0	0.2	b
Railroads	90.5	1.2	0.2
Airports	167.9	2.2	0.4
Communications and Utilities			
Land and Buildings	49.5	0.7	0.1
Parking ^a	2.4	b	b
Communications and Utilities Subtotal	51.9	0.7	0.1
Subtotal	2,197.0	29.2	5.4
Governmental and Institutional			
Land and Buildings	381.9	5.1	0.9
Parking ^a	73.0	1.0	0.2
Subtotal	454.9	6.1	1.1
Parks and Recreational^c			
Land and Buildings	488.2	6.5	1.2
Parking ^a	11.1	0.2	b
Subtotal	499.3	6.7	1.2
Urban Subtotal	7,513.0	100.0	18.5

Table 20 (continued)

Land Use Category	Number of Acres	Percent of Subtotal Urban and Rural	Percent of Total
Rural			
Natural Areas			
Water	1,838.9	5.6	4.5
Wetlands	4,498.9	13.6	11.1
Woodlands	4,176.7	12.6	10.3
Subtotal	10,514.5	31.8	25.9
Extractive and Landfill	243.6	0.7	0.6
Agricultural	20,187.5	61.0	49.7
Other Open Lands	2,132.3	6.5	5.3
Rural Subtotal	33,077.9	100.0	81.5
Total	40,590.9	--	100.0

^aIncludes associated off-street parking areas generally containing 10 or more parking spaces.

^bLess than 0.05 percent.

^cIncludes only areas used for intensive outdoor recreational activities.

Source: SEWRPC.

Bend planning area platted between 1920 and 1985. The total number of such lots platted in the planning area during this period was 5,435, of which 980, or about 18 percent, remained undeveloped, that is, vacant and unused, in 1985. It should be noted that some of the undeveloped lots may not be suitable for development due to existing site constraints, or may be under the ownership of adjoining developed residential lots. Between 1920 and 1985, the number of residential lots per net acre in the planning area averaged 2.57; individual lot size averaged 16,978 square feet. During this same period a total of 3,732 residential lots were platted in the City of West Bend, of which 347, or about 9 percent, remained undeveloped in 1985. The number of residential lots per net acre in the City during the 1920 through 1985 period was an average 4.22; the individual lot size averaged 10,331 square feet. From 1986 to 1989, 10 new subdivisions, totaling 260 lots, were platted in the City of West Bend corporate limits.

Commercial Land Use: In 1985, commercial retail sales and services land uses accounted for about 303 acres, or about 4 percent of the urban land uses and about 0.8 percent of the total land uses in the City of West Bend planning area. Within the City of West Bend, commercial land uses accounted for about 219 acres, or about 6 percent of the urban land uses and about 4 percent of the total land uses in the City of West Bend. Community-oriented commercial land uses in the City are located predominantly in the West Bend central business district and also along Washington Street, as shown on Map 23. Various other community- and neighborhood-oriented commercial land uses can be found in scattered locations along Main Street and in the Old Barton Village area.

Industrial Land Use: In 1985, industrial land uses accounted for about 256 acres, or about 3 percent of the urban land uses in the planning area and about 0.6 percent of the total planning

Table 21
SUMMARY OF EXISTING LAND USE IN THE CITY OF WEST BEND: 1985

Land Use Category	Number of Acres	Percent of Subtotal Urban and Rural	Percent of Total
Urban			
Residential			
Single-Family	1,312.8	39.0	22.2
Two-Family	148.8	4.4	2.5
Multi-Family			
Land and Buildings	101.4	3.0	1.7
Parking ^a	25.7	0.8	0.5
Multi-Family Subtotal	127.1	3.8	2.2
Subtotal	1,588.7	47.2	26.9
Commercial			
Land and Buildings	128.7	3.8	2.2
Parking ^a	90.0	2.7	1.5
Subtotal	218.7	6.5	3.7
Industrial			
Land and Buildings	149.9	4.5	2.6
Parking ^a	54.6	1.6	0.9
Subtotal	204.5	6.1	3.5
Transportation and Utilities			
Arterial Streets and Highways	147.0	4.4	2.5
Local and Collector Streets	515.5	15.3	8.7
Truck and Bus Terminals	11.5	0.3	0.2
Railroads	36.5	1.1	0.6
Airports	166.7	5.0	2.8
Communications and Utilities			
Land and Buildings	37.3	1.1	0.7
Parking ^a	2.4	0.1	--b
Communications and Utilities Subtotal	39.7	1.2	0.7
Subtotal	916.9	27.3	15.5
Governmental and Institutional			
Land and Buildings	298.4	8.8	5.0
Parking ^a	63.0	1.9	1.1
Subtotal	361.4	10.7	6.1
Parks and Recreational^c			
Land and Buildings	70.3	2.1	1.2
Parking ^a	5.1	0.1	0.1
Subtotal	75.4	2.2	1.3
Urban Subtotal	3,365.6	100.0	57.0

Table 21 (continued)

Land Use Category	Number of Acres	Percent of Subtotal Urban and Rural	Percent of Total
Rural			
Natural Areas			
Water	173.5	6.8	2.9
Wetlands	410.0	16.1	6.9
Woodlands	281.0	11.1	4.8
Subtotal	864.5	34.0	14.6
Extractive	5.3	0.2	0.1
Agricultural	969.1	38.2	16.4
Other Open Lands	700.0	27.6	11.9
Rural Subtotal	2,538.9	100.0	43.0
Total	5,904.5	--	100.0

^aIncludes associated off-street parking areas generally containing 10 or more parking spaces.

^bLess than 0.05 percent.

^cIncludes only areas used for intensive outdoor recreational activities.

Source: SEWRPC.

area. Within the City of West Bend, industrial land uses accounted for about 204 acres, or about 6 percent of the urban land uses and about 4 percent of the total land uses in the City. In 1985, industrial land uses, as shown on Map 23, were concentrated along the east side of the Fox River Valley Railroad right-of-way and near the northeastern corner of E. Washington Street and N. River Road in the West Bend Industrial Park East.

Transportation and Utilities Land Use: In 1985, transportation and utility land uses, which include arterial streets and highways, local and collector streets, railways, airports, and communications and utilities, accounted for approximately 2,197 acres of land in the City of West Bend planning area, or about 29 percent of the urban land uses and about 5 percent of the total land uses in the planning area. In the City of West Bend, these land uses amounted to about

917 acres, or about 27 percent of the urban land uses and about 16 percent of the total land uses in the City.

Governmental and Institutional Land Use: In 1985, governmental and institutional land uses accounted for about 455 acres of land in the City of West Bend planning area, representing about 6 percent of the urban land uses of the planning area and about 1 percent of the total planning area. Within the City of West Bend, these land uses accounted for about 361 acres, or about 11 percent of the urban land uses and 6 percent of the total land uses in the City. Major governmental and institutional land uses in the City included Washington County Courthouse, St. Joseph's Community Hospital of West Bend, Inc., Samaritan-Washington County Home, The University of Wisconsin-Washington County Center (UWWC), Moraine Park Technical Col-

Table 22

**HISTORICAL RESIDENTIAL LAND SUBDIVISIONS IN
THE CITY OF WEST BEND PLANNING AREA: 1920—1985**

Municipality/Subdivision Name	Year Recorded	U. S. Public Land Survey Location				Number of Lots	Gross Acres	Net Acres	Typical Lot Size (square feet)	Number of Lots Developed	Number of Lots Vacant
		Township	Range	Section	Quarter-Section						
City of West Bend											
Bertondale Subdivision	1920	T11N	R19E	2	SE	83	21.57	14.29	7,500	81	2
The Highlands	1920	T11N	R19E	13	SW	46	9.02	6.34	6,000	46	0
Aluminum Company's Addition to Pleasant Hill	1921	T11N	R19E	12	SW	8	4.50	2.07	11,250	7	1
Walomar	1922	T11N	R19E	14	SE	25	6.66	2.75	4,800	25	0
Barton Kollers Addition	1926	T11N	R19E	12	NW	40	6.10	4.41	4,800	40	0
Walomar No. 2	1928	T11N	R19E	14	SE	55	23.95	11.59	9,180	55	0
The Highlands, Lots 47 to 107	1929	T11N	R19E	13	SW	61	12.37	8.40	6,000	61	0
Kuesters Island Subdivision	1930	T11N	R19E	11	SE	19	5.68	3.93	9,000	19	0
Decorah Lawns No. 3	1946	T11N	R19E	24	NW	60	19.06	13.06	9,480	60	0
Decorah Lawns No. 4	1947	T11N	R19E	24	NW	40	12.32	9.37	10,200	40	0
Riverview Heights	1947	T11N	R19E	13	SW	133	54.24	22.72	7,440	130	3
Decorah Lawns No. 5	1948	T11N	R19E	24	NW	10	3.39	2.75	12,000	10	0
Decorah Lawns Block 12	1949	T11N	R19E	24	SW	10	4.27	4.27	18,000	10	0
Johnson Heights	1949	T11N	R19E	11	NE	17	4.90	3.28	8,400	17	0
Barton Heights Subdivision	1951	T11N	R19E	11	NE	30	9.41	7.02	10,200	30	0
Decorah Heights	1951	T11N	R19E	13	SE	50	12.08	8.61	7,500	50	0
Park Lawn Subdivision	1952	T11N	R19E	11	SW	30	9.61	6.75	9,800	30	0
Sunset View	1952	T11N	R19E	14	NW	31	9.09	5.12	7,200	31	0
Kennywood Park	1953	T11N	R19E	14	SW	33	19.08	11.36	15,000	32	1
El Campo Heights	1954	T11N	R20E	7	SW	16	6.09	4.41	12,000	16	0
Fairview Lawns Subdivision	1954	T11N	R19E	2	SE	63	16.29	13.02	9,000	63	0
Sunrise Heights	1954	T11N	R19E	13	SE	28	10.45	6.21	9,560	28	0
Westwood Subdivision	1954	T11N	R19E	14	SW	29	11.50	5.44	9,675	29	0
Westwood Subdivision, Parcel A, Block 3	1954	T11N	R19E	14	SW	9	2.65	2.65	12,750	9	0
Decorah Hills	1955	T11N	R19E	23	NE	56	32.43	19.28	15,000	56	0
Meadowbrook Subdivision	1955	T11N	R19E	11	SW	56	16.20	12.58	9,750	56	0
Parkfield Subdivision	1955	T11N	R19E	1	SW	16	5.89	3.86	10,500	16	0
Sunset View Addition	1955	T11N	R19E	14	NW	31	10.48	5.98	8,400	28	3
Gatewood Subdivision	1956	T11N	R19E	13	NE, SE	25	8.92	5.97	10,400	0	25
Oakwood Subdivision	1956	T11N	R19E	14	NW	33	11.56	9.85	13,000	33	0
Park Hill Subdivision, Block 4	1956	T11N	R19E	11	SE	6	2.40	1.59	11,520	6	0
Sherwood Acres	1956	T11N	R19E	11	SW	22	6.29	4.92	9,750	22	0
Sunset Ridge Subdivision	1956	T11N	R19E	2	SE	38	11.39	8.37	9,600	38	0
Westwood Subdivision, Block 3	1956	T11N	R19E	14	SW	17	8.83	4.39	11,250	17	0
Barton Heights Subdivision, Addition No. 1	1957	T11N	R19E	11	NE	23	7.28	5.54	10,500	23	0
Decorah Hills Addition No. 1	1957	T11N	R19E	23	NE	18	10.86	4.37	10,578	18	0
Fair Park East	1957	T11N	R19E	12	SW	6	1.90	1.90	12,750	6	0
Oscar Miller Subdivision	1957	T11N	R19E	15	NE	24	11.39	8.26	15,000	17	7
Ridgeway Subdivision	1957	T11N	R19E	23	NE, SE	21	11.86	7.38	15,300	21	0
Skyline Acres	1957	T11N	R19E	1	SW	21	6.95	5.42	11,250	19	2
Westwood Subdivision, Blocks 4, 5, and 6	1957	T11N	R19E	14	SW	38	12.42	7.75	8,880	38	0
Laurel Acres	1958	T11N	R19E	24	SW	12	4.77	3.66	13,300	12	0
Sherwood Acres Addition No. 1	1958	T11N	R19E	11	SW	17	6.17	4.37	11,200	17	0
Silver Spring Subdivision	1958	T11N	R19E	14	SW	11	7.83	2.27	9,000	11	0
Decorah Hills Addition No. 2	1959	T11N	R19E	23	NE	43	20.39	14.81	15,000	43	0
Laurel Acres Addition No. 1	1959	T11N	R19E	24	SW	6	2.36	2.36	14,400	6	0
Oakwood Addition No. 1	1959	T11N	R19E	14	NW	10	8.97	2.94	12,800	10	0
Oakwood Addition No. 2	1959	T11N	R19E	14	NW	25	6.36	5.18	9,030	25	0
Parkfield Subdivision No. 2	1959	T11N	R19E	1	SW	37	11.79	9.98	11,748	37	0
Decorah Heights Addition No. 1	1960	T11N	R19E	13	SE	48	12.72	9.64	8,750	48	0
Lake 'N River View Hills	1960	T11N	R19E	1	NW	49	20.33	18.76	12,600	44	5
Ridgeway Subdivision Addition No. 1	1960	T11N	R19E	23	SE	23	10.71	7.66	14,500	23	0
Rolling Meadows	1960	T11N	R19E	11	NW	31	8.39	6.20	8,710	31	0
Sunrise Heights Addition No. 1	1960	T11N	R19E	13	SE	21	6.65	5.14	10,660	18	3
Westwood Subdivision, Blocks 7, 8, and 9	1960	T11N	R19E	14	SW	36	13.43	9.82	11,880	36	0
Laurel Acres Addition No. 2	1961	T11N	R19E	24	SW	17	7.30	4.60	11,790	17	0
Sherwood Acres Addition No. 2	1961	T11N	R19E	11	SW	24	7.09	4.86	8,820	24	0
Silverbrook Estates	1961	T11N	R19E	23	NW	26	13.00	8.06	13,500	26	0
Silverbrook Estates Addition No. 1	1962	T11N	R19E	23	NW	25	10.06	7.44	12,960	23	2
Mapleywynde Subdivision	1963	T11N	R19E	24	SW	60	23.74	15.50	11,250	60	0
Parkfield Subdivision No. 3	1963	T11N	R19E	1	SW	17	6.01	4.39	11,250	13	4
Cabriini Subdivision	1964	T11N	R19E	23	NE	10	3.36	3.36	15,225	10	0
Cherrywood Estates	1964	T11N	R19E	10	SE	19	6.41	4.19	9,600	19	0
Laurel Acres Addition No. 3	1964	T11N	R19E	24	SW	6	2.92	1.98	14,400	6	0
Laurel Acres Addition No. 4	1964	T11N	R19E	24	SW	17	6.32	4.92	12,600	17	0
Cherrywood Estates Addition No. 1	1965	T11N	R19E	10	SE	122	55.89	40.33	14,400	117	5
Gatewood Highlands	1965	T11N	R19E	13	SE	13	5.88	3.68	12,325	13	0
Maplywynde Addition No. 1	1965	T11N	R19E	24	SW	13	6.38	3.58	12,000	13	0
Scenic View	1965	T11N	R19E	2	SW	9	2.53	1.98	9,600	9	0
Sunrise Heights Additon No. 2	1965	T11N	R19E	13	SE	7	3.45	2.23	14,168	7	0

Table 22 (continued)

Municipality/Subdivision Name	Year Recorded	U. S. Public Land Survey Location				Number of Lots	Gross Acres	Net Acres	Typical Lot Size (square feet)	Number of Lots Developed	Number of Lots Vacant
		Township	Range	Section	Quarter-Section						
City of West Bend (continued)											
Laurel Acres Addition No. 5	1966	T11N	R19E	24	SW	5	1.24	1.24	9,928	5	0
Rolling Meadows Addition No. 1, Replat of Lots 8-10	1966	T11N	R19E	11	NW	4	0.79	0.79	8,100	4	0
Rolling Meadows Addition No. 1	1966	T11N	R19E	11	NW	23	9.14	6.65	12,600	23	0
Rolling Meadows Addition No. 1, Replat of Lots 15-18	1966	T11N	R19E	11	NW	5	1.11	1.11	9,750	5	0
Rolling Meadows Addition No. 2	1966	T11N	R19E	11	NW	7	1.43	1.43	8,640	7	0
Silverbrook Estates Addition No. 2	1966	T11N	R19E	23	NW	15	5.60	4.27	12,400	4	11
Sunrise Heights Addition No. 3	1966	T11N	R19E	13	SE	11	3.59	3.59	13,600	11	0
Woodland Heights	1966	T11N	R19E	14	SE	25	16.63	11.97	20,856	25	0
Cherrywood Estates Addition No. 2	1967	T11N	R19E	10	SE	14	25.20	3.28	10,200	14	0
Gatewood Highlands Addition No. 1	1967	T11N	R19E	13	SE	13	6.19	3.88	13,000	13	0
Maplewynde No. 2	1967	T11N	R19E	24	SW, SE	78	51.66	21.76	12,150	78	0
Rolling Meadows Addition No. 3	1967	T11N	R19E	11		13	4.70	2.91	9,750	13	0
Rolling Meadow Addition No. 4	1967	T11N	R19E	11	NE, NW	38	10.94	7.57	8,680	38	4
Sunrise Heights Addition No. 4	1967	T11N	R19E	13	SE	43	13.51	11.13	11,280	25	18
Cherrywood Estates Addition No. 1	1968	T11N	R19E	10	SE	6	1.20	1.20	8,352	6	0
Cherrywood Estates Addition No. 3	1968	T11N	R19E	10	SE	25	8.60	7.23	12,600	24	1
Laurel Acres Addition No. 6	1968	T11N	R19E	24	SW	6	1.83	1.43	10,400	6	0
Rolling Meadows Addition No. 5	1968	T11N	R19E	11	NE	40	12.10	8.36	9,100	40	0
Gatewood Highlands Addition No. 2	1969	T11N	R19E	13	SE	22	7.46	5.58	11,050	22	0
Jefferson Heights	1969	T11N	R19E	11	NW	6	2.58	1.49	10,800	6	0
Maple Manor	1969	T11N	R19E	24	SE	40	14.29	10.29	11,200	13	27
Scenic View Addition No. 1	1969	T11N	R19E	2	SW, SE	58	19.99	13.47	10,115	58	0
Vogt Estates	1969	T11N	R19E	23		18	6.57	4.71	11,400	18	0
Rolling Meadows Addition No. 6	1970	T11N	R19E	11	NE	28	9.38	7.41	11,520	26	2
Scenic View North	1970	T11N	R19E	2	SW	9	3.05	2.11	10,200	9	0
Windgate Subdivision	1970	T11N	R20E	7	NW	114	31.36	18.98	7,254	113	1
Gateway Highlands Addition No. 3	1971	T11N	R19E	13	SE	18	5.78	5.16	12,480	18	0
Jefferson Heights Addition No. 1	1971	T11N	R19E	11	NW	10	2.46	1.98	8,610	10	0
Scenic View Addition No. 2	1971	T11N	R19E	2	SW, SE	10	2.45	2.20	9,600	10	0
Scenic View Addition No. 3	1971	T11N	R19E	2		67	20.45	14.77	9,600	64	3
Scenic View Addition No. 4	1971	T11N	R19E	2	SW	75	21.99	12.40	7,200	74	1
Windgate Addition No. 1	1971	T11N	R20E	7	SE, SW	106	34.47	21.32	8,760	106	0
Windgate Addition No. 2	1972	T11N	R20E	7		143	33.87	23.64	7,200	135	8
Cabrini Subdivision No. 2	1973	T11N	R19E	23	NE	19	6.20	4.81	11,025	19	0
Juniper Heights	1973	T11N	R19E	13	SE	11	12.22	3.55	14,065	11	0
Vogt Estates Addition No. 1	1973	T11N	R19E	23	NW	7	3.48	2.30	14,300	7	0
Cabrini Subdivision No. 3	1974	T11N	R19E	23	NE	6	3.33	1.78	12,900	6	0
Juniper Heights Addition No. 1	1974	T11N	R19E	13	SE	18	5.73	4.03	9,750	18	0
Minz Estates	1974	T11N	R19E	25	NW	15	5.98	5.61	16,280	14	1
West Ridge	1975	T11N	R19E	15	SE	19	4.75	4.42	10,125	14	5
West Ridge Addition No. 1	1975	T11N	R19E	15	SE	13	37.92	3.95	13,224	13	0
Cherrywood West	1977	T11N	R19E	10	SE	42	16.58	11.57	12,000	37	5
Ross Subdivision	1977	T11N	R19E	14	SW	13	5.19	4.66	15,600	11	2
The Meadows	1977	T11N	R19E	11	NW	37	13.59	8.24	9,696	26	11
Forest Highlands	1978	T11N	R19E	24	SE	43	16.39	11.40	11,550	16	27
Ross Subdivision Addition No. 1	1978	T11N	R19E	14	SW	18	8.21	7.61	18,408	15	3
Alberta Manor	1979	T11N	R19E	22	NE	34	15.06	11.26	14,420	3	31
Villa Park	1980	T11N	R19E	9	SE	74	30.76	14.51	8,540	35	39
Willowbrook	1980	T11N	R19E	10	NE, SE	53	18.81	10.99	9,030	4	49
Fullpail's First Addition to the City of West Bend	1981	T11N	R20E	7		26	9.81	5.67	9,500	7	19
Fullpail's First Addition to the City of West Bend, Plat No. 2	1983	T11N	R20E	7	NW	16	5.00	3.16	8,600	16	0
The Meadows Addition No. 1	1984	T11N	R19E	11	NW	18	6.00	3.71	8,980	16	2
The Meadows Addition No. 2	1985	T11N	R19E	11	NW	24	8.00	5.48	9,950	10	14
Subtotal	--	--	--	--	--	3,732	1,397.14	885.14	--	3,389	347
Town of West Bend											
Cedardale Addition	1921	T11N	R19E	30	SE	8	2.01	2.01	8,000	8	0
Miller's Addition No. 2, Algoma Plat	1921	T11N	R19E	30	NE	12	2.70	2.34	8,500	12	0
Miller's Addition to Algoma Plat	1921	T11N	R19E	30	NE	8	1.57	1.57	7,500	8	0
Peter's Beach Subdivision	1921	T11N	R19E	27	NW	10	3.43	2.87	12,500	10	0
Miller's Addition No. 3, Algoma Plat	1922	T11N	R19E	30	NE	6	1.46	1.46	9,750	6	0
Miller's Addition No. 4, Algoma Plat	1922	T11N	R19E	30	SE	16	2.48	2.48	6,750	16	0
North Point	1922	T11N	R19E	20	SW	10	1.91	1.91	7,000	10	0
Peter's Beach Addition No. 1	1922	T11N	R19E	27	NW	4	0.93	0.93	11,000	4	0
Reichert's Subdivision	1922	T11N	R19E	20	NE, NW	4	4.06	3.64	39,600	3	1
Tuscola	1922	T11N	R19E	30		11	4.24	3.78	14,960	11	0
Tuscola Addition	1922	T11N	R19E	30	NE	11	1.98	1.70	6,750	11	0

Table 22 (continued)

Municipality/Subdivision Name	Year Recorded	U. S. Public Land Survey Location				Number of Lots	Gross Acres	Net Acres	Typical Lot Size (square feet)	Number of Lots Developed	Number of Lots Vacant
		Township	Range	Section	Quarter-Section						
Town of West Bend (continued)											
Cedar Heights Subdivision	1923	T11N	R19E	30	SE	17	7.39	7.39	18,750	17	0
Paradise Park Addition	1923	T11N	R19E	27	NW	8	1.53	1.53	8,750	8	0
South Shore Heights	1923	T11N	R19E	33	SW	26	10.16	8.80	14,750	26	0
Cedar Heights Addition	1925	T11N	R19E	30	SE	12	3.48	2.75	10,000	12	0
Paradise Park	1925	T11N	R19E	27	NW	8	2.40	2.40	12,150	8	0
Paradise Park Addition No. 2	1925	T11N	R19E	27	NW	8	1.34	1.34	7,500	8	0
Silver Lake Homes	1926	T11N	R19E	27	SE	37	11.16	10.32	12,150	37	0
Cedar Lake Heights, Wild and Mertens	1927	T11N	R19E	31	SW	30	4.33	3.44	5,000	17	13
Gonings Heights	1927	T11N	R19E	19, 20	SE, SW	5	0.94	0.94	8,225	5	0
Wickert's Subdivision	1927	T11N	R19E	33	NE	8	2.08	2.08	10,750	8	0
Silver Lake Homes Addition No. 1	1932	T11N	R19E	27	SW, SE	37	27.87	10.28	12,100	37	0
Thomas Subdivision	1957	T11N	R19E	33	SE	10	6.07	4.59	20,000	10	0
Schneider Subdivision	1967	T11N	R19E	19	SE	20	13.65	11.11	24,200	12	8
Margolis Subdivision	1968	T11N	R19E	33	NW	37	29.81	20.64	24,300	19	18
Wiedmeyer's Heights	1968	T11N	R19E	34	SW	48	32.27	23.72	21,525	41	7
Cedarview Heights	1970	T11N	R19E	19	SW	44	26.19	21.41	21,200	44	0
Hickory Knoll	1971	T11N	R19E	19	SW	17	13.92	7.86	20,150	11	6
Schneider's Kettle Moraine Park	1972	T11N	R19E	30	SE	7	5.89	3.52	21,904	3	4
Cedar Village	1974	T11N	R19E	31	NW	18	22.42	18.70	45,264	16	2
Far Horizons No. 1	1974	T11N	R19E	34	SW	33	69.42	31.66	41,796	21	12
Fullpail Acres	1976	T11N	R19E	19	SW	8	8.93	8.37	45,567	8	0
Juniper Hollow	1976	T11N	R19E	36	NW	20	26.27	21.34	46,480	2	18
Whispering Hills	1976	T11N	R19E	34	SW	20	25.92	18.37	40,000	7	13
Cedar Lake Glen	1977	T11N	R19E	18	NW	56	145.37	60.98	47,433	8	48
Mt. Vernon Estates	1978	T11N	R19E	34	NW, NE, SW	42	79.84	64.91	67,320	3	39
Silver Lake Highlands	1978	T11N	R19E	27		34	48.30	37.58	48,150	2	32
Cedar Creek Village Addition No. 1	1980	T11N	R19E	31, 30	NW, SW	16	19.64	15.06	40,994	6	10
Subtotal	--	--	--	--	--	726	673.36	445.78	--	495	231
Town of Barton											
Kettle Moraine Country Homes Wrights	1957	T11N	R19E	4	SW	24	12.09	9.92	18,000	20	4
Smith Lake View	1969	T12N	R19E	26	SW, SE	16	10.37	6.14	16,720	14	2
Bendamar Heights	1964	T12N	R19E	35	SW, SE	30	22.49	17.22	25,000	24	6
Glacier Ridge Estates	1971	T12N	R19E	34	SW	11	14.51	11.36	45,000	8	3
Hillside Meadows	1972	T11N	R19E	4	NW, NE	7	12.07	6.78	42,180	5	2
Alpine Estates	1974	T12N	R19E	33	NW	10	14.48	9.55	41,600	8	2
Bendamar Heights Addition No. 1	1976	T12N	R19E	35	SW	7	7.26	3.96	24,625	7	0
Bendamar Heights Addition No. 2	1977	T12N	R19E	35	SW, SE	27	22.43	14.40	23,232	18	9
Hillside Meadows Addition No. 1	1977	T11N	R19E	4	NW	5	8.25	6.00	52,260	3	2
Town Line Heights	1977	T11N	R19E	6	NW	21	30.31	20.25	42,000	14	7
Barton Hills	1978	T12N	R19E	34	NW	13	16.00	11.66	39,060	1	12
Scenic View Addition No. 5	1978	T11N	R19E	3	SE	11	4.83	4.83	19,352	11	0
Glacier Hills	1979	T11N	R19E	5	SW	11	20.14	15.47	61,250	7	4
Wild Ridge Estates	1979	T11N	R19E	9	NW	10	30.35	17.94	78,155	3	7
Schuster Heights	1981	T11N	R19E	5	SW	15	19.66	18.60	54,000	1	14
Subtotal	--	--	--	--	--	218	245.24	174.08	--	144	74
Town of Trenton											
Eisenmann's Subdivision	1926	T11N	R20E	6	NW	12	3.12	2.04	7,395	12	0
Arthur Laufer Subdivision	1957	T11N	R20E	18	NW	21	10.88	7.23	15,000	5	16
Mapledale Subdivision	1957	T11N	R20E	8	NW	33	16.45	11.21	14,800	28	5
Wallace Creek Subdivision	1958	T11N	R20E	6	NE	13	10.45	8.62	28,875	12	1
Mapledale Addition No. 1	1964	T11N	R20E	8	NW	43	20.49	14.81	15,000	12	31
Springdale Estates	1965	T11N	R20E	9	NW	37	20.81	13.59	16,000	34	3
Walsh Acres	1966	T11N	R19E	19	SW	32	17.76	13.96	19,000	32	0
Summit Shores	1968	T11N	R20E	6	NW	17	10.88	7.03	18,000	11	6
Newburg Heights	1970	T11N	R20E	12	NE	31	15.94	9.68	13,600	27	4
Assessor's Plat of Birchwood Hills North	1973	T11N	R20E	34	SW, SE	20	40.74	19.51	42,500	14	6
Maple Dale North	1973	T11N	R20E	5, 8	SW, NW	98	61.40	34.82	15,478	28	70
Willow Ridge Farm	1973	T11N	R20E	22, 15	NE, SE	12	80.63	35.35	128,312	10	2
Paradise Valley Estates	1974	T11N	R20E	27	SW	12	32.95	30.95	134,794	8	4
Paradise Valley Estates Addition No. 1	1975	T11N	R20E	27	SW	4	11.67	10.67	133,096	3	1
Forest View	1976	T11N	R20E	8, 5	NE, SE	29	39.89	27.48	41,280	26	3
Maple View Subdivision	1977	T11N	R20E	29	NW	40	47.58	39.13	42,614	22	18
Indian Lore Estates	1978	T11N	R20E	8, 5	NE, SE	13	17.60	11.97	40,112	10	3
Orchard Knoll	1979	T11N	R20E	24	SE	26	34.70	24.02	40,250	4	22
Terry Jak	1979	T11N	R20E	1	SE	6	7.70	5.63	40,905	1	5
Wallace Lake Estates East	1980	T11N	R20E	6	SW, SE	17	68.71	21.07	54,000	7	10
Paradise Pines	1982	T11N	R20E	29	NW	24	30.26	26.67	48,400	1	23
Subtotal	--	--	--	--	--	540	600.61	375.44	--	307	233

Table 22 (continued)

Municipality/Subdivision Name	Year Recorded	U. S. Public Land Survey Location				Number of Lots	Gross Acres	Net Acres	Typical Lot Size (square feet)	Number of Lots Developed	Number of Lots Vacant
		Township	Range	Section	Quarter-Section						
Town of Farmington											
Cedar Park Subdivision	1926	T12N	R20E	33	SE	24	18.10	6.01	10,900	16	8
Green Lake Subdivision No. 2	1949	T12N	R20E	33	NE, SE	16	17.03	8.82	24,000	16	0
Emerald Valley	1959	T12N	R20E	12	SW	27	10.54	8.18	13,200	11	16
Whitewood Estates	1973	T12N	R20E	20	NW	22	80.43	35.23	69,750	15	7
Homestead Park No. 1	1975	T12N	R20E	35	SW	5	10.77	8.57	74,694	5	0
Lakehaven	1977	T12N	R20E	34	SW, SE	72	152.13	70.35	42,560	45	27
Wesley Estates	1978	T12N	R20E	20	NE	9	34.87	33.87	223,104	4	5
Homestead Park No. 2	1979	T12N	R20E	35	SW	5	13.64	10.71	93,297	1	4
Marywood	1979	T12N	R20E	33	NE	2	4.73	4.73	96,254	2	0
Shalom Meadows	1979	T12N	R20E	28	NE	14	14.97	12.88	40,077	0	14
Star Valley	1979	T12N	R20E	28	SE	11	14.10	10.88	43,065	4	7
Windy Acres	1979	T12N	R20E	5, 8	SE, NE	12	29.26	27.68	100,485	5	7
Subtotal	--	--	--	--	--	219	400.57	237.91	--	124	95
Total	--	--	--	--	--	5,435	3,316.92	2,118.35	--	4,459	980

Source: SEWRPC.

lege, West Bend East and West High Schools, Badger and Silverbrook Middle Schools, Barton, Decorah, Fair Park, Green Tree, and McLane Elementary Schools, West Bend Municipal Garage, West Bend Community Memorial Library, and a number of smaller governmental and institutional land uses scattered throughout the City, as shown on Map 23.

Parks and Recreational Land Use: In 1985, parks and recreational land uses represented approximately 499 acres of land, or about 7 percent of the urban land use portion of the City of West Bend planning area and about 1 percent of the total land area in the planning area. Within the City, parks and recreational land uses accounted for about 75 acres, about 2 percent of the developed portion of the City and about 1 percent of the total City area. The major parks and recreational land use sites in the City include Regner Park, Lac Lawrann Conservancy Area, Riverside Park, Bicentennial Park, Ziegler Park, Sunset Park, and Silverbrook Parkway, along with a number of smaller parks and recreational sites identified on Map 23.

Rural Land Uses

Natural Areas: Natural areas include surface waters, wetlands, and woodlands. In 1985, surface water areas represented about 1,839 acres, or about 6 percent of the rural area in the planning area and about 4 percent of the total planning area. Within the City of West Bend,

surface water areas accounted for about 174 acres, or about 7 percent of the rural land area and about 3 percent of the total area in the City. In 1985, wetland areas covered about 4,499 acres, or about 14 percent of the rural area in the planning area and approximately 11 percent of the total planning area. Within the City, wetland areas encompassed about 410 acres, or about 16 percent of the rural area and about 7 percent of the total area in the City. In 1985, woodlands occupied about 4,177 acres of land, about 13 percent of the rural area in the planning area and about 10 percent of the total planning area. Within the City corporate limits, woodlands extended over about 281 acres, or about 11 percent of the rural area and about 5 percent of the total area in the City. Information regarding the distribution and importance of natural areas in the planning area is provided above, in Chapter III of this report.

Extractive and Landfill Areas: In 1985, extractive and landfill uses occupied about 244 acres of land, or about 0.7 percent of the rural area in the planning area and 0.6 percent of the total planning area. Within the City of West Bend, extractive lands occupied about five acres, or less than 1 percent of both the rural and total area of the City. No landfills were located in the City; the extractive and landfill areas are located outside the City of West Bend, in the western portion of the planning area.

Agricultural Lands: Prime and other agricultural lands occupied about 20,188 acres of land, or about 61 percent of the rural area in the planning area and 50 percent of the total planning area in 1985. Within the City limits, agricultural lands occupied about 969 acres of land, or about 38 percent of the rural area and about 16 percent of the total area in the City. The agricultural land use category includes all croplands, pasture lands, orchards and nurseries, farm buildings, and such special agricultural uses as poultry farms and fur farms. Farm residences, together with a 20,000-square-foot dwelling site, were classified as single-family residential land uses; all other farm buildings were included in the overall agricultural land use category.

Other Open Lands: Unused or open lands accounted for about 2,132 acres of land, or about 6 percent of the rural area in the planning area and about 5 percent of the total planning area in 1985. Within the City, unused or open lands accounted for about 700 acres of land, or about 28 percent of the rural area in the City and about 12 percent of the total City area.

HISTORIC PRESERVATION ANALYSES

Historic preservation planning, as it relates to local units of government such as the City of West Bend, can be defined as an effort to ensure that the community's historic resources are protected and enhanced over time. Preservation planning recognizes that historic places are valuable resources whose damage or loss would be detrimental to the community. The elements necessary for effective historic preservation planning are: 1) a thorough survey of historic resources, 2) community support for historic preservation, and 3) integration of the historic preservation planning into the comprehensive community planning process. The principal means for implementing historic preservation planning include creation by municipal ordinance of a local landmarks or historic preservation commission, proper delineation of districts and adoption of district regulations in the zoning ordinance to protect historic sites and structures, and a demolition control ordinance. These principal means may be supplemented by the use of easements and taxation policies.

The importance of historic preservation planning lies in the assumption that the historic resources of a community are valuable and

should be carefully considered in planning for community development and redevelopment. Historic preservation can help to maintain the unique identity of a community, especially in a community's central business district, in a time when many factors are tending to create a national homogeneity in the environment. Other benefits of historic preservation may include the following: promotion of tourism, increased real estate values and municipal tax revenues, arrest of decay in declining areas, fostering community pride, and conservation of cultural resources. Despite these benefits, the forces of economics, attitudes, and existing laws can sometimes work against historic preservation. Through proper planning, however, the impediments to historic preservation can be reduced.

Historic preservation planning for communities such as the City of West Bend should be integrated into the overall community planning process. As an integral part of that total process, historic preservation can be considered along with all the other needs and goals of the community, thereby affording such preservation equal consideration with other planning issues. In this way, historic preservation can become an issue of continuing concern and can be built into the ongoing development and redevelopment decision-making process of the community.

Existing Historic Preservation Inventories

Realizing the importance of historic preservation in the City of West Bend, an inventory of the significant architectural and historical sites and buildings in the City of West Bend was completed in February 1988, by Rathbun Associates, Hollandale, Wisconsin. The findings of the inventory are documented in a report entitled Final Report: Intensive Architectural/Historical Survey, West Bend, Wisconsin, published in March, 1988. The report focuses on the identification, evaluation, documentation, and registration of the significant architectural and historico-cultural resources in the City of West Bend. Specifically, the survey provides a listing of the architectural and historic sites in the City of West Bend, including historical information for many selected sites in the inventory, with maps showing the location of proposed historic districts encompassing many of the most significant historic sites.

The inventory is intended to provide a basis for the nomination for inclusion in the National Register of Historic Places of the most signifi-

cant sites and buildings in respective districts listed in the inventory, thereby according them special status. The survey document inventories and describes the historic places and buildings in a given area and identifies certain sites and buildings as potentially eligible for listing on the National Register, pending a further detailed examination. The reconnaissance survey cards and intensive survey forms used in the conduct of the inventory contain pertinent information about the sites and buildings in proposed historic districts, including information on location, ownership, building site and construction, historic significance, and historic and bibliographic references. These data can be drawn upon when establishing historic preservation zoning districts, when making decisions regarding property identified as of historic value, or when making improvements in the historic districts.

The City has been the subject of other inventories and studies, including the Wisconsin Inventory of Historic Places, maintained by the State Historical Society of Wisconsin; the National Register of Historic Places, listing of sites including both places which are listed and nominated; the National Park Service's inventory, Historic American Buildings Survey, 1941; H. Russell Zimmermann's inventory in his book, The Heritage Guidebook: Landmarks and Historical Sites in Southeastern Wisconsin, 1975; and the inventory conducted in the preparation of the Southeastern Wisconsin Regional Planning Commission Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin, 1977. Most, if not all, of the buildings and structures located in the City of West Bend identified in these surveys and which may be of historic significance were included in the aforereferenced Final Report: Intensive Architectural/Historical Survey, West Bend, Wisconsin, 1988.

The six historic preservation surveys conducted of the City of West Bend all identify historic sites and buildings, and, as might be expected, there is some overlap among the six surveys, with most buildings appearing on two or more surveys. The most extensive list of sites is found in the previously cited Final Report: Intensive Architectural/Historical Survey for West Bend, Wisconsin, by the Rathbun Associates, which includes 1,249 properties. Of this total, 90 sites had been previously identified as significant in

the Wisconsin Inventory of Historic Places of the State Historical Society in 1977. The list found in H. Russell Zimmermann's The Heritage Guidebook: Landmarks and Historical Sites in Southeastern Wisconsin, includes 25 historic buildings in the City of West Bend. SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin, lists 13 sites as being of historical significance. Four known historic sites identified in the surveys were listed in the National Register of Historic Places: Gadow's Mill (Barton Roller Mill), was listed in 1975; the Old Washington County Courthouse and the Old Washington County Jail, both listed in 1982; and the Leander F. Frisby House, listed in 1985.

The Final Report: Intensive Architectural/Historical Survey for West Bend, Wisconsin, has identified two potential historic districts in the City: the Barton Historic District and the West Bend Residential Historic District. The two districts encompass the highest concentrations of significant historic buildings in the City of West Bend. The Barton Historic District is located in the northern portion of the City of West Bend along the Milwaukee River, and the West Bend Residential Historic District is located in the center of the City. As shown on Map 24, the Barton Historic District is bounded by Salisbury Road on the north, Barton Avenue on the east, Jefferson Street on the south, and Harrison Street on the west. The focal point of the proposed Barton Historic District is the Old Barton (Gadow's) Roller Mill. The proposed West Bend Residential Historic District, as shown on Map 24, is bounded by Walnut Street on the north, 7th Street on the east, Poplar Street on the south, and the west side of 10th Street on the west.

The large number of identified historic places in the City of West Bend indicates that the area is rich in historic resources. The recent survey work has identified a large percentage of them; however, additional field work may be necessary before the National Register eligibility can be determined for the identified sites and buildings.

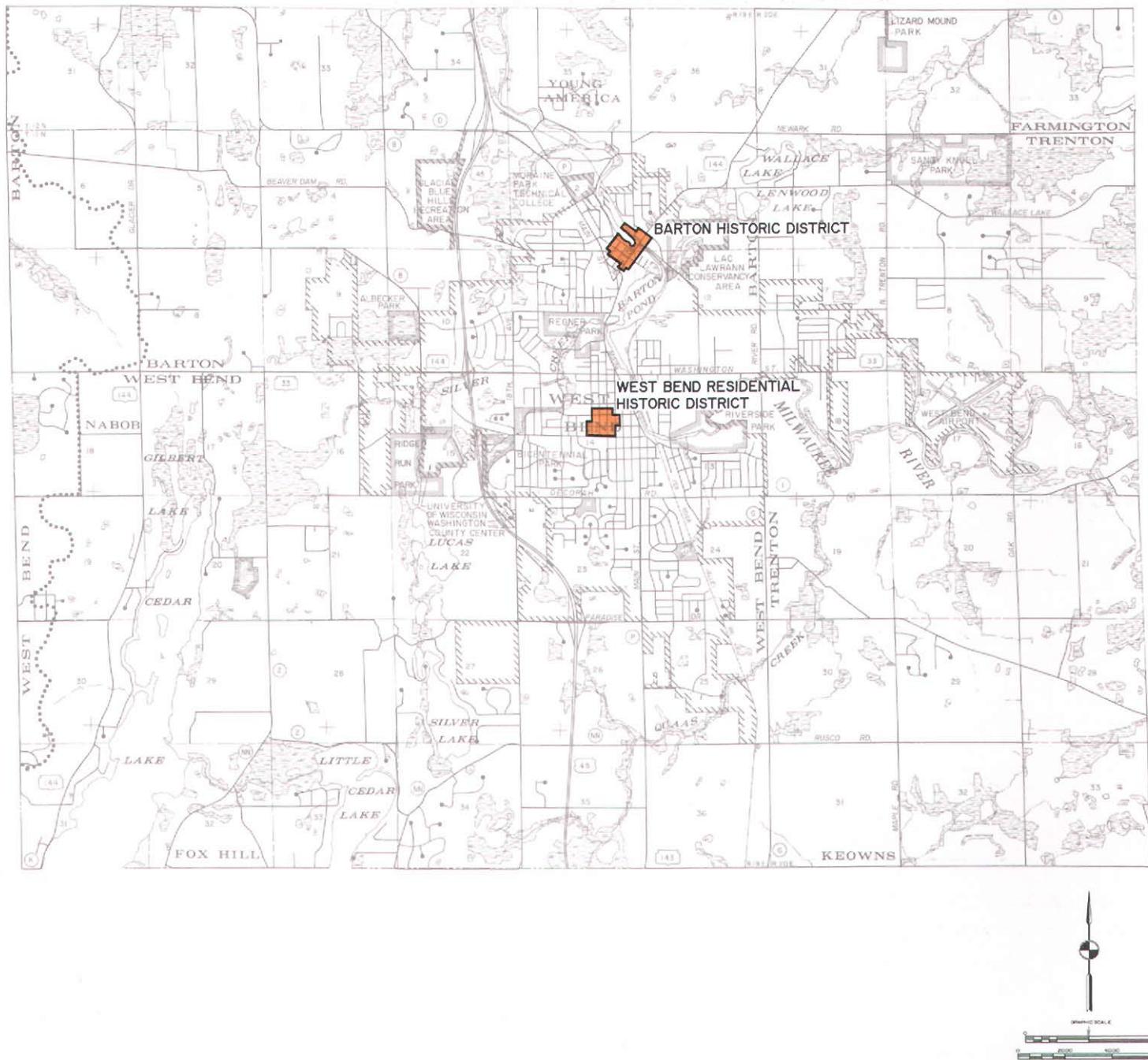
COMMUNITY FACILITIES

Public Schools

The City of West Bend planning area lies within the boundaries of three school districts: the West

Map 24

PROPOSED HISTORIC DISTRICTS IN THE CITY OF WEST BEND: 1988



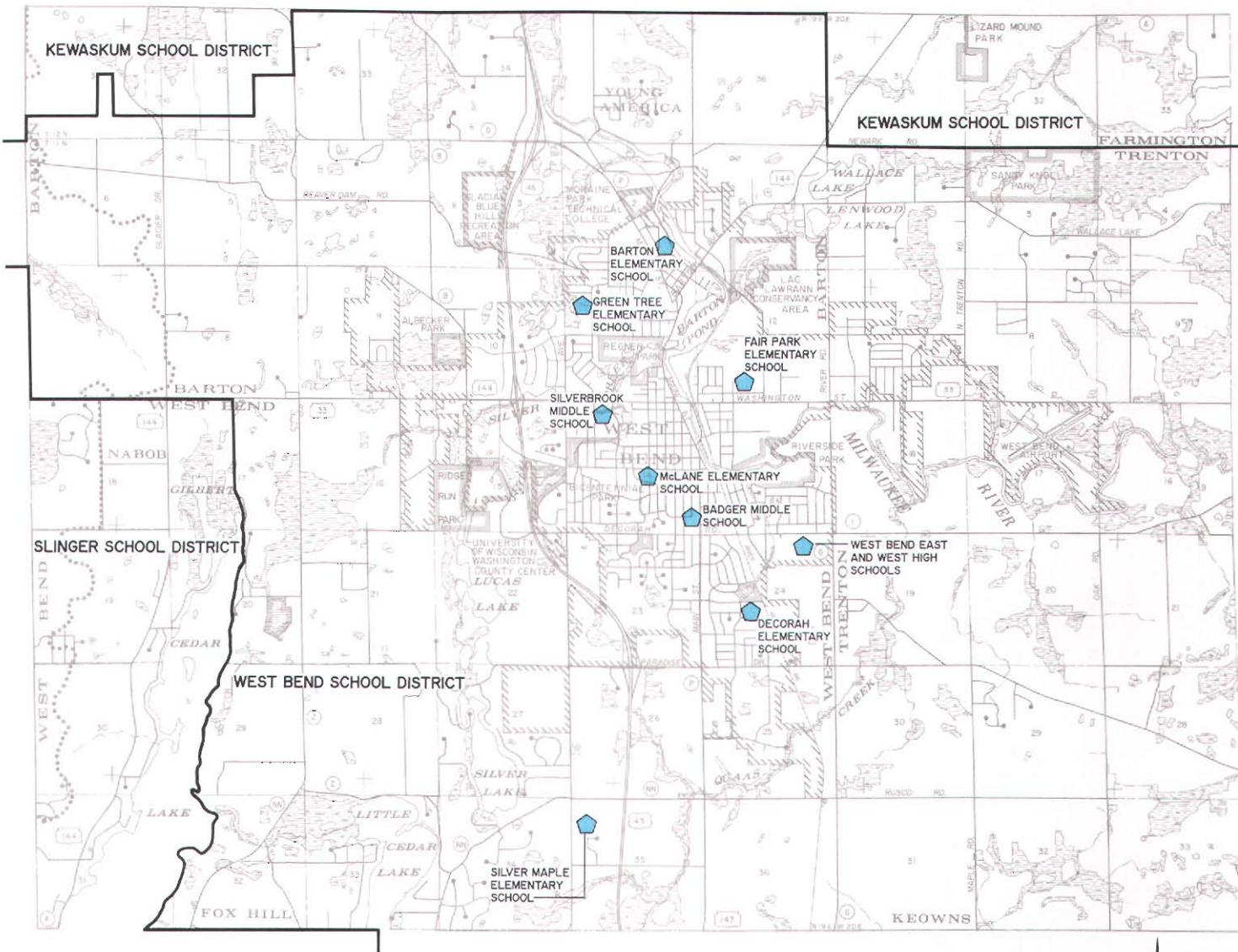
Source: Rathbun Associates, City of West Bend Community Development Department, and SEWRPC.

Bend School District, the Slinger School District, and the Kewaskum School District. The location of these three school districts in the City of West Bend planning area is shown on Map 25. The West Bend School District owns and operates 11 schools: West Bend East and West High Schools,

Badger Middle School, Silverbrook Middle School, and Barton, Decorah, Fair Park, Green Tree, Jackson, McLane, and Silver Maple Elementary Schools. Ten of these are located in the City of West Bend planning area, as shown on Map 25. The Slinger School District operates

Map 25

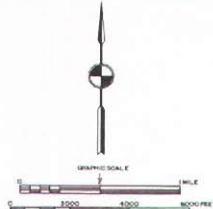
CITY OF WEST BEND PLANNING AREA SCHOOL DISTRICT BOUNDARIES AND SCHOOL LOCATIONS: 1989



LEGEND

SCHOOL DISTRICT BOUNDARY LINE

PUBLIC SCHOOL



Source: SEWRPC.

four schools: Slinger High School, Slinger Middle School, and Slinger and Allenton Elementary Schools, none of which is located in the City of West Bend planning area. The Kewaskum School District operates six schools: Kewaskum High School, Kewaskum Middle School, and Beechwood, Farmington, Kewaskum and Wayne Elementary Schools, none of which is

located in the City of West Bend planning area. The 1988-1989 school year enrollments and capacities for each school in the City of West Bend School District are set forth in Table 23.

In addition to the public primary and secondary educational system, two public institutions of higher education serve the City of West Bend

planning area. The University of Wisconsin-Washington County Center, located south of Washington Street and University Drive on the City's west side, is one of 14 two-year campuses in the University of Wisconsin system. UWWC offers a well-balanced program of liberal and professional courses. In addition to instructional facilities of a general nature, facilities at UWWC include a multipurpose physical education facility, a fine arts area, a theater, a student recreation area, and a library. The courses offered at UWWC, which may be transferred to four-year colleges and universities, provide students with a foundation for more than 50 different professional and specialized fields of study.

The Moraine Park Technical College, located on the northeast corner of Main Street and Green Tree Road in the City of West Bend, is part of the State of Wisconsin Vocational, Technical and Adult Education (VTAE) system. The college offers classes which emphasize vocational education which prepares for jobs that require special technical skills. The types of general programs available at the technical college include associate degree programs, vocational diploma programs, adult and continuing education programs, and apprenticeship training.

City Hall

The West Bend City Hall is a 10,217-square-foot facility at 100 N. 6th Avenue in West Bend's central business district. In 1988, the Common Council of the City of West Bend identified a number of "needs" resulting from inadequacies of the existing building and site. Identified deficiencies included: inadequate office space for department expansions, lack of handicapped accessibility to the second floor, and inadequate parking adjacent to the facility.

Police Station

The City of West Bend Police Department shares a building with the City's Fire Department at 325 N. 8th Avenue. In 1989, the Police Department was manned by 40 full-time officers. The Department occupies approximately 7,062 square feet of space in the building, which is inadequate for current, as well as probable future, spatial needs. In 1986, the City of West Bend Police Chief prepared a five-year plan recommending facility improvements. The improvements recommended included: expansion of the office area, roll call and briefing room, storage area, evidence room, men's locker room, and garage parking area; addition of a

Table 23
1988-1989 SCHOOL YEAR
ENROLLMENTS AND SCHOOL CAPACITIES
FOR THE WEST BEND SCHOOL DISTRICT

School	1988-1989 Enrollment	School Capacity ^a
West Bend East High School (grades 9 - 12)	1,041	1,250
West Bend West High School (grades 9 - 12)	1,051	1,250
Badger Middle School ^b (grades 5 - 8)	791	950
Silverbrook Middle School ^b (grades 5 - 8)	612	850
Barton Elementary School (grades K - 5)	381	480
Decorah Elementary School (grades K - 4)	442	480
Fair Park Elementary School (grades K - 5)	518	550
Green Tree Elementary School (grades K - 4)	412	550 ^c
Jackson Elementary School (grades K - 5)	411	490
McLane Elementary School (grades K - 4)	395	600 ^c
Silver Maple Elementary School ^d (pre-school)	99	- ^e
Total	6,155 ^f	7,450

^aSchoolroom capacities exclude art rooms, music rooms, early childhood/exceptional needs (EEN) rooms, work rooms, and special subject classrooms.

^bTemporarily includes the fifth grade level to alleviate potential overcrowding in elementary schools.

^cIncludes additional capacity that will be provided by the building expansion constructed during the 1988-1989 school year.

^dThe school operates two pre-school programs. The Chapter 1 program had an enrollment of 29 students, while the Head Start program had an enrollment of 70 students. Students in these programs do not necessarily attend on a daily basis.

^eSchool capacity information was not available.

^fTotal enrollment includes two tuition students for whom information on the grades and the school they attended were not available.

Source: The West Bend School District and SEWRPC.

conference room, a booking room, two holding cells, a women's locker room and rest room, a witness room, a computer room, a physical fitness room, and provision of additional parking spaces for employees and the public.

Fire Station

The City of West Bend and portions of the Towns of Barton and West Bend are served by one fire station, located at 325 N. 8th Avenue in the City of West Bend. The existing City Department shares the facility with the City of West Bend Police Department. The Fire Department occupies an approximately 12,016-square-foot area in the existing building, which is inadequate for current, as well as probable future, spatial needs. In 1989, the station was manned by 27 full-time fire fighters and 24 part-time fire fighters. The station, built in 1966, presently houses all of the City's fire fighting apparatus. The West Bend Fire Department has reciprocal service agreements with surrounding community fire departments whereby additional fire fighters and equipment can be called if additional capability is needed.

Rating of Fire Protection Services: The adequacy of fire protection in the City is evaluated by the Insurance Services Office (ISO) through the use of the Grading Schedule for Municipal Fire Protection. The schedule provides criteria to be used by insurance grading engineers in classifying the fire defenses and physical conditions of municipalities. Gradings obtained under the schedule are used throughout the United States in establishing base rates for fire insurance. While ISO does not presume to dictate the level of fire protection services that should be provided by a municipality, reports of surveys made by its Municipal Survey Office generally contain recommendations for correcting any serious deficiencies found and, over the years, have been accepted as guides by many municipal officials in planning improvements to their fire fighting services. The ISO gradings are obtained on the basis of their analyses of fire department equipment, alarm systems, water supply, fire prevention programs, building construction, and the distance from the station to potential hazard areas, such as the central business district. In rating a community, total deficiency points in the several areas of evaluation are used to assign a 1 to 10 numerical rating, with 1 representing the best protection and 10 representing an essentially unprotected community. Class Nine usually indicates a community without effective public water supply and hydrant protection, while higher categories have such facilities. In 1989, the area in the City of West Bend served by public water supply

hydrants were rated Class Four by the ISO, 0.6 of a point short of attaining a Class Three rating. Those areas in the planning area which were not served by public water supply hydrants were rated Class Nine.

Comprehensive Fire Station Location Study: In October 1980 the West Bend Fire Department completed a study entitled, Comprehensive Fire Station Location Study, West Bend, Wisconsin. The report investigated the adequacy of the existing fire station to meet both the existing and proposed land uses in the City of West Bend area over the next 20 years. In 1980 the Insurance Services Office rated the fire protection service for the City of West Bend area as a Class Five and, in order to maintain this rating for the next 20 years, the study recommended the acquisition of two sites, as shown on Map 26, for future fire stations; new fire station facilities including rescue and fire fighting equipment; and additional fire fighters to staff the facilities. In 1988, about three acres of land were acquired for a second fire station at the southeast corner of Paradise Drive and Stonebridge Road, in the West Bend Industrial Park South on the City's south side. The new fire station is to include a watch room; a combination kitchen, training room, and lounge; locker room; rest rooms with showers; sleeping area; repair area; and an apparatus floor area.

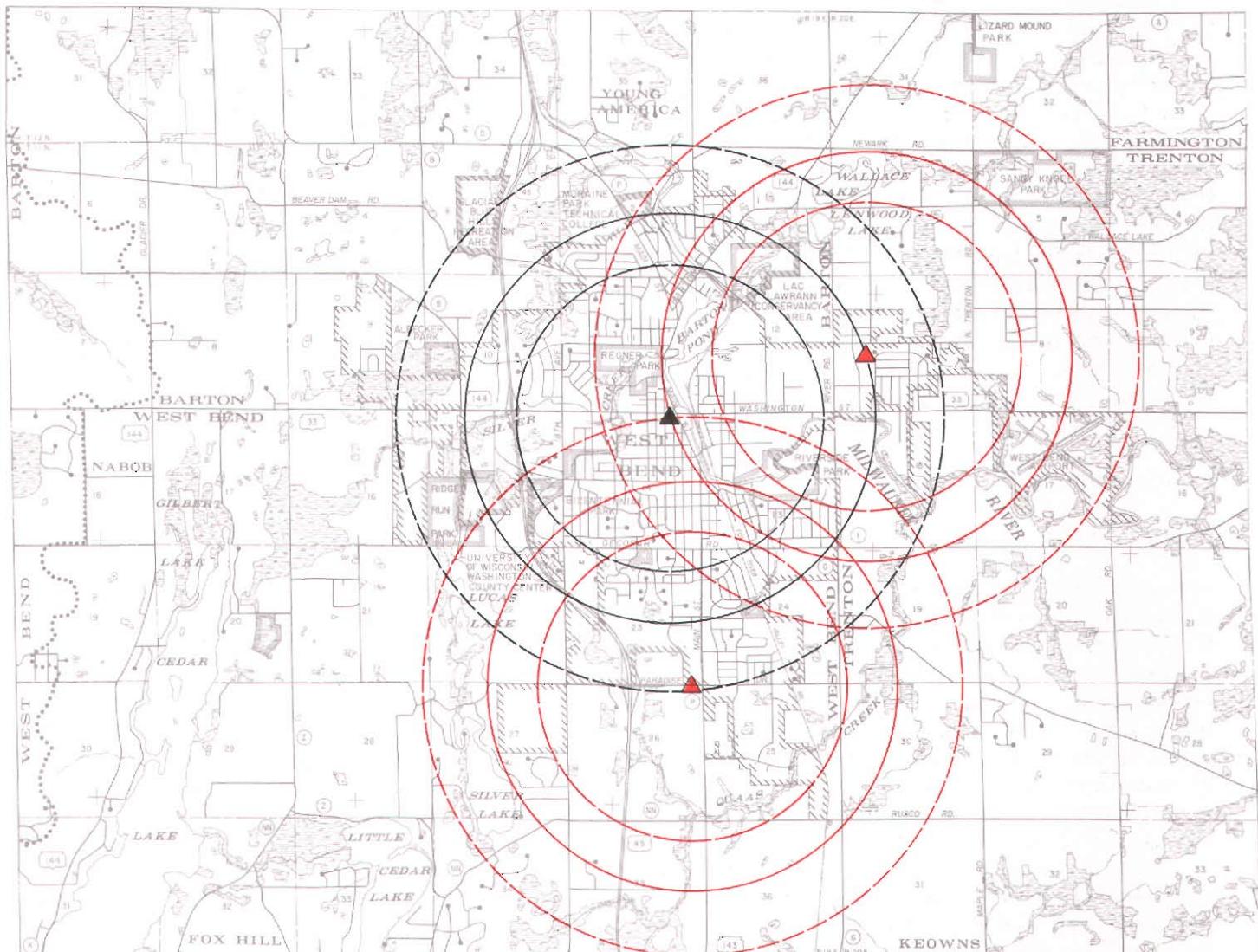
West Bend Municipal Airport

The West Bend Municipal Airport is located in the City of West Bend about one and one-half miles east of River Road (CTH G) on Washington Street (STH 33). The facility is classified as a General Utility-Stage I airport, that is, it is open to public use and is intended to meet the needs of corporate and other business and commercial users, as well as for recreational aviation. Facilities at the airport are capable of accommodating all types of general aviation aircraft up to and including many, but not all, business jets.

Regional Airport System Plan: Working closely with the Wisconsin Department of Transportation, the Regional Planning Commission has prepared and adopted a regional airport system plan, as noted in Chapter I of this report. The plan is documented in SEWRPC Planning Report No. 38, A Regional Airport System Plan for Southeastern Wisconsin: 2010, May 1987. The

Map 26

EXISTING AND RECOMMENDED LOCATIONS OF FIRE STATIONS AND THEIR FIRE PROTECTION SERVICE AREAS FOR THE CITY OF WEST BEND AREA: 2000



LEGEND

- ▲ EXISTING FIRE STATION
- ▲ PROPOSED FIRE STATION

- 1 1/2 MILE SERVICE RADIUS OF A FIRE STATION AT FIRST RESPONSE FOR ONE, TWO, AND MULTIPLE FAMILY RESIDENTIAL AREAS

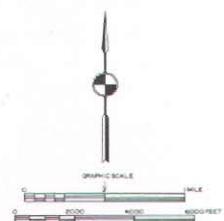
- EXISTING FIRE STATION LOCATION
- PROPOSED FIRE STATION LOCATION

1 1/2 MILE SERVICE RADIUS OF A FIRE STATION AT FIRST RESPONSE FOR ONE, TWO, AND MULTIPLE FAMILY RESIDENTIAL AREAS

— EXISTING FIRE STATION LOCATION
— PROPOSED FIRE STATION LOCATION

2 MILE SERVICE RADIUS OF A FIRE STATION AT FIRST RESPONSE FOR ONLY ONE AND TWO FAMILY RESIDENTIAL AREAS

— EXISTING FIRE STATION LOCATION
— PROPOSED FIRE STATION LOCATION



Source: City of West Bend Fire Department and SEWRPC.

regional airport system plan for southeastern Wisconsin, a key component of the statewide airport system plan, contains specific recommendations for the improvement of each of the 11 public-use airports recommended to comprise the regional airport system, and includes the West Bend Municipal Airport. The major improvements recommended to upgrade the West Bend Airport from General Utility-Stage I to a General Utility-Stage II facility in order to accommodate all types of business jets include: the construction of a 1,600-foot extension of the primary runway to provide an ultimate runway length of 5,500 feet; the widening and strengthening of other runways and taxiways; a precision instrument landing system; other lighting and navigational aids; and the acquisition of additional land for airport site improvements and clear zone protection. The extension of the primary runway will require the long-planned relocation of STH 33 to the north. The recommended site improvement plan for the West Bend Municipal Airport is shown on Map 27.

Airport Improvements: The City of West Bend, the airport's owner, together with the Wisconsin Department of Transportation and the Federal Aviation Administration (FAA), have been working toward the implementation of the improvements recommended in the adopted regional airport system plan. During 1986, improvements totaling \$205,000 were completed including the installation of a localized, one element of an instrument landing system. During 1987, improvements totaling \$311,000 were completed, including reconstruction of a runway, taxiways, and apron; land acquisition; and the installation of improved runway lighting and signage. During 1988, improvements totaling \$320,000 were completed, including the extension of a taxiway, airfield lighting improvements, and airport electrical power supply improvements. The funding of these improvements was provided in part by grants from the Federal Aviation Administration and the Wisconsin Department of Transportation.

On October 4, 1989, the Federal Aviation Administration, as recommended in the adopted regional airport system plan, designated the West Bend Municipal Airport as a reliever facility to Milwaukee County's General Mitchell International Airport. The reliever status will

provide additional opportunities for financial assistance for eligible capital improvements and land acquisition as identified in the regional airport system plan for the West Bend Municipal Airport.

Public Library

The City of West Bend Community Memorial Library is located at 230 S. 6th Avenue. The facility occupies about 31,270 square feet, of which 15,978 square feet are on the main floor, and 15,293 square feet in the basement, also including 12,340 square feet of storage. As of December 31, 1989, the library housed 5,220 recordings, 250 subscription periodicals, and over 90,000 books. The library has an annual circulation of about 321,200 and is a member of the Washington County Federated Library System. The community room in the library is available for all City of West Bend public meetings.

West Bend Gallery of Fine Arts

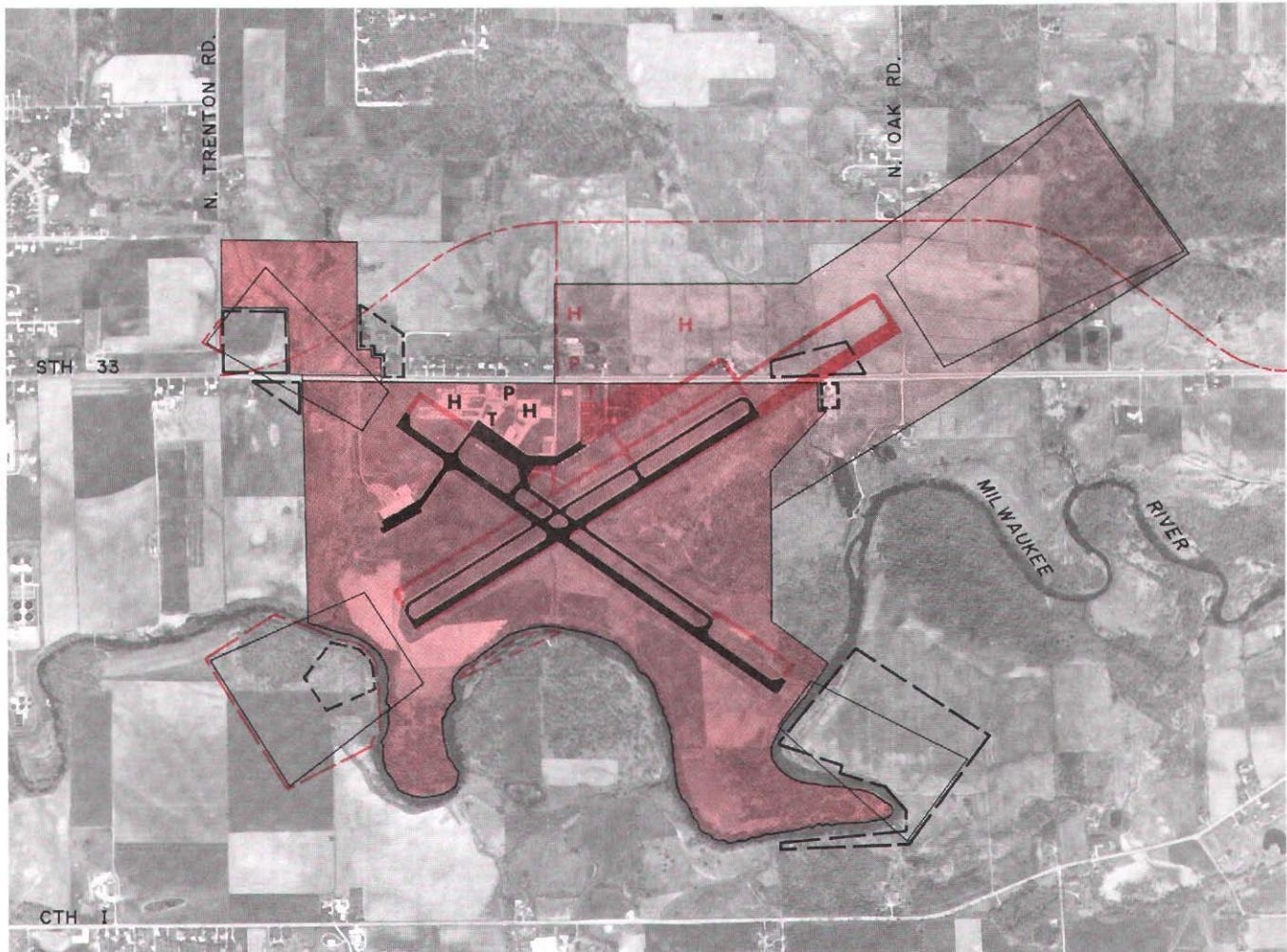
The West Bend Gallery of Fine Arts is both an art gallery and an art museum. The gallery displays the works of many nationally known and local artists. The gallery, a nonprofit organization, is supported by the dues of its members and by voluntary contributions. Membership in the gallery is open to the general public. The programs at the gallery include monthly exhibits, social activities, films, lectures and tours, armchair travelogs, and professionally instructed classes in painting, drawing, sculpture, pottery, ceramics, photography, and music.

Health Facilities

St. Joseph's Community Hospital, located at 551 Silverbrook Drive, is a 139-bed, nonprofit, fully accredited hospital that has served the City of West Bend and environs since 1930. In 1988, St. Joseph's had an active medical staff of 50 and an additional courtesy/consulting staff of 38. St. Joseph's provides general medical-surgical, intensive, and ambulatory care in pediatrics, obstetrics, gynecology, orthopedics, ophthalmology, pathology, radiology, gastroenterology, urology, neurology, and dentistry. It also provides clinical training for medical, nursing, and other students in cooperation with Moraine Park Technical College and the University of Wisconsin-Washington County Center. The hospital plans to open a major addition in 1991 with an emergency room, an outpatient unit, and surgery and therapy areas.

Map 27

RECOMMENDED SITE IMPROVEMENTS FOR THE WEST BEND MUNICIPAL AIRPORT: 2010



LEGEND

AIRPORT LANDS

EXISTING PROPOSED



AIRPORT PROPERTY



CLEAR ZONE EASEMENT



AVIGATION EASEMENT

HIGHWAY REALIGNMENT

— APPROXIMATE LOCATION

RUNWAY CLEAR ZONE



ULTIMATE CLEAR ZONE AREA

AIRPORT FACILITIES

EXISTING PROPOSED



RUNWAYS, TAXIWAYS, AND APRONS



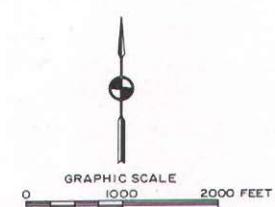
TERMINAL /ADMINISTRATION BUILDING



AIRCRAFT HANGERS



AUTOMOBILE PARKING



Source: SEWRPC.

Another major health facility is the Samaritan-Washington County Home at 531 E. Washington Street, in the County's government complex. The 251-bed facility offers physical therapy, occupational therapy, social services, and adult day care for the elderly and disabled.

In 1989, the City's two major medical clinics relocated and enlarged their facilities. The General Clinic, located on Valley Avenue, is a 55,300-square-foot facility; the West Bend Clinic, the former Oakbrook Clinic, is a 22,600-square-foot facility, located at the intersection of Paradise Drive and S. 18th Avenue.

PUBLIC UTILITIES

Public utility systems are among the most important elements influencing community growth and development. Moreover, certain utility facilities are closely linked to the surface water and groundwater resources of the area, and may, therefore, affect the overall quality of the natural resource base. This is particularly true of sanitary sewerage, water supply, and stormwater drainage facilities, which are in a sense modifications of, or extensions to, the natural lake, stream, and watercourse system of the area and of the underlying groundwater reservoir. Knowledge of the nature, location, and capacities of these utilities is, therefore, essential to intelligent land use planning.

Sanitary Sewer System and Service Area

The existing sanitary sewer service area and the sanitary sewer system tributary to the West Bend wastewater treatment facility are shown on Map 28. In 1989, the existing sanitary sewer service area totaled approximately 4,478 acres, or about 11 percent of the total planning area and about 64 percent of the total area in the City of West Bend corporate limits. As shown on Map 28, the City sanitary sewage treatment plant also provides contracted sanitary sewer services to the Wallace Lake Sanitary District, the Scenic Drive Sanitary District, and two urban developments, Cedar Lake Home Campus and Serigraph Sales and Manufacturing, Inc. The City of West Bend sewerage system consists of a plant designed to treat an average daily flow of 9,000,000 gallons per day, and a maximum flow of 28,000,000 gallons per day; two lift stations; and a network of trunk, main, and lateral sewers. In 1989, the West Bend waste-

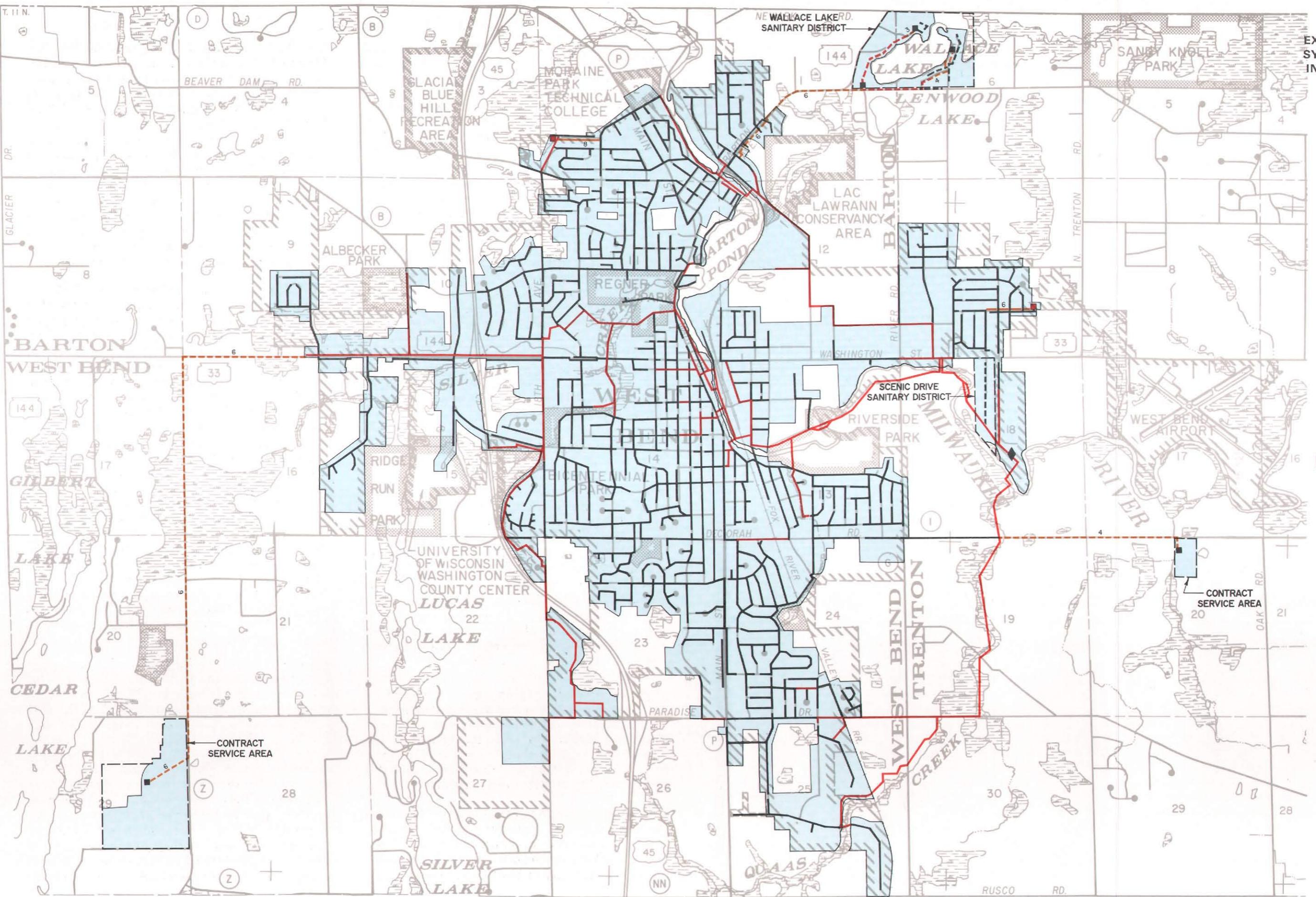
water treatment facility treated an average daily flow of approximately 3,500,000 gallons per day.

Regional Water Quality Management Plan: As noted in Chapter I of this report, the Regional Planning Commission in 1979 adopted an areawide water quality management plan for southeastern Wisconsin. This plan is documented in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000. The plan is intended to help achieve clean, wholesome surface waters in the seven-county Region. This adopted plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility based upon the general urban land use configurations identified in the Commission-adopted regional land use plan for the year 2000 (see Map 3 in Chapter I). As such, the delineations are necessarily general, and do not reflect local planning considerations. The areawide water quality management plan recommends that each community served by public sanitary sewerage facilities refine and detail sanitary sewer service areas for their area to the year 2000.

Adopted Sanitary Sewer Service Area Plan: In response to the recommendation of the adopted regional water quality management plan, the City of West Bend adopted, on June 20, 1983, a refined sanitary sewer service plan designating a detailed sanitary sewer service area tributary to the City of West Bend sewage treatment plant. This plan is documented in SEWRPC Community Assistance Planning Report No. 35, entitled, Sanitary Sewer Service Area for the City of West Bend, December 1982. Since the adoption of this plan, the City Common Council has adopted three amendments to the plan, in 1985, 1987, and 1988, respectively. These amendments were necessary to resolve onsite sewage disposal system problems and to provide adequate sanitary sewer services to existing and proposed urban developments in the West Bend area. The West Bend Sanitary Sewer Service Area Plan, including the three amendments, is shown on Map 29. As shown on this map, the gross sanitary sewer service area in the West Bend planning area totaled about 13,037 acres, or about 20.37 square miles, and about 32 percent of the total West Bend planning area. This gross area includes about 4.19 square miles, or about 20.5 percent, of primary environmental corridor; about 0.07 square miles, or about 0.3 percent, of

Map 28

EXISTING SANITARY SEWER
SYSTEM AND SERVICE AREA
IN THE CITY OF WEST BEND
AND ENVIRONS: 1989



secondary environmental corridor; and about 0.47 square miles, or 2.3 percent, of isolated natural areas.

The adopted regional water quality management plan recommends that sanitary sewers not be extended into primary environmental corridors merely to accommodate urban development in the corridors. However, the plan recognizes that, in some cases, it would be necessary to construct sanitary sewers across and through primary environmental corridors, and that certain land uses requiring sanitary sewer service could be properly located in the corridors, including certain park and outdoor recreation areas and certain institutional uses. In some cases, very-low-density residential development on five-acre lots, compatible with the preservation of the corridors in essentially natural, open uses, may also be permitted to occupy corridor lands; it may be desirable to extend sewers into the corridors to serve such uses. Basically, however, the plan seeks to ensure that the primary environmental corridor lands are not destroyed through conversion to urban uses.

Public Water Supply System and Service Area

The existing public water supply system and service area for the City of West Bend and environs are shown on Map 30. In 1989, the existing water supply service area totaled approximately 4,105 acres, or about 10 percent of the total planning area and about 61 percent of the total area in the City limits. The water system is served by 10 wells, five elevated towers, two in-ground storage reservoirs, one filtration plant, one booster station, and a water distribution system. The pumping capacity of the entire system is about 11,000,00 gallons per day, with an average daily consumption of about 3,600,000 gallons per day in 1989.

Engineered Stormwater Management System

The existing storm sewer system and service area for the City of West Bend and environs are shown on Map 31. In 1989, the system served about 3,502 acres, or about 9 percent of the total planning area and about 56 percent of the total area in the City of West Bend corporate limits.

Local Stormwater Management Plan: Recognizing the need for a systematic plan to manage existing stormwater drainage and to avoid the creation of new problems as urban development proceeds in the City of West Bend and environs,

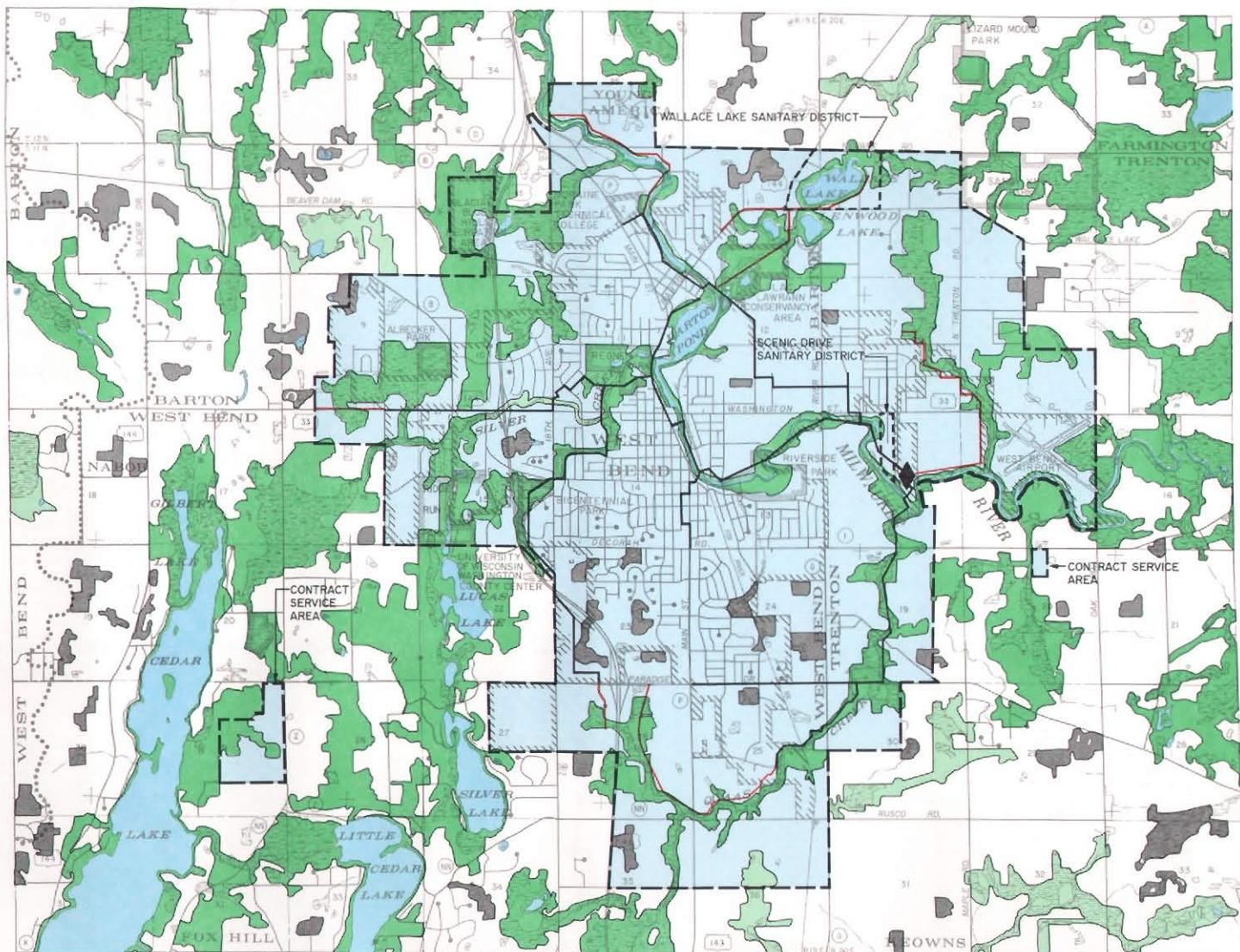
the City, in January 1985, requested the Regional Planning Commission to assist in the preparation of a stormwater management program plan. The planning work, to be completed over a four year period, was funded by the City of West Bend. The plan seeks to promote the development of an effective stormwater management system, adequate to serve the City through at least the year 2010. To the extent practicable, the plan is intended to ameliorate existing stormwater drainage problems, to avoid the creation of new stormwater drainage problems as the area continues to develop, to mitigate the effects of nonpoint source pollution on surface water quality, and to help reduce downstream flooding.

The plan is to be presented in a series of four volumes. The first volume, adopted by the City on July 17, 1989, sets forth the basic principles and concepts underlying the stormwater management planning effort; presents forecasts of anticipated future use in the area; describes the existing stormwater drainage system; and identified generally existing stormwater management problems. The second volume, also adopted by the City on July 17, 1989, presents the findings of an inventory and evaluation of the existing stormwater management system serving that portion of the planned urban service area of the City of West Bend lying in the Silver Creek subwatershed; describes and evaluates stormwater management plans designed to serve the watershed; and recommends a stormwater management plan for the subwatershed. The second volume contains information for plan implementation and a financing schedule. Volumes three and four will present similar information and recommendations for the Quaas Creek subwatershed and the Milwaukee River direct drainage area.

West Bend Industrial Park South Demonstration Project: In 1985, the City of West Bend entered into an agreement with the Wisconsin Department of Natural Resources to conduct the first urban demonstration project under the Milwaukee River priority watershed planning program. Under the agreement, the City is to develop a stormwater management system in the Industrial Park South that is intended to reduce peak stormwater flow, and to control construction erosion and downstream sedimentation. An important feature of the system is the elimination of the use of curbs, gutters, and storm sewers typical of an urban development. Instead, stormwater runoff is collected in roadside

Map 29

THE ADOPTED, REFINED, AND DETAILED WEST BEND SANITARY SEWER SERVICE AREA



LEGEND

■ PRIMARY ENVIRONMENTAL CORRIDOR

■ SECONDARY ENVIRONMENTAL CORRIDOR

■ ISOLATED NATURAL AREA

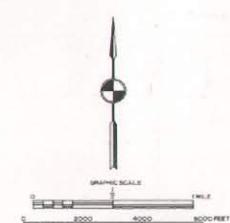
— GROSS SANITARY SEWER SERVICE AREA BOUNDARY

■ NET SANITARY SEWER SERVICE AREA

◆ EXISTING SEWAGE TREATMENT PLANT

— EXISTING TRUNK SEWER

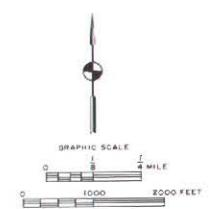
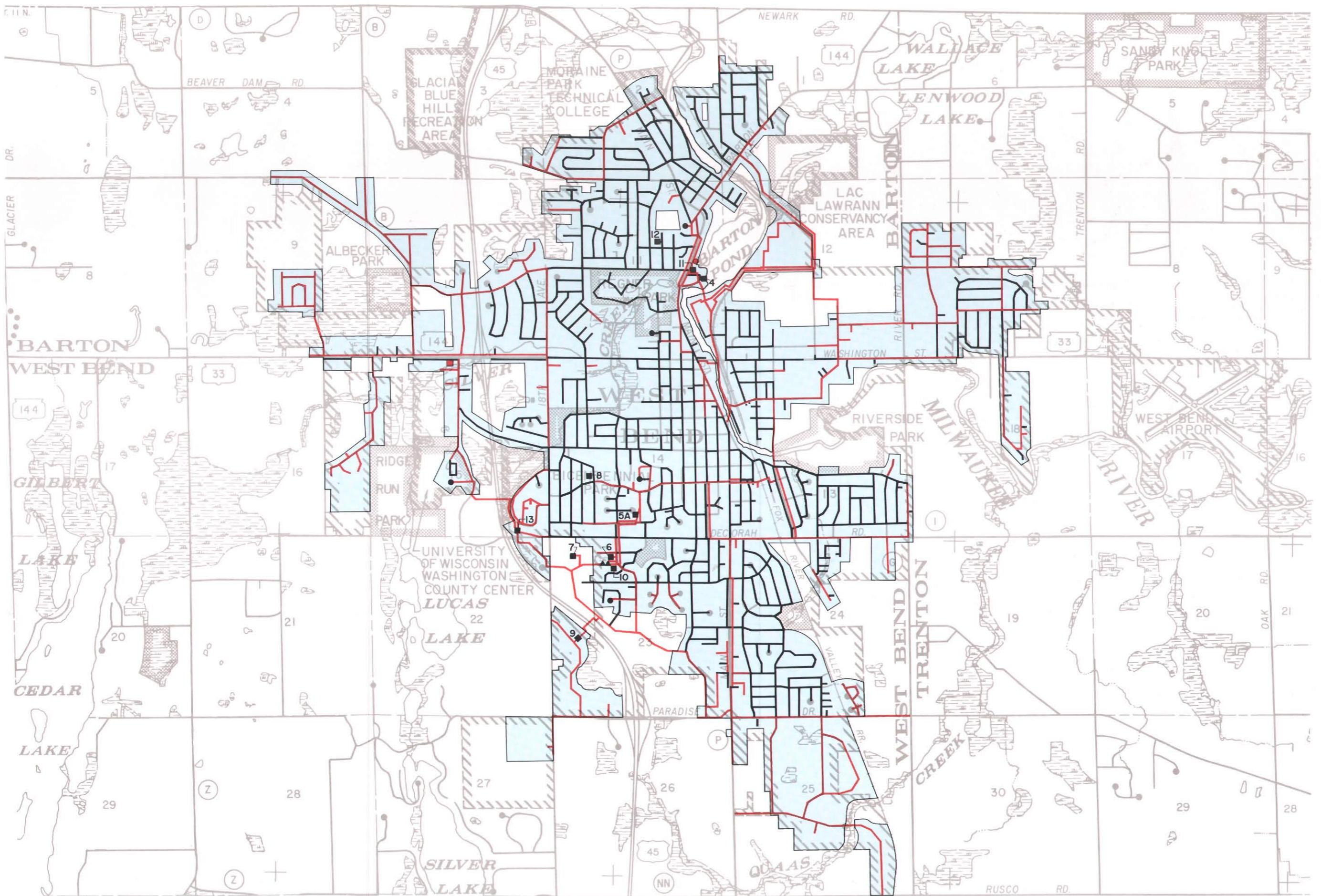
— PROPOSED TRUNK SEWER



Source: City of West Bend Engineering and Community Development Departments and SEWRPC.

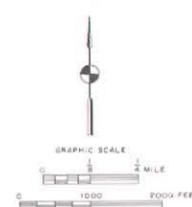
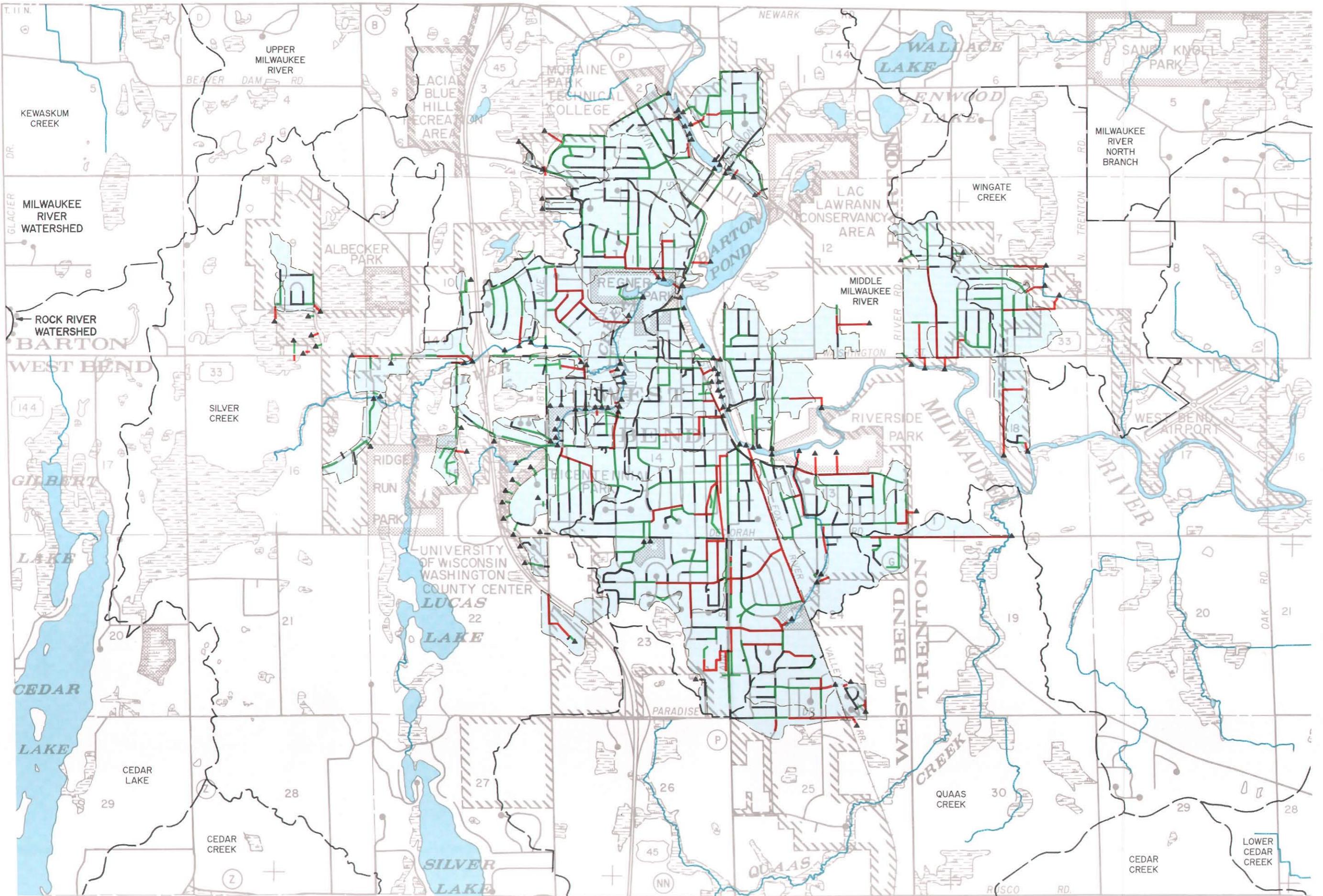
Map 30

EXISTING PUBLIC
WATER SUPPLY SYSTEM
AND SERVICE AREA IN
THE CITY OF WEST BEND
AND ENVIRONS: 1989



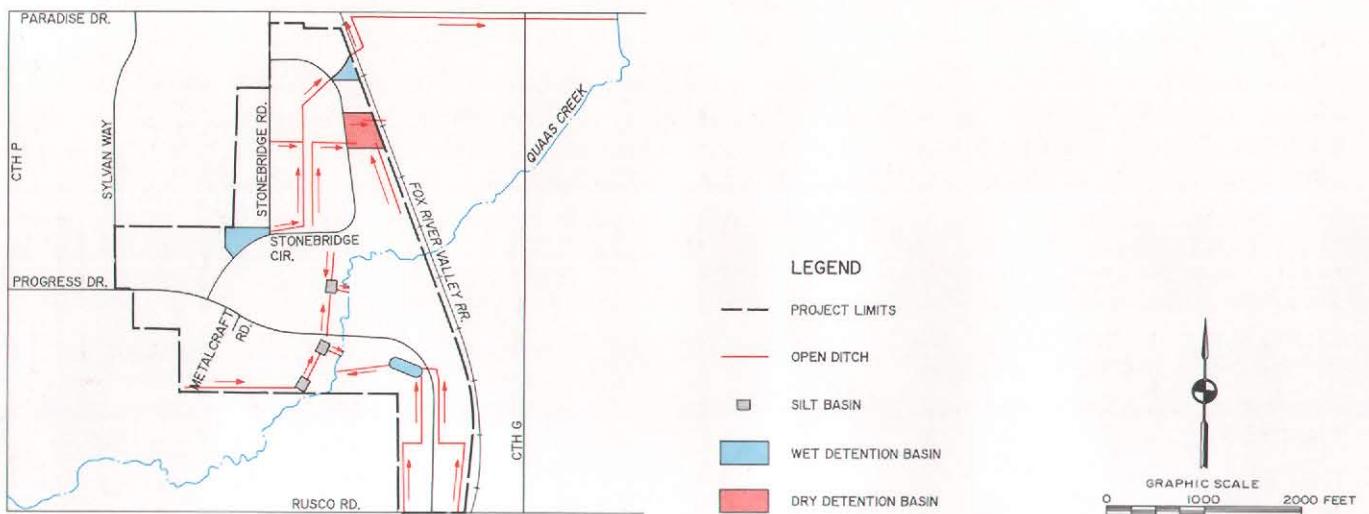
Map 31

EXISTING STORMWATER SEWER SYSTEM AND SERVICE AREA IN THE CITY OF WEST BEND AND ENVIRONS: 1989



Map 32

STORMWATER MANAGEMENT SYSTEM FOR THE WEST BEND
INDUSTRIAL PARK SOUTH DEMONSTRATION PROJECT



Source: SEWRPC.

ditches and swales. The roadside ditches are lined with sod and steeper areas are lined with rock to prevent channel erosion. All stormwater runoff is channeled into silt basins or detention ponds to settle out sediments and other pollutants before discharge to nearby Quaas Creek. The completed stormwater management system for the demonstration project is shown on Map 32.

In areas adjacent to the Industrial Park South, the impact of urban development on stormwater runoff has been minimized through channels and ponds designed to detain water, settle out sediments and related pollutants, and allow some infiltration for groundwater recharge. As a result, downstream flooding and stream bank and channel erosion have been prevented, and a brook trout fishery has been preserved.

Chapter V

EXISTING LOCAL PLAN IMPLEMENTATION DEVICES

INTRODUCTION

The proper preparation of a land use plan requires careful consideration of existing pertinent land use and development regulations. The existing regulations which require examination in this respect include the City's zoning ordinance, land division ordinance, construction site erosion control ordinance, interim stormwater management ordinance, and official map. Regulations implemented by Washington County and the Towns of Barton, Farmington, Trenton, and West Bend, located within the City of West Bend planning area, are also considered. Each of these existing plan implementation devices is described in this chapter as it affects the physical development of the City and its environs.

EXISTING ZONING

Good community development depends not only upon sound long-range plan formulation at all levels of government, but also upon practical plan implementation as well. Zoning is one of the major plan implementation devices available to any community. The primary functions of zoning are to implement the community land use plan and to protect desirable existing development. Zoning should be a major tool for the implementation of community plans and not a substitute for such plans.

A zoning ordinance is a public law which regulates and restricts the use of private property in the public interest. A zoning ordinance divides a community into districts for the purpose of regulating: 1) the use of land, water, and structures, 2) the height, size, shape, and placement of structures, and 3) the density of population. Zoning seeks to confine certain land uses to those areas of the community which are well suited to those uses, and seeks to set aside land for these particular uses, thereby encouraging the most appropriate use of land throughout the community. Zoning seeks to assure adequate light, air, and open space for each building; to reduce fire hazard; to prevent the overcrowding of land, traffic congestion, and the overloading of the utility systems. Zoning should also seek to protect and preserve the natural resource base.

A single set of regulations applied to an entire community could not achieve these objectives of zoning, since different areas of the community differ in character and function. In this respect the zoning ordinance differs from building, housing, and sanitation codes which, in general, apply uniformly to all lands or buildings of like use wherever they may be located in a community. Zoning regulations for various types of districts within a city may be different, but regulations within any given district must be uniform. Accordingly, a zoning ordinance consists of two parts: 1) a text setting forth regulations which apply to each of the various zoning districts, together with related procedural, administrative, and legal provisions, and 2) a map delineating the boundaries of the various districts to which the differing regulations apply.

Wisconsin enabling legislation requires that zoning regulations shall be made in accordance with a "comprehensive plan." There are a number of quite different meanings applied to the term "comprehensive plan". These vary from 1) the idea that in order to be deemed in accordance with a comprehensive plan, zoning must regulate land use, building height, and lot area through 2) the idea that zoning must be applied to the entire corporate limits of the community, or 3) must be based upon a careful and comprehensive study prior to adoption, to 4) the idea that the zoning must be based upon a documented long-range land use plan and must seek to implement that plan. The fourth concept represents sound planning practice. It is most commonly accepted by professional planners, and is the concept followed in this report.

Each zoning ordinance text and its accompanying zoning map must be carefully tailored to the individual community, or certain hardships will doubtless be created which may result in litigation and the possibility that the zoning ordinance may be set aside by court action as arbitrary, capricious, or unconstitutional. The preparation of a zoning ordinance text and map, therefore, is a complex task, calling for exhaustive studies and close cooperation between the land use planning and legal professions. The zoning text and map must be prepared so as to bear a just relationship with existing conditions

and yet to direct the future development of the community along better lines. If challenged in court, the municipality should be able to show that sufficient data were utilized in the drafting of the ordinance to meet the legal requirement of reasonableness. The lack of such data could result in the zoning ordinance being declared invalid.

City of West Bend Zoning Ordinance

All land development and building activities in the City of West Bend are regulated by the City Zoning Ordinance. The present Zoning Ordinance of the City of West Bend, set forth in Chapter 17 of the Municipal Code and amendments thereto, is characterized by the provision of 27 basic zoning districts: four single-family residential districts, two two-family residential districts, and four multi-family residential districts; six commercial districts; three industrial districts; one institutional and public service district; one park, recreation, and open space district; one floodway district; one floodway wetland district; one floodplain wetland district; one floodplain storage district; one shoreland wetland district; and one nonshoreland wetland district plus two overlay districts: a floodplain fringe overlay district and a planned unit development overlay district. The extent of these districts, as of January 1991, is shown on Map 33. Table 24 presents a brief summary of the zoning regulations applicable within each of these 29 districts, including permitted and conditional uses, maximum residential density, minimum lot size, minimum yard requirements, and maximum building height.

Even though the floodplain areas in the City are regulated by the City's comprehensive zoning district map at a scale of one inch equals 200 feet, the City also uses a separate "Supplementary Floodland Zoning Map," prepared at a scale of one inch equals 200 feet, which is based upon large-scale topographic maps with a vertical contour interval of two feet. This map delineates the 100-year recurrence interval floodplain within the City of West Bend area and provides such information about the floodplain as the distance of critical cross-sections in river or stream miles from Lake Michigan or, generally, of tributaries from their confluence with the Milwaukee River, and the 100-year recurrence interval flood elevation in feet above the

National Geodetic Vertical Datum. This information is essential to the proper administration of floodland zoning.

The existing City of West Bend Zoning Ordinance, originally adopted on June 21, 1937, has been updated by the City from time to time as problems arose. This continuing effort to maintain a current documents has made the West Bend zoning ordinance responsive to changing conditions relating to both urban development and urban redevelopment in the City.

Site Plan Review: Good zoning practice dictates that for major developments the developer submit a site plan to the City Plan Commission for review and approval. Through such review, the community can be assured that the development proposal will not: create traffic congestion or safety problems; prevent an adjacent property from receiving adequate light and air; substantially increase the danger of fire; create drainage, flooding, or erosion problems; or in any way endanger the public health and safety or substantially diminish property values. More specifically, through a careful site plan review of a proposed development, the community can be assured that:

1. The proposed use conforms to the uses permitted in that zoning district and the community land use plan.
2. The dimensional arrangement of buildings and structures conforms to the required yard, setback, and height restrictions of the ordinance.
3. The proposed use conforms to all use and design provisions and requirements in the zoning ordinance.
4. There is a proper relationship between the existing and proposed streets and highways in the vicinity of the project, so as to assure the safety and convenience of pedestrian and vehicular traffic. This can be best accomplished by using site plan review and a sound planning tool for arterial street and highway access management.
5. The proposed buildings, structures, and entryways on the site are situated and designed to minimize adverse effects on owners and occupants of adjacent and surrounding properties by means of ade-

Map 33

EXISTING ZONING IN THE CITY OF WEST BEND: 1991

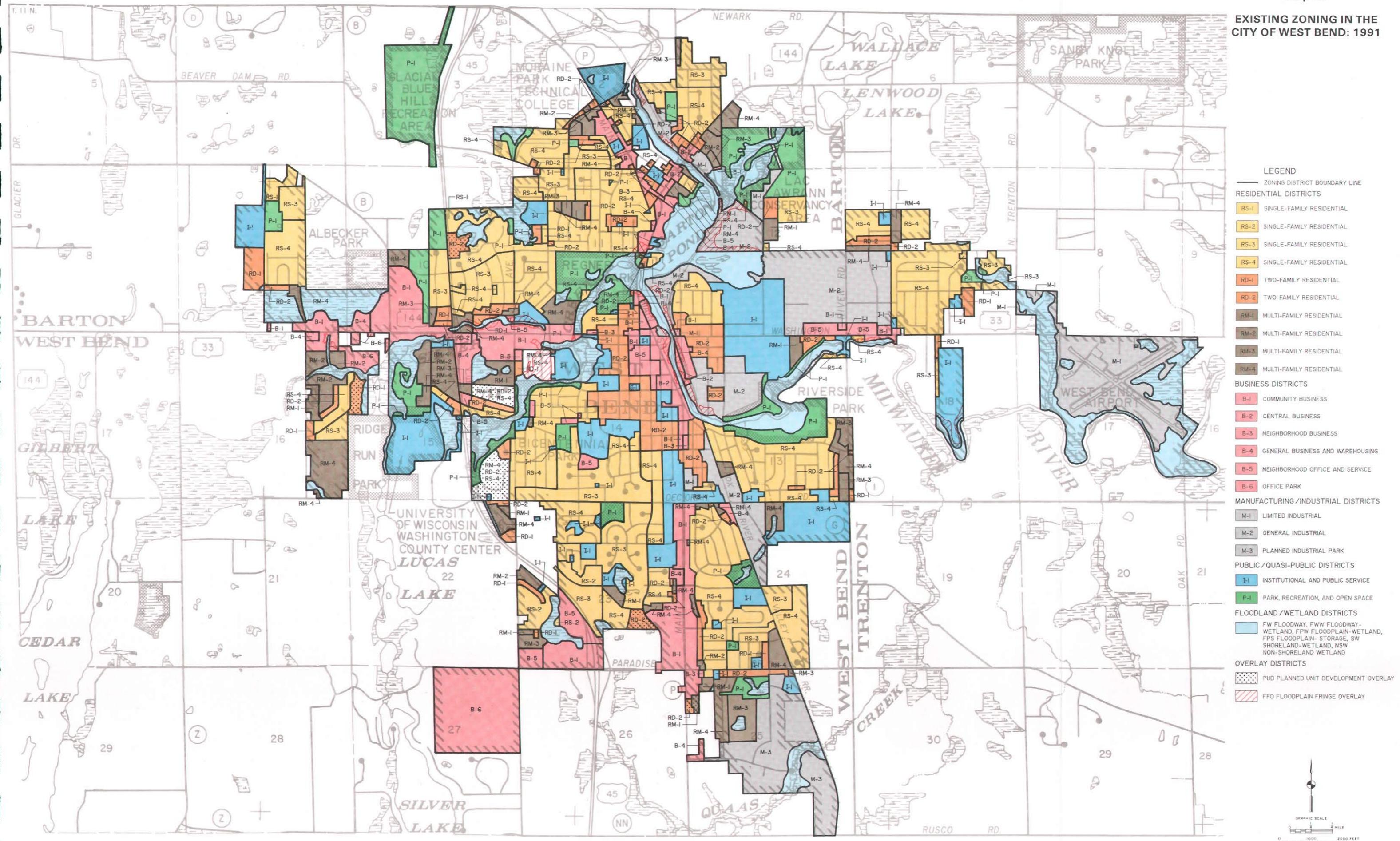


Table 24
SUMMARY OF EXISTING ZONING FOR THE CITY OF WEST BEND: 1991

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area (square feet)	Area per Dwelling Unit (square feet)	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
RS-1 Single-Family Residential	Single-family dwellings, foster and adult family homes, community living arrangements, family day care homes, minor home occupations	Community living arrangements for nine to 15 persons, facilities for domestic abuse victims, major home occupations, churches	2.90	15,000	15,000	100	35	10 on each side; 25 total	35	35
RS-2 Single-Family Residential	All RS-1 permitted uses	All RS-1 conditional uses	3.46	12,600	12,600	90	30	8 on each side; 20 total	35	35
RS-3 Single-Family Residential	All RS-1 permitted uses	All RS-1 conditional uses	4.54	9,600	9,600	80	30	8 on each side; 18 total	30	35
RS-4 Single-Family Residential	All RS-1 permitted uses	All RS-1 conditional uses	6.05	7,200	7,200	60	30 from major street 25 from minor street	6 on each side; 14 total	20	35
RD-1 Two-Family Residential	Two-family dwellings, foster and adult family homes, community living arrangements, family day care homes, minor home occupations	Community living arrangements for nine to 15 persons, facilities for domestic abuse victims, major home occupations, churches single-family dwellings	7.58	11,500	5,750	90	30	8 on each side; 20 total	30	35
RD-2 Two-Family Residential	All RD-1 permitted uses	All RD-1 conditional uses	10.89	8,000	4,000	80	30 from major street 25 from minor street	8	25	35
RM-1 Multi-Family Residential	Multi-family dwellings, foster and adult family homes, community living arrangements up to 15 persons	Family day care homes, facilities for domestic abuse victims, major home occupations, churches, public buildings, parks, clubs, meeting places	7.09 to 9.58, depending upon dwelling unit type	13,635 to 18,435, depending upon dwelling unit type	One-bedroom, 4,545 Two-bedroom, 5,445 Three-bedroom or more, 6,145	120 ^a	30	10 on each side; 22 total	20	40
RM-2 Multi-Family Residential	All RM-1 permitted uses	All RM-1 conditional uses	8.71 to 12.00, depending upon dwelling unit type	10,890 to 15,000, depending upon dwelling unit type	One bedroom, 3,630 Two-bedroom, 4,350 Three-bedroom or more, 5,000	120	30	10 on each side; 22 total	20	40
RM-3 Multi-Family Residential	All RM-1 permitted uses	All RM-1 conditional uses	10.01 to 13.83, depending upon dwelling unit type	9,450 to 13,050, depending upon dwelling unit type	One bedroom, 3,150 Two-bedroom, 3,630 Three-bedroom or more, 4,350	120	30	15 on each side; 35 total	25	40
RM-4 Multi-Family Residential	All RM-1 permitted uses	All RM-1 conditional uses and mobile homes	13.61 to 15.02, depending upon dwelling unit type	8,700 to 9,600, depending upon dwelling unit type	One- and two-bedroom, 2,900 Three-bedroom or more, 3,200	120	30	20	25	40
B-1 Community Business	Retail stores, offices, shops, clinics, theaters, restaurants, services, hotels and motels	Animal hospitals, outlet stores, gasoline service stations, recycling drop-off centers, boardinghouses	--	22,000 ^b	--	80	42	10 on each side; 30 total	15	35
B-2 Central Business	Retail stores, offices, shops, clinics, theaters, restaurants, services, hotels and motels	Adult establishments, bed and breakfast establishments, building supply stores, funeral homes, gasoline service stations, communication stations, boardinghouses	--	4,800	--	40	--	--	10	50
B-3 Neighborhood Business	Retail stores and shops, offices, customer service establishments, churches	Medical clinics, dental clinics, utilities, boardinghouses	--	7,200	--	60	42	10 on each side; 30 total	25	35
B-4 General Business and Warehousing	Wholesale service and/or retail sales and warehousing	Animal hospitals, construction services, laboratories, freight services, locker plants, cabinetmaking and lumber yards, solid waste collection and recycling centers, communication towers	--	22,000	--	100	42	15 on each side; 40 to total	25	35

Table 24 (continued)

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area (square feet)	Area per Dwelling Unit (square feet)	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
B-6 Neighborhood Office and Service	Certain professional and special services, governmental and public service offices, churches	Athletic and health clubs, child-care facilities, drive-in and drive-through financial institutions, restaurants except drive-in and drive-through, certain other services, and retail sales	--	7,200	--	60	42 ^c	8 on each side; 20 total	25	35
B-6 Office Park	Certain professional and business services; governmental and public service	Athletic clubs, child-care facilities, gift shops, business guest lodging, conference/meeting facilities, residential condominiums	--	43,680 (one acre)	--	150	42	10 on each side; 30 total	25	60
M-1 Limited Industrial	Processing, manufacturing, and/or storage	Service clubs; locker plants; manufacturing, processing, and/or storage of lumber	--	20,000	--	100	30	15 on each side; 35 total	25	35
M-2 General Industrial	All M-1 permitted uses and other processing, manufacturing, and/or storage	Bottling plants, construction of wood buildings and structural members, laboratories, locker plants, related offices, outdoor storage, transportation terminals, related retail stores and services, solid waste collection and recycling centers	--	40,000	--	150	30	15 on each side; 40 total	25	65
M-3 Planned Industrial Park	All M-1 and M-2 permitted uses	All M-2 conditional uses	--	43,680 (one acre)	--	150	50	15 on each side; 40 total	25	65
I-1 Institutional and Public Service	Schools, child-care facilities, churches, hospitals, nursing homes, clinics, museums, art galleries, cemeteries, crematory service buildings, lodges, public buildings	Gift stores, florists, utilities, funeral homes, communication towers, solid waste management and recycling facilities	--	9,600	--	80	30	10	25	50
P-1 Park, Recreation, and Open Space	Private and public recreation uses, art galleries, forest reserves	Amphitheaters, amusement parks, aquariums, archery ranges, drive-in theaters, certain other recreation uses	--	-- ^d	--	-- ^d	50	40	50	35
FW Floodway	Agricultural uses, excluding structures, fish hatcheries, forest preserves, utility facilities	Navigational structures, bridges, utilities, park and recreational areas excluding structures, other open space uses	--	--	--	--	--	--	--	--
FWW Floodway-Wetland	Agricultural uses excluding structures and certain recreational uses	Floodproofed roads and utilities	--	--	--	--	--	--	--	--
FPW Floodplain-Wetland	All FWW permitted uses	All FWW conditional uses	--	--	--	--	--	--	--	--
FPS Floodplain-Storage	All FW permitted uses	All FW conditional uses and floodproofed non-habitable structures	--	--	--	--	--	--	--	--
SW Shoreland-Wetland	Recreational uses, existing agricultural uses, silviculture, utilities	--	--	--	--	--	--	--	--	--
NSW Nonshoreland-Wetland	All SW permitted uses	--	--	--	--	--	--	--	--	--
FFO Floodplain Fringe Overlay	Any use of land, except structure, permitted in the underlying zoning district	Filling and floodproofed structures and utilities permitted in the underlying zoning district	-- ^e	-- ^e	-- ^e	-- ^e	-- ^e	-- ^e	-- ^e	-- ^e
PUD Planned Unit Development Overlay	-- ^{e,f}	-- ^{e,f}	-- ^e	--	--	--	--	--	--	--

Footnotes to Table 24

^aThe minimum lot width for four-family dwelling units shall be 100 feet.

^bThe minimum lot area is 9,600 square feet for lots bordering S. Main Street from Oak Street to Chestnut Street, and N. Main Street from Beech Street to N. Silverbrook Drive, and from Jefferson Street to a point 700 feet north of Roosevelt Drive.

^cThe minimum required front yard setback is 15 feet for areas bounded by Cedar Street on the north, 9th Avenue on the west, Walnut Street on the south, and Main Street on the east, and in areas on either side of Barton Avenue, bounded by Roosevelt Drive on the north and Main Street on the south.

^dLots shall provide sufficient area for the principal structure and its accessory structures, off-street parking, and loading areas, and all required yards.

^eAs per underlying basic zoning district requirements.

^fUses of a different zoning district not allowed in the underlying zoning district may be permitted provided they are only accessory to the principal use and not separate, distinct principal uses.

Source: City of West Bend Zoning Ordinance and SEWRPC.

quate design of ingress/egress, interior/exterior traffic flow, stormwater drainage, erosion control, grading, lighting, and parking, as specified by the local zoning ordinance or other laws.

6. Natural features of the landscape are retained where they can enhance the development on the site, where they furnish a barrier or buffer between the project and adjoining properties used for dissimilar purposes, or where they assist in preserving the general safety, health, and appearance of the area.
7. Adverse effects of the proposed development and activities on adjoining residents or owners are minimized by appropriate screening, fencing, or landscaping, as provided or required by the local zoning ordinance.
8. Buildings and structures are readily accessible to emergency vehicles and the handicapped.
9. The site plan, as approved, is consistent with the intent and purpose of the local zoning ordinance, which promotes the public health, safety, and general welfare; encourages the use of lands in accordance with their character and adaptability; avoids the overcrowding of population; lessens congestion on public roads and streets; reduces hazards to life and property; and facilitates existing land use and development plans.

The City of West Bend Zoning Ordinance includes provisions which address local site plan review of development and redevelopment proposals. As indicated in the this ordinance, the developer must submit a site plan to the City Plan Commission for any proposed new or

altered use, paved areas, or structures except single-family and two-family dwelling units. All site plans submitted must be acted upon by the City Plan Commission. Certificates of occupancy are not issued by the City Building Inspector until all improvements shown on the site plan are completed. Any changes to the proposed improvements shown to the original site plan may be subject to further review by the City Plan Commission. In addition, the Commission may require a developer's agreement addressing such elements of the project as density, required improvements, timing or phasing of the project, land dedications and/or park fees, consent and waiver of special assessments, and easements or dedications of land for road improvements and/or public utilities.

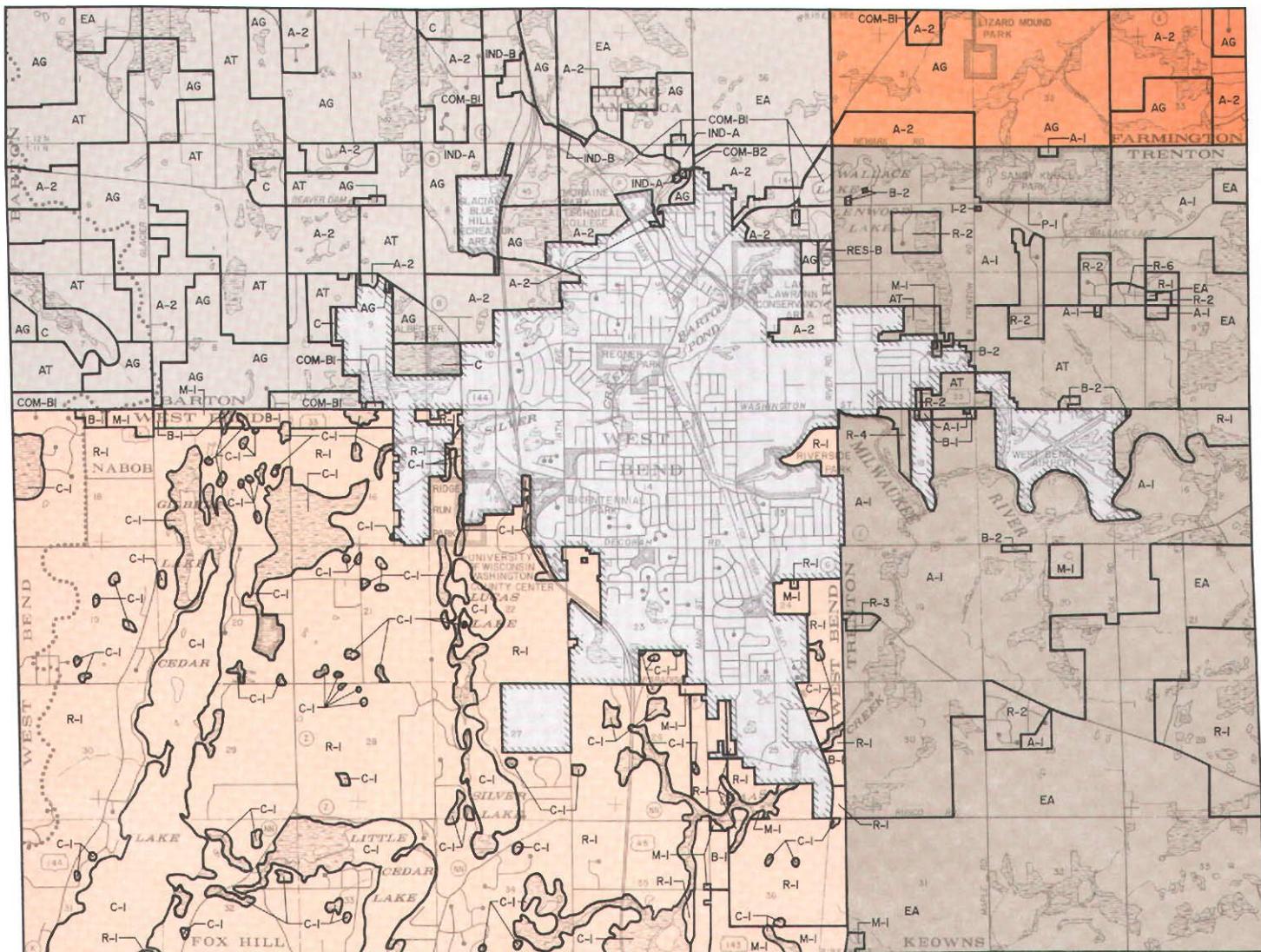
Other Zoning Ordinances

Town Zoning Ordinances: The planning area, as noted in Chapter I, consists of portions of the Towns of Barton, Farmington, Trenton, and West Bend, each of which utilizes its own zoning ordinance. The application of these town zoning districts within the City of West Bend planning area as of January 1991 is illustrated on Map 34. Tables 25 through 28 present a summary of these townships' zoning regulations, including permitted and conditional uses, minimum lot sizes, minimum yard requirements, and maximum building heights.

Washington County Floodplain and Shoreland Zoning Ordinances: The Washington County floodplain and shoreland regulations were adopted on February 19, 1975, as "Washington County Shoreland Floodplain Zoning Ordinance" and amended on April 15, 1986, as "Washington County Floodplain Zoning Ordinance and Washington County Shoreland and Wetland Zoning Ordinance." The floodplain and "shoreland" areas in the aforementioned townships are regulated by the aforereferenced Washington County ordinances. The Washing-

Map 34

EXISTING ZONING IN THE TOWNS OF BARTON, FARMINGTON, TRENTON, AND WEST BEND IN THE CITY OF WEST BEND PLANNING AREA: 1991



LEGEND

ZONING DISTRICT BOUNDARY		TOWN OF FARMINGTON	TOWN OF TRENTON
CITY OF WEST BEND		AG	EXCLUSIVE AGRICULTURAL
TOWN OF BARTON		A-2	AGRICULTURAL TRANSITION
		COM-B1	AGRICULTURAL
AG	AGRICULTURAL		RURAL RESIDENTIAL
EA	EXCLUSIVE AGRICULTURAL		SINGLE-FAMILY RESIDENTIAL (UNSEWERED)
AT	AGRICULTURAL TRANSITION		SINGLE-FAMILY RESIDENTIAL (UNSEWERED)
C	WETLAND CONSERVANCY		SINGLE-FAMILY RESIDENTIAL (SEWERED)
A-2	RESIDENTIAL		SINGLE-FAMILY RESIDENTIAL (SEWERED)
RES-B	RESIDENTIAL		TWO-FAMILY RESIDENTIAL (UNSEWERED)
COM-B1	COMMERCIAL		HIGHWAY BUSINESS
COM-B2	COMMERCIAL		INDUSTRIAL
IND-A	INDUSTRIAL		PARK
IND-B	INDUSTRIAL		URBAN INSTITUTIONAL (SEWERED)
			GRAPHIC SCALE
			0 1 MILE 0 8000 4000 FEET

Source: Towns of Barton, Farmington, Trenton, and West Bend; and SEWRPC.

Table 25
SUMMARY OF EXISTING ZONING FOR THE TOWN OF BARTON: 1991

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
AG Agricultural	Farm and single-family dwellings, farms, churches, schools, public parks, roadside stands, home occupations, professional offices	Mobile homes, cemeteries, agricultural buildings, greenhouses, livestock operations, kennels, manure pits	1.09	40,000 square feet	40,000 square feet	125	25 or more ^a	25	25	35
EA Exclusive Agricultural	Floriculture, dairying, feed lots, nurseries, beekeeping, raising of grains and trees, roadside stands, single-family dwellings	Fish hatcheries, churches, schools, cemeteries, farm machinery, kennels, veterinarian services, governmental structures, farm and single-family dwellings	0.03	35 acres	35 acres	600	25 or more ^a	25	25	35
AT Agricultural Transition Zone	All EA permitted uses	All EA conditional uses	0.03	35 acres	35 acres	600	25 or more ^a	25	25	35
WC Wetland Conservancy	Agricultural uses, wild crop harvesting, trails, preserves, conservation practices, public park and recreation excluding buildings	Drainage projects, hatcheries, private recreational facilities, transmission lines	--	--	--	--	--	--	--	--
RR-III Rural Residential III	Single-family dwellings, home occupations, parks, playgrounds, community living arrangements	Keeping of domestic livestock, farming, community living arrangements for nine or more persons, kennels	0.33	Three acres	Three acres	300	42 or more ^a	25	50	35
Residential A-1	Single-family dwellings, parks, playgrounds, churches, schools, home occupations and related offices, community living arrangements	Farming, keeping of livestock and poultry, wholesale fish hatcheries, community living arrangements for nine or more persons	1.09	40,000 square feet	40,000 square feet	125	25 or more ^a	7.5 on one side; 20 total	25	35
Residential A-2	All Residential A-1 permitted uses and nondwelling accessory uses and structures	Two-family dwellings and community living arrangements for nine or more persons	1.09	40,000 square feet	40,000 square feet	100	25 or more ^a	7.5 on one side; 20 total	25	35
Residential A-3	All Residential A-1 permitted uses, nondwelling accessory uses and structures, two-family dwellings, community living arrangements	Multi-family (three to eight units) dwellings and community living arrangements for 16 or more persons	3.63 to 7.26, depending upon dwelling type	12,000 square feet	Single-family, 12,000 square feet Two-family, 6,000 square feet Multi-family, 4,000 square feet	85	25 or more ^a	7.5 on one side; 20 total	25	35
Residential B	All Residential A-2 permitted uses, two- to eight-family dwellings, community living arrangements up to 16 persons	Community living arrangements for 16 or more persons	3.63 to 10.89, depending upon dwelling unit type	12,000 square feet	Single-family, 12,000 square feet Two-family, 6,000 square feet Multi-family, 4,000 square feet	75	25 or more ^a	25	25	45
Residential C	All Residential A-2 permitted uses, two- to four-family dwellings, community living arrangements up to 16 persons	Community living arrangements for 16 or more persons	0.33 to 1.33, depending upon dwelling unit type	Three acres	32,670 square feet to three acres, depending upon dwelling unit type	125	25 or more ^a	25	25	45
Commercial A	All Residential A-2 permitted uses, except community living arrangements, grocery, hardware and shoe stores, restaurants, service offices, taverns, and other general retail stores	Hospitals, service stations, laundromats, hotels, motels, kennels, restaurants	--	Unsewered, 40,000 square feet Sewered, 12,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	Residential, 45 Commercial, one foot for each foot of front setback
Commercial B-1	All Commercial A permitted uses, offices, clubs	Drive-in theatres and kennels	--	Unsewered, 40,000 square feet Sewered, 12,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	Residential, 45 Commercial, one foot for each foot of front setback
Commercial B-2	All Commercial B-1 permitted uses, except dwelling units	Auto body shops and kennels	--	Unsewered, 40,000 square feet Sewered, 5,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	One foot for each foot of front setback

Table 25 (continued)

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
Industrial A	All Commercial B-1 permitted uses, except churches, schools, and dwelling units; warehousing, distributing, terminals, printing, and bottling plants	None	--	Unsewered, 40,000 square feet Sewered, 5,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	45
Industrial B	All Industrial A permitted uses and other manufacturing, fabricating, processing, and storage uses	Salvage yards, storage, manufacturing and processing of certain materials	--	Unsewered, 40,000 square feet Sewered, 5,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10 ^b	45
Highway Interchange Overlay	Single- and two-family dwellings	All principal or accessory uses permitted in the Residential B, Commercial A, B-1, and B-2, Industrial A Districts	-- ^c	-- ^c	-- ^c	-- ^c	-- ^d	-- ^d	-- ^d	45

^aThe setback distance from a Class A highway shall be 100 feet from the centerline of the road or 42 feet from the highway right-of-way line, whichever is greater; from a Class B highway a 75-foot setback from the centerline of the road or 30 feet from the highway right-of-way line, whichever is greater; and from a Class C highway, 55 feet from the centerline of the road or 25 feet from the highway right-of-way, whichever is greater.

^bConditional uses allowed in this district must have a rear yard setback of at least 25 feet.

^cUnderlying zoning district requirements apply.

^dAll minimum yard requirements of the underlying districts shall be increased by 50 feet on yards abutting interchange right-of-way.

Source: Town of Barton Zoning Ordinance and SEWRPC.

ton County Floodplain Zoning Ordinance is characterized by the provision of a floodway district, a flood fringe district, and a general floodplain district which protect floodplain areas by regulating proposed development within the 100-year recurrence interval floodplains as delineated in the federal Flood Insurance Study, County of Washington, Wisconsin, Unincorporated Areas: March 1, 1983. Of the three floodplain zoning districts established within Washington County, only the general floodplain district has been delineated within the City of West Bend planning area, as shown on Map 35.

The Shoreland and Wetland Zoning Ordinance of Washington County regulates "shoreland" areas, defined as those lands lying within 1,000 feet of the ordinary high-water mark of natural lakes, ponds, or flowages, or 300 feet of the ordinary high-water mark of navigable rivers or streams or to the landward side of the floodplain, whichever distance is greater. Lakes, ponds, flowages, rivers, and streams are presumed to be navigable if they are listed in the Wisconsin Department of Natural Resources

(DNR) publication, Surface Water Resources of Washington County, or are shown on the United States Geological Survey quadrangle maps.

The Washington County Shoreland and Wetland Zoning Ordinance also applies to areas in the City of West Bend annexed after May 7, 1982. Section 59.971(7) of the Wisconsin Statutes requires county shoreland regulations to remain in effect in areas annexed after that date unless a city or village has adopted shoreland regulations that are at least as restrictive as the County's regulations. County shoreland regulations are almost always more restrictive than city or village regulations, because state regulations requiring the adoption of shoreland zoning ordinances specify more restrictive standards for county ordinances than for city and village ordinances. Some of the standards that must be included in county shoreland ordinances but are not required in city and village ordinances are larger minimum lot sizes; 75-foot minimum setback requirements from the ordinary high-water mark of rivers, streams, and lakes; limitations on the removal of shore cover within

Table 26

SUMMARY OF EXISTING ZONING FOR THE TOWN OF FARMINGTON: 1991

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
AG Agricultural	Farm and single-family dwellings, farms, churches, schools, public parks, roadside stands, home occupations, professional offices	Mobile homes, cemeteries, agricultural buildings, greenhouses, livestock operations, kennels, manure pits	1.09	40,000 square feet	40,000 square feet	125	25 or more ^a	25	25	35
EA Exclusive Agricultural	Floriculture, dairying, feed lots, nurseries, beekeeping, raising of grains and trees, roadside stands, single-family dwellings	Fish hatcheries, churches, schools, cemeteries, farm machinery, kennels, veterinarian services, governmental structures, farm and single-family dwellings	0.03	35 acres	35 acres	600	25 or more ^a	25	25	35
AT Agricultural Transition Zone	All EA permitted uses	All EA conditional uses	0.03	35 acres	35 acres	600	25 or more ^a	25	25	35
WC Wetland Conservancy	Agricultural uses, wild crop harvesting, trails, preserves, conservation practices, public park and recreation excluding buildings	Drainage projects, hatcheries, private recreational facilities, transmission lines	--	--	--	--	--	--	--	--
RR-III Rural Residential III	Single-family dwellings, home occupations, parks, playgrounds, community living arrangements	Keeping of domestic livestock, farming, community living arrangements for nine or more persons, kennels	0.33	Three acres	Three acres	300	42 or more ^a	25	50	35
Residential A-1	Single-family dwellings, parks, playgrounds, churches, schools, home occupations and related offices, community living arrangements	Farming, keeping of livestock and poultry, wholesale fish hatcheries, community living arrangements for nine or more persons	1.09	40,000 square feet	40,000 square feet	125	25 or more ^a	7.5 on one side; 20 total	25	35
Residential A-2	All Residential A-1 permitted uses and nondwelling accessory uses and structures	Two-family dwellings and community living arrangements for nine or more persons	1.09	40,000 square feet	40,000 square feet	100	25 or more ^a	7.5 on one side; 20 total	25	35
Residential A-3	All Residential A-1 permitted uses, nondwelling accessory uses and structures, two-family dwellings, community living arrangements	Multi-family (three to eight units) dwellings and community living arrangements for 16 or more persons	3.63 to 7.26, depending upon dwelling type	12,000 square feet	Single-family, 12,000 square feet Two-family, 6,000 square feet Multi-family, 4,000 square feet	85	25 or more ^a	7.5 on one side; 20 total	25	35
Residential B	All Residential A-2 permitted uses, two- to eight-family dwellings, community living arrangements up to 16 persons	Community living arrangements for 16 or more persons	3.63 to 10.89, depending upon dwelling unit type	12,000 square feet	Single-family, 12,000 square feet Two-family, 6,000 square feet Multi-family, 4,000 square feet	75	25 or more ^a	25	25	45
Residential C	All Residential A-2 permitted uses, two- to four-family dwellings, community living arrangements up to 16 persons	Community living arrangements for 16 or more persons	0.33 to 1.33, depending upon dwelling unit type	Three acres	32,670 square feet to three acres, depending upon dwelling unit type	125	25 or more ^a	25	25	45
Commercial A	All Residential A-2 permitted uses, except community living arrangements, grocery, hardware and shoe stores, restaurants, service offices, taverns, and other general retail stores	Hospitals, service stations, laundromats, hotels, motels, kennels, restaurants	--	Unsewered, 40,000 square feet Sewered, 12,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	Residential, 45 Commercial, one foot for each foot of front setback
Commercial B-1	All Commercial A permitted uses, offices, clubs	Drive-in theatres and kennels	--	Unsewered, 40,000 square feet Sewered, 12,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	Residential, 45 Commercial, one foot for each foot of front setback
Commercial B-2	All Commercial B-1 permitted uses, except dwelling units	Auto body shops and kennels	--	Unsewered, 40,000 square feet Sewered, 6,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	One foot for each foot of front setback

Table 26 (continued)

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
Industrial A	All Commercial B-1 permitted uses, except churches, schools, and dwelling units; warehousing, distributing, terminals, printing, and bottling plants	None	--	Unsewered, 40,000 square feet Sewered, 5,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10	45
Industrial B	All Industrial A permitted uses and other manufacturing, fabricating, processing, and storage uses	Salvage yards, storage, manufacturing and processing of certain materials	--	Unsewered, 40,000 square feet Sewered, 5,000 square feet	--	Unsewered, 125 Sewered, 75	25 or more ^a	25	10 ^b	45
Highway Interchange Overlay	Single- and two-family dwellings	All principal or accessory uses permitted in the Residential B, Commercial A, B-1, and B-2, Industrial A Districts	-- ^c	-- ^c	-- ^c	-- ^d	-- ^d	-- ^d	-- ^d	45

^aThe setback distance from a Class A highway shall be 100 feet from the centerline of the road or 42 feet from the highway right-of-way line, whichever is greater; from Class B highways, 75 feet from the centerline of the road or 30 feet from the highway right-of-way line, whichever is greater; and from Class C highways, 55 feet from the centerline of the road or 25 feet from the highway right-of-way, whichever is greater.

^bConditional uses allowed in this district must have a rear yard setback of at least 25 feet.

^cUnderlying zoning district requirements apply.

^dAll minimum yard requirements of the underlying districts shall be increased by 50 feet on yards abutting interchange right-of-way.

Source: Town of Farmington Zoning Ordinance and SEWRPC.

35 feet of the ordinary high-water marks; and restrictions on filling, grading, lagooning, dredging, ditching, and excavating in shoreland areas.

The Washington County shoreland regulations in effect on the date an annexation took place after May 7, 1982, continue to apply within the area annexed and are administered by the City. In the City of West Bend, shoreland areas annexed between May 7, 1982, and April 15, 1986, as shown on Map 35, are subject to regulations that are at least as restrictive as the county shoreland regulations adopted in February 19, 1975. Those shoreland areas annexed on and after April 15, 1986, are subject to regulations that are at least as restrictive as the county ordinance adopted on that date.

Wetlands five acres or more in area in the unincorporated shoreland jurisdiction areas are protected by the regulations established for the Shoreland-Wetland Zoning District. The shoreland areas and the shoreland wetlands in unincorporated areas within the City of West Bend planning area are both shown on Map 35.

THE LAND DIVISION ORDINANCE

A land division ordinance is a public law regulating the dividing of land. Such regulation is necessary to ensure that:

1. The subdivision of land will fit properly into the existing and proposed land use pattern and overall plan for the physical development of the community.
2. Adequate provision is made for necessary community and neighborhood facilities, like parks, schools, walkways, and roads, so that a harmonious and desirable environment will result.
3. Adequate standards are met in the design of the land divisions and the improvement of the land being subdivided, with particular attention to such requirements as utilities, stormwater drainage, street improvements, and lot improvements.
4. A sound basis is provided for clear and accurate records of property boundaries.

Table 27
SUMMARY OF EXISTING ZONING FOR THE TOWN OF TRENTON: 1991

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
EA Exclusive Agriculture	Apiculture, dairy farming, orchards, plant nurseries, sod farming, farm buildings, poultry and livestock raising, existing dwellings	Single- or two-family farm dwelling, accessory apartments, topsoil and sod removal, energy conservation uses, utility substations	0.03	35 acres	35 acres	600	75	25	25	35
AT Agricultural Transition	All EA permitted uses	All EA conditional uses	0.03	35 acres	35 acres	600	75	25	25	35
A-1 Agricultural	All EA permitted uses, agricultural warehousing, grist milling, horticultural services, general farm buildings, single-family dwellings	Airport, utility substations, two-family dwellings, disposal areas, energy conservation uses, accessory apartments, commercial raising of animals	1.09	40,000 square feet	40,000 square feet	125	75	25	25	35
R-1 Rural Residential	Single-family dwellings, domestic stock raising, hunting, fishing, home occupation	Governmental and cultural uses, utility substations, schools, clubs, accessory apartments, energy conservation uses	0.33	Three acres	Three acres	300	75	25	25	35
R-2 Single-Family Residential (unsewered)	Single-family dwellings and home occupations	All R-1 conditional uses	1.09	40,000 square feet	40,000 square feet	125	75	25	25	35
R-3 Single-Family Residential (unsewered) ^a	All R-2 permitted uses	All R-1 conditional uses	1.09	40,000 square feet	40,000 square feet	125	40	25	25	35
R-4 Single-Family Residential (sewered)	Single-family dwellings and home occupations	All R-1 conditional uses	2.18	20,000 square feet	20,000 square feet	100	40	10	25	35
R-5 Single-Family Residential (sewered)	All R-4 permitted uses	All R-1 conditional uses, except accessory apartments	3.63	12,000 square feet	12,000 square feet	75	25	10	25	35
R-6 Two-Family Residential (sewered)	Two-family dwellings and home occupations	All R-5 conditional uses	1.45	60,000 square feet	30,000 square feet	175	50	25	25	35
R-7 Two-Family Residential (sewered)	All R-6 permitted uses	All R-5 conditional uses, rest homes, clinics, children's nurseries	4.36	20,000 square feet	10,000 square feet	100	25	10	25	35
B-1 Local Business	Antique, appliance and book stores, clinics, offices, restaurants, taxidermy, theatres, laundries, and other general retail shops	Governmental and cultural uses, utility substations, terminals, funeral homes, drive-in banks, gasoline service stations, animal hospitals, commercial recreation facilities, energy conservation uses	--	-- ^b	--	-- ^b	50	25	25	35
B-2 Highway Business	Gasoline service stations, motels, building supply stores excluding lumber, restaurants, taverns, automotive sales and service	All B-1 conditional uses excluding gasoline service stations, drive-in theatres, communication facilities	--	40,000 square feet	--	125	100	25	25	35
M-1 Industrial	Processing, manufacturing, and/or storage	Airports, governmental and cultural uses, water treatment facilities, utility substations, terminals, animal hospitals, communication facilities, disposal areas, manufacturing and processing, mineral extraction, energy conservation uses	--	40,000 square feet	--	125	100	25	25	45
I-1 Rural Institutional (unsewered)	Schools, churches, funeral homes, hospitals, libraries, government and public utility offices	Airports, utility substations, water treatment facilities, cemeteries, correctional institutions, clubs, accessory apartments, funeral homes, energy conservation uses	--	40,000 square feet	--	125	75	25	25	35
I-2 Urban Institutional (sewered)	All I-1 permitted uses	All I-1 conditional uses, except correctional institutions, Rest homes, clinics, children's nurseries	--	12,000 square feet	--	75	25	10	25	35

Table 27 (continued)

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
P-1 Park	Botanical gardens, exhibition halls, fair grounds, trails, parks, playgrounds, historic movements, tennis courts	Governmental and cultural uses, utility substations, elementary schools, certain recreational-related uses, energy conservation uses	--	--	--	--	75	50	50	35
PDO Planned Development Overlay	-- ^c	-- ^c	-- ^c	--	--	--	--	--	--	-- ^c

^aRequires lower minimum building size requirements than R-2 District.

^bLots in the B-1 District shall provide sufficient area for the principal structure and its accessory structures, off-street parking and loading areas, and all required yards.

^cLike underlying basic zoning district requirements, except those in the EA Exclusive Agricultural District, AT Agricultural Transition District, A-1 Agricultural District, and R-1 Residential District which do not allow the PDO District.

Source: Town of Trenton Zoning Ordinance and SEWRPC.

Table 28

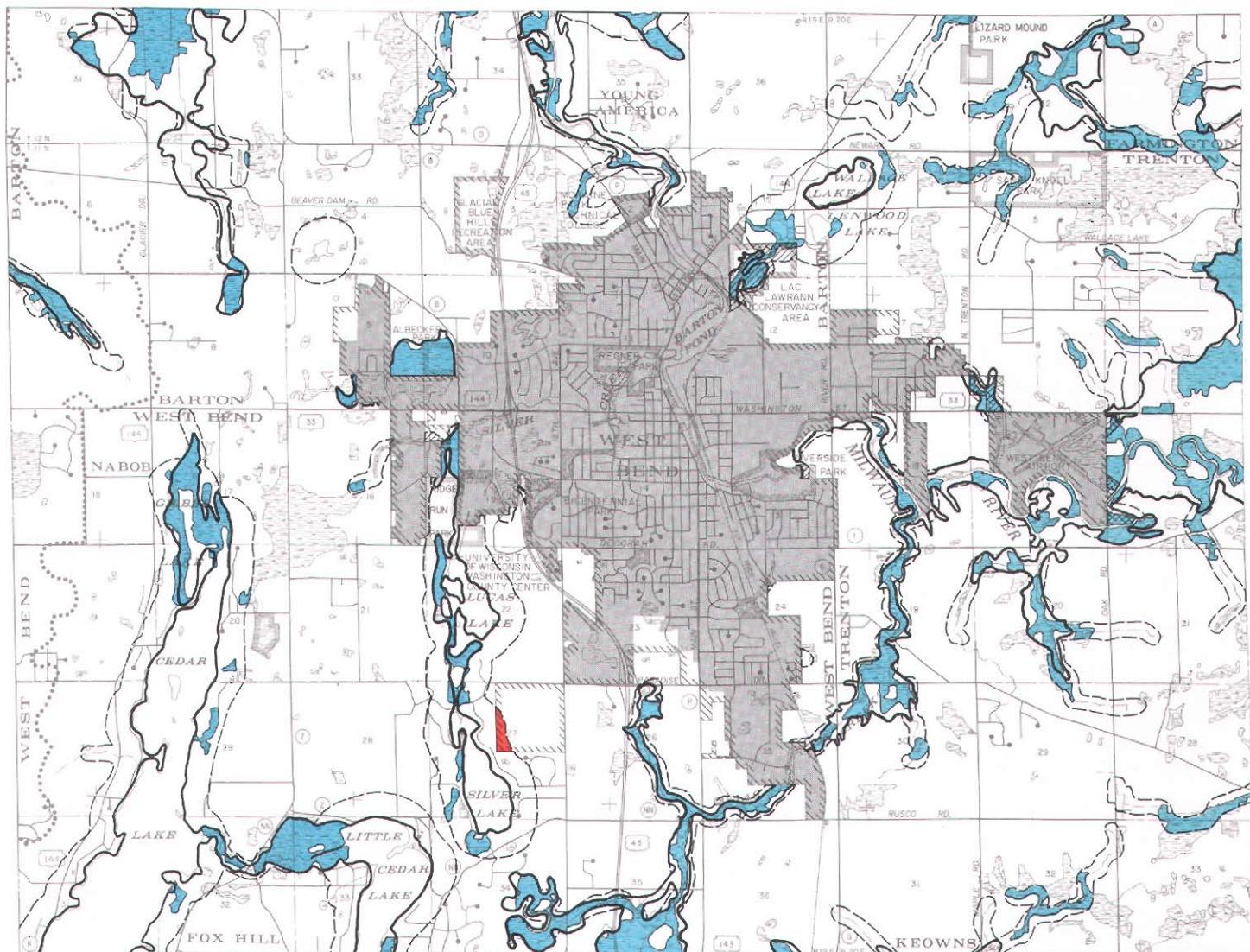
SUMMARY OF EXISTING ZONING FOR THE TOWN OF WEST BEND: 1991

Zoning District	Principal Permitted Uses	Conditional Uses	Maximum Residential Density (dwelling units per net acre)	Minimum Lot Size			Minimum Yard Requirements			Maximum Principal Building Height (feet)
				Total Area	Area per Dwelling Unit	Lot Width (feet)	Front Yard (feet)	Side Yard (feet)	Rear Yard (feet)	
R-1 Single-Family Residential	Single-family dwellings, existing farms and agricultural uses, home occupations	Governmental and cultural uses, utility substations, elementary schools, cemeteries, clubs, rest homes, children's nurseries, recreational uses, energy conservation uses	1.00	43,560 square feet (one acre)	43,560 square feet (one acre)	125	25	10 on one side; 25 total	25	35
B-1 Business	Antique and appliance stores, galleries, banks, bakeries, shops, offices, lounges, clinics, and other general retail stores	Governmental and cultural uses, utility substations, drive-in banks, transmitting towers, rental equipment, animal hospitals, archery ranges, commercial recreational facilities, energy conservation uses	--	43,560 square feet (one acre)	--	125	50	25	25	35
M-1 Industrial	Automotive repair, manufacturing, warehousing, wholesaling, cleaning, dyeing, packaging, distributing, or other similar uses	Governmental and cultural uses, utility substations, animal hospitals, disposal areas, incinerators, manufacturing and processing, storage, mineral extraction operation, energy conservation uses	--	43,560 square feet (one acre)	--	125	50	25	25	45
C-1 Conservancy	Agricultural uses, fishing, hunting, historic areas, fish hatcheries, lakeshore protection, water retention, wildlife preserves	Certain recreational uses, excluding structures	--	--	--	--	--	--	--	--

Source: Town of West Bend Zoning Ordinance and SEWRPC.

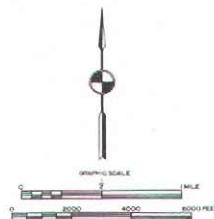
Map 35

WETLANDS AND FLOODLANDS IN THE CITY OF WEST BEND PLANNING AREA SUBJECT TO WASHINGTON COUNTY SHORELAND AND FLOODLAND ZONING REGULATIONS: 1991



LEGEND

- AREAS INCORPORATED BEFORE MAY 8, 1982
(NOT SUBJECT TO COUNTY SHORELAND REGULATIONS)
- GENERAL COUNTY FLOODPLAIN DISTRICT BOUNDARY
- SHORELAND REGULATION LIMITS IN EFFECT IN UNINCORPORATED AREAS
- SHORELAND AREAS INCORPORATED BETWEEN MAY 7, 1982, AND APRIL 15, 1986
- SHORELAND AREAS INCORPORATED BETWEEN APRIL 14, 1986, AND JANUARY 28, 1991
- UNINCORPORATED SHORELAND WETLANDS



Source: Washington County Land Use and Park Department and SEWRPC.

5. The health, safety, and general welfare of all citizens in the community, as well as the future occupants of the land to be subdivided, are protected.

Land division control regulations are a vital tool for the implementation of a community's comprehensive plan. As such, land division regulations should coordinate and integrate development with the land use plan, and are, therefore, properly prepared within the context of such a plan. Land division is far more than a means of marketing land; it is the first step in the process of building a community. Therefore, substantial benefits are derived from sound subdivision regulations. Much of the form and character of a community is determined by the quality of its land divisions and the standards which are built into them. Once land has been divided into blocks and lots, streets established, and utilities installed, the development pattern is permanently established and unlikely to be changed. For generations, the entire community, as well as the individuals who occupy these subdivisions, will be influenced by the quality and character of their design.

City of West Bend Land Division Ordinance

The present land division ordinance used by the City of West Bend, Chapter 18 of the Municipal Code, referred to as "Subdivision and Platting Code," was adopted by the Common Council on May 6, 1985, and has been amended as perceived necessary since its initial effective date. By reference and associated text, Chapter 18 of the Municipal Code conforms to the procedures outlined in Chapter 236.45 of the Wisconsin Statutes for platting lands within the corporate limits of the City and its extraterritorial plat approval jurisdiction, that is, areas located outside of the City's corporate limits but within three miles of the City. The land division ordinance regulates all land divisions which create lots, including subdivisions, minor land divisions, and replattings, within the City's corporate limits and extraterritorial plat review jurisdiction.

To satisfy the growing need for a survey control system in the City and for an integrated parcel based information system, final plats must meet all surveying and monumentation requirements of Chapter 236.15 of the Statutes. In this way, each land division can be properly related to a

geographic reference for cadastral mapping purposes. All final plats located within a U.S. Public Land Survey quarter section in which the corners have been relocated, monumented, and coordinated by the City of West Bend or the Regional Planning Commission, must be tied directly to one of the section or quarter-section corners. The exact grid bearing and distance of this tie, determined by field measurements and the Wisconsin State Plane Coordinates of the monument marking the relocated section or quarter corner to which the plat is tied should be provided on the plat, together with a description of the monument concerned. The survey control system is capable of handling a variety of information, ranging from flood hazard boundary line locations to cadastre-related boundary line locations.

The City's land division ordinance sets forth design standards and other specific data requirements to be provided on all preliminary plats, final plats, and certified survey maps. Table 29 provides a summary of specific street design requirements for proposed developments within the City's corporate limits and the its extraterritorial plat review jurisdiction. A summary of other subdivision design requirements includes, but is not limited to, the following:

1. Controlled access design requirements include: access to arterial streets, highways, or railways shall be limited by providing reverse frontage lots with a planting screen and/or earth berm in a nonaccess reservation, or by the use of frontage streets; streets parallel to a limited access highway or railway right-of-way, when intersecting an arterial street, highway, or collector street which crosses said highway or railway, shall be located at least 250 feet from said highway or railway right-of-way; minor streets immediately adjacent to and parallel to railway rights-of-way shall be avoided; and the location of minor streets immediately adjacent to arterial streets, highways, and railway rights-of-way shall be avoided in residential areas.
2. Street layout design requirements include: cul-de-sac lengths shall not exceed 750 feet; new half-streets shall not be permitted; minimum street design standards are

Table 29

**STREET DESIGN REQUIREMENTS OF THE CITY OF WEST BEND SUBDIVISION ORDINANCE
FOR THE CITY OF WEST BEND AND THE CITY'S EXTRATERRITORIAL PLAT REVIEW JURISDICTION**

Type of Street	Urban Street Cross-Section ^a		Rural Street Cross-Section ^a		Urban and Rural Street Grade ^b	Urban and Rural Street Curvature
	Minimum Right-of-Way Width to be Dedicated	Minimum Dimensions	Minimum Right-of-Way Width to be Dedicated	Minimum Dimensions	Maximum Centerline Grade of Street ^b (percent)	Minimum Curvature Radius of Continuous Street ^c
Arterial Streets	100 feet	46-foot pavement (face of curb to face of curb) ^d 20-foot tree banks Five-foot sidewalks (if required) Two-foot outside sidewalks	100 feet	24-foot pavement 10-foot shoulders 28-foot roadside ditches	6	500
Collector Streets	80 feet	40-foot pavement (face of curb to face of curb) 13-foot tree banks (curb lawn) Five-foot sidewalks Two-foot outside sidewalks	80 feet	22-foot pavement 10-foot shoulders 19-foot roadside ditches	8	300
Minor Streets	66 feet	36-foot pavement (face of curb to face of curb) Eight-foot tree banks (curb lawn) Five-foot sidewalks Two-foot outside sidewalks	66 feet	22-foot pavement Six-foot shoulders 16-foot roadside ditches	10 ^e	100
Cul-de-Sac Turn-Around (without center island)	60-foot radius	45-foot pavement radius Eight-foot tree banks (curb lawn) Five-foot sidewalks (if required) Two-foot outside sidewalks	60-foot radius	45-foot pavement radius Five-foot shoulders 16-foot roadside ditches	10	--
Cul-de-Sac Turn-Around (with center island)	75-foot radius	38-foot radius median 24-foot circumferential pavement Six-foot tree banks (curb lawn) Five-foot sidewalks (if required) Two-foot outside sidewalks	75-foot radius	32-foot radius median 22-foot circumferential pavement Five-foot shoulders 16-foot roadside ditches	10	--
Cul-de-Sac Barrel (serving single-family residential development)	50 feet	32-foot pavement (face of curb to face of curb) Nine-foot tree banks (curb lawn)	66 feet	22-foot pavement Six-foot shoulders 16-foot roadside ditches	10	--
Cul-de-Sac Barrel (serving two-family and multi-family residential development)	60 feet	36-foot pavement (face of curb to face of curb) Five-foot tree banks (curb lawn) Five-foot sidewalks Two-foot outside sidewalks	66 feet	22-foot pavement Six-foot shoulders 16-foot roadside ditches	10	--

^aThe construction of concrete curb and gutter and the surfacing of streets proposed to be dedicated to the City shall be done in accordance with plans and standard specifications approved by the City Engineer. The City Common Council may waive the provision of curb and gutter in commercial areas, industrial areas, and planned unit developments.

^bUnless necessitated by exceptional topography subject to the approval of the City Plan Commission, the maximum centerline grade of any street or public way shall not exceed these requirements. The grade of any street, however, shall in no case exceed 12 percent or be less than 0.5 percent. Pedestrian ways shall not exceed a grade of 12 percent unless steps or stairs of acceptable design are provided. All changes in street grade shall be connected by vertical curves of a minimum length equivalent in feet to 15 times the algebraic difference in the rates of grade for all streets.

^cRequired in minimum radius of curvature when a continuous street centerline deflects at any point by more than 10 degrees. A tangent of at least 100 feet in length shall be provided between reverse curves on arterial and collector streets.

^dArterial streets on the federal aid primary and federal aid urban street system shall have a minimum pavement width of 48 feet (face of curb to face of curb).

^eIncludes alleys and frontage roads.

Source: City of West Bend Subdivision Ordinance and SEWRPC.

provided for private streets in planned unit developments; streets shall intersect each other at right angles; the number of streets converging at one intersection shall be held to a minimum; the distance between arterial street or highway intersections shall be not less than 1,200 feet; and minor streets intersecting arterial or collector streets from opposite sides should avoid jogs and be continuous.

3. Block design requirements include: residential blocks shall not be less than 600 feet nor more than 1,500 feet in length; a

minimum 15-foot-wide pedestrian way may be required across any block over 900 feet in length; the width of blocks shall be able to accommodate at least two tiers of lots; and utility easements, where practical, shall be placed on mid-block easements.

4. Lot and easement design requirements include: area and dimensions of lots proposed within the City shall conform to the requirements of the City's Zoning Ordinance; side lot lines shall be at approximately right angles to straight street lines or radial to curved street lines; double and reverse frontage lots shall be prohibited

except where necessary to provide separation of residential development from through traffic or to overcome specific disadvantages of topography and orientation; lots shall abut for a distance of at least 50 feet on a public street; depth of lots shall be a minimum of 120 feet; the desirable lot depth to lot width ratio is two to one; the width of lots shall be no less than 60 feet at the building setback line; corner lots shall have an extra width of 10 feet; easements of width deemed adequate for the intended purpose shall be provided.

5. Slope and grading design requirements include: lots shall not have more than 50 percent of its minimum required area in slopes of 15 percent or greater after grading; and cut and fill lands within street rights-of-way shall be graded to slopes not exceeding three on one or the soil's angle of repose, whichever is less, and be covered with permanent vegetation.

This ordinance, as a matter of importance, requires any subdivider to install subdivision improvements such as street pavements, sidewalks, utilities, street lamps, and stormwater drainage facilities; to provide easements for certain improvements; and to make provision for park, playground, and open space sites or pay a fee in lieu of site dedication.

Other Land Division Ordinances

The City of West Bend planning area lies within Washington County, containing portions of the Towns of Barton, Farmington, Trenton, and West Bend, each of which has adopted a land division ordinance. These ordinances regulate all divisions of land into parcels of 10 acres or less in size, as set forth in Chapter 236 of the Wisconsin Statutes. The County has also adopted an ordinance for regulating similar land divisions in its unincorporated areas.

Similar to the City of West Bend land division ordinance, each of the five town land division ordinances require that design standards and specific data be provided on all preliminary plats, final plats, and certified survey maps. Proposed land divisions in the West Bend urban service area outside the corporate limits but inside the City of West Bend extraterritorial plat review jurisdiction are also regulated by the design requirements specified in the applicable town land division ordinance and the Washing-

ton County land division ordinance. The design standards in the Towns' and county land division ordinances, in general, are similar to those in the City of West Bend land division ordinance, but, in some cases, the City's design standards are more restrictive. Where a conflict occurs between town and city ordinances, the more restrictive of the design standards applies to a proposed land division.

These ordinances also require the subdivider to install subdivision improvements prior to final plat approval and to make provision for public sites such as park, playground, or open space sites by paying a fee in lieu of public site dedication. The Land Division Ordinance of Washington County requires land to be dedicated for park purposes. It specifies that a fee in lieu of dedication may be required only by a town board.

THE CONSTRUCTION SITE EROSION CONTROL ORDINANCE

The purpose of Section 62.11(5) of the Wisconsin Statutes is to set forth regulations designed to conserve the soil, water, and related resources and to control erosion and sedimentation caused by land disturbance. Specifically, this regulation provides for the control, and to the extent possible, the prevention, of soil erosion. It thereby seeks to preserve the natural resources of the area, to control flooding, to protect the capacity of drainage facilities, to prevent impairment of dams and reservoirs, to protect the quality of surface waters, to preserve wildlife, to protect the tax base, and, generally, to protect and promote the health, safety, and general welfare of all the citizens in the community.

In 1987 the Wisconsin League of Municipalities, in cooperation with the Wisconsin Department of Natural Resources, developed a "Model Construction Site Erosion Control Ordinance." The intent of the model ordinance is to require erosion control practices that will reduce the amount of sediment and other pollutants leaving construction sites during land development or land disturbance activities. The DNR perceives local adoption of the construction site erosion control ordinances as an important step in Wisconsin's water resource management program.

Acting in response to the State's recommendation, the City of West Bend Erosion Control

Ordinance, Chapter 22 of the Municipal Code, was adopted by the City on May 6, 1985. The freestanding ordinance, similar to the Wisconsin model, the construction site erosion control ordinance sets forth erosion control administrative procedures, performance standards, and enforcement standards. The ordinance is a means to control the accelerated erosion hazards attendant to the urbanization of lands in the City of West Bend and the adjacent lands subject to extraterritorial land subdivision control. The erosion control regulations, therefore, implement the community's objectives of protecting the natural resource base underlying and adjacent to planned land uses identified in the City's land use plan.

AN INTERIM STORMWATER MANAGEMENT ORDINANCE

Proper stormwater drainage is one of the most important needs addressed by sound urban development practice and is essential to the provision of an attractive, efficient, safe, and healthful urban environment. Stormwater drainage, or as it is more recently termed, stormwater management, consists of the collection, temporary storage, transport, and disposal of excess stormwater. Inadequate stormwater management can be costly and disruptive and can have adverse effects on the overall quality of the environment.

Substantial urban development has recently taken place and is anticipated to continue to take place in the City of West Bend and environs. In the absence of adequate drainage planning and engineering, this development may be expected to exacerbate existing, and create costly new, stormwater management and flood control problems in the City. Given the anticipated growth, the City, in January 1985, requested the Regional Planning Commission to prepare a stormwater management and non-point source water pollution abatement plan for the City and environs. In order to regulate stormwater drainage until such time that the stormwater management plan is completed, an interim stormwater management ordinance was prepared by the Regional Planning Commission for the City of West Bend. The ordinance was adopted by the Common Council on May 6, 1985.

The stormwater management ordinance and subsequent stormwater management plan are intended to facilitate the development of an effective stormwater management system for the City that will minimize the damages attendant to poor drainage as well as the costs of the stormwater management facilities. To the extent practicable, the recommended stormwater management plan for the City of West Bend focuses on stormwater drainage, addressing flood control problems only as necessary to avoid the intensification of existing problems or the creation of new problems along the natural streams and watercourses in the City of West Bend and environs which receive the discharges from the urban drainage facilities.

The stormwater management ordinance and its related plan provide the community with important guidelines for coordinating land use development and stormwater management. The stormwater management plan will assist municipal officials in guiding the physical development of the City. In this respect, implementation of the stormwater management will contribute towards enhancing the overall quality of the environment within the City thereby helping to making the City a safer, more attractive, and more efficient and economical area in which to live and work.

OFFICIAL MAPPING

The official map is one of the oldest plan implementation devices at the disposal of the local communities. It is also one of the most effective and efficient devices to manage the problem of reserving land for future public use. Section 62.23(6) of the Wisconsin Statutes provides that the common council of any city may establish an official map for the precise identification of the location and width of right-of-way lines and site boundaries of streets, highways, waterways and parkways, and the location and extent of railway rights-of-way, public transit facilities, and parks and playgrounds. Such a map has the force of law and is deemed to be final and conclusive with respect to the location and width of both existing and proposed streets, highways, waterways and parkways and to the location and extent of railway rights-of-way, public transit facilities, and parks and playgrounds. The Statutes further provide that the official map may be extended to include areas

beyond the corporate limits but within the extraterritorial plat approval jurisdiction of the municipality.

The official map is intended to be used as a precise planning tool to implement public plans for streets, highways, waterways and parkways, railways, public transit facilities, parks, and playgrounds. One of the basic purposes of the official map is to prohibit the construction of buildings or structures and associated improvements on land that has been designated for future public use. The official map is a plan implementation device that operates on a communitywide basis in advance of land development, and can thereby effectively assure the integrated development of the street and highway system. Unlike land subdivision control, which operates on a plat-by-plat basis, the official map can operate over the entire city and environs in advance of development proposals. The official map is a useful device to achieve public acceptance of long-range plans in that it serves legal notice of the government's intention to all parties concerned well in advance of any actual improvements. It thereby avoids the altogether too common situation of development being undertaken without knowledge or regard

for the long-range plan. Thus it can help avoid public resistance when plan implementation becomes imminent.

A certain practical and desirable degree of flexibility is given to the official map by Section 62.23(6)(d) of the Wisconsin Statutes. This Section provides that changes or additions to the official map made by duly processed and approved subdivision plats shall not require the public hearings or the common council action normally required for such changes or additions provided. However, the changes or additions may not affect any lands outside the platted area in which the changes are proposed.

The Common Council of the City of West Bend adopted the first Official Map of the City and environs in 1940. The Official Map of the City of West Bend was revised in 1953, 1954, 1961 (incorporating the Village of Barton's Official Map at that time), 1965, 1969, and 1979 to reflect various changes that have taken place since the adoption of the map. The present Official Map should be updated to reflect current conditions and plan proposals relating to streets, highways, waterways and parkways, railways, public transit facilities, parks, and playgrounds.

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Chapter VI

DEVELOPMENT OBJECTIVES, PRINCIPLES, STANDARDS, AND RELATED URBAN DESIGN CRITERIA

INTRODUCTION

Planning is a rational process for formulating and meeting objectives. Therefore, the formulation of objectives is an essential task which must be undertaken before a land use plan can be prepared. Accordingly, a set of recommended land use and transportation system development objectives was formulated for the West Bend planning area. This chapter sets forth those objectives together with supporting principles and standards. The land use development objectives relate primarily to the amount and to the allocation and distribution of the various land uses required to meet the needs of the resident population of the West Bend area and also to the provision to those land uses of essential urban facilities and services.

BASIC CONCEPTS AND DEFINITIONS

The terms "objective," "principle," "standard," "design criteria," "plan," "policy," and "program" are subject to differing interpretations. To clarify the meanings of these terms and the concepts involved, the following definitions of these terms are used within the context of this plan:

1. Objective: A goal or end toward the attainment of which plans and policies are directed.
2. Principle: A fundamental, generally accepted tenet used to support objectives and prepare standards and plans.
3. Standard: A criterion used as a basis of comparison to determine the adequacy of plan proposals to attain objectives.

4. Design criteria: A body of information which can be applied to the development of a solution or solutions to a specific design problem or set of problems.
5. Plan: A design which seeks to achieve agreed-upon objectives.
6. Policy: A rule or course of action used to ensure plan implementation.
7. Program: A coordinated series of policies and actions to carry out a plan.

Although this chapter deals with only the first five of these terms, an understanding of the interrelationships of these terms and of the concepts represented is essential to understanding the land use development objectives, principles, standards, and related urban design criteria presented herein. These development objectives, principles, and standards, as approved by the City Plan Commission, deal primarily with: 1) the allocation of land to the various uses, 2) the spatial distribution of the various uses, 3) the protection of the natural resource base and agricultural lands, 4) the preservation of sufficient high-quality open space lands, 5) the provision of outdoor recreational opportunities, 6) the provision of safe and efficient transportation facilities, 7) the provision of fire protection, 8) the provision of adequate location and choice of housing, and 9) the preservation of historic sites and structures. Each objective, together with its supporting principles and standards, follows.

OBJECTIVES, PRINCIPLES, AND STANDARDS

OBJECTIVE NO. 1—LAND USE ALLOCATION

A balanced allocation of space to the various land use categories which meets the social, physical, and economic needs of the resident population of the West Bend area.

PRINCIPLE

The planned supply of land set aside for any given use should approximate the known and anticipated demand for that use.

STANDARD

The amount of land area set aside for accommodating forecast growth in the West Bend planning area should be determined by application of the standards set forth in Table 30.

OBJECTIVE NO. 2—LAND USE SPATIAL DISTRIBUTION

A spatial distribution of the various land uses that is properly related to the supporting transportation, utility, and public facility systems in order to assure the economical provision of transportation, utility, and public facility services and a compatible arrangement of land uses.

PRINCIPLE

The transportation and public utility facilities and the land use pattern which these facilities serve and support are mutually interdependent in that the land use pattern determines the demand for, and loadings upon, transportation and utility facilities. These facilities, in turn, are essential to, and form a basic framework for, land use development.

STANDARDS

1. Urban development should be located so as to maximize the use of existing transportation and utility systems.
2. All lands developed or proposed to be developed for urban uses should be located in areas readily serviceable by extensions of the existing public sanitary sewerage system and preferably within the gravity drainage area tributary to such system.
3. All lands developed or proposed to be developed for urban uses should be located in areas readily serviceable by extensions of the existing public water supply system.
4. Adequate stormwater management facilities should be provided for all urban development.

PRINCIPLE

The proper allocation of urban uses to land can avoid or minimize hazards and dangers to the public health, safety, and general welfare and maximize amenity and convenience in terms of accessibility to supporting land uses.

STANDARDS

1. Sites for commercial, educational, transportation, recreational, and employment facilities to serve the neighborhood and community should be provided in accordance with the standards set forth in Table 31.
2. Urban residential uses should be located in planned areas which are served by centralized public sanitary sewerage and water supply facilities and which contain, within a reasonable walking distance, necessary supporting local service uses, such as neighborhood park, commercial, and elementary school facilities, and should have reasonable access through the appropriate component of the transportation system to employment, to community and regional commercial, cultural, and to governmental centers and secondary schools and higher educational facilities. Housing types should be provided pursuant to Objective No. 8 and at densities consistent with those shown in Table 30.
3. Rural and suburban residential uses should have reasonable access through the appropriate component of the transportation system to employment; community and regional commercial, cultural, and governmental centers; and primary and secondary educational facilities.
4. Neighborhood, community, and regional commercial uses should be located in established centers of concentrated retail and service activity and should be afforded direct access to the arterial street system. Sites for neighborhood, community, and regional service facilities should be provided in accordance with the service radius standards set forth in Table 31.
5. General industrial uses should be located in planned industrial districts so as to have direct access to arterial street and highway facilities and reasonable access through an appropriate component of the transportation system to residential areas and should not be intermixed with commercial, residential, governmental, recreational, educational, or institutional uses. In addition, industrial uses should be provided with adequate water supply, with public sanitary sewerage and stormwater management facilities, and with adequate power supply, including natural gas and electricity.

Table 30
URBAN LAND USE STANDARDS FOR THE CITY OF WEST BEND

Land Use Category	Development Standard (gross area) ^a
Residential^b	
Single-Family Dwellings	
Rural-Estate Density (5.0-acre lots or greater)	588 acres per 100 dwelling units
Suburban-Density (1.5 acre to 4.9 acre lots)	204 acres per 100 dwelling units
Low-Density (20,000- to 65,339-square foot lots)	109 acres per 100 dwelling units
Medium-Density (7,200- to 19,999-square foot lots)	32 acres per 100 dwelling units
Two- and Multi-Family Dwellings	
Medium-High Density (6.1 to 10.9 dwelling units per net residential acre ^c)	17 acres per 100 dwelling units
Multi-Family Dwellings	
High-Density (11.0 to 15.0 dwelling units per net residential acre ^c)	10 acres per 100 dwelling units
Commercial	6.0 acres per 100 commercial employees
Industrial	9.0 ^d acres per 100 industrial employees
Governmental and Institutional	
Public Elementary	2.9 acres per 100 students
Public Middle School	3.2 acres per 100 students
Public High School	2.2 acres per 100 students
Church	2.5 acres per 1,000 persons
Other ^e	4.5 acres per 1,000 persons
Public Outdoor Recreation	
Regional and Multi-Community	As recommended in the Regional Park and Open Space Plan
Community ^f	
In Park Sites	2.2 acres per 1,000 persons
In Middle Schools or High School Sites	0.9 acres per 1,000 persons
Neighborhood ^f	
In Park Sites ^g	1.7 acres per 1,000 persons
In Elementary School Sites	1.6 acres per 1,000 persons

^aGross areas include associated street rights-of-way and off-street parking for each land use category. These standards have been based upon existing land use studies of the Southeastern Wisconsin Region since 1963 and are reasonably responsive to expected future as well as present conditions.

^bBased upon the year 2010 intermediate growth-centralized scenario forecast of 2.59 persons per occupied housing unit in the City of West Bend urban service area, along with adopted regional land use plan standards.

^cNet residential acreage includes only those areas occupied by dwelling units and associated buildings, plus required yards and open spaces. It does not include associated street and utility rights-of-way.

^dAssuming a net land-to-building ratio of from 5:1 to 7:1. If the net land-to-building ratio is between 3:1 and 5:1, then six acres per 100 employees should be used.

^eThis category includes hospitals, city hall, libraries, post offices, police and fire stations, and other related governmental and institutional uses.

^fNatural areas may be incorporated into the design of a park site; however, acreages for areas with steep slopes, poor soils, floodwater storage, drainageways and natural vegetations such as wetlands and woodlands should be considered as additions to the park-school standards.

^gPark site should be associated with a school. Park sites not associated with a school site should have a minimum area of 16 acres per park site.

Source: SEWRPC.

Table 31

FACILITY SITE AREA AND SERVICE RADIUS STANDARDS FOR THE CITY OF WEST BEND

Facility Type	Number of Persons Served	Required Site Area (gross acres)	Maximum One-Way Walking Distance Medium-Density Neighborhood (miles)	Maximum One-Way Travel Time (minutes)	
				Automobile at 25 mph	Transit Facility (total elapsed time)
Commercial Neighborhood Retail and Service Center	4,000-10,000	5-15	1.00 ^a	3	--
Community Retail and Service Center	10,001-75,000	15-60	1.50 ^a	5	8
Regional Retail and Service Center	75,001-150,000	60 minimum	10.00 ^a	30	45
Highway-Oriented Commercial Development	15,000 ^b	5-25	--	10	--
Community Office Development	1,000 minimum employees	20 minimum	--	10	30
Community Industrial	300-3,500 employees	20-320	--	10	30
Local Transit	--	--	0.25	--	--
Educational Public Elementary School (grades K-5)	550 students	16 ^{c,d}	0.50 ^g	--	--
Public Middle School (grades 6-8)	900 students	29 ^{c,e}	0.75 ^g	15	20
Public Senior High School (grades 9-12)	2,500 students	55 ^{c,f}	1.00 ^g	20	30
Outdoor Recreational Neighborhood	6,500	11 ^h	0.75 ^a (urban)	--	--
Community	--	25-99	2.00 ^a (urban)	20	--
Multi-Community	--	100-249	4.00 ^a (urban)	--	--
Regional	--	--	10.00 ^a (rural)	--	--
		250 or more	10.00 ^a	--	--

^aMinimum facility service radius (not walking distance).^bIndicates minimum average weekday traffic volume required on abutting freeway or arterial street or highway.^cIncludes both land for the school facility and for associated school-related outdoor recreation facilities.^dElementary school site area is based upon the standard of 10 acres plus one acre for each 100 students.^eMiddle school site area is based upon the standard of 20 acres plus one acre for each 100 students.^fHigh school site area is based upon the standard of 30 acres plus one acre for each 100 students.^gWest Bend School District's minimum busing radius is a 0.5 mile for kindergarten; 1.5 miles for grades one through five; and two miles for grades six through 12.^hNeighborhood park sites not associated with a school site should have a minimum area of 16 acres per park site.

Source: City of West Bend Community Development Department and SEWRPC.

OBJECTIVE NO. 3—NATURAL RESOURCE BASE PROTECTION

A spatial distribution of the various land uses which will result in the protection, preservation, and wise use of the natural resources and agricultural lands of the area, including soils, lakes and streams, wetlands, woodlands, and wildlife.

PRINCIPLE

The proper allocation of land uses can assist in maintaining an ecological balance between the activities of man and the natural environment which supports him.

A. Soils

Principle

The proper relation of urban and rural land use development to soil type and distribution can serve to avoid costly environmental and developmental problems, aid in the establishment of better settlement patterns, and promote the wise use of an irreplaceable resource.

Standards

1. Sewered urban developments should not be located in areas covered by soils identified as having severe limitations for such development on Maps 9 and 10. When development is proposed on soils exhibiting severe limitations, careful attention must be given in the design to overcoming these limitations properly.
2. Unsewered suburban and rural residential developments in the unincorporated West Bend planning area should not be located in areas covered by soils identified on Maps 8 and 9 as being unsuitable for such developments. When development is proposed on soils exhibiting unsuitable conditions, careful attention must be given in the design to overcome these limitations properly.

B. Lakes and Streams

Principle

Inland lakes and streams and the associated shorelands and floodlands contribute to the atmospheric water supply through evaporation; provide a suitable environment for desirable and sometimes unique plant and animal life; provide the population with opportunities for certain scientific, cultural, and educational pursuits; constitute prime recreational areas; provide a desirable aesthetic setting for certain types of land use development; serve to store and convey flood waters; and provide certain water withdrawal requirements.

Standards

1. A minimum of 25 percent of the perimeter of shoreline frontage of lakes with a surface area in excess of 50 acres should be maintained in a natural state.
2. No more than 50 percent of the length of a shoreline of inland lakes with a surface area in excess of 50 acres should be allocated to urban development, except for park and outdoor recreational uses.
3. It is desirable that 25 percent of the shoreline of each inland lake with a surface area in excess of 50 acres should be maintained in either a natural state or some low-intensity public use, such as parkland.
4. A minimum of 10 percent of the shoreline of each inland lake with a surface area in excess of 50 acres should be maintained for public uses, such as a beach area, pleasure craft marina, or park.
5. Floodlands should not be allocated to any urban development which would cause, or be subject to, flood damage.
6. The floodwater storage capacity of natural floodlands should not be reduced by urban or rural development.
7. The flow capacity of perennial stream channels and associated floodlands should not be reduced below existing conditions.

C. Wetlands

Principle

Wetlands support a wide variety of desirable and sometimes unique plant and animal life; assist in the stabilization of lake levels and streamflows; trap and store plant nutrients in runoff, thus reducing the rate of enrichment of surface waters and obnoxious weed and algae growth; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply; reduce stormwater runoff by providing area for floodwater impoundment and storage; trap soil particles suspended in runoff and thus reduce stream sedimentation; and provide the population with opportunities for certain scientific, educational, and recreational pursuits.

Standards

1. Wetland areas adjacent to streams or lakes, wetlands within areas having special wildlife and other natural values and wetlands having an area of five acres or more should not be allocated to any urban development except limited recreation and should not be drained or filled. To the extent practicable, areas within 75 feet of wetlands should be kept in open space uses, such as agriculture or limited recreation uses. All wetlands five acres or larger located in floodland and shoreland areas must be preserved in accordance with Chapter NR 117 of the Wisconsin Administration Code.
2. Nonshoreland wetlands should be protected and regulated similarly to shoreland wetlands in accordance with the City's Shoreland-Wetland Zoning Ordinance, except that urban uses may be permitted by the City Plan Commission, provided the purpose for preserving such wetlands, as stated in the City's Zoning Ordinance, is maintained.

D. Woodlands

Principle

Woodlands assist in maintaining unique natural relationships between plants and animals; reduce stormwater runoff; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply through transpiration; aid in reducing soil erosion and stream sedimentation; provide the resource base for the forest product industries; provide the population with opportunities for certain scientific, educational, and recreational pursuits; and provide a desirable aesthetic setting for certain types of land use development.

Standard

Woodland areas with an area of five acres or more should not be allocated to urban development except for limited recreation uses. When urban development does occur in such areas, the impact upon the woodland areas should be minimized.

E. Wildlife

Principle

Wildlife, when provided with a suitable habitat, supplies the resident population with opportunities for certain scientific, educational, and recreational pursuits; comprises an integral component of the life systems which are vital to beneficial natural processes, including the control of harmful insects and other noxious pests and the promotion of plant pollination; provides food sources; offers an economic resource for the recreation industries; and serves as an indicator of environmental health.

Standard

The most suitable wildlife habitat, that is, the area in which fish and game can best find food, shelter, and reproduce, is a natural habitat. Since the natural habitat for fish and game can best be achieved by preserving or maintaining in a wholesome state other resources such as soil, water, wetlands, and woodlands, the standards for each of these other resources, if met, would ensure the preservation of a suitable wildlife habitat and population.

OBJECTIVE NO. 4—OPEN SPACE PRESERVATION

The preservation of sufficient high-quality open space lands for protection of the underlying and sustaining natural resource base and enhancement of the social and economic well-being and environmental quality of the area.

PRINCIPLE

Ecological balance and natural beauty are important determinants of a community's ability to provide a pleasant and habitable environment for all forms of life and to maintain social and economic well-being. Preservation of the most significant aspects of the natural resource base, that is, primary environmental corridors and prime agricultural lands, contributes to the maintenance of ecological balance, natural beauty, and economic well-being of the City and environs.

A. Environmental Corridors and Isolated Natural Areas

Principle

The primary and secondary environmental corridors and isolated natural areas are a composite of the best individual elements of the natural resource base, which includes lakes, rivers, and streams and their associated floodlands; wetlands; woodlands; wildlife habitat areas; rugged terrain with slopes 12 percent or greater; wet, poorly drained, or

organic soils; and significant geological formations. By protecting these elements of the natural resource base, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, wildlife population enhanced, and continued opportunities provided for scientific, educational, and recreational pursuits.

1. All remaining undeveloped lands within the designated primary environmental corridors in the planning area should be preserved in essentially natural, open uses.

2. All remaining undeveloped lands within the designated secondary environmental corridors and isolated natural areas in the West Bend planning area should be considered for preservation as urban development proceeds and should be used as drainageways, floodwater detention areas, and parks.

B. Prime Agricultural Lands

Principle

The preservation of prime agricultural lands ensures that the most productive existing farmlands will remain available to provide food and fiber, contribute to the agricultural and agriculture-related economy of the area, maximize the return on capital invested in agricultural irrigation and drainage systems and soil and water conservation practices, minimize conflicts between farming operations and activities associated with urban land uses, and contribute to energy conservation since prime agricultural soils require less energy to farm than do other soils.

Standards

1. All remaining prime agricultural areas within the West Bend planning area not required to meet the land use needs of the forecast design year resident population and economic activity levels should be preserved for agricultural use. These areas should be protected through the application of zoning and land division ordinances which permit only agricultural uses and agriculture-related uses and which specify a relatively large parcel size, such as 35 acres.

2. The location of nonfarm residential development in prime agricultural areas in the West Bend planning area should be discouraged. If permitted, development should be limited to densities of five acres or greater per dwelling unit, providing the locations are covered by soils suitable for the use of onsite sewage disposal systems.

OBJECTIVE NO. 5—RECREATION

The provision of an integrated system of public general-use outdoor recreation sites and related open space areas, areas for intensive nonresource-oriented outdoor recreational activities, areas for intensive resource-oriented outdoor recreational activities, areas for land-based outdoor recreational activities, and for water-based outdoor recreational activities will allow the resident population of the West Bend planning area adequate opportunity to participate in a wide range of outdoor recreation activities.

PRINCIPLE

Attainment and maintenance of good physical and mental health is an inherent right of all residents of the West Bend area. The provision of outdoor recreation sites and related open space areas contributes to the attainment and maintenance of physical and mental health by providing opportunities to participate in a wide range of activities. An integrated park and open space system properly related to the natural resource base, such as the existing surface water network, can generate the dual benefits of satisfying recreational demands in an appropriate setting while protecting and preserving valuable natural resource amenities. Finally, an integrated system of outdoor recreation sites and related open space areas can contribute to the orderly growth of the metropolitan area by lending form and structure to urban development.

STANDARD

The public sector should provide sufficient open space lands to accommodate a system of resource-oriented recreation areas to meet the demand of residents for extensive recreational activities. To fulfill these requirements, the recreation-related open space standards contained in SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for the City of West Bend, should be met.

OBJECTIVE NO. 6—TRANSPORTATION SYSTEM

An integrated transportation system which, through its location, capacity, and design, will effectively serve the existing and proposed land use pattern and promote the implementation of the plan, meeting the anticipated travel demand generated by the existing and proposed land uses.

PRINCIPLE

An integrated areawide transportation system serves to freely interconnect the various land use activities within the neighborhoods, the City, and the Region, thereby providing the attribute of accessibility essential to the support of these activities.

STANDARDS

1. The transportation system should provide access not only to all land presently devoted to urban development but also to land proposed to be used for such development.
2. The transportation system should be comprised of an orderly functional hierarchy of arterial, collector, and land access streets configured to meet the transportation and land use needs of the planning area. All streets and highways in the planning area should be placed into one of the following functional classifications:

Arterial Streets: This subsystem provides for the expeditious movement of through traffic into, out of, and within the community. Arterial streets should be so located as to minimize the penetration of existing and proposed residential areas.

Collector Streets: This subsystem collects traffic from urban uses and distributes traffic to land access streets and conveys it to arterial streets.

Land Access Streets: This subsystem provides access to and from individual building sites.

3. Streets and highways in the West Bend planning area should be improved to the cross-sections similar to the City of West Bend's preferred cross-sections, shown in Figure 5, as related to functional classification.
4. Arterial streets and highways in the West Bend area should be provided at intervals of no more than one-half mile in each direction in urban high-density areas, at intervals of no more than one mile in each direction in urban medium-density areas, and at intervals of no more than two miles in each direction in urban low-density and suburban-density areas.
5. Transportation terminal facilities, such as off-street parking and off-street truck loading, should be located in proximity to the principal land uses to which they are accessory.

OBJECTIVE NO. 7—FIRE PROTECTION

Provide facilities necessary to maintain high-quality fire protection throughout the City.

PRINCIPLE

The adequacy of fire protection in the City depends on the relationship between the size and distribution of the resident population and employment and the location of fire-fighting facilities available to serve that population.

STANDARD

Fire stations and equipment distribution should be based, in part, upon the standards shown in Table 32.

OBJECTIVE NO. 8—HOUSING

The provision of an adequate variety of housing types for varied age and income groups for households of various sizes.

PRINCIPLE

Adequate choice in size, cost, and location of housing units will assure equal housing opportunity.

STANDARDS

1. Housing units within the City of West Bend area should be geographically well distributed and should include a full range of housing types, sizes, and costs, including detached single-family dwellings, attached two-family dwellings, attached multi-family rowhouses or townhouses, and attached multi-family garden apartments or condominiums.

Figure 5

TYPICAL CROSS-SECTIONS FOR STREETS AND HIGHWAYS IN THE CITY OF WEST BEND PLANNING AREA^a

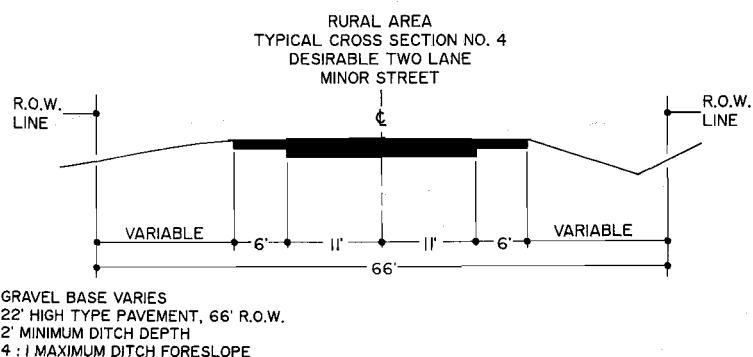
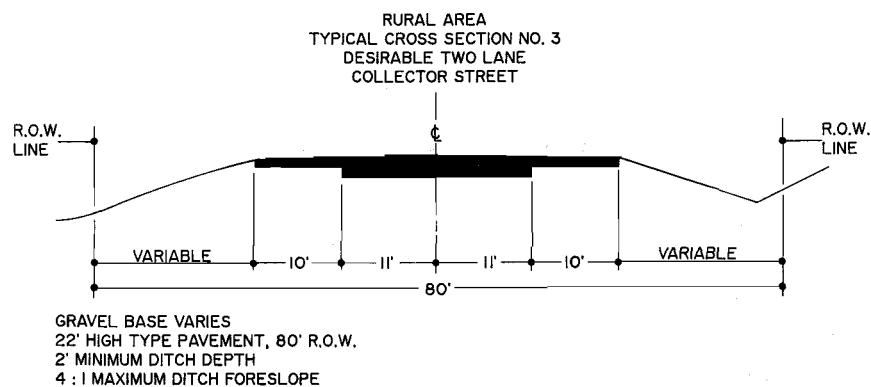
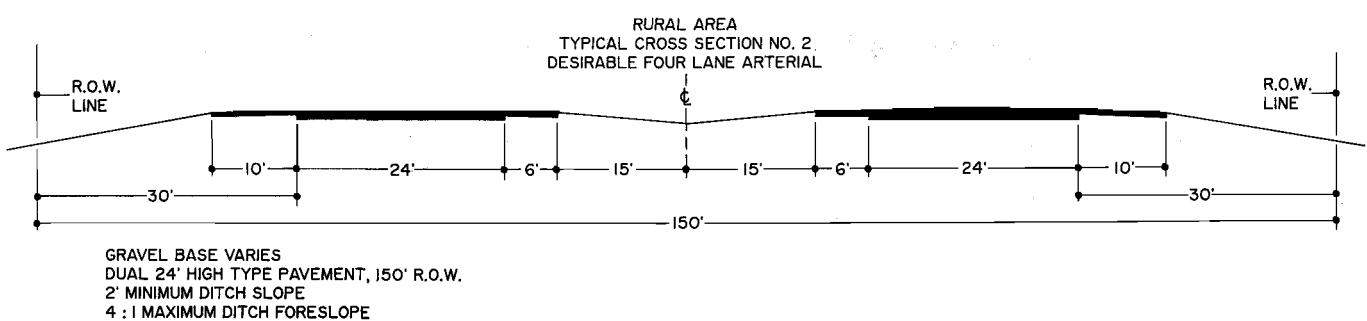
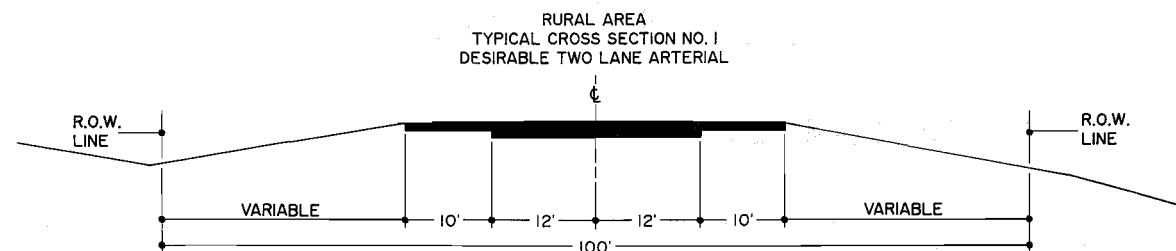


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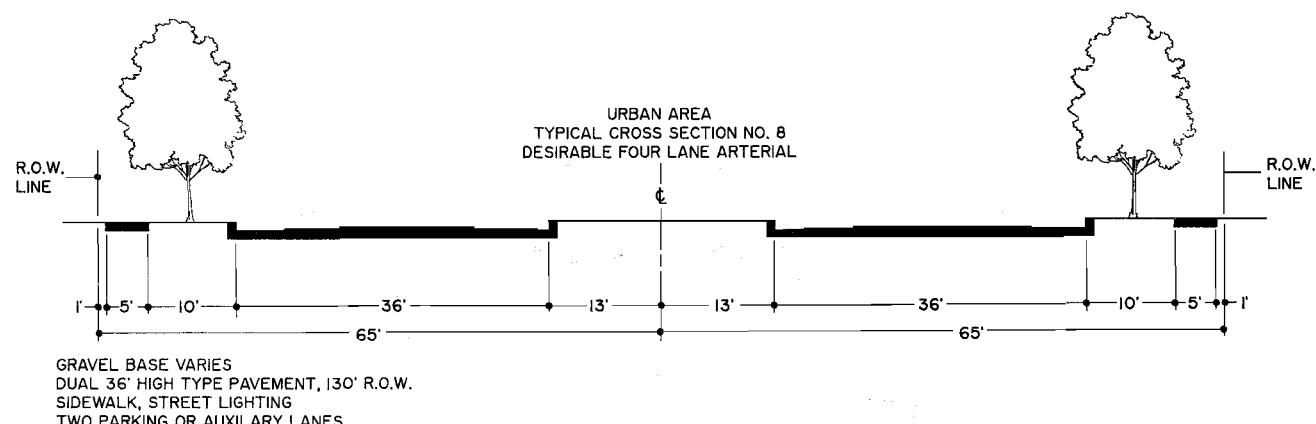
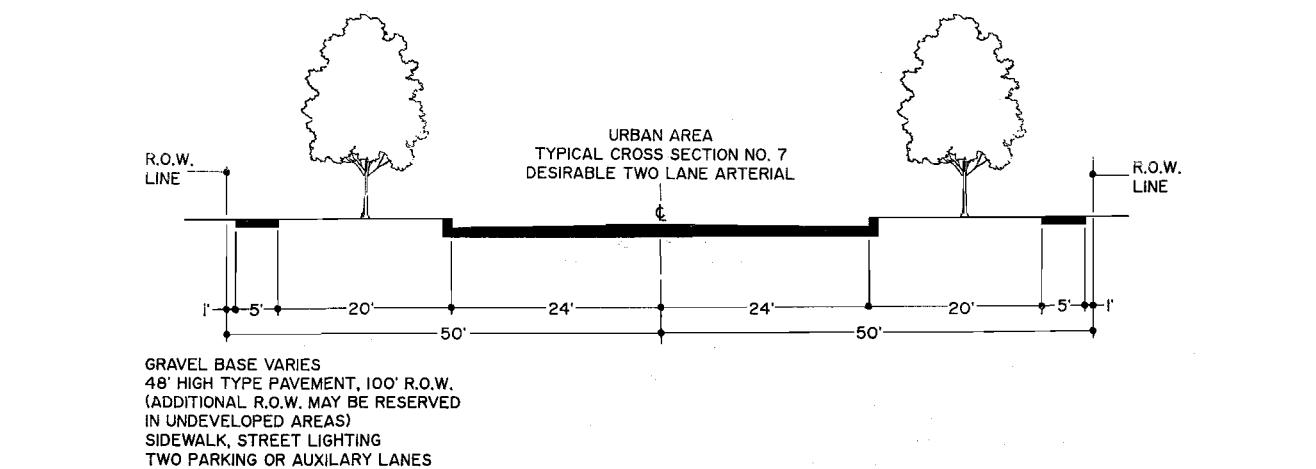
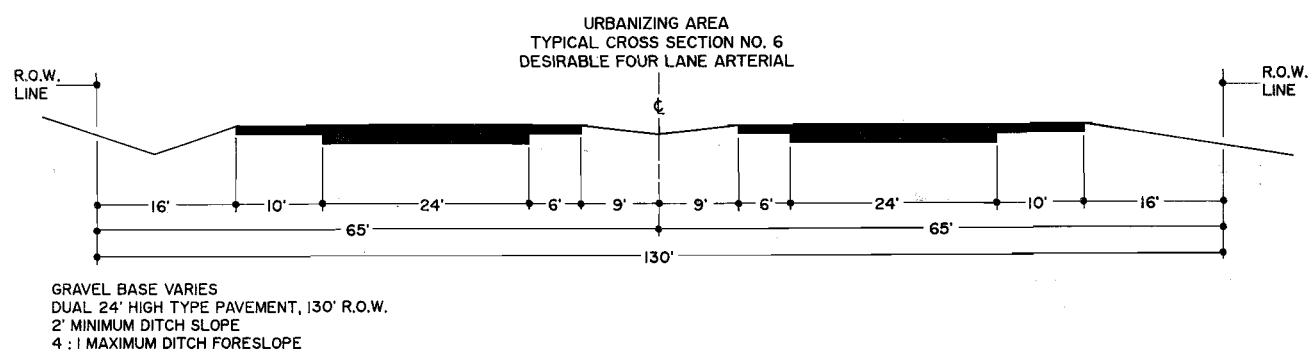
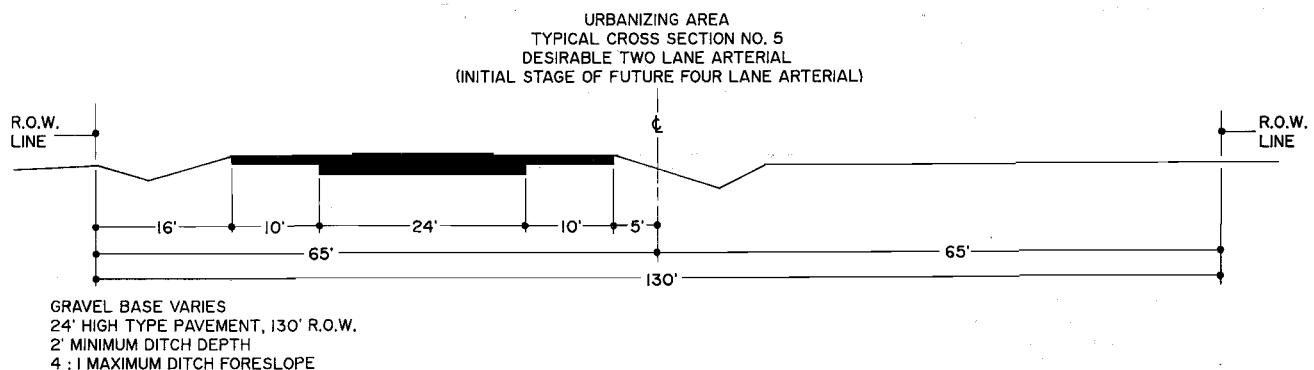


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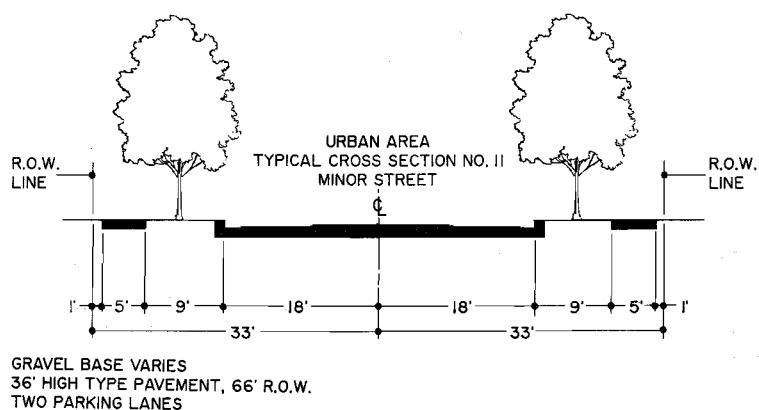
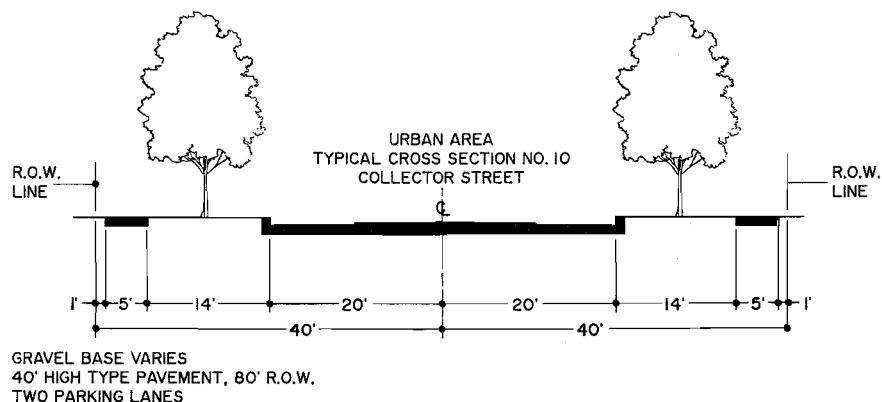
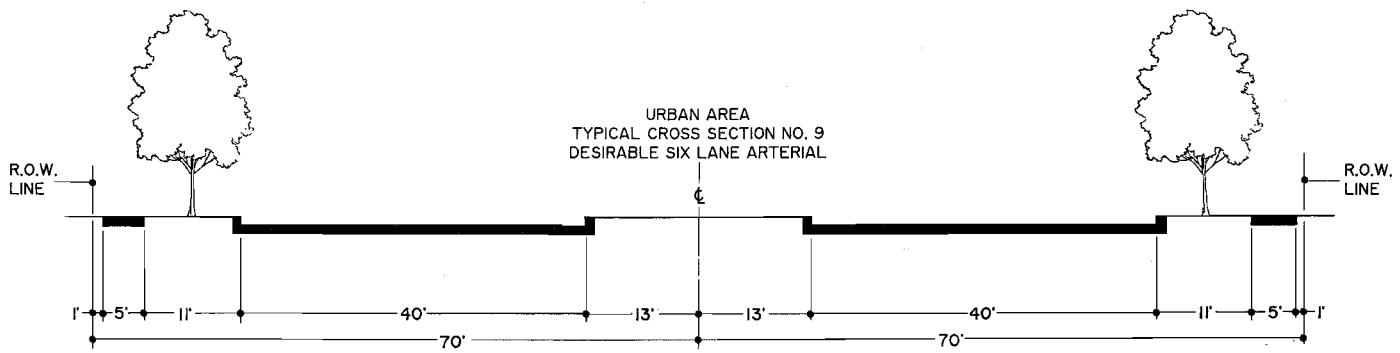
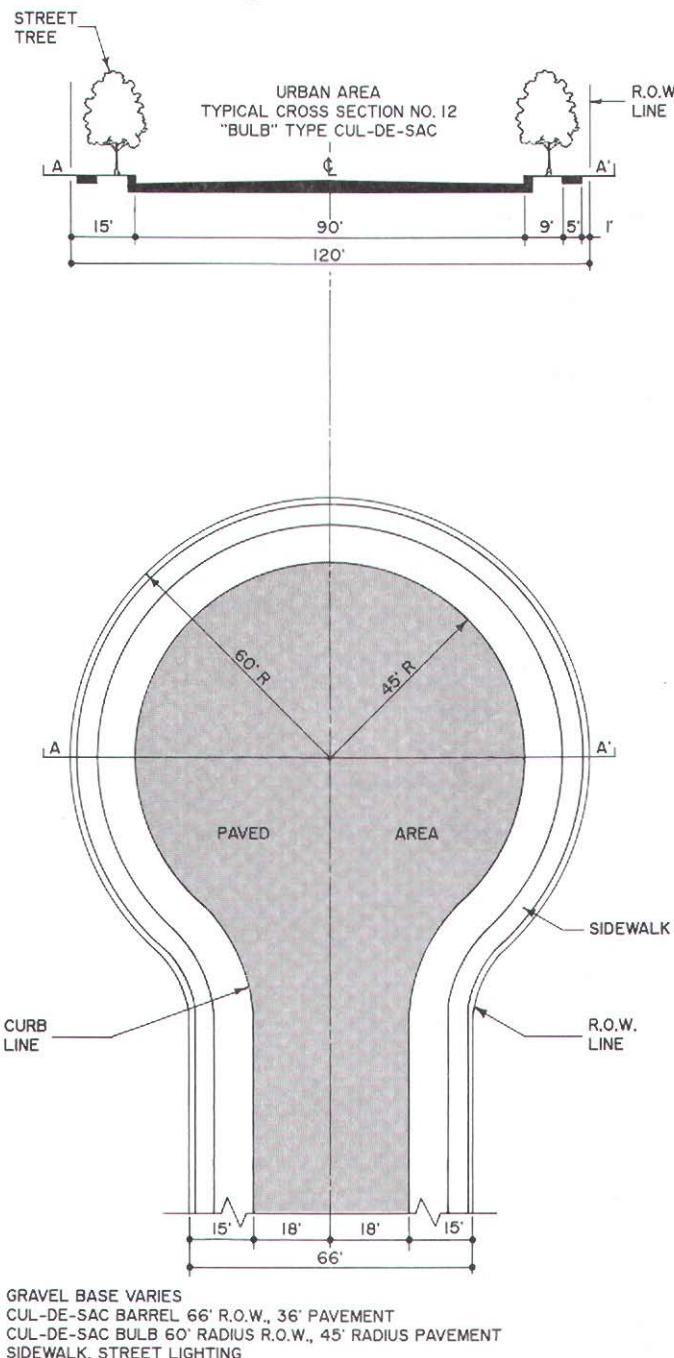


Figure 5 (continued)



^aThe City of West Bend's preferred cross-sections shown are, in all cases, typical, and are subject to variations with regard to a number of considerations, including topography, vehicular and pedestrian traffic patterns and volumes, traffic and parking lane widths, right-of-way widths, and relation to adjacent land uses, such variations appropriately being the subject of further consideration under subsequent preliminary engineering studies. These cross-sections are shown in order to provide the appropriate jurisdictional agencies and local officials with an indication both of the amount of right-of-way that should be considered for reservation to accommodate the required number of traffic lanes, and of what pavement widths are being suggested as a point of departure for the preliminary engineering studies.

Source: SEWRPC Planning Report No. 23, *A Jurisdictional Highway System Plan for Washington County; The Land Use Management Plan, City of West Bend*, adopted by the City Plan Commission on March 12, 1979; and the City of West Bend Engineering Department.

Table 32
**NUMBER OF ENGINE AND LADDER COMPANIES NEEDED
 WITHIN TRAVEL DISTANCE OF REQUIRED FIRE FLOW**

Fire Flow (gallons per minute)	First Due				First Alarm				Maximum Multiple Alarm			
	Engine Company		Ladder Company		Engine Company		Ladder Company		Engine Company		Ladder Company	
	Number	Miles	Number	Miles	Number	Miles	Number	Miles	Number	Miles	Number	Miles
Less than 2,000	1	1.50 ^a	1 ^b	2.0 ^c	2 ^d	4.0	1 ^b	2.0 ^c	2 ^d	4.0	1 ^b	2.0 ^c
2,000	1	1.50 ^a	1 ^b	2.0 ^c	2	2.5	1 ^b	2.0 ^c	2	2.5	1 ^b	2.0 ^c
2,500	1	1.50	1 ^b	2.0	2	2.5	1 ^b	2.0	2	2.5	1 ^b	2.0
3,000	1	1.50	1 ^b	2.0	2	2.5	1 ^b	2.0	3	3.0	1 ^b	2.0
3,500	1	1.50	1 ^b	2.0	2	2.5	1 ^b	2.0	3	3.0	1 ^b	2.0
4,000	1	1.50	1	2.0	2	2.5	1	2.0	4	3.5	1	2.0
4,500	1	1.50	1	2.0	2	2.5	1	2.0	4	3.5	1	2.0
5,000	1	1.00	1	1.5	2	2.0	1	1.5	5	3.5	2	2.5
5,500	1	1.00	1	1.5	2	2.0	1	1.5	5	3.5	2	2.5
6,000	1	1.00	1	1.5	2	2.0	1	1.5	6	4.0	2	2.5
6,500	1	1.00	1	1.5	2	2.0	1	1.5	6	4.0	2	2.5
7,000	1	1.00	1	1.5	2	1.5	1	1.5	7	4.0	3	3.5
7,500	1	1.00	1	1.5	2	1.5	1	1.5	8	4.5	3	3.5
8,000	1	1.00	1	1.5	2	1.5	1	1.5	9	4.5	3	3.5
8,500	1	1.00	1	1.5	2	1.5	1	1.5	9	4.5	3	3.5
9,000	1	0.75	1	1.0	3	1.5	2	2.0	10	4.5	4	4.0
10,000	1	0.75	1	1.0	3	1.5	2	2.0	12	5.0	5	4.0
11,000	1	0.75	1	1.0	3	1.5	2	2.0	14	5.0	6	5.0
12,000	1	0.75	1	1.0	3	1.5	2	2.0	15	5.0	7	5.0

^aMay be increased to two miles for residential districts consisting of single- and two-family dwelling units, and to four miles where such dwelling units have an average separation of 100 feet or more.

^bWhere there are less than five buildings of a height corresponding to three or more stories, a ladder company may not be needed to provide ladder service.

^cMay be increased to three miles for residential districts consisting of single- and two-family dwellings, and to four miles where such dwelling units have an average separation of 100 feet or more.

^dSame as First Due where only one engine company is required in the municipality.

Source: Insurance Services Office and SEWRPC.

2. The supply of vacant and available housing units should be sufficient to facilitate consumer turnover. Rental unit vacancy rates should be maintained at a minimum of 4 percent and a maximum of 6 percent. Owner-occupied unit vacancy rates should be maintained at a minimum of 1 percent and a maximum of 2 percent of the total homeowner units over a full range of housing types, sizes, and costs.

3. Residential densities in the City of West Bend planned urban service area should generally be provided and maintained in accordance with the following guidelines:

- Approximately 2 percent of the total residential dwelling units should consist of single-family dwelling units on lots 20,000 square feet or larger.
- Approximately 53 percent of the total residential dwelling units should consist of medium-density, single-family dwelling units on 7,200- to 19,999-square-foot lots, or 2.2 to 6.0 dwelling units per net residential acre.
- Approximately 25 percent of the total residential dwelling units should consist of medium-high-density, two- and multi-family dwelling units at densities ranging from 6.1 to 10.9 dwelling units per net residential acre. Of this percentage, 56 percent should consist of two-family dwelling units and the remaining 44 percent should consist of multi-family dwelling units.
- Approximately 20 percent of the total residential dwelling units should consist of high-density, multi-family dwelling units at densities ranging from 11.0 to 15.0 dwelling units per net residential acre.

OBJECTIVE NO. 9—HISTORIC PRESERVATION

The preservation of the historical heritage of the West Bend area.

PRINCIPLE

The preservation of buildings, sites, and districts possessing historical or architectural significance will promote the educational, cultural, and general welfare of residents of the West Bend area by providing for a more interesting, attractive, and vital community. Accordingly, it is in the public interest to promote for the protection, enhancement, perpetuation, and use of sites and improvements of special historical interest or value.

STANDARDS

The City of West Bend should use the standards promulgated by the U. S. Secretary of Interior for historic preservation projects. In general, these standards should govern all forms of historic preservation treatments, including acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction. The following standards apply to the treatment of designated historic properties in the City of West Bend.

1. Every reasonable effort should be made to provide a compatible use for a property requiring minimal alteration of the building structure, site, and environment or to use a property for its original purpose.
2. The distinguishing original qualities or character of a building, structure, or site and its environment should not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided whenever possible.
3. All buildings, structures, and sites should be recognized as products of their own time. This should be considered before alterations with no historical basis and which seek to create an "antique" appearance are undertaken.
4. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. If these changes have acquired significance in their own right, their significance should be recognized and respected.
5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site, should be treated with sensitivity.
6. Deteriorated architectural features should be repaired, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence, rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.
7. The surface cleaning of structures should be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials should not be used.
8. Every reasonable effort should be made to protect and preserve archaeological resources affected by, or adjacent to, any acquisition, protection, stabilization, preservation, rehabilitation, restoration, or reconstruction project.

The objectives, principles, and standards set forth in this chapter express the physical development intent of the City of West Bend. The standards perform a particularly important function in land use plan design since they form the basis upon which estimates of future community land use needs are based. Community land use requirements are developed in Chapter VII based upon these objectives, principles, and standards.

URBAN DESIGN CRITERIA

In order to develop physical solutions to urban design problems in West Bend, certain urban design criteria must be agreed upon. In this respect, urban design criteria can be defined as a body of information which can be applied to the development of a solution or solutions to a

specific urban design problem or set of problems. Specific urban design decisions should be based, in part, upon urban design criteria, as well as on the underlying objectives, principles, and standards outlined herein. Urban design criteria are intentionally specific in order to assist in the development of detailed urban design solutions to specific problems. Urban design criteria have

Table 33

**OUTDOOR RECREATION FACILITY REQUIREMENTS IN A
TYPICAL MEDIUM-DENSITY RESIDENTIAL NEIGHBORHOOD UNIT^a**

Facility	Minimum Public Facility Requirement Standard		Total Acreage Required ^b
	Facility per 1,000 Urban Residents	Number of Facilities Required	
Active Recreation			
Baseball Diamond	0.09	0.59 = 1 ^c	4.50
Basketball Goal	0.91	5.92 = 6	0.42
Ice-Skating Rink	0.15	0.98 = 1	0.35 Minimum
Playfield	0.39	2.54 = 3	4.95 Minimum
Playground	0.35	2.28 = 2	1.24 Minimum
Softball Diamond	0.53	3.45 = 2 ^c	5.36
Tennis Court	0.50	3.25 = 3	0.96
Subtotal	--	--	17.78 Minimum
Passive Recreation Area	Add 10 percent of active recreation area total		1.78
Other Recreation Area^d	Add 10 percent of active recreation area total		1.78
Total	--	--	21.34 Minimum

^aMedium density is defined in the Regional Land Use Plan as 2.3 to 6.9 dwelling units per net residential acre, with a total population of 6,500 within an area of one square mile (640 acres). The values listed in this table are for a combined neighborhood park and school site.

^bNatural areas may be incorporated into the design of a park site; however, acreages for areas with steep slopes, poor soils, floodwater storage, drainageways and natural vegetations such as wetlands and woodlands should be considered as additions to the park-school standards.

^cThough the provision of a baseball diamond is not strictly required through application of the standards, one baseball diamond replaces a softball diamond in a typical neighborhood park-school site.

^dPicnicking facilities should be provided in a neighborhood park.

Source: SEWRPC.

been developed in relation to residential development, industrial development, and commercial and central business district development. These criteria should be used by City officials to assist in the evaluation of general urban design proposals and their related site and building plans.

RESIDENTIAL DEVELOPMENT URBAN DESIGN CRITERIA

Urban design criteria relating to residential development are described with respect to residential neighborhood recreation facilities; street, block, and lot layouts and arrangements; multi-family residential area parking lots; general

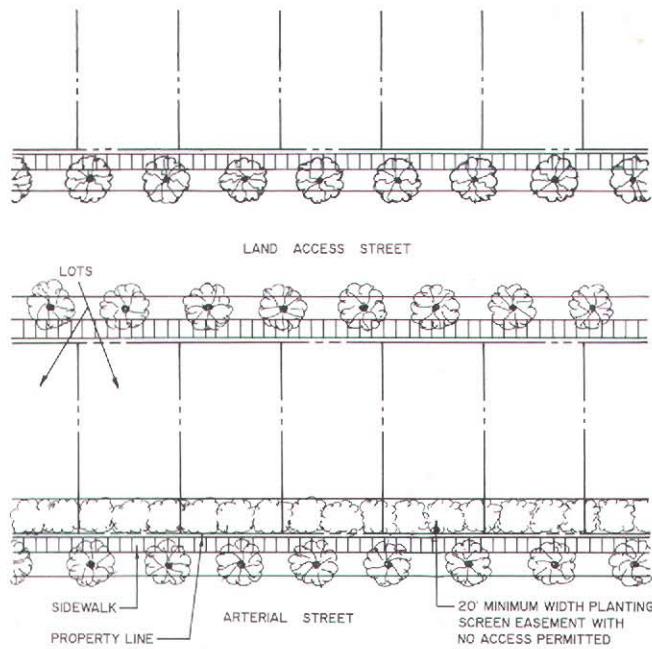
landscaping; utilities and easements; and storm-water management and erosion/sedimentation control.

Neighborhood Recreational Facilities

Recreational lands at the neighborhood level should provide a focal point for neighborhood activities and should be located and developed in conjunction with a neighborhood elementary school. The elementary school and recreational facilities should be provided on a common site available to serve the recreation demands of both the school student and the resident neighborhood population. The individual recreational facility requirements for a combined neighborhood park and school site should be based upon the values listed in Table 33.

Figure 6

REVERSE-FRONTAGE LOTS FOR LIMITATION OF VEHICULAR ACCESS TO ARTERIAL STREETS



Source: SEWRPC.

Streets

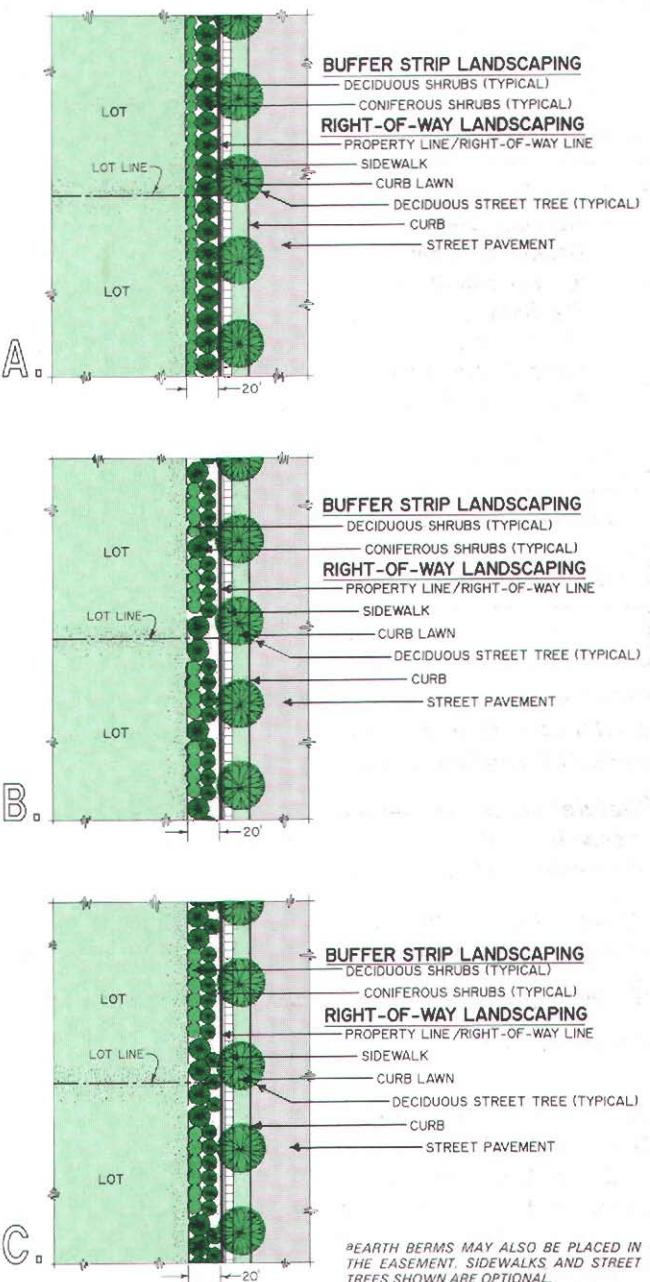
Reverse-Frontage Lots to Limit Arterial Highway Access: Whenever proposed residential land uses abut an arterial street or highway, the character of the residential uses and the capacity and safety of the arterial facility should be protected by limiting access from the abutting land uses, and by separating through and local traffic, where possible, as shown in Figure 6. In addition, a planting screen should be provided in a nonaccess reservation along the rear property line, as shown in Figure 7.

Street Cross-Sections: Street cross-section design criteria for arterial, collector, land access, and cul-de-sac streets are shown graphically in Figure 5.

Street Grades: Unless necessitated by exceptional topography, the maximum grade of any street should not exceed the following: arterial streets, 6 percent; collector streets, 8 percent; and minor streets, alleys, and frontage streets, 10 percent. In addition, the grade of any street should not exceed 12 percent or be less than 0.5 percent. Street grades should be established so as to avoid excessive grading, the promiscuous removal of ground cover and tree growth, and unnecessary leveling of the topography.

Figure 7

MINIMUM DESIGN OF LANDSCAPED HIGHWAY ACCESS BARRIERS



Source: SEWRPC.

Street Intersections: Streets should intersect each other at, or as near to, right angles as topography and other limiting factors of design permit. In addition, the number of streets converging at one intersection should be held to a minimum, preferably to not more than two streets at one intersection; the number of inter-

sections along arterial streets and highways should be held to a minimum and the distance between such intersections should generally not be less than 1,200 feet. Minor street or land access street openings onto arterial streets should be minimized to improve traffic flow and reduce traffic hazard. Property lines at street intersections should be rounded with a minimum radius of 15 feet or greater depending on the curb return radii of the adjoining intersection, or preferably, should be cut off by a straight line through the points of tangency of an arc having a radius of 15 feet or greater.

Street Alignment: Minor and collector streets should not necessarily continue across arterial streets. If the distance between the centerline intersections of any street and any intersecting arterial street is less than 250 feet measured along the centerline of the intersecting streets, or less than 125 feet measured along the centerline of other intersecting streets, then the street location should be adjusted so that the distance is increased or the alignment across the intersecting street is continuous, thus avoiding a jog in the flow of traffic.

Half-Streets: The platting of half-streets should be avoided. Half-streets put an unrealistic reliance on the chance that adjacent property owners will develop their adjacent properties at the same time. If half streets are allowed and then improved, their narrow width may result in street maintenance as well as traffic circulation problems.

Cul-de-Sac Streets: Cul-de-sacs which are designed to have one end permanently closed should generally not exceed 750 feet in length. Such cul-de-sac streets should terminate in a circular turn around with a design similar to the design shown graphically in Figure 5.

Handicapped and Bicycle Access: Wheelchair and bicycle curb ramps should be installed at street intersection crosswalks pursuant to Section 66.616 of the Wisconsin Statutes.

Blocks

General: The widths, lengths, and shapes of blocks should be suited to the planned use of the land; zoning requirements; the need for convenient access, control, and safety of street traffic; and the limitations of and opportunities provided by topography.

Length: Blocks in residential areas should not be less than 600 feet nor more than 1,500 feet in length unless otherwise dictated by exceptional topography or other limiting factors of good design.

Pedestrian Ways: Pedestrian ways of not less than 15 feet in width may be required near the center and entirely across any block of more than 900 feet in length to provide adequate pedestrian circulation and access to schools, parks, shopping centers, churches, or transportation facilities.

Width: Blocks should be wide enough to provide for two tiers of lots of appropriate depth except where required to separate residential development from through traffic.

Lots

General: The size, shape, and orientation of lots shall be appropriate for the location of the subdivision and for the type of development and use contemplated. The lots should be designed to provide an aesthetically pleasing building site and a proper architectural setting for the building contemplated.

Side Lots: Side lot lines should be at right angles to straight street lines or radial to curved street lines on which the lots face. Lot lines should follow municipal boundary lines rather than cross them.

Double-Frontage Lots: Double-frontage, or "through," lots should be prohibited except where necessary to provide separation of residential development from arterial traffic or to overcome specific disadvantages of topography and orientation.

Access: Every lot should front or abut a public street for a distance of at least 50 feet.

Lot Size: Area and dimensions of all lots should conform to the requirements of the City of West Bend Zoning Ordinance.

Lot Depth: Excessive depth of lots in relation to width should be avoided; a proportion of two-and-one-half to one should be considered a maximum depth-to-width ratio. Lot depth should be increased by at least 20 feet when abutting an arterial highway where no direct access is permitted to the arterial highway to allow for a landscaped buffer strip between the arterial highway and the residential land use.

Lot Width: Lots within the interior of a block should have the width at setback required by the City of West Bend Zoning Ordinance for the district in which the subdivision is located.

Corner Lots: Corner lots should have an additional width of 10 feet to permit adequate building setbacks from side streets.

Driveway Location: Driveways on corner lots should be located sufficiently back from intersecting streets so that they do not interfere with traffic movement. No new direct private access should be permitted within 200 feet from the intersection of the right-of-way lines of two intersecting arterial streets; 100 feet from the intersection of the right-of-way lines of an arterial street and a collector or minor land access street; 75 feet from the intersection of the right-of-way lines of a collector street and another collector street or minor land access street, except a lesser distance could be allowed for single- and two-family residential areas; and 50 feet from the intersection of the right-of-way lines of two minor land access streets.

Parking Lots for Multi-Family Residential Areas

Parking Lot Surfacing: All off-street parking areas should be graded and hard surfaced so as to be dust free and be properly drained. Parking areas for more than five vehicles should have the aisles and parking spaces clearly marked in order to distinguish between parking stalls and vehicular circulation areas. Minimum dimensions for parking lots are shown in Figure 8.

Parking Space Size: The size of each parking space should be not less than 162 square feet exclusive of the space required for ingress and egress to the parking space. Additional space shall be provided for those stalls assigned for the use of the physically handicapped.

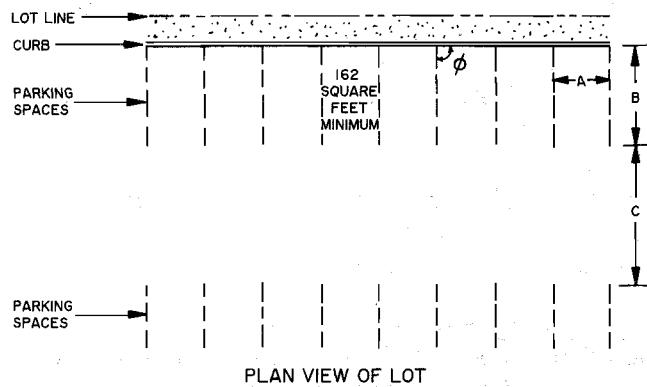
Parking Lot Traffic Aisle Width: Parking lot traffic aisles should be a minimum of 24 feet wide for two-way traffic and at least 12 feet wide or wider for one-way traffic, depending on the angle of parking stalls.

Number of Parking Spaces: Parking spaces should be provided in sufficient number to meet the requirements of the City Zoning Ordinance. Parking spaces shall also be provided to serve the handicapped.

Curbs and Barriers near Structures and Lot Lines: Curbs or barriers should be installed a minimum of five, preferably 10, feet from struc-

Figure 8

MINIMUM DESIGN DIMENSIONS FOR PARKING LOTS AT VARIOUS ANGLES



Design Dimensions in Feet	Key	Degrees (ϕ)				
		0	30	45	60	90
Stall Width	A	8.0	9.0	9.0	9.0	9.0
Stall Length	B	22.0	18.0	18.0	18.0	18.0
Aisle Width	C	12.0	12.0	13.0	16.0	24.0 ^a

^aTwo-way aisle.

Source: SEWRPC.

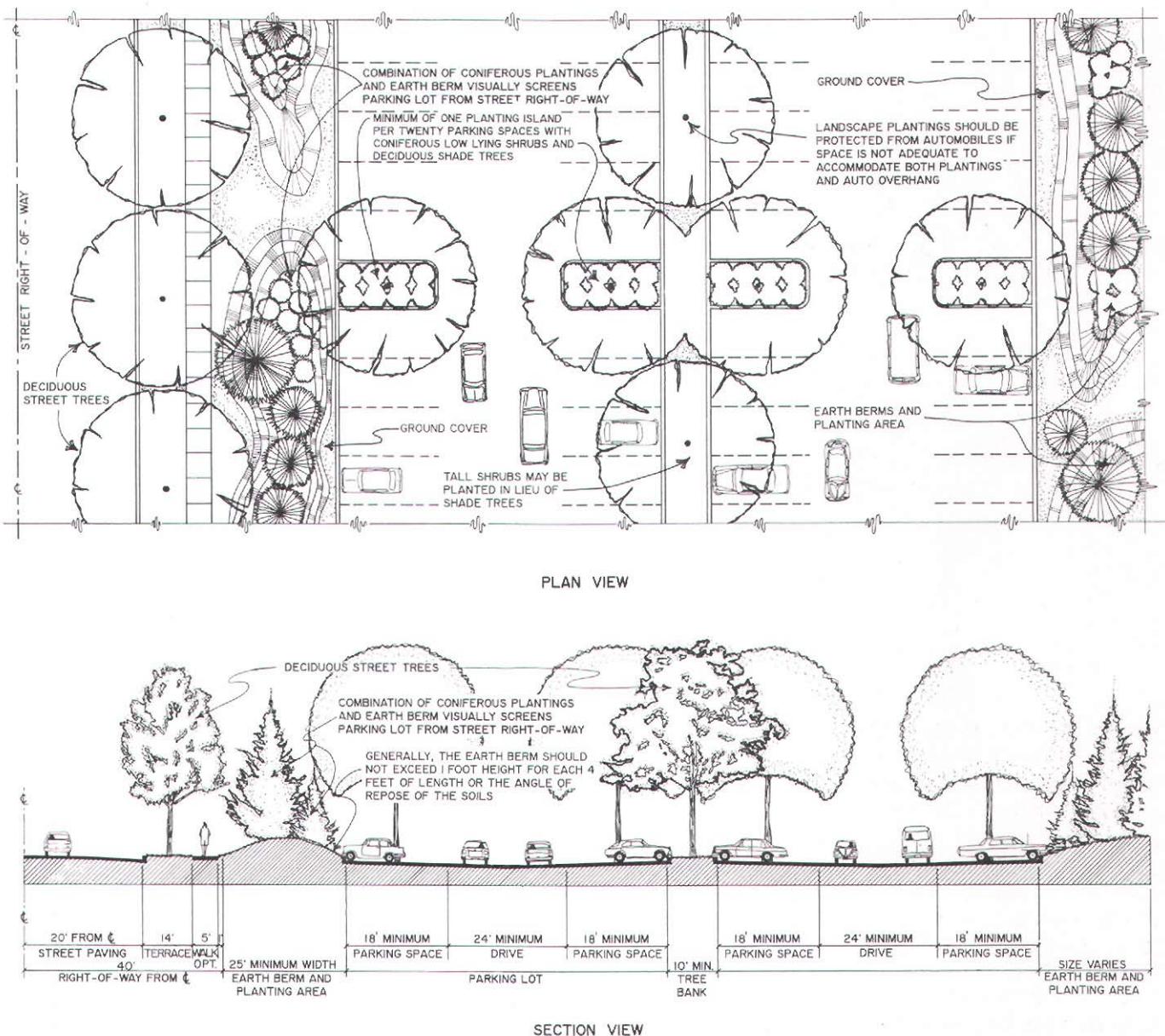
tures and property lines to prevent the parked vehicles from damaging structures and extending over any lot lines and to provide adequate space for landscaping and visual screening as necessary.

Parking Lot Location: Parking lots should be so located on the site to minimize walking distances to the facility the parking lot is serving.

General Parking Lot Landscaping: The interior of off-street parking areas serving 20 vehicles or more should be provided with evenly dispersed landscape areas totaling not less than 5 percent of the total surfaced parking area. The minimum size of each landscape area should be 150 square feet and not less than nine feet in width or length. Trees should be provided at the rate of one deciduous tree for every 20 parking spaces, to be located in the landscaped areas provided within the parking lot. Location of landscape areas, selection of plant materials, protection afforded the plantings, provision of curbing, and maintenance should be considered. Landscaping similar to that shown in Figure 9 should be provided in parking lots.

Parking Lot Landscaped Islands: At the end of each parking bay, or row of spaces, a landscaped island at least nine feet in width and 15 feet in

Figure 9
RECOMMENDED LANDSCAPING OF AUTOMOBILE PARKING LOTS



Source: SEWRPC.

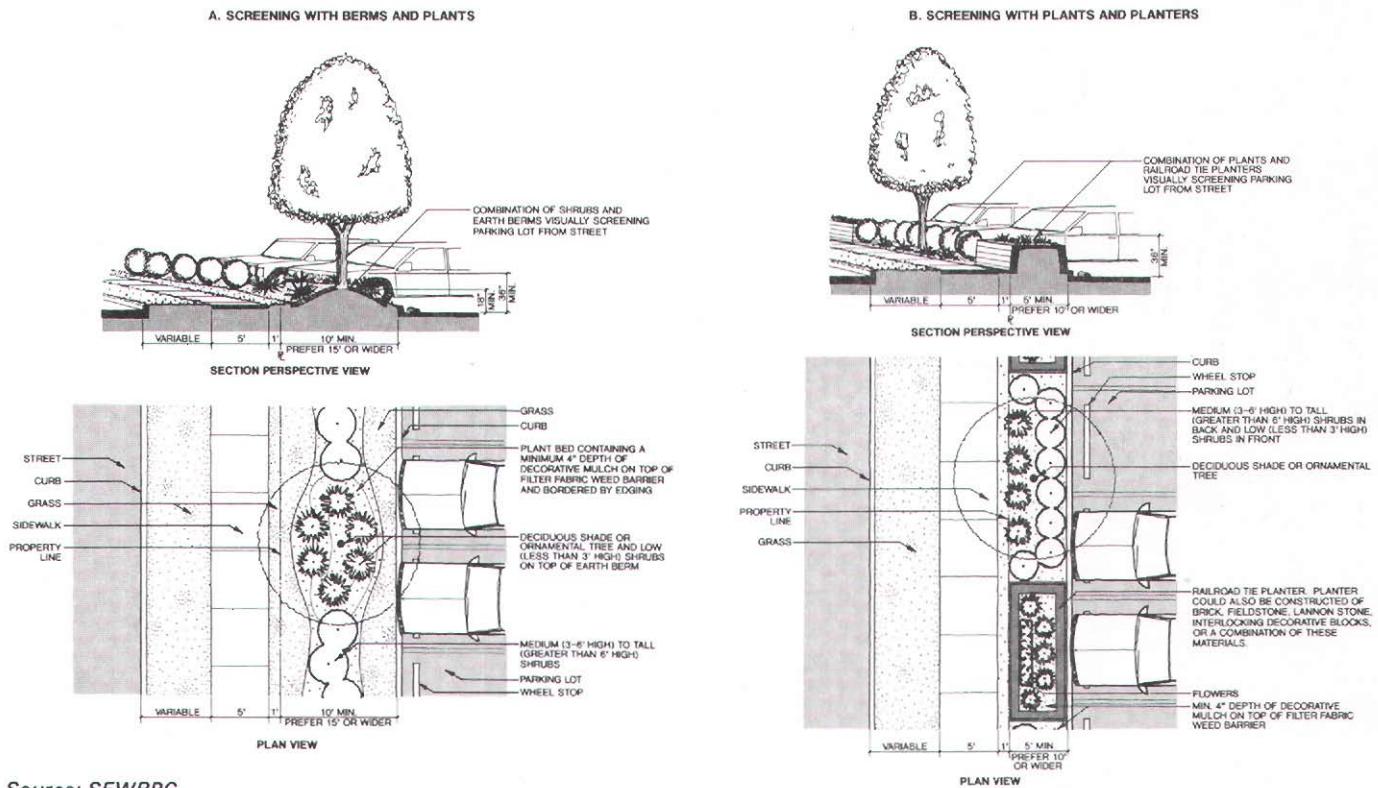
length should be provided to separate the bays from each other or from traffic lanes. The ends of double-row parking spaces should contain landscaped islands at least nine feet in width and 30 feet in length. For each row of 20 parking spaces, a landscape island should be provided contiguous to said row of spaces. The design dimensions of landscaped islands may vary from the aforementioned dimensions to provide such desirable geometric design features as rounded corners and angles to facilitate maneuver-

ing of automobile traffic. However, the total area of any island should not be decreased as a result of such design changes.

Parking Lot Screening: All parking areas should be screened from abutting single- and two-family residential uses by a solid wall, fence, berm, dense evergreen planting, or other effective means, constructed and maintained at a minimum height of six feet. Parking lots located in front yards and visible from a street right-of-way

Figure 10

ALTERNATIVE LANDSCAPE SCREENING FOR PARKING LOTS



Source: SEWRPC.

should also be partially screened to reduce the negative impacts of such a use. The height of this screen should be at least three feet above the parking surface and could consist of a combination of plantings atop berms or in planters, provided the combined height is at least three feet after three years. Figure 10 illustrates alternative landscape screenings for parking lots in public view.

If berms are used as a screen, they should have a minimum height of one and one-half feet, a crown at least four feet wide, and side slopes no greater than four to one. The berms should be curved and undulate throughout their entire length. Fences and walls, excluding planters, should be constructed no less than three feet high and built of material compatible with the principal building of the site. Where applicable, gaps in the screen should be provided to allow for pedestrian access.

When only plantings are used for screening, the minimum width of the perimeter landscape area should be 10 feet. If berms are provided as barriers, the width of the landscape area should

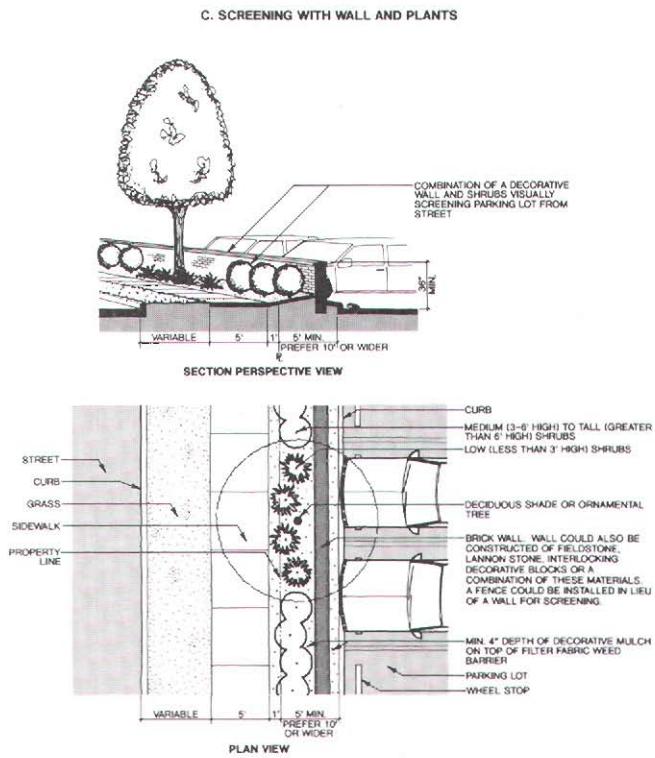
be adequate to accommodate the size, slope, height, and form of the berms. When structural barriers are used, the minimum width could be five feet. Plantings should be provided between the structure and the adjacent property line in order to reduce the visual impact of the structure from public view.

General Landscaping

General: Every effort should be made to protect and retain all existing trees, shrubbery, vines, and grasses not actually lying in public roadways, drainageways, paths, and trails. Trees should be protected and preserved during construction in accordance with sound conservation practices, including the use of wells, islands, or retaining walls whenever abutting grades are altered. Soil compaction and stockpiling of soil or construction materials in tree root zones should be avoided.

Cutting and Clearing: Tree cutting and shrubbery clearing should not exceed 30 percent of the lot or tract, if possible, and should be conducted so as to prevent erosion and sedimentation and to preserve and improve scenic qualities.

Figure 10 (continued)



Paths: Easements for paths and trails in wooded and wetland areas should not exceed 15 feet in width unless otherwise approved by the City, and should be designed and constructed so as to result in the least removal and disruption of trees and shrubs and the minimum impairment of natural beauty.

Street Trees: Street trees meeting the American Standard for Nursery Stock (American National Standards Institute Z60.1), should be planted at appropriate intervals along public rights-of-way. Appropriate intervals should be determined by land use, width of the planting area, and location of above- and below-ground utilities. The proposed location and size of street trees should be included in the initial conceptual design and subsequent site plan for proposed development projects. As a general guide, at least one deciduous shade tree of at least eight feet in height or at least one and one-half inches in diameter at six inches above ground level should be planted for each 35 feet of frontage on public rights-of-way. Columnar varieties of shade trees may require shorter distances between plantings. The street tree planting

intervals, tree size, and tree locations should at least comply with the City's standards as found in Chapter 20 of the City of West Bend Municipal Code.

Building Foundation Landscaping for Multi-Family Residential Areas: Landscaping adjacent to building foundations contributes to the overall aesthetics of the site as well as to the architectural attractiveness of a building. Planting areas comprised of a combination of decorative mulch, flowers, groundcover, shrubs, or ornamental trees should be provided adjacent to building elevations, excluding entrances, visible from streets and parking areas. Building foundation planting beds need not be continuous nor directly against the building. Planting beds could be consolidated into large groupings of beds versus a continuous planting strip and could be located at or near the dripline of building overhangs.

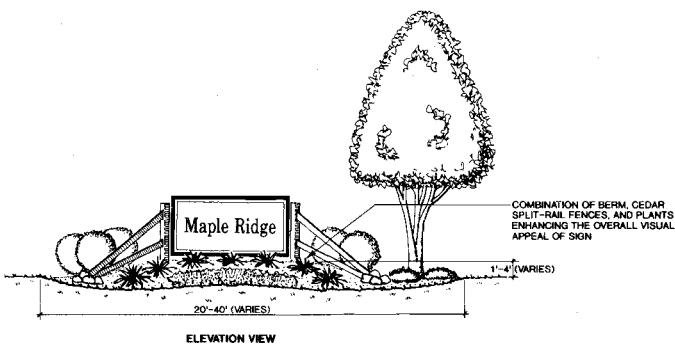
Landscaping Free-Standing Signs for Multi-Family Residential Areas: An elevated landscape bed should be placed at the base of free-standing advertising signs to improve their aesthetics. A planting area of at least 200 square feet consisting of a combination of decorative mulch, flowers, groundcover, or ornamental shrubs should be provided at the base of the sign without obstructing the sign face, as graphically illustrated in Figure 11.

Screening of Dumpsters and Mechanical Equipment in Multi-Family Residential Areas: Dumpsters and mechanical equipment should be so installed as to be unobtrusive and/or shielded from view. Dumpsters should be screened from public view and from adjacent properties on at least three sides by a solid fence or wall. The height of the fence or wall should be at least one foot above the top of the dumpster; plantings should be provided adjacent to the structure. Rooftop and at-grade mechanical equipment should also be effectively screened from public view.

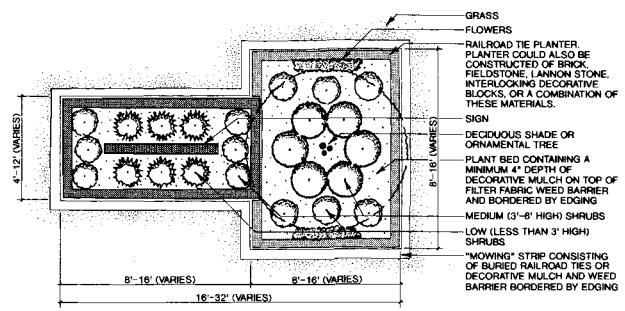
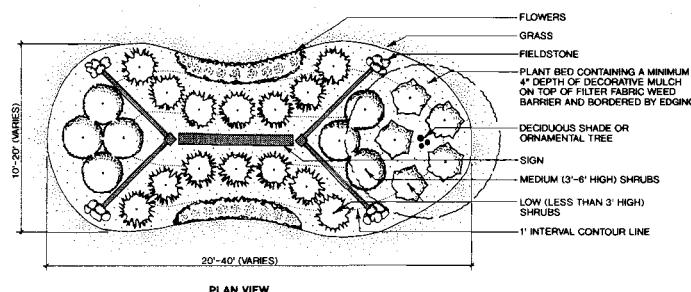
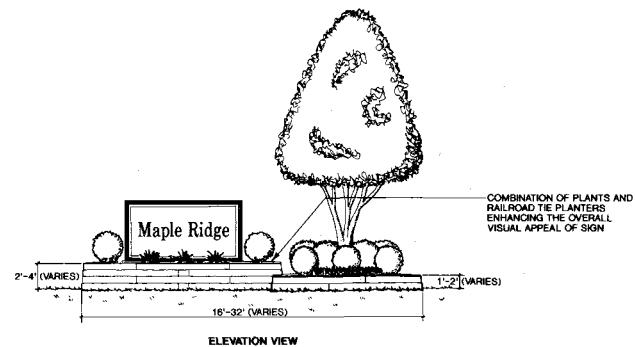
Wind and Landscape Planting: With respect to wind, landscaping should be done in such a way so as to minimize winter and promote summer wind effects on structures. Winter wind protection is afforded by planting landscaping of an adequate height on the west of structures. However, if solar access would be blocked, low shrubs should be used to divert or enhance winds. An optimum distance between a winter

Figure 11
ALTERNATIVE LANDSCAPING FOR FREE-STANDING SIGNS

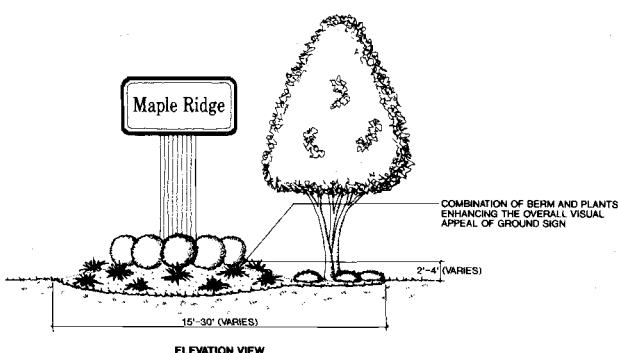
A. LANDSCAPING WITH BERM, DECORATIVE FENCES, AND PLANTS



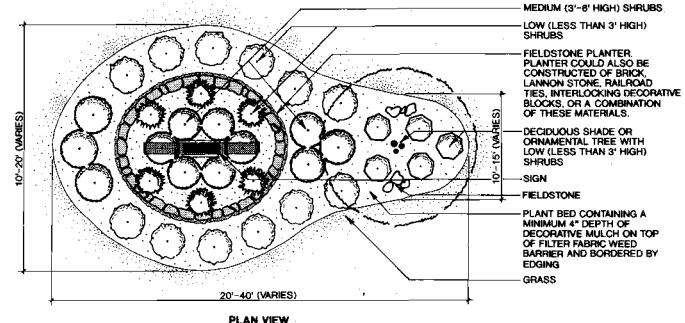
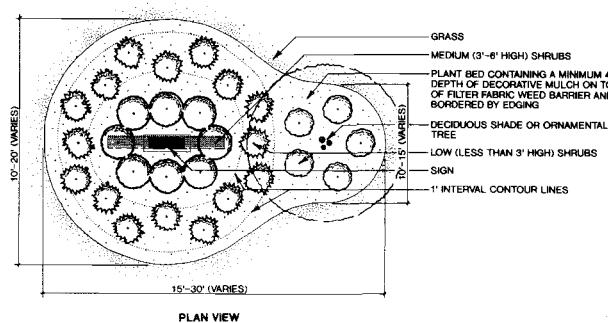
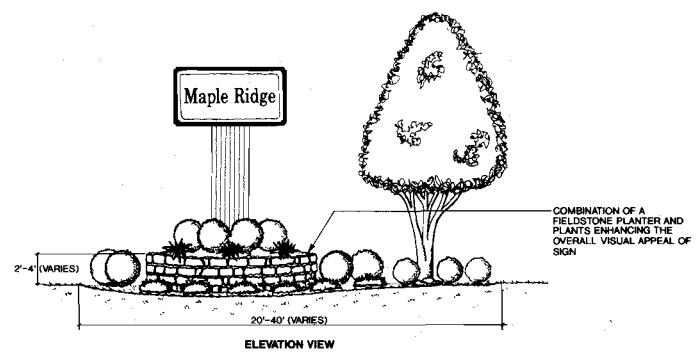
B. LANDSCAPING WITH PLANTS AND PLANTERS



C. LANDSCAPING WITH BERM AND PLANTS



D. LANDSCAPING WITH FIELDSTONE PLANTER AND PLANTS



Source: SEWRPC.

windbreak and a structure is approximately twice the tree height. A coniferous windbreak that is two rows wide is nearly optimum for efficiency, and additional rows would not significantly increase its effectiveness as a windbreak. Figure 12 illustrates the concept.

Noise and Landscape Planting: Groups of trees, shrubs, and other landscape masses, such as earth berms, can serve as noise barriers and should be utilized where noise could create problems for neighboring land uses. Such landscaped noise barriers are most effective when the barrier is near either the noise source or the noise receiver. Under daytime conditions, dense landscape plantings can provide noise reductions of five to eight dBA¹ of traffic noise. Also, earth berms 12 feet high, when combined with dense landscape plantings, can reduce truck noise by 10 to 15 dBA. However, landscaped sound barriers can be expected to be less effective at night than during the day since, when surface air is cool the noise will be refracted over any noise barrier. Landscape planting noise barriers should be used whenever possible to assist in solving existing or potential noise problems associated with urban design.

Above-Ground Utilities and Easements

Above-Ground Utility Cables: The location or relocation of above-ground utilities underground

¹The source of acoustic energy is characterized by its Sound Pressure Level (SPL), usually measured in decibels (dB), by the tonal composition of the noise, and by the variation of SPL in time. Many scales for measuring noise have been devised. Of these scales, the A-weighted measure of SPL (written as dBA) is becoming more and more common as a measure of environmental noise. For this measure, the weighting of the tonal composition of the noise is similar to that of the human ear. Berms 12 feet high, when combined with dense landscape plantings, can reduce truck noise by 10 to 15 dBA. However, landscaped sound barriers can be expected to be less effective at night than during the day since, when surface air is cool (inversions), the noise will be refracted over any noise barrier. Landscape planting noise barriers should be used whenever possible.

should be considered because these wires detract from the overall appearance of an area and typically add to visual clutter.

Utility and Drainage Easements: Public utility easements of widths deemed adequate for the intended purpose, but no less than 10 feet wide, should be provided across lots or centered on side and rear lot lines where necessary or advisable for electric power and communication wires and conduits; storm and sanitary sewers; and gas, water, and other utility lines. Where a land division is traversed by a watercourse, drainageway, or street, an easement should be provided for drainage purposes.

Stormwater Management and Erosion/Sedimentation Control

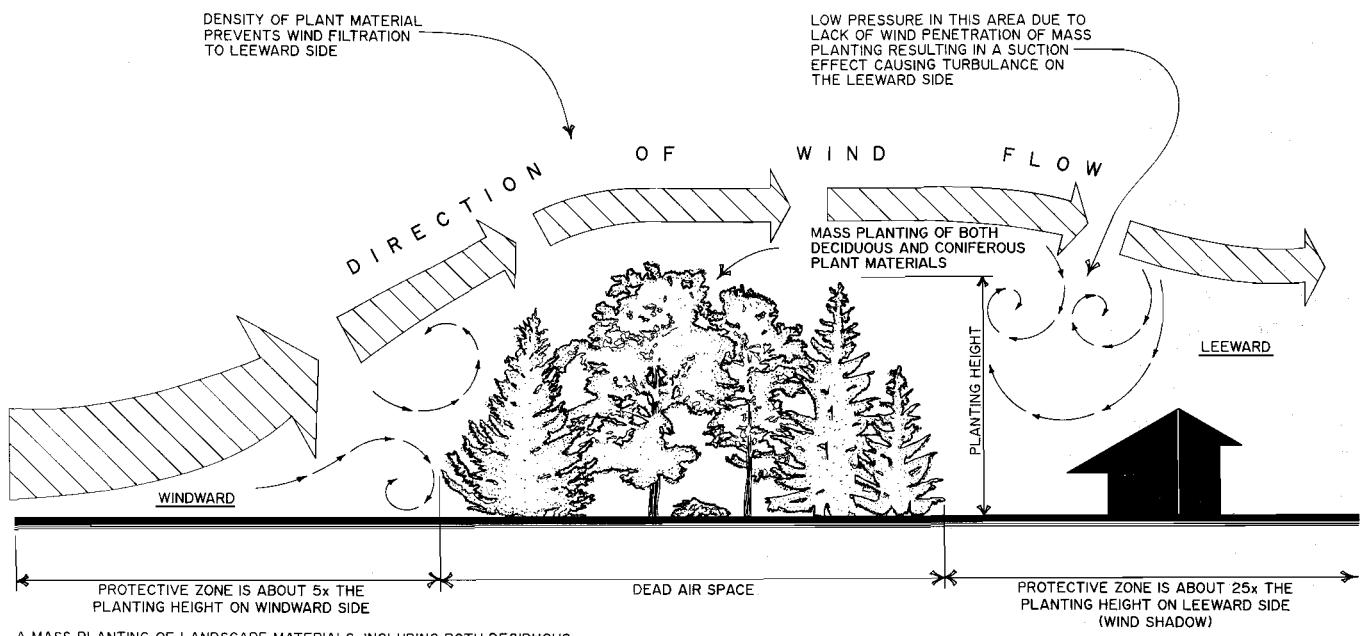
Stormwater management facilities should be adequate to serve a proposed development, and may include curbs and gutters, catch basins and inlets, storm sewers, road ditches, culverts, open channels, water retention structures, and settling basins. The facilities should be of adequate size and grade to accommodate hydraulically design flows through and from a proposed development and should be so designed as to prevent and control soil erosion and sedimentation and to present no hazards to life or property.

Earthmoving activities, such as grading, topsoil removal, mineral extraction, road cutting, waterway construction or enlargement, excavation, channel clearing, ditching, drain tile laying, dredging, and lagooning, should be so conducted as to prevent erosion and sedimentation and to least disturb the natural fauna, flora, watercourse, water regimen, and topography. Construction activities should be planned so that the soil is disturbed a minimal amount of time. Cut and filled lands outside street rights-of-way could be graded to a maximum slope of 25 percent or to the angle of repose of the soil, whichever is less.

If necessary to control erosion and sedimentation, the City may require a developer to plant grasses, trees, and vines, the species and size of which are to be determined by the City. The City may also require a developer to provide or install other protection and rehabilitation measures, such as shrubs, fencing, slopes, riprap, wells, revetments, berms, jetties, clearing, dredging, snagging, drop structures, brush mats, willow poles, and grade stabilization structures.

Figure 12

LANDSCAPE PLANTING AND WIND PROTECTION



Source: SEWRPC.

INDUSTRIAL DEVELOPMENT URBAN DESIGN CRITERIA

Urban design criteria relating to industrial development are proposed with respect to street, block, and lot layouts and arrangements; automobile parking lots; general landscaping; above-ground utilities; easements; and stormwater management and erosion sedimentation control.

Industry-Related Streets

Reverse-Frontage Lots to Limit Arterial Highway Access: The design criteria outlined earlier for residential development should be used.

Street Cross-Sections: Street cross-section design criteria for industrial development are shown graphically in Figure 5. It is recommended that the desirable cross-section for a collector street, which shows a minimum right-of-way width of 80 feet, be used as the land access street cross-section for industrial development.

Street Grades: Unless necessitated by exceptional topography, the maximum grade of any street in an industrial park should not exceed 3 percent. In addition, the grade of any street should in no

case be less than five-tenths of 1 percent. And finally, street grades should be established so as to avoid excessive grading, the promiscuous removal of ground cover and tree growth, and unnecessary leveling of the topography.

Stormwater Drainage and Street Location: Wherever practical, streets should follow lines of natural stormwater drainage.

Street Intersections, Alignment, and Half-Streets: Street intersections, alignment, and half-streets should follow the same design criteria outlined earlier for residential development.

Industry-Related Blocks

General: The widths, lengths, and shapes of blocks should be suited to the planned industrial use of the land; zoning requirements; the need for convenient access, control, and safety of street traffic; and the limitations and opportunities inherent in the topography.

Block Width: Blocks should be wide enough to provide for two tiers of industrial lots of appropriate depth. The width of lots or parcels reserved or designated for industrial use shall be

adequate to provide for off-street service and parking required by the use contemplated and the area zoning restrictions for the use.

Industrial Lots

General: The size, shape, and orientation of lots should be appropriate for the type of development and use contemplated. Lots should be designed to provide an aesthetically pleasing building site and a proper architectural setting for the industrial buildings contemplated. Side lot lines, double-frontage lots, lot access, and driveway locations should follow the same design criteria outlined earlier for residential development.

Lot Size: Area and dimensions of all industrial lots should conform (at a minimum) to the requirements of the City of West Bend Zoning Ordinance for industrial uses.

Lot Shape: The shape or configuration of an industrial lot should not be so irregular as to hamper efficient development of the site. The shape of the lot should facilitate the development required by the industry locating on it and should assist in promoting the assembly of individual lots into larger parcels of industrial property under one ownership.

Lot Depth: The depth of lots or parcels designated for industrial use should be adequate to provide for off-street service and parking required by the use contemplated. Industrial lots backing onto a land use of lesser intensity should have adequate depth to permit landscape plantings or other design elements to serve as a buffer area between the two land uses. Lot depths which permit the assembly of individual lots to create large parcels of industrial property under one ownership should be encouraged.

Lot Width: Lots in the interior of an industrial block should have the minimum average width required in the zoning districts for the City.

Corner Lots: Corner lots should have an additional width to permit adequate building and facility setbacks from side streets.

Front Yard Setbacks: No building or portion of any industrial building should be built nearer than 30 feet from the front lot line of any industrial lot. Where industrial use directly abuts residential uses, an open space at least 50 feet wide should be provided on the industrial lot between the two uses.

Side and Rear Yard Setbacks: Each building in the industrial park should have a side yard setback along each side of at least 15 feet and a rear yard setback of at least 25 feet. Parking or storing trucks, products, or equipment should be prohibited in any side or rear yard setback areas.

Onsite Parking Lots

Design criteria for this element of an industrial area should follow those already established earlier for multi-family residential developments and include the criteria listed below. Parking lots for industrial uses should also be screened from all residential areas.

Placement of Off-Street Parking Lots: Employee off-street parking should not be permitted within the front yard setback of any industrial lot. However, visitor or customer parking may be allowed within the front setback from the street right-of-way line when approved by the City Plan Commission.

Parking Spaces: One parking space of not less than 162 square feet, excluding drives and parking stall access area, should be provided on each industrial property for each 500 square feet of principal building area. Parking stalls should be added on each property as needed to accommodate all employees as building facilities expand. In addition, 2 percent of all parking stalls provided shall be properly designed for the physically handicapped.

General Landscaping, Above-Ground Utility Cables, Easements, Stormwater Management, and Erosion/Sedimentation Control

Design criteria for these elements of an industrial area should follow those already established earlier for residential development.

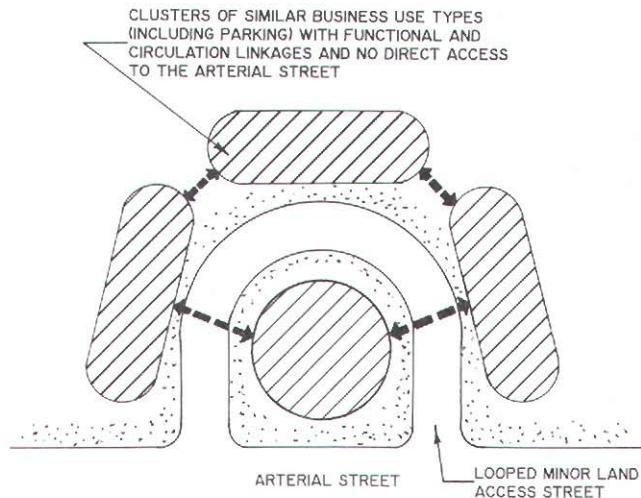
COMMERCIAL DEVELOPMENT URBAN DESIGN CRITERIA EXCLUDING THE WEST BEND CENTRAL BUSINESS DISTRICT

Vehicular Circulation

The vehicular circulation system should be developed for easy access to the commercial parking facilities from the community. Vehicular and pedestrian conflicts should be avoided where possible and, where conflicts cannot be totally avoided, conflicts should be minimized. Arterial street and highways should be designed in accordance with those arterial street cross-sections shown in Figure 5.

Figure 13

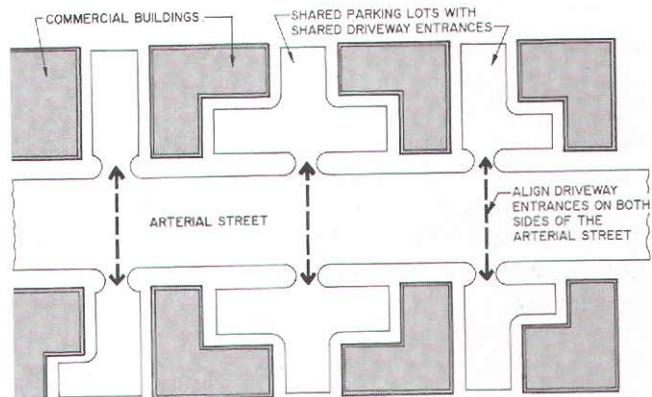
DESIRABLE LOOPING OF LAND ACCESS STREETS IN COMMERCIAL AREAS



Source: SEWRPC.

Figure 14

DESIRABLE DRIVEWAY ALIGNMENT AND SHARED USE OF DRIVEWAYS AND PARKING LOTS IN COMMERCIAL AREAS



Source: SEWRPC.

Street Cross-Sections, Grades,

Intersections, Alignment, and Half-Streets

Design criteria for these elements of a commercial area should follow those outlined earlier for residential developments.

Limitation of Arterial

Highway Vehicular Access

Reverse-Frontage Lots to Limit Arterial Highway Access: The design criteria outlined earlier for residential development should be used.

Arterial Highway Access Barriers: Access barriers such as curbing, fencing, landscaping, or other topographic barriers as shown in Figures 7 and 10 should be erected to prevent undesirable ingress to, or egress from, arterial streets or highways and to channelize traffic movements properly and safely. When landscaping is used as an access barrier, the width of such landscaped area should be at least 10 feet. If berms are provided as barriers, the width of the landscaped area should be adequate to accommodate the size of the berms based on their slope, height, and form. When structural barriers are used, the minimum width could be five feet with landscaping such as trees and shrubs provided between the structure and adjacent right-of-way.

Looped Land Access Streets: Looped land access streets should be used when feasible in order to assist in reducing the potential number of drive intersections along an arterial, as illustrated in Figure 13.

Alignment and Shared Use of Driveways: Land access driveways should intersect each other and streets at as nearly right angles as topography and other limiting factors of good design permit. Driveway entrances along both sides of an arterial should be aligned, as illustrated in Figure 14, to assist in reducing the number of driveways needed and to limit some of the confusion caused by unaligned driveways. Also, the use of shared driveways and parking lots in commercial areas should be promoted, as shown in Figure 14. In such cases, the driveway centerline may be the property line between two parcels of land or may be a mutually agreed-upon land access easement.

Driveway Design for Entering Vehicles: Driveway design in commercial areas should allow an entering vehicle a turning speed of 15 miles per hour in order to assist in reducing interference with through arterial street traffic. Driveway design and placement should be in harmony with internal site circulation and off-street parking design such that the driveway entrance to the site can absorb the maximum expected rate of inbound traffic during a normal weekday peak traffic period.

Table 34

**HIGHWAY DESIGN SPEED AND
MINIMUM REQUIRED SIGHT DISTANCE
FOR DIRECT-ACCESS DRIVEWAY PLACEMENT**

Highway Design Speed (mph)	Minimum Sight Distance (feet)	Desirable Sight Distance (feet)
30	200	200
35	225	250
40	275	325
45	325	400
50	400	475

Source: American Association of State and Highway Transportation Officials, 1984; Wisconsin Department of Transportation, Facilities Development Manual.

Sight Distance and Driveway Placement: Direct-access driveway placement on abutting arterial streets and highways should be such that an exiting vehicle has a minimum unobstructed sight distance according to Table 34, based upon the operating design speed of the abutting arterial street or highway.

Driveway Spacing: Driveway spacing should be determined as a function of arterial street and highway operating speeds. The minimum spacing between access driveways along an arterial street or highway should be determined according to Table 35. These spacings are based upon average vehicle acceleration and deceleration rates and are considered necessary to maintain safe traffic operation.

Maximum Number of Driveways per Parcel: Generally, along arterial streets and highways, where abutting street frontage is less than 400 feet, a maximum of one driveway opening should be permitted to a particular site from each of any one or two abutting arterial streets and highways. One additional driveway entrance along a single continuous parcel of land with frontage in excess of 400 feet may be permitted. When a shared driveway is used, it should be considered as one single direct-access driveway.

Parking Lot Access from Arterial Streets

Parking Visibility from Arterial Streets: Commercial parking lots should be partially visible

Table 35

HIGHWAY OPERATING SPEED AND MINIMUM SPACING BETWEEN DIRECT-ACCESS DRIVEWAYS

Highway Speed Limit (mph)	Minimum Spacing (feet)
25	105
30	125
35	150
40	185
45	230
50	275

Source: American Planning Association and the Wisconsin Department of Transportation.

from an arterial street or highway, have clearly marked entrances and exits, and be visually distinguishable from public rights-of-way.

Off-Street Parking: All parking areas serving highway commercial development should be off the street. Parking perpendicular to arterial street rights-of-way with direct access to the right-of-way without a service drive should be prohibited.

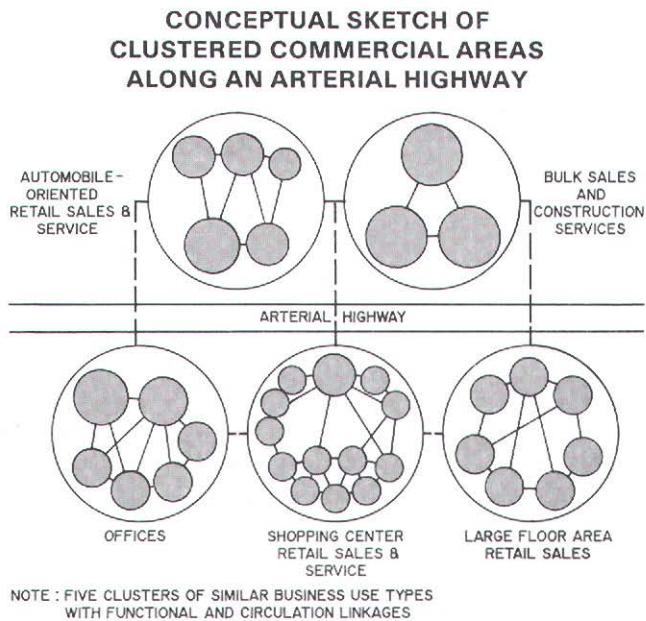
Pedestrian Circulation

The pedestrian movement system in commercial areas should form linkages between the various commercial activities and commercial sites. The system should not conflict with vehicular circulation or, if conflicts cannot be totally avoided, the conflicts should be minimized. Spatial sequences, visual aspects, and pavement texture should also be taken into consideration in the placement of sidewalks so that the pedestrian is offered a variety of visually pleasing experiences which add to the pedestrian's overall enjoyment of the commercial area. A recommended minimum sidewalk width is five feet. Provisions for the handicapped in sidewalk construction should also be made. In highway commercial areas a pedestrian path system should be provided on both sides of the arterial where there are activities and a pedestrian crossing of the arterial should be provided at a signalized intersection.

Land Use Spatial Considerations

Commercial Business Clustering: Businesses with similar characteristics should form com-

Figure 15



Source: SEWRPC.

mmercial clusters and locate within proximity of one another in order to define better the identifiable commercial areas for the user, provide functional linkages, of similar business types, reduce distances, and provide circulation linkages for both vehicular and pedestrian traffic as illustrated in Figure 15. Businesses may be so located as to form the following five general types of clusters:

1. **Shopping center retail sales and service clusters** are characterized by onsite parking for customer automobiles and a pedestrianized shopping environment. Uses in this category would include general merchandise stores, food stores, apparel and accessory stores, drug stores, department stores, gift shops, personal services, banks and savings and loan institutions, and restaurants (not drive-in or drive-through).
2. **Office clusters** include professional offices, medical offices, dental offices, clinics and reproduction services.
3. **Large floor area retail sales clusters** are characterized by onsite parking for customer automobiles, customer off-street loading facilities, and a limited pedestrianized shopping environment. Uses in this

category would include furniture sales, appliances sales, factory outlet stores, and garden centers.

4. **Automobile-oriented retail sales and services clusters** are characterized by sales and service to commercial customers in the automobile. These types of commercial uses are not pedestrian-oriented onsite. Uses in this category include gasoline stations, automobile sales/service, bowling alleys, car washes, drive-in theaters, drive-in banking, drive-in/drive-through restaurants, and motels.
5. **Bulk sales and construction services clusters** are characterized by onsite parking for customer automobiles, onsite outdoor areas for merchandise storage and sales, customer off-street loading facilities, and open outdoor pedestrian areas for bulk sales of merchandise. Uses in this category include building supplies, equipment sales, septic system service, and liquid petroleum gas sales/storage.

Lot Sizes, Setbacks, and Driveway Locations: Commercial lot sizes and setbacks should meet at least the minimum requirements specified by the City Zoning Ordinance. Minimum lot areas in certain designated commercial areas along arterial streets and highways should be one acre with a minimum frontage of 150 feet. The location of driveways on commercial lots should be determined from the driveway design criteria outlined in this section and the driveway location design criteria established earlier in this chapter for residential development.

Land Use Buffers: Commercial land uses should be buffered from noncommercial land uses by landscaping, fences, berms, or walls.

Internal Site Circulation

Vehicular Circulation between Adjacent Properties: Provision for circulation between adjacent commercial uses should be provided through coordinated land access drives and/or jointly used parking lots.

Onsite Vehicular Circulation: The vehicular circulation system within and around separate parcels of land should be developed so as to provide easy access to parking facilities from the larger community without destroying the safety or capacity of arterials. Vehicular pedestrian

conflicts should be avoided where possible and, where conflicts cannot be totally avoided, conflicts should be minimized. Also, delivery and service circulation patterns on the site should not conflict with customer circulation.

Onsite Queued Vehicle Storage: There should be sufficient onsite space to accommodate at least three queued vehicles waiting to park or exit the parking lot without utilizing any portion of the arterial street right-of-way or in any other way interfering with arterial street traffic and safety. For drive-up services, a queuing area to accommodate a minimum of 10 vehicles should be provided onsite.

Onsite Parking Lots

Design criteria for this element of a commercial area should follow those already established earlier for multi-family residential developments and should include the criteria listed below. Parking lots for commercial uses should also be screened from all residential areas.

Parking Lot Lighting: Parking lot lighting in commercial areas should serve four purposes. First, it should provide for the safe movement of pedestrian and vehicular traffic. Second, it should aid in the provision of an environment which promotes security and crime prevention. Third, it should aid in creating an aesthetically pleasing environment at nighttime, as well as during the daylight hours. Fourth, the lighting should assist in promoting the use of the commercial facilities both day and night.

Recommended illumination for commercial parking areas should be about 1.0 footcandle.² All other outside side lighting should be arranged and shielded to prevent glare or reflection, nuisance, inconvenience, or hazardous interference of any kind to or with adjoining streets or residential properties.

²Recommended standards are from the *Roadway Lighting Handbook* of the U. S. Department of Transportation, Federal Highway Administration, Washington, D. C., U. S. Government Printing Office, December 1978. The recommended illumination value shown is meaningful only when designed in conjunction with other elements. The most critical elements are the height of luminaire, spacing, transverse location of luminaires, luminaire selection, traffic conflict areas, border areas, transition lighting, alleys, and roadway lighting layouts.

Onsite Service and Loading Areas

Service and loading areas should be located for easy service vehicle access. Service and loading areas should not conflict with pedestrian or general vehicular traffic in the area. Also, service and loading areas which are generally not aesthetically pleasing should be so oriented or designed as to obscure visual contact with the customers.

General Landscaping

Design criteria for this element of commercial area should follow those outlined earlier for residential developments and should include the criteria listed below.

Urban Landscape Plant Selection: Landscape plantings are an important part of an attractive commercial area. Landscape plantings have functional as well as aesthetic characteristics which greatly improve a commercial area. Plantings of trees and shrubs can provide shade and shelter, act as limited noise buffers and visual screens, assist in the channeling of pedestrian and vehicular traffic, act as wind breaks, and decrease insolation (incoming solar radiation) before it reaches the ground, thus preventing reradiation (long-wave radiation) from asphalt and concrete surfaces.

Site Furniture and Amenities: Site furniture and amenities include a myriad of man-made objects which have the functions of serving pedestrian needs and adding visual variety in a commercial area. Site furniture and amenity items include lighting luminaires and posts, plant containers, street seating, fences and gates, handrails, drinking fountains, water fountains, sculpture, clocks, play equipment, bicycle racks, garbage receptacles, fire hydrants, telephone booths, bollards, kiosks, newspaper boxes, sunshading devices, parking meters, mailboxes, police and fire callboxes, and signage. The design and placement of such items should contribute to the overall design theme of the commercial area, serving an aesthetic function as well as a utilitarian function, while adding a sense of design continuity and human scale.

Above-Ground Utility Cables, Easements, Stormwater Management and Erosion/Sedimentation Control

Design criteria for these elements of a commercial area should be in conformance with the design criteria already established earlier in this chapter for residential development.

General Commercial Area Maintenance

A complete and thorough public maintenance program for public lands, as well as individual private maintenance programs in commercial areas, should be established in order to ensure attractiveness. Improvements to buildings and their continued positive appearance is dependent upon proper maintenance attitudes and procedures. However, during the urban design process, certain future maintenance requirements should be considered, including the provision of easy access for window and building facade cleaning, painting, and repairing and selecting building materials with an insight into their durability and future maintenance requirements. Maintenance programs should be established which include the staking, watering, fertilizing, spraying, weeding, pruning, replacing and generally maintaining any landscape planting areas; cleaning up litter and emptying trash containers in a timely fashion; sweeping, cleaning, and repairing paved surfaces; and the care and maintenance of site furniture, replacing broken and/or vandalized parts, and replacing of burned-out light bulbs.

CENTRAL BUSINESS DISTRICT (CBD) URBAN DESIGN CRITERIA

Vehicular Circulation

The vehicular circulation system should be developed for easy access to the West Bend CBD parking facilities from the community. Vehicular and pedestrian conflicts should be avoided where possible and, where conflicts cannot be totally avoided, conflicts should be minimized. The vehicular circulation system should provide visually pleasing experiences to the motorist.

Parking

Parking spaces in the West Bend CBD should be provided pursuant to City Zoning Ordinance requirements. The size and design of parking areas in the CBD should be such that the character of the West Bend central business district is maintained and parking areas should be attractively landscaped. The walking distance between parking and commercial areas should be minimized.

Delivery and Service Areas

Service and loading areas in the West Bend CBD should be located for easy vehicular access. Service and loading areas should not conflict

with pedestrian or vehicular traffic in the West Bend central business district. Also, service and loading areas which are generally not aesthetically pleasing should be so oriented or designed so as to obscure visual contact from customers in the area.

Pedestrian Circulation

The pedestrian circulation system in the West Bend central business district should form linkages between the various activities in the central business district area. The system should eliminate conflict with vehicular circulation or, if conflicts cannot be totally avoided, the conflicts should be minimized. Spatial sequences, movement patterns, visual aspects, and pavement texture should also be taken into consideration in the placement of new sidewalks so that the pedestrian is offered a variety of visually pleasing experiences adding to the pedestrian's overall enjoyment of the central business district area. A recommended minimum sidewalk width is five feet but can be larger depending upon the design intent. Provisions for the handicapped in sidewalk construction should also be made pursuant to Section 66.616 of the Wisconsin Statutes.

Urban Landscape Plant Selection

Landscaping plantings are an important part of an attractive CBD. Landscape plantings have functional as well as aesthetic characteristics which would improve the character of the CBD. Plantings of trees and shrubs can provide shade and shelter, act as limited noise buffers and visual screens, assist in the channeling of pedestrian and vehicular traffic, act as wind breaks, and decrease insolation before it reaches the ground, thus preventing reradiation (long-wave radiation) from asphalt and concrete surfaces, as shown in Figure 16.

Street Lighting

Generally, primary lighting luminaires in the CBD should be mounted on decorative posts at a height of 10 to 15 feet. This height allows for the lighting to relate to both human and building scale. Lighting fixtures or luminaires should be placed so that light overlaps at a height of about seven feet. Post and luminaire designed with colorful banners or hanging planters should reflect the overall character of the West Bend central business district. Recommended overall illumination for the West Bend central business district area should be about 2.0 footcandles.

Street Furniture

Street furniture includes a myriad of man-made objects which serve the functions of adding variety and serving pedestrian needs in a central business district area. Street furniture items include lighting luminaires and posts, plant containers, street seating, fences and gates, handrails, drinking fountains, water fountains, sculptures, clocks, play equipment, bicycle racks, garbage receptacles, fire hydrants, telephone booths, bollards, kiosks, newspaper boxes, sunshading devices, parking meters, mailboxes, police and fire callboxes, and signage. The design and placement of such items should contribute to the overall design theme of the West Bend central business district, serving an aesthetic function as well as a utilitarian function, while adding a sense of design continuity and human scale to the CBD area.

Above-Ground Utility Wires, Mechanical Equipment, and Dumpsters

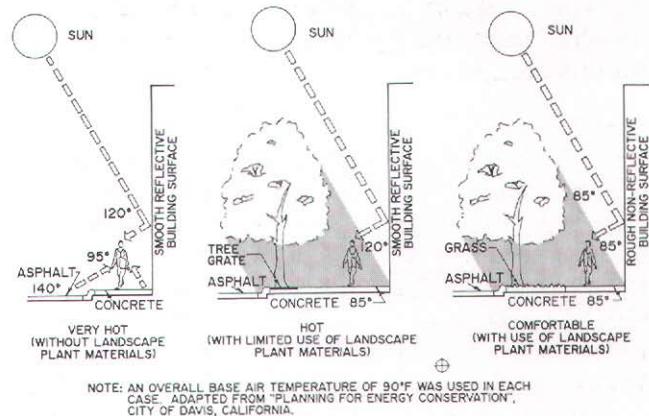
In the CBD, the relocation of above-ground utilities either underground or, where possible, to alleys or the rear of properties, should be considered since these wires detract from the overall appearance of the West Bend CBD and typically add to visual clutter. Dumpsters and mechanical equipment should also be installed so as to be unobtrusive and/or shielded from view. Dumpsters should be screened from public view and adjacent properties on at least three sides by a solid fence or wall. The height of the fence or wall should extend at least one foot above the top of the dumpster, and plantings should be provided adjacent to the structure. Rooftop and at-grade mechanical equipment should also be effectively screened from public view.

General Maintenance

A complete and thorough public maintenance program, as well as private maintenance programs in the central business district, should be established and maintained in order to ensure the attractiveness of the area. Improvements to building facades and their continued positive appearance is dependent upon proper maintenance attitudes and procedures. However, during the urban design process, certain future maintenance requirements should be considered, including the provision of easy access for window and facade cleaning, painting, and repairing and selecting building materials for their durability and future maintenance requirements. A maintenance program should be established or

Figure 16

EFFECT OF LANDSCAPE PLANTINGS ON AIR TEMPERATURE AND PEDESTRIAN COMFORT



Source: SEWRPC.

maintained which includes the watering, maintenance, and pruning of any landscaping planting areas; cleaning up litter and emptying of trash containers in a timely fashion; sweeping, cleaning, and repairing paved surfaces; and the care and maintenance of street furniture, replacing broken and/or vandalized parts, and burned-out light bulbs.

COMMERCIAL AND CENTRAL BUSINESS DISTRICT ARCHITECTURAL DESIGN

Commercial Streetscape Facades

The structural shapes of buildings, their proportions, the placement of openings such as door or windows, the placement of signs, and various other building details all contribute to the overall commercial streetscape appearance. Although the building facades of two adjacent buildings may be different, their overall appearance can be made compatible through the proper use of these visual elements. Individual building facade treatment plans should be developed based, in part, upon the design character of the surrounding commercial area and the various urban design criteria developed herein, thus assuring a degree of compatibility of architectural design with neighboring structures.

Canopies and awnings, in addition to providing shade from direct sunlight and providing protection to pedestrians from elements of the weather, can both preserve and promote the overall visual

horizontal continuity of the West Bend central business district and can assist in the development of a uniform and visually compatible signage system. Maintaining the cornice or soffit line of a building or group of buildings also assists in assuring horizontal continuity and maintaining scale.

Yards

Front, rear, and side yards should be kept clean and proper garbage receptacles used. Other unsightly features should be covered from view in a creative fashion. Entrances which are used by the general public should provide a walkway which exhibits safe and attractive features including landscape plantings when practicable. Where a building site and/or yard is exposed to public view, consideration of its impact on the surrounding area. Setbacks should be determined by the City of West Bend Zoning Ordinance.

Urban Scale and Mass

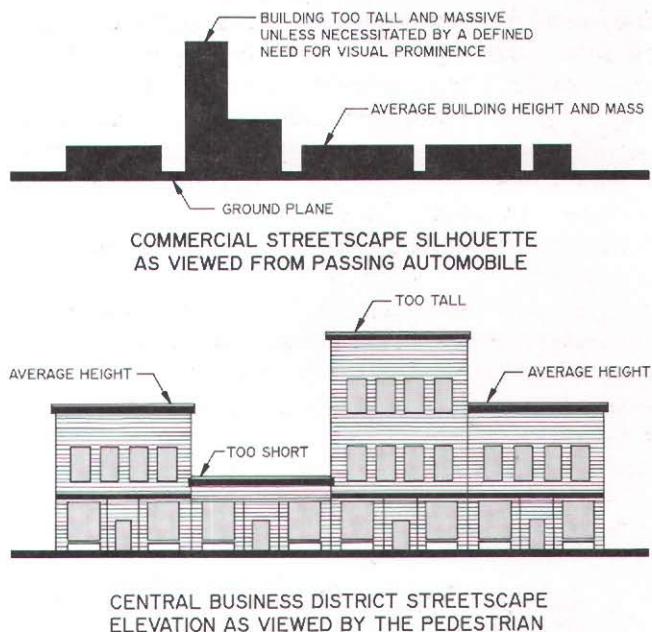
The relative proportion or scale of a building compared to neighboring buildings, the effect of a building on a pedestrian or observer, or the relation of a building to the surrounding area in general, should be considered when new commercial buildings are built or when existing commercial buildings are remodeled or altered. A number of visual elements which contribute to this overall scale and mass in commercial areas include the visual rhythm and proportion of the elements of the building facades, the architectural detailing, the visual directional emphasis of the streetscape (which can either be horizontal or vertical), the symmetrical or asymmetrical character of the building facades, the mass of individual buildings, the presence or absence of landscape planting materials, the size and configuration of site open spaces, the use of building materials, the use of color, building height and width, and the presence or absence of street furniture. These elements of urban scale and mass should be considered whenever possible to create an attractive environment. Figure 17 illustrates an example of the relationship of urban scale to the commercial streetscape.

Streetscape Rooflines and Roof Shapes

The upper edges of building roofs or rooflines visually define the upper edge or height of the building and/or streetscape. The visual continuity of these roofline urban design elements should be maintained if warranted and building

Figure 17

URBAN SCALE AND MASS OF COMMERCIAL BUILDINGS



CENTRAL BUSINESS DISTRICT STREETSCAPE ELEVATION AS VIEWED BY THE PEDESTRIAN

Source: SEWRPC.

development or redevelopment with opposing rooflines should be discouraged. Figure 18 illustrates the relationship of rooflines and roof shapes to an overall commercial streetscape.

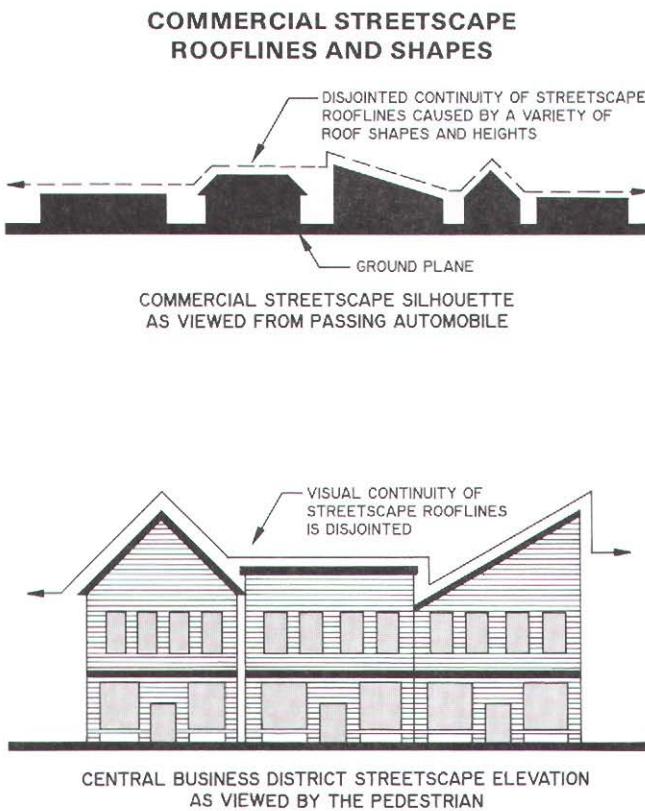
Materials

Material selection for both architectural and landscape design in commercial areas should be based upon several areas of concern including material unity, the atmosphere desired, the material composition of surrounding buildings and landscape features, the material compatibility with other materials, and climatic considerations. Since the primary exterior materials used in the West Bend CBD are primarily natural stone, brick masonry, concrete masonry, wood and, to a limited extent, concrete, deviation from these materials should be minimized. Through the use of these predominant materials, the overall building facade texture of the central business district will also be maintained. Conflicting material use and relationships such as those shown in Figure 19 should be avoided.

Colors

The selection of colors for privately owned commercial buildings is generally an individual decision. However, the use of colors does have

Figure 18



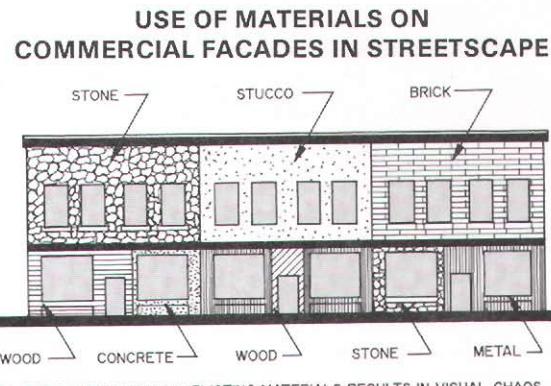
Source: SEWRPC.

significant effect upon the overall appearance of a commercial area. Colors should be selected based upon both the colors of the existing the surrounding man-made environment and natural environment. Colors should be selected based upon the colors of existing wood and exposed stone and masonry buildings and should blend well with these given existing colors. "Earthy" colors, which are the reds, browns, soft greens, and beiges, would be appropriate, considering the colors of many of the existing central business district buildings. Colors which clash with the overall visual character of the CBD should be avoided.

Architectural Details

Architectural details and building ornamentation (if present) often represent historic elements of architecture and are important components of the overall character of a commercial area. The distinctiveness of older commercial buildings is directly associated with their architectural details. Unsympathetic design changes on a building can destroy both the architectural character of a building and the overall commer-

Figure 19



Source: SEWRPC.

cial streetscape as well. Significant architectural details, where they exist, should not be lost in rehabilitation or "modernization" of existing buildings. Remodeling efforts should attempt to retain any rich architectural details. However, efforts to transform an existing building into an earlier period through the use of details that were not originally used on the structure do not usually retain the original architectural integrity of the building. Consequently, if there is an introduction of modern detail or a mixture of old and new parts on the building, the overall visual character of the building should not be spoiled.

Accessory Buildings and Structures

Accessory buildings and structures in commercial areas should be compatible with principal structures in terms of building facade character, scale and mass, rooflines and roof shapes, materials, colors, and architectural details, particularly if these accessory structures are visible from public areas.

Signage

In addition to conforming with the rules and regulations of the City's sign ordinance, signs should be designed so that they are in keeping with the overall character of the area and its buildings. Lettering on signs in the West Bend central business district should be functional as well as visually pleasing. Truly functional lettering is of a typeface which is properly spaced, easy to read, and makes its message clear from the distance it is intended to be read. Generally, the fewer the words on a sign, the more likely people will be able to read it with ease.

Since the facades of buildings in the West Bend central business district are predominantly flat storefronts and are oriented parallel to central business district streets, flush-mounted face signs should be used. Standard "franchise" and "brand name" signs should be avoided.

Signs should be placed in visually pleasing and logical places of the facade, which can include areas of the building facade which are void of openings, projections, and architectural details. Signage height should be consistent between stores in the same city block streetscape.

Chapter VII

YEAR 2010 COMMUNITY LAND USE AND FACILITY REQUIREMENTS

INTRODUCTION

The objectives, principles, standards, and related urban design criteria set forth in Chapter VI express the physical development goals of the City of West Bend and environs and provide the supporting rationale for those goals. The standards and urban design criteria are thus intended to be used as a basis for generating and evaluating alternative land use plans and identifying from among the alternatives considered a recommended plan, a plan which best meets the stated objectives. The standards perform a particularly important function in the plan formulation process since they are utilized to identify future land use and facility requirements. The standards formulated consist of two types: comparative and absolute. Comparative standards can be applied only through a comparison of alternative plan proposals. Absolute standards can be applied individually to each alternative plan proposal since they are expressed in terms of maximum, minimum, or desirable values.

As part of the land use planning process, the standards listed in Chapter VI were applied with the selected population and employment levels presented in Chapter II to estimate the land use requirements to be met in the plan design. In addition, certain recommendations contained in adopted regional plans were incorporated into the plan design. The urban land use and community facility requirements thus developed for the urban service area and used in the land use plan design process are described in the following paragraphs.

URBAN LAND USE REQUIREMENTS

The urban land use requirements of the future resident population and employment levels of the City of West Bend urban service area were determined by applying two basic types of standards: land use allocation standards, expressed as the number of acres of a given land use category per hundred dwelling units, per hundred employees, or per thousand resident population, and accessibility standards, expressed as maximum service area radii for certain sites, land uses, and facilities. The

former standards were intended to help estimate the total number of acres of land needed to satisfy each urban land use requirement of the population and economy to the year 2010. The accessibility standards were intended to assure that the land allocations are spatially distributed in a manner convenient and efficient to the population and economic activities which they are intended to serve. The allocation and accessibility standards utilized, as set forth in Chapter VI, are thus embodied in each of the plans presented in Chapter VIII.

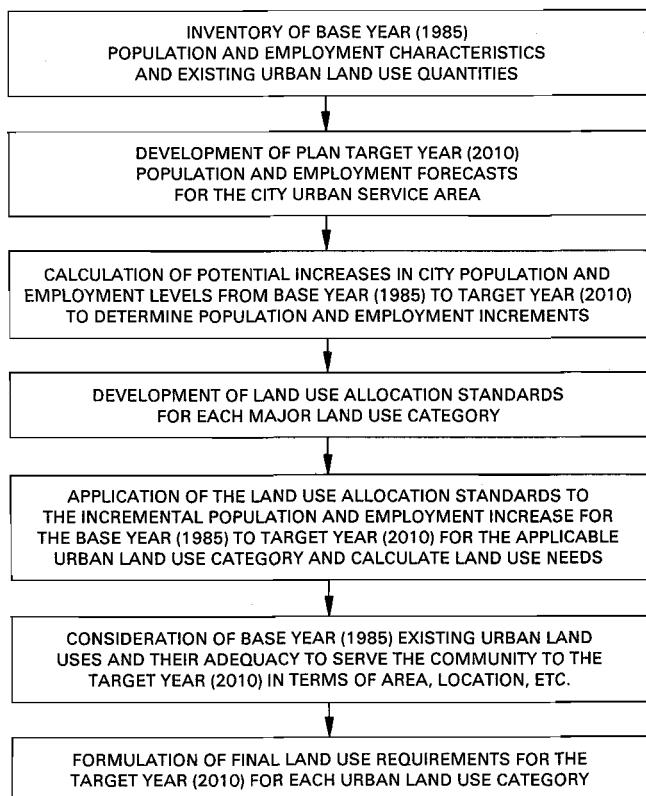
It should be recognized that in some situations, while land use allocation standards may be met, a need may still exist for additional sites or facilities, because of the need to accommodate future potential expansion on the sites and in the areas identified or because of the relative inaccessibility or distance of an existing use or facility from some of the resident population in the urban service area. The process used to determine the year 2010 urban land use requirements of the City urban service area is graphically illustrated in Figure 20.

Table 36 summarizes future urban land use requirements for the urban service area to the plan design year 2010. The table is based upon the land use standards set forth under both Land Use Allocation Objective No. 1 and also in Table 30 of Chapter VI for residential, commercial, industrial, governmental/institutional, and recreational development. It should be recognized that while forecasts of future population and employment levels must be prepared in order to apply the land use standards, these forecasts involve uncertainty and must, therefore, be used with caution and be tempered by experienced judgment and local knowledge. Forecasts cannot take into account events which, though unpredictable, may have major effects upon future conditions. The validity of the need determined through the application of the standards to forecast population and employment levels must, therefore, be periodically reexamined by the City Plan Commission.

While many of the objectives and standards applied in the plan design process relate to the resident population and work force to be served,

Figure 20

PROCESS USED FOR DETERMINING YEAR 2010 URBAN LAND USE REQUIREMENTS FOR THE CITY OF WEST BEND URBAN SERVICE AREA



Source: SEWRPC.

one of the most important of the objectives, the preservation and protection of the underlying and sustaining natural resource base, is, in effect, independent of any resident population level. Preservation of the environmental corridors within the planning area in an essentially open, natural state and preservation in agricultural use of those important agricultural lands not required to meet the urban land use needs of the resident population are both required to achieve this extremely important objective.

The land needs for each urban land use category as set forth in Table 36 were determined by applying the appropriate land use development standard to the forecast population and employment increments to the year 2010, as indicated earlier in Figure 20. Table 36 indicates that about 2,721 acres of rural and other undeveloped open lands may need to be converted in the West Bend area to urban use by the year 2010. This

table is expressed in terms of the gross area needed for each given land use category. This gross area, by definition, includes supporting public street rights-of-way and related off-street parking areas.

Residential Development

Table 36 indicates that approximately 1,636 acres of additional land will be needed in the City urban service area to accommodate the housing needs of a forecast population level of about 35,000 persons, slightly higher than the intermediate forecast population level of about 32,050, by the year 2010. Table 37 indicates that an additional 5,535 dwelling units would be required to accommodate this population increase.

Table 37 provides a comparison of the City's 1985 housing mix with the City's desired housing mix for the plan design year 2010. This table indicates the proportion which must be allocated to each residential category in order to meet the City's desired housing unit mix as identified in the housing standards set forth in Chapter VI under Housing Objective No. 8. In turn, the development standards set forth in Table 36 were applied to the estimated number of dwelling units to calculate the amount of land that will be needed to accommodate each housing type by the year 2010.

As shown in Tables 36 and 37, the number of dwelling units needed was broken down into seven classifications of residential dwelling unit densities to provide a wide range of housing choice in the urban service area. The "rural estate" and "suburban" residential land uses are included in the low-density residential category since these lots may be expected to be converted into low-density "urban" single-family residential areas. Even though these tables do not plan for large lots classified as "rural estate" or "suburban" residential land uses in the City of West Bend urban service area, this does not imply that such lots will not exist in the urban service area in the year 2010. Lots of 1.5 acres or larger may exist in the urban service area as a result of farm consolidation or as a result of the creation of large lots in environmental corridors and isolated natural areas. The other five ranges of residential densities and their attendant incremental acreage and dwelling unit needs to the year 2010 are summarized in Table 37. As indicated in this table, there will be a need for an additional 167 acres, or about

Table 36

FUTURE SELECTED URBAN LAND USE REQUIREMENTS FOR THE CITY OF WEST BEND URBAN SERVICE AREA

Urban Land Use Category	1985 Gross Area ^a (acres)	Percent of Total 1985 Gross Area	1985 Estimates ^b	1985 Development Ratios	Development Standards	Planned Increment 1985-2010 ^c	Required Incremental Land Use Acresages as per Development Standards	Required Incremental Land Use Acresages After Consideration of 1985 Gross Acres ^d	2010 Forecasts ^b	Total Gross Land Requirements 2010 ^e	
										Acres	Percent
Residential											
Single-Family Dwellings											
Rural Estate (5.0-acre lots or greater)	1.6 ^g	0.1	6 persons in 2 dwelling units	750 acres per 100 dwelling units	588 acres per 100 dwelling units	0	0.0	0.0 ^f	0	0.0 ^g	0.0
Suburban (1.5- to 4.9-acre lots)	4.8	0.2	10 persons in 3 dwelling units	160 acres per 100 dwelling units	204 acres per 100 dwelling units	0	0.0	0.0 ^f	0	0.0 ^g	0.0
Low Density (20,000- to 65,399-square-foot lots)	104.2	3.5	408 persons in 130 dwelling units	80 acres per 100 dwelling units	109 acres per 100 dwelling units	128 dwelling units	139.5	167.4	802 persons in 263 dwelling units	278.0 ^g	4.9
Medium Density (7,200- to 19,999-square-foot lots)	1,410.8	48.0	14,067 persons in 4,480 dwelling units	32 acres per 100 dwelling units	32 acres per 100 dwelling units	2,479 dwelling units	793.3	952.0	21,212 persons in 6,959 dwelling units	2,362.8	41.8
Single-Family Dwelling Subtotal	1,521.4	51.8	14,491 persons in 4,615 dwelling units	33 acres per 100 dwelling units	--	2,807 dwelling units	932.8	1,119.4	22,014 persons in 7,222 dwelling units	2,640.8	46.7
Two-Family Dwellings (6.1 to 10.9 dwelling units per net residential acre)	176.7	6.0	3,894 persons in 1,240 dwelling units	14 acres per 100 dwelling units	17 acres per 100 dwelling units	598 dwelling units	101.7	122.0	5,603 persons in 1,838 dwelling units	298.7	5.3
Multi-Family Dwellings											
Medium-High Density (6.1 to 10.9 dwelling units per net residential acre)	9.6	0.3	119 persons in 70 dwelling units	14 acres per 100 dwelling units	17 acres per 100 dwelling units	1,374 dwelling units	233.6	280.3	2,267 persons in 1,444 dwelling units	289.9	5.1
High Density (11.0 to 15.0 dwelling units per net residential acre)	159.9	5.5	2,839 persons in 1,870 dwelling units	10 acres per 100 dwelling units	10 acres per 100 dwelling units	958 dwelling units	95.6	114.7	4,123 persons in 2,626 dwelling units	274.6	4.8
Multi-Family Dwelling Subtotal	169.5	5.8	2,958 persons in 1,740 dwelling units	10 acres per 100 dwelling units	--	2,330 dwelling units	329.2	395.0	6,390 persons in 4,070 dwelling units	564.5	9.9
Residential Subtotal	1,867.6	63.6	21,342 persons in 7,595 dwelling units ^h	25 acres per 100 dwelling units	--	5,535 dwelling units	1,363.7	1,636.4	34,007 persons in 13,130 dwelling units ^h	3,504.0	61.9
Commercial	309.3	10.5	5,080 employees ^j	6.1 acres per 100 employees	6 acres per 100 employees	2,380 employees ^j	142.8	142.8	7,460 employees ^j	452.1	8.0
Industrial	214.7	7.3	4,115 employees	5.2 acres per 100 employees	9 acres per 100 employees	3,620 employees	325.8	481.5 ^k	7,735 employees	696.2	12.3
Governmental and Institutional	448.0	15.3	21,993 persons	20.4 acres per 1,000 persons	12 acres per 1,000 persons	13,007 persons	156.1	156.1	36,000 persons	604.1	10.7
Recreational ^l	97.2	3.3	21,993 persons	4.4 acres per 1,000 persons	6.4 acres per 1,000 persons	13,007 persons	83.3	304.0 ^m	35,000 persons	401.2 ^m	7.1
Total	2,936.8	100.0	--	--	--	--	--	2,720.8	--	5,657.6	100.0

^aGross area includes associated street rights-of-way and off-street parking areas for each land use category. The 1985 gross area pertains to the urban land uses within the City corporate limits.^bEven though the estimated average household size was 2.81 persons per dwelling unit in the City of West Bend in 1985, the estimated household size that was used to estimate the total population for each type of residential classification was 3.14 person per single- and two-family dwelling unit, and 1.70 persons per multi-family dwelling units based on information provided by the City of West Bend Community Development Department. Since the 1985 average household size is forecast to decrease to 2.59 persons per occupied dwelling unit in the City urban service area by the year 2010 under the intermediate future scenario, it is assumed that the household size for each type of dwelling unit would also proportionately decrease to approximately 3.05 persons per single- and two-family dwelling unit, and approximately 1.57 persons per multi-family dwelling unit. These figures were used to estimate the forecast population per residential classification in the City urban service area.^cSee Table 37 for further details on how the planned increments for the residential land use categories were derived.^dThe figures in each residential land use category include 20 percent of additional acreage to allow for site suitability and market choice of housing type.^eRepresents two occupied residential lots totaling 15 acres; however, only 1.6 acres of the developed residential portion of these lots are included in this category. The other 13.4 acres were nonurban land uses, such as agricultural and other open lands.^fEven though the table does not plan for large lots classified as "rural estate" or "suburban" residential lots that are 1.5 acres or greater, this does not imply that such lots will not exist in the City of West Bend urban service area in the design year 2010. These large lots may exist due to farm consolidation and the preservation of environmentally sensitive natural resources.^gThe 1.6 acres of rural estate residential areas and 4.8 acres of suburban residential areas are included in the low density residential category since these areas may be converted into a low density "urban" type of residential land use character.^hThe total 1985 population figure in this land use category is less than the entire total population of 21,993 persons estimated within the City of West Bend in 1985 since it does not include the estimated 3 percent of the population that lived in either dwelling units located in commercial buildings or those that lived in group-quarters. For the same reasons, the total forecast population in the residential land use category is also approximately 3 percent less than the total selected forecast population of 35,000 persons for the entire City of West Bend urban service area by the year 2010.ⁱAlthough the forecast incremental population increase is 13,007 persons between 1985 and 2010, there will be an increase of 5,535 dwelling units, accommodating approximately 14,336 persons due to the decrease in the average number of persons per dwelling unit from about 2.81 in 1985 to about 2.59 in 2010.^jThe estimated total of commercial employees includes service and retail trade types of employment.^kBased on the recent trend of existing industrial uses relocating to larger parcels of land where the amount of land required per employee has increased, the industrial development standard of 9 acres per industrial employee was applied to the total forecast of 7,735 industrial employees. It is assumed that existing industrial lands will either be operated by fewer employees or be redeveloped for other type of land uses.^lThis category includes only areas for intensive outdoor recreational activities.^mThis number includes 278 acres of new park areas as recommended in the adopted SEWRPC Community Assistance Planning Report No. 111, A Park and Open Space Plan for the City of West Bend, plus 26 acres of additional areas to be added to existing city parks.

Source: Wisconsin Department of Administration; Wisconsin Department of Industry, Labor and Human Relations; and SEWRPC.

Table 37

**SUMMARY OF RESIDENTIAL LAND USE AND DWELLING UNIT REQUIREMENTS
FOR THE CITY OF WEST BEND URBAN SERVICE AREA: 1985-2010**

Category	Year 1985				Planned Increment: 1985-2010				Year 2010			
	Gross Area ^a		Estimated Dwelling Units		Incremental Land Use ^a		Incremental Dwelling Units		Total Land Requirement ^a		Forecast Dwelling Units	
	Acres	Percent of Total	Number	Percent of Total	Acres	Percent of Total	Number	Percent of Total	Acres	Percent of Total	Number	Percent of Total ^b
Single-Family Dwellings												
Rural Estate (5.0-acre lots or greater)	1.6	0.1	2	. . . ^c	0.0	0.0	0 ^d	0.0	0.0	0.0	0 ^d	0.0
Suburban (1.5- to 4.9-acre lots)	4.8	0.3	3	. . . ^c	0.0	0.0	0 ^d	0.0	0.0	0.0	0 ^d	0.0
Low Density (20,000- to 65,399-square-foot lots) . . .	104.2	5.6	130	1.7	167.4	10.2	128 ^d	2.3	278.0	8.0	263 ^d	2.0
Medium Density (7,200- to 19,999-square-foot lots) . . .	1,410.8	75.5	4,480	59.0	952.0	58.2	2,479	44.8	2,362.8	67.4	6,959	53.0
Subtotal	1,521.4	81.5	4,615	60.8	1,119.4	68.4	2,607	47.1	2,640.8	75.4	7,222	55.0
Two-Family Dwellings (6.1 to 10.9 dwelling units per net residential acre) . . .	176.7	9.4	1,240	16.3	122.0	7.5	598	10.8	298.7	8.5	1,838	14.0
Multi-Family Dwellings												
Medium-High Density (6.1 to 10.9 dwelling units per net residential acre) . . .	9.6	0.5	70	0.9	280.3	17.1	1,374	24.8	289.9	8.3	1,444	11.0
High Density (11.0 to 15.0 dwelling units per net residential acre) . . .	159.9	8.6	1,670	22.0	114.7	7.0	956	17.3	274.6	7.8	2,626	20.0
Subtotal	169.5	9.1	1,740	22.9	395.0	24.1	2,330	42.1	584.5	16.1	4,070	31.0
Total	1,867.6	100.0	7,595 ^e	100.0	1,636.4	100.0	5,535	100.0	3,504.0	100.0	13,130 ^e	100.0

^aIncludes associated street right-of-way and off-street parking area. The 1985 gross area pertains to the residential land uses located in the City corporate limits.

^bThe percent breakdown of dwelling unit types is from the residential dwelling unit standards established in Chapter VI.

^cLess than 0.05 percent.

^dThe two rural-estate and three suburban-residential dwelling units are included in the low-density residential category since the lots on which these units are located may be converted into a low-density "urban" type of residential land use character. Although the table does not plan for dwelling units to be located on large lots classified as "rural estate" or "suburban" residential lots that are 1.5 acres or greater, this does not imply that such lots may not exist in the City urban service area in the year 2010. Such large lots may result from farm consolidation and the preservation of significant environmentally sensitive natural resources.

^eThese figures do not include dwelling units located in commercial buildings.

Source: SEWRPC.

128 dwelling units in low-density residential development, on 20,000- to 65,399-square-foot single-family residential lots. This represents 10 percent of the total year 2010 incremental residential land use needs. Some 952 acres, or about 2,479 dwelling units in medium-density residential development, on 7,200- to 19,999-square-foot single-family residential lots will be needed, representing about 58 percent of the total year 2010 incremental residential land use needs. Some 122 acres, or about 598 two-family type dwelling units, ranging from 6.1 to 10.9 dwelling units per net residential acre, will be needed. This is about 8 percent of the total year 2010 incremental residential land use needs. An

additional 280 acres, or about 1,374 multi-family dwelling units in medium-high-density residential development, or about 17 percent of the total year 2010 incremental residential land use needs, will be needed. Some 115 acres, or about 956 multi-family dwelling units in high-density residential development with 11.0 to 15.0 dwelling units per net residential acre, will be needed. This represents about 7 percent of the total year 2010 incremental residential land use needs. As reflected in Table 36, new residential growth will generate additional urban land needs in other land use categories, including commercial, industrial, governmental and institutional, and recreational uses.

Commercial Development

To meet the forecast increase in commercial retail and service employment within the West Bend urban service area of about 2,380 additional jobs by the year 2010, to a total of about 7,460 such jobs, an additional 143 acres of commercial land will be needed, as indicated in Table 36. This represents an increase of about 46 percent over the 1985 level of about 309 acres of commercial land uses. These additional commercial lands should be located within the urban service area in accordance with the objectives and standards outlined earlier in Chapter VI.

Industrial Development

Table 36 indicates that about 482 additional acres of industrial development will be needed in the City by the year 2010. This is an increase of about 224 percent over the 1985 level of 215 acres of industry-related land uses. This increase is due to the recent trend of existing industries relocating to larger lots because the amount of land required per employee is increasing and also due to the anticipated increase in industrial employment from about 4,115 jobs in 1985 to about 7,735 jobs in the year 2010, an increase of about 3,620 jobs, or about 88 percent. The application of the objectives and standards set forth in Chapter VI would provide about nine gross acres of industrial land for each 100 industrial employees. This gross area would provide adequate space not only for primary industrial buildings but also for accessory buildings and related off-street parking facilities for employees and visitors. In general, new industrial uses should be located near supporting transportation facilities, such as railways, and major arterial streets and highways, and near sewer and water supply facilities, according to the objectives and standards set forth in Chapter VI.

Governmental and Institutional Development

As indicated in Table 36, the City of West Bend may be expected to need to expand the land area currently occupied by governmental and institutional land uses by about 156 acres, an increase of about 35 percent over the 1985 level of about 448 acres. The additional required land for governmental and institutional uses may be expected to be occupied by fire stations, churches, health-care facilities, day-care facilities, and other public- and private-sector institutional uses.

Recreational Development

SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000; SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County; and SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for The City of West Bend, all contain specific recommendations intended to address the needs of the City. These recommendations concern the preservation of primary and secondary environmental corridors and prime agricultural lands and the provision of resource-oriented and nonresource-oriented recreation sites and facilities. Based upon the analysis presented in Table 36, the urban service area will require about 304 acres of additional recreational lands for nonresource-oriented recreation, an increase of about 313 percent over the 1985 recreational land area of about 97 acres. This total amount of incremental recreational land use needs includes the additional acreages recommended for the expansion of existing parks and the development of new parks set forth in the previously mentioned adopted park and open space plan for the City of West Bend.

TRANSPORTATION SYSTEM

Transportation facilities are among the most critical elements influencing the spatial distribution of urban development within an area. The relative availability of transportation facilities will influence the path and mode as well as the frequency of personal travel. The accessibility of a site to concentrations of population and employment and to community facilities and services will influence the type and intensity of its development. This accessibility is, in turn, a function of the transportation system. Thus, transportation facilities are an important determinant of the location and form of urban development and, to a considerable extent, determine the efficiency of all other functional elements of such development.

Arterial Street and Highway System Plan

The transportation system is herein regarded only as a land use, but a very important one. The arterial street system provides the framework for land use development in the West Bend area. In this respect, the arterial street and highway system serves several important functions. It

provides for the free movement of traffic throughout the planning area and for the ready access of this traffic through connecting collector and land access streets to the various land uses within the planning area. In addition, the arterial street and highway system, together with the collector and land access streets, serves as an important part of the urban stormwater drainage system; a location for utilities serving the various land uses; and as open space, admitting light and air to building sites.

It is important to note that this presentation of the arterial street and highway system as a framework for land use plan design is not a substitute for a detailed arterial street and highway system plan for the City of West Bend and environs. The presentation of the system given here identifies the location and configuration of the arterial facilities, the number of traffic lanes required on the various segments of the system, and, through typical cross-sections, provides an indication of the right-of-way widths required between intersections. This presentation does not, however, address the treatment of the intersections and such factors as the need for dedicated left- and right-turn lanes, the need for channelization, and the need for signalization, all of particular importance in the West Bend area. Nor does this presentation consider the need for medians and such factors as the spacing of median openings, the relationship of such openings to driveway locations, and the issue of driveway locations in general. Proper consideration of these and other related matters requires the preparation of a detailed arterial street and highway system plan as a separate element of the evolving comprehensive plan for the West Bend area. The City of West Bend Transportation System Plan Advisory Committee, with the assistance of the staff of the Southeastern Wisconsin Regional Planning Commission, is currently preparing such a plan which would not only complement the land use plan provided here, but also the local transit system plan described below.

In the preparation of the land use plan, all existing transportation plans relating to the West Bend area were considered. These plans are described below.

Jurisdictional Highway System Plan: The arterial street and highway facilities required to serve the probable future traffic demands to the

year 2000 within the City of West Bend planning area, as recommended in an amendment to SEWRPC Planning Report No. 23, A Jurisdictional Highway System Plan For Washington County, are shown on Map 4 in Chapter I. On this map state trunk highways are shown in red, county trunk highways in blue, and local trunk highways in green. This plan also indicates the number of traffic lanes needed for each arterial street segment in the West Bend area in order to carry the anticipated arterial traffic volumes through the design year 2000. Figure 5 in Chapter VI illustrates the types of street cross-sections which could be used to accommodate the proposed number of traffic lanes recommended on Map 4.

Mass Transit System

Another element of the comprehensive plan for the City closely related to the arterial street and highway system plan and to the land use plan is the transit system plan. To be comprehensive, transportation planning should consider all modes of travel, with particular emphasis on how those modes may affect utilization of the arterial street and highway system. If a balanced transportation system is to be designed with each mode of transportation assigned that portion of the total travel demand which it is best able to carry, then careful attention should be given to the existing and potential use of mass transit facilities.

Car-Pooling Plan: The adopted regional transportation system plan, set forth in SEWRPC Planning Report No. 25, A Regional Land Use Plan and A Regional Transportation Plan For Southeastern Wisconsin—2000, recommends that a "park and pool" lot be provided near the USH 45 and Paradise Drive interchange in the City of West Bend planning area. To date, the facility has not been developed. The promotion of car-pooling reduces the vehicular travel demand, saving motor fuel and reducing the demand for capital investment in arterial street and highway improvements.

Regional Transit System Plan: Under recommendations contained in SEWRPC Planning Report No. 33, A Primary Transit System Plan for the Milwaukee Area, transit service would be extended to those parts of the Region expected to be developed at urban densities over the plan design period. Within the West Bend area, express bus transit service would be provided

between the City of West Bend and the greater Milwaukee area. This service would be provided by buses operating in mixed traffic over freeways such as the USH 45 West Bend Freeway and over surface arterials such as Main Street and Paradise Drive. Under this planned system which, while widely implemented in the Milwaukee area, has not been as yet extended to the West Bend area, transit stations with parking facilities would be located within the West Bend planning area near the intersections of Main and Washington Streets, and at USH 45 and Paradise Drive. The latter parking facility would also function as the "park and pool" lot mentioned above.

City of West Bend Local Transit System Plan: On April 22, 1991, the City of West Bend Common Council adopted a study on the feasibility of providing local public transit service in the West Bend area. The findings and recommendations of this study are documented in SEWRPC Community Assistance Planning Report No. 189, **City of West Bend Transit System Feasibility Study and Development Plan: 1992-1996**. The study stemmed from concerns over the ability of the limited taxicab and specialized transportation services available within the City to serve the growing population adequately and, in particular, the growing elderly segment of the population in need of public transportation. The study identified the public transit needs of the resident population of the City, identified alternative public transit services which could be provided in response to the identified needs, and presented a recommended plan that could be used to guide the development of an appropriate level of public transit service in the West Bend area.

The results of this analysis and evaluation of alternatives indicated that institution of either fixed-route or shared-ride taxicab transit services would be feasible in the West Bend area. The ultimate transit system development plan embraced by the West Bend Mass Transportation Citizens and Technical Coordinating and Advisory Committee, created by the City to oversee the conduct of the study, sets forth specific recommendations for the establishment of demand-responsive shared-ride taxicab service in the West Bend area. After considering the major advantages and disadvantages of private and public management structures, the Advisory Committee recommended that any public transit

system established be operated by a private transit operator selected on the basis of competitive bids. It also recommended that the City ultimately own the necessary transit system operating equipment. Since local officials took favorable action toward the establishment of the shared-ride taxicab system in West Bend, as recommended in the study, the transit system could be eligible for both federal and state funding under available transit assistance programs.

Railway Facilities: Within the City of West Bend planning area in 1990, railway freight service was provided by the Fox River Valley Railroad Company. This common carrier railway service is provided over the railway's main line from Milwaukee to Green Bay via Fond du Lac, the former Chicago & North Western Railway line. The Fox River Valley line passes through the City of West Bend, generally along the east side of Milwaukee River, and can serve as a focus for the location of certain land uses.

Airport System Plan: As already noted in Chapter IV, the adopted regional airport system plan, documented in SEWRPC Planning Report No. 38, **A Regional Airport System Plan for Southeastern Wisconsin: 2010**, May 1987, contains specific recommendations for the improvement of each of the 11 public-use airports, including the West Bend Municipal Airport, that comprise the regional airport system. This plan was adopted by the City of West Bend Common Council on October 19, 1987. Map 27 shows the recommended site improvement plan for the West Bend Municipal Airport. That plan seeks to upgrade the airport from a General Utility-Stage I facility to a General Utility-Stage II facility that would be capable of accommodating all types of business jets. As further noted in Chapter IV, the City of West Bend, owner of the airport, together with the Wisconsin Department of Transportation and the Federal Aviation Administration, has been working toward the implementation of the recommended improvements. On October 4, 1989, the Federal Aviation Administration, as recommended in the adopted regional airport system plan, designated the West Bend Municipal Airport as a reliever facility to Milwaukee County's General Mitchell International Airport. Reliever status will provide additional opportunities for financial assistance for eligible capital improvements and land acquisition as identified in the regional airport system plan for the West Bend Municipal Airport.

COMMUNITY FACILITY NEEDS

In addition to providing guidance for land use development within the City of West Bend planning area, this plan is also intended to provide guidance regarding land requirements for certain community facilities. Accordingly, estimates of land requirements for public schools, City Hall facilities, fire stations, and the public library are herein provided. Further in-depth studies of the requirements for each of these community facilities to validate and further refine the preliminary requirements herein set forth will be necessary before any expansion is considered further. An assessment of the long-term qualitative and quantitative needs of these facilities should be conducted at least once every ten years so the community can plan for the level of services it wishes to provide.

Public Schools

As shown on Map 25 in Chapter IV, the City of West Bend planning area lies within the boundaries of three school districts: the West Bend School District, the Slinger School District, and the Kewaskum School District. The district which would have the most significance in the land use planning process for the City of West Bend urban service area is the West Bend School District, because the future urban service area would most likely be located largely, if not entirely, in this district. Therefore, any educational facility expansion planned for the West Bend School District will probably occur within the urban service area of the City. The portion of the West Bend planning area located within the West Bend School District in the 1988-1989 school year was only about 53 percent of the total area of the School District, which covers about 100 square miles. Ten public schools are located within the West Bend School District: West Bend East and West High Schools, Badger Middle School, Silverbrook Middle School, Barton Elementary School, Decorah Elementary School, Fair Park Elementary School, Green Tree Elementary School, Jackson Elementary School, and McLane Elementary School. They have a total combined capacity of about 7,450 students; this figure excludes the Silver Maple Elementary School since this school has a preschool, not an elementary school, function.

To facilitate the determination of the need for additional primary and secondary educational facilities within the West Bend School District

by the year 2010, Table 38 provides estimated population levels by grade and school-age group for the entire West Bend School District area as approximated by whole U. S. Public Land Survey one-quarter sections. It is difficult to forecast precisely the number of students that may be expected to be enrolled in the primary or secondary public schools because of such variables as the number of students enrolled in nonpublic schools and the stage in the life cycles and composition of families moving into and out of the District. For this reason, Table 38 presents a range of the number of students living in the school district who may be expected to be enrolled in public schools under both intermediate and optimistic futures for the West Bend School District to the year 2010. A slightly higher population estimate, and thus school-age population, was selected for the West Bend urban service area under the intermediate future scenario. For each alternative future, it was assumed that approximately 21 percent of all students living in the school district would be enrolled in nonpublic schools. This estimated percentage was recently observed by the West Bend School District and is assumed to remain unchanged over the plan design period under each alternative future.

Specifically, the total enrollment for primary and secondary public schools by the year 2010 may be expected to range from about 3,460 to 5,120 elementary school students (grades kindergarten through five); from about 1,530 to 2,240 middle school students (grades six through nine); and from about 2,730 to 3,990 high school students (grades 10 through 12). The total forecast school-age population attending primary and secondary public schools for the year 2010 may be expected to range from about 7,730 to 11,340 students, representing an increase of about 28 to 87 percent over the 1988-1989 public school enrollment in the district of 6,056 students. Depending upon the alternative futures considered in Table 38, it may be expected that school facilities may need to be expanded at all grade levels by the year 2010 within the West Bend School District.

Under the intermediate future scenario, the existing elementary schools will have to be expanded or an additional elementary school may be needed during the planning period. If the school-age group, five to 11, reaches the higher

Table 38

**EXISTING 1988-1989 PUBLIC SCHOOL ENROLLMENTS AND CAPACITIES AND
FORECAST 2010 PUBLIC SCHOOL ENROLLMENTS FOR THE WEST BEND SCHOOL DISTRICT**

Grade and School-Age Group	Existing 1988-1989 Public School Enrollments ^a		Existing Public School Capacities ^d	Forecast 2010 Public School Enrollment Range ^{a,b}		Difference ^c	
	Number	Percent of Total		Number	Percent of Total	Number	Percent Difference
Grades K-5 (ages 5 to 11)	2,806 ^e	46.4	3,150 ^{e,f}	3,463-5,117	44.8-45.1	657-2,311	23.4-82.4
Grades 6-8 (ages 12 to 14)	1,156	19.1	1,800 ^g	1,534-2,242	19.9-19.8	378-1,086	32.7-94.0
Grades 9-12 (ages 15 to 18)	2,092	34.5	2,500	2,731-3,985	35.3-35.1	639-1,893	30.5-90.5
Total	6,056 ^h	100.0	7,450	7,728-11,344	100.0-100.0	1,672-5,288	27.6-87.3

^aThese total enrollment figures do not include the estimated 21 percent of total school-age population that were assumed to attend private schools. It is assumed that the percent of students living in the school district that would attend nonpublic schools would be approximately 28 percent for both the five through 11 and 12 through 14 school-age groups and approximately 5 percent for the 15 through 18 school-age group.

^bThe first and second numbers represent forecast enrollments based on the SEWRPC intermediate and optimistic future scenario, respectively, for the West Bend School District area with a slightly higher school-age population estimated for the City of West Bend urban service area under the intermediate scenario as a result of the City's selected population forecast of 35,000 people for this urban service area versus SEWRPC's forecast of approximately 32,000 people.

^cThese figures represent the differences between the existing 1988-1989 school enrollments and the forecast 2010 school enrollments based on the intermediate and optimistic future scenario, respectively.

^dSchool room capacities exclude art rooms, music rooms, early childhood/exceptional needs (EEN) rooms, work rooms, and special subject classrooms.

^eThe existing enrollment and capacity of the Silver Maple Elementary School were not included here since this school functioned as a preschool.

^fIncludes the additional capacity that would be provided by the building expansion to the Green Tree and McLane Elementary Schools during the 1988-1989 school year.

^gThe existing capacity of the Silverbrook and Badger Middle Schools were included here even though they temporarily served fifth grade levels to alleviate potential overcrowding in the elementary schools during this school year.

^hTotal enrollment includes two tuition students for which information on the grades and the school they attended were not available.

Source: The West Bend School District and SEWRPC.

end of the forecast range under the optimistic future scenario, then three to four new elementary schools may be needed, depending upon the future capacities of existing schools if they are expanded during the planning design period. If new elementary schools are provided under either future scenario, these schools should be centrally located within delineated residential neighborhoods in the City of West Bend urban service area. The Regional Planning Commission, almost since its inception in 1960, has urged local plan commissions to consider the delineation of neighborhood units and the development of neighborhood unit plans as an important means of guiding and shaping urban land use development. It is recommended that each residential neighborhood contain a public elementary school adjacent to a neighborhood park so that the school and park together may function as a neighborhood center. The school and park should be centrally located, within walking distance of all areas of the neighborhood.

In the 1989-1990 school year, the Badger and Silverbrook Middle Schools were restructured to serve only grades six to eight, further increasing the capacity of these two schools to accommodate the future increase in the 12 to 14 school-age population under the intermediate future scenario, even though they currently have the necessary capacity to meet this future need. During the 1988-1989 school year, these middle schools temporarily served grade five to alleviate potential overcrowding in the elementary schools at that time. If this school-age cohort reaches the higher end of the forecast range, however, under the optimistic future scenario, then either the existing middle schools will need to be expanded or an additional middle school may be needed during the planning period. New middle schools should be located in proximity to the highest concentration of the applicable school-age group in an area and within the maximum one-way walking distance of 0.75 mile and a minimum busing radius of two miles.

Under the intermediate future scenario, the existing high schools will have to be expanded during the planning period to accommodate the future increase in the age group 15 to 18. If this school-age group reaches the higher end of the forecast population range in the optimistic future scenario, then either the existing high schools will need to be further expanded or a

new high school may be needed during the planning period. New high schools should be so located as to include geographically the highest concentration of the applicable school-age group within the maximum one-way walking distance of one mile and a minimum busing radius of two miles.

This analysis does not address the short-term, five years, need for school facilities which is critical in school facilities planning. If such short-range planning indicates a need for additional facilities, issues that should be addressed include whether or not the needs can be met by expanding the existing facilities on existing sites, by reorganizing the number of grades and/or classrooms to be serviced by each school, or by constructing separate new facilities which may or may not lie within the West Bend planning area. These decisions may be expected to be further influenced by the present condition of school facilities, the provision of special education facilities, the quality of services desired, the minimum busing distance desired, or the maximum walking distance desired. A detailed comprehensive study should be undertaken by the school district officials to determine short- and long-term school facility needs before any additional facilities are constructed.

City Hall and Governmental Offices

As noted in Chapter IV, the West Bend Common Council determined in 1988 that the existing City Hall was inadequate to meet existing and future requirements. Therefore, a Report on General Government Space Needs, was completed in October 1990 by the Space Needs Subcommittee reactivated by the West Bend Board of Public Works to determine short-term, or five years, and long-term, or 20 years, space needs for general municipal government.

A survey of existing occupied space and of operations at City Hall, the Park and Recreation Building, and the Police and Fire Stations was completed. Consideration was also given to the need for space for the Mayor's office, Common Council chambers, a Cable Vision office, and a proposed West Bend Municipal Court. To meet long-term, year 2010, needs, the report recommended the acquisition of the West Bend Mutual Insurance building to serve as a new centralized governmental center for general administrative offices. It would house departments such as

Community Development, Engineering, Police, and Parks and Recreation, and the Mayor's office, Common Council chambers, a Cable Vision office, and a West Bend Municipal Court. Also considered were the purchase of the Larson Colony building to serve as a recreation activity center, the renovation of the existing Park and Recreation building as a teen/youth center for middle-school and early high-school youths if the Larson Colony building was acquired, the renovation of approximately 4,000 square feet of floor area of the existing Police Department space into office space; and the construction of a second fire station in the West Bend Industrial Park-South. Acting upon the recommendations of the report, the City of West Bend completed the purchase of the West Bend Mutual Insurance and Larson Colony buildings on September 13, 1991.

Fire Station

As noted in Chapter IV, the City of West Bend and parts of the surrounding civil towns are served by the West Bend Fire Department, located at 325 N. 8th Avenue, in the City. The Fire Department currently shares the facility with the City of West Bend Police Department. The Department has reciprocal service agreements with the surrounding community fire departments whereby additional men and equipment can be called if additional fire-fighting capability is needed. The City of West Bend owns a parcel of land in the southern part of the City, near the West Bend Industrial Park-South, which has been tentatively set aside for the construction of a new fire station in the near future.

To provide a better indication of whether the existing and proposed new fire stations could serve future urban areas, Map 36 shows existing 1985 urban developments inside the City of West Bend planning area and the 1.5 mile optimum service radius recommended by the Insurance Services Office (ISO), of the existing station and of the proposed fire stations. Map 36 also shows the adopted West Bend sanitary sewer service area in which future urban development may be expected to occur. This map provides a preliminary indication that additional fire stations may be needed to serve the northern, western, and eastern parts of the City, where the sanitary sewer service areas and small concentrations of existing urban developments are located beyond the optimum 1.5 mile service radii. If additional fire stations are to be located within the urban

service area, such stations should be so located as to maximize the inclusion of most existing and planned urban development within the West Bend area.

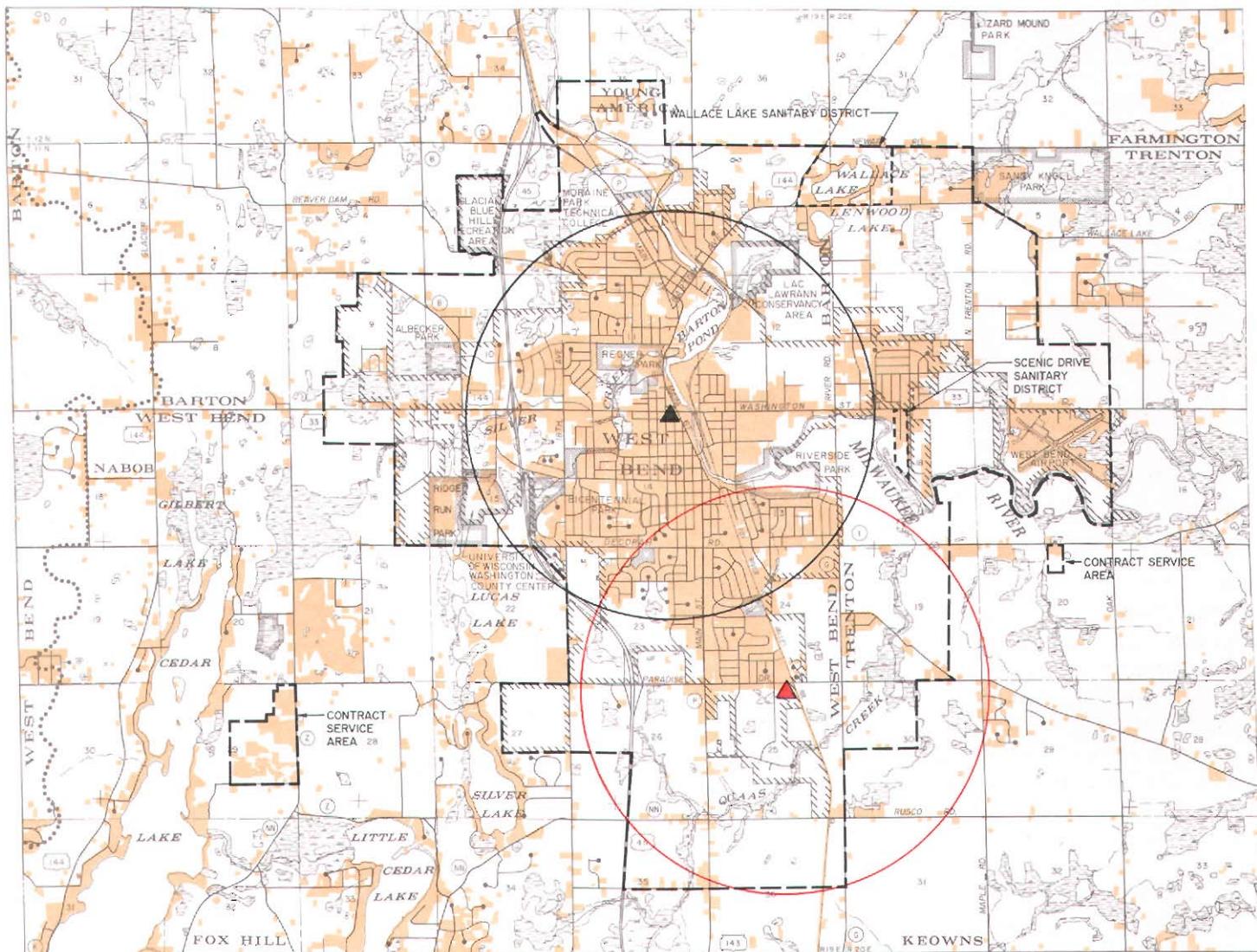
This analysis is not a substitute for a more detailed analysis that should be conducted by the West Bend Fire Department, taking into account a number of other factors that determine the adequacy of a community's future fire protection services, such as the location and capacity of fire hydrants; the required number and type of fire-fighting equipment and personnel; the provision and quality of fire communication systems; the effects of narrow or deteriorated streets, one-way streets, steep topography, or other unusual locational conditions on adequate response; and the structural characteristics, including fire alarm and sprinkler systems, of buildings. As noted in Chapter IV, the Insurance Services Office evaluates the adequacy of fire protection services provided by communities including the City of West Bend through the use of the Grading Schedule for Municipal Fire Protection. While the ISO does not determine the level of fire protection services that should be provided, the report generally contains recommendations for correcting any serious deficiencies found which, over the years, have been accepted as guides by many municipal officials in planning improvements to their fire-fighting services.

Public Library

As stated in Chapter IV, in 1989 the West Bend Community Memorial Library, located at 230 S. 6th Avenue, occupied about 31,370 square feet of floor area with a book collection of approximately 90,000 volumes. Table 39 provides a comparison of the total number of book volumes and the total population, ranging from 25,000 to 60,000 persons, served by community libraries, including the West Bend Library. Table 39 also provides data on the total number of books per capita for each of the community libraries listed. In 1989, the average number of books per capita for the community libraries listed in this table was 2.8; for the West Bend Community Memorial Library this figure was two. The number of books per capita provided by the West Bend Community Memorial Library is at the low end of the range of two to four books per capita recommended by the adopted regional

Map 36

OPTIMAL TRAVEL DISTANCE FOR FIRE-FIGHTING VEHICLES FROM THE EXISTING AND PROPOSED FIRE STATIONS IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

EXISTING URBAN DEVELOPMENT: 1985

ADOPTED SANITARY SEWER SERVICE AREA BOUNDARY: 2000

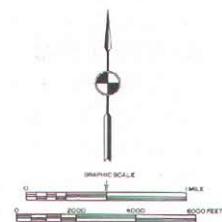
▲ EXISTING FIRE STATION

▲ PROPOSED NEW FIRE STATION

OPTIMUM 1 1/2 MILE SERVICE RADIUS
OF FIRE STATION

— EXISTING FIRE STATION

— PROPOSED FIRE STATION



Source: SEWRPC.

Table 39

COMPARISON OF TOTAL BOOK VOLUMES OF SELECTED WISCONSIN PUBLIC LIBRARIES SERVING POPULATIONS BETWEEN 25,000 AND 60,000: 1989

Location of Public Library	Library Service Population	Total Book Volumes	Total Volumes per Capita
Chippewa County Chippewa Falls	32,033	75,432	2.4
Dodge County Beaver Dam	27,299	59,323	2.2
Door County Sturgeon Bay	27,125	153,476	5.7
Douglas County Superior	41,829	128,467	3.1
Dunn County Menomonie	29,847	39,224	1.3
Fond du Lac County Fond du Lac	58,982	291,411	4.9
Jefferson County Watertown	28,089	74,775	2.7
La Crosse County La Crosse	50,105	204,721	4.1
Manitowoc County Manitowoc	55,330	153,616	2.8
Marinette County Marinette	41,298	167,646	4.1
Milwaukee County Glendale (North Shore)	27,625	38,280	1.4
Greenfield	32,856	52,399	1.6
Wauwatosa	50,184	140,185	2.8
Oneida County Rhineland Area	25,345	62,288	2.5
Shawano County Shawano	37,140	104,295	2.8
Washington County West Bend	45,260	90,000	2.0
Waukesha County Brookfield	45,059	97,677	2.2
Menomonee Falls	35,721	86,929	2.4
New Berlin	42,924	86,882	2.0
Winnebago County Neenah	34,738	114,385	3.3
Wood County Marshfield	34,061	94,109	2.8
Wisconsin Rapids	33,332	92,634	2.8
Average	38,008	109,462	2.8

Source: State of Wisconsin, Department of Public Instruction, Division for Library Services, Wisconsin Library Service Record: 1989, Madison, Wisconsin, and SEWRPC.

library facilities and services plan¹ for libraries serving a population of less than one million persons. The 2.8 books per capita average for all the community libraries listed in Table 39 is generally comparable to the three book volumes per capita recommended in the Wisconsin Public Library Standards² for library service populations ranging from 25,000 to 49,999.

The West Bend Community Memorial Library completed its West Bend Community Memorial Library, Mission Statement: 1990 Five Year Plan Goals and Objectives in 1990, indicating that the library should help provide library and information services to meet the personal, educational, and professional needs of the public, and extend services to all residents of Washington County, in cooperation with all governmental units. This mission statement was further considered in a separate document recently compiled by Richard A. Thompson, a private library consultant and director of the Willmette Library in Willmette, Illinois, to determine estimated future needs of the library. The results of this separate study are documented in A Library Building Program for The West Bend Community Memorial Library, February 16, 1991. It recommends specific

facility improvements to meet the demands of a projected service population of approximately 60,260 by the year 2010 as well as to meet other goals and objectives indicated in the mission statement mentioned above. This report indicates potentially necessary library equipment, documents, and spatial requirements which should be further investigated by a consultant prior to any facility expansion. These recommendations were based on the West Bend Board of Library Trustees' determination to establish a library that will be at the 80th percentile for a service population of 50,000 and over. Percentile is the position of the library in comparison with peer institutions serving populations of similar size. This ranking, in turn, can help the library assess priorities for development.

The consultant's report indicated that the existing library should be expanded or a new one constructed in order to meet the 80th percentile figures compiled in the report and to provide the desired quality and quantity of library and information services to all residents of Washington County. This report was commissioned to provide guidelines and to establish estimated square footages for a building program to be further continued by an architect. The report recommended that the architect should consult with Public Library Space Needs: A Planning Outline, 1988, and Wisconsin Public Library Standards, 1987, both published by the Wisconsin Department of Public Instruction. This recommendation is similar to the adopted regional library facilities and services plan recommendation that such facilities should be constructed to meet at least the minimum space requirements of the State's library building standards.

¹SEWRPC Planning Report No. 19, A Library Facilities and Services Plan for Southeastern Wisconsin, July 1974.

²Wisconsin Library Building Project Handbook, Wisconsin Department of Public Instruction, Madison, 1990.

Chapter VIII

THE LAND USE PLAN

INTRODUCTION

A land use plan is an official statement of a municipality setting forth major objectives concerning the desirable physical development of the community. Accordingly, the City of West Bend land use plan consists of recommendations for the type, amount, and spatial location of the various land uses required to serve the needs of the residents of the City and environs to the year 2010. The plan is intended to be used as a tool to help guide the physical development of the community into a more efficient and attractive pattern, and to promote the public health, safety, morals, and general welfare of the community.

The land use plan should promote the public interest rather than the interests of individuals or special groups within the community. The very nature of the plan contributes to this purpose, for it facilitates consideration of the relationship of any development proposal, whether privately or publicly advanced, to the overall physical development of the entire community. The plan contributes to responsible democratic government by helping duly elected and appointed public officials to safeguard and promote the public interest. The plan also contributes to democratic government by providing a focus for citizen participation in the planning and subsequent development process.

The plan is intended to assist in the political and technical coordination of community development. Political coordination seeks to assure, to the extent practicable, that a majority of the citizens within the community are of one accord and working toward the same goals. Technical coordination seeks to assure a logical relationship between private land use development and public works development so that the planning and scheduling of public and private improvements will be both effective and efficient and avoid conflict, duplication, and waste.

The land use plan should be long-range, providing a means of relating day-to-day development decisions to long-range development needs, in order to coordinate development through time to ensure that public decisions will lead toward stated goals. In the case of West Bend, the land

use plan is designed for a planning period extending beyond the turn of the century. In this way, the plan is intended to provide for the future as well as present needs of the City and the surrounding area.

The land use plan, however, should not be considered as a rigid and unchangeable mold to which all development proposals must conform, but rather as a flexible guide to help local officials and concerned citizens review development proposals. As conditions change from those used as the basis for the preparation of the plan, the plan should be revised as necessary. Accordingly, the plan should be reviewed periodically to determine whether the land use development objectives set forth in Chapter VI of this report are still valid, as well as to determine the extent to which the various objectives are being realized, over time, through plan implementation.

The land use plan should represent a refinement of the adopted regional land use plan so that it can meet areawide as well as local development objectives. The regional land use plan and, as a consequence, the municipal land use plan, while recognizing the effects and importance of the urban land market in shaping land use patterns, seek to influence the operation of that market in two ways in order to achieve a more healthful, attractive, and efficient settlement pattern. First, the plan recommends that development trends be altered by encouraging new intensive urban development only in those areas which are covered by soils suitable for such development, which are not subject to special hazards such as flooding, and which can readily be served by essential municipal facilities and services, including centralized sanitary sewer and public water supply. Second, the plan recommends that development trends be altered by discouraging intensive and incompatible urban development in delineated primary environmental corridors and other environmentally significant lands.

The land use plan presented herein for the City of West Bend planning and urban service area represents only one of many possible patterns of land use development that could accommodate the future physical, social, and economic needs of the residents of the City and environs. The

selection of the final plan involved the comparative evaluation of several alternative land use patterns and supporting community facility and utility proposals against the land use development objectives, principles, standards, and urban design criteria previously described in this report, as well as significant citizen input during the planning process.

PLAN DETERMINANTS

Population Forecast

The population forecast initially selected by the City of West Bend Plan Commission for use in the plan design process envisioned that the West Bend urban service area will reach a resident population level of approximately 35,000 persons by the year 2010. This level represents an increase of about 11,200 persons, or about 47 percent, over the 1985 level. To accommodate this increase, as indicated in Tables 36 and 37, approximately 5,535 additional housing units will need to be added to the 1985 stock of approximately 7,595 housing units in the City of West Bend by the year 2010. The forecast population increase may be expected to be accompanied by a need for additional land, as indicated in Table 36, for commercial, industrial, institutional, and recreational uses, as well as residential uses, which will require the conversion of additional land in the area from rural to urban use.

Employment Forecast

The employment forecast initially selected for use in the plan design process envisioned that the West Bend urban service area would reach an employment level of approximately 18,550 jobs by the year 2010. This represents an increase of about 6,510 jobs, or about 54 percent, over the 1985 level. Of this total increment, approximately 2,380 additional jobs are expected to develop in the service and retail trade employment category and approximately 3,620 additional jobs are expected in the industrial employment category. Each of these general employment categories may be related to specific land use requirements, as indicated in Table 36, and are, therefore, useful in the allocation of land to commercial and industrial uses. Table 36 indicates that the forecast employment increase for these types of employments would require approximately 143 acres of additional commercial land uses, and approximately 482 acres of additional industrial land uses.

Objectives and Standards

Chapter VI of this report sets forth objectives and standards that guided the preparation of the land use plan. The land use allocation and accessibility standards set forth in Tables 30 and 31, respectively, were two of the more important considerations in the design of the land use plan. The land use allocation standards were used to help estimate the number of acres in each land use category which may be expected to be needed to serve the resident population and employment levels by the plan design year 2010. Accessibility standards, expressed as a service radius for facilities such as parks, schools, and shopping areas, were used to distribute needed facilities in locations that will be convenient to the population to be served. The delineation of residential neighborhoods in the urban service area and environs was an additional important aid used to determine the recommended locations for future facilities.

West Bend Urban Service Area

The existing planned sanitary sewer service area, or urban service area, for the City of West Bend was delineated and adopted by the City and the Regional Planning Commission in 1983, and is documented in SEWRPC Community Assistance Planning Report No. 35, Sanitary Sewer Service Area for the City of West Bend. This plan includes the Wallace Lake and Scenic Drive Sanitary Districts presently served, under contract, by public sanitary sewers connected to the West Bend sewage treatment plant, and represents the maximum area envisioned to be served by sanitary sewer service to the year 2000 and possibly beyond that design year. The Common Council and the Regional Planning Commission adopted five amendments to the sanitary sewer service area plan in 1985, 1987, 1988, 1991, and 1992. These amendments were adopted to resolve onsite sewage disposal problems and to provide adequate sanitary sewer services to existing and proposed urban developments in the West Bend area. The West Bend Sanitary Sewer Service Area Plan, including the three amendments adopted through 1988 is shown on Map 28. The 1991 and 1992 amendments are reflected on Map 38 on page 173. The City Plan Commission made some revisions to the urban sewer service area shown on Map 38. The proposed new West Bend urban service area, as shown on Map 38, includes the City of West Bend together with certain areas in the Towns of Barton, Trenton, and West Bend.

After examining the forecast year 2010 land requirements based upon the initially selected population and employment forecasts, and after considering the areal extent of the proposed new urban service area and the commitments made by the City to accommodate private development and public facility locations throughout that area and the need to protect and regulate fringe development, the City Plan Commission determined to prepare a recommended land use plan for the new urban service area rather than just for that area which would be required to meet the year 2010 needs initially forecast. Upon full development, with the spatial distribution of planned land uses described below, the new urban service area would accommodate a total population of about 52,000 persons and a total employment level of nearly 32,000 jobs. Thus, the recommended land use plan more closely approximates the optimistic-decentralized development scenario for the West Bend area than the intermediate-centralized development scenario initially selected as a basis for the population and employment forecasts. Full development of the area would result in the conversion of about 9.4 square miles of rural and other open lands to urban use, about 5.3 square miles more than that required to accommodate the initially selected forecast population and employment levels. This provides flexibility for the operation of the urban land market without significantly affecting the substance of the plan. Such an approach will provide flexibility to accommodate market demand in the location of new development in areas beyond the present corporate limits committed by the City to sanitary sewer service. Designation of urban land use patterns in the urban service area also provides a basis for guiding development in the fringe areas, those areas located outside of the current corporate limits but within the urban service area. It also provides the necessary background for extraterritorial zoning agreements pursuant to the provisions of Section 62.23(7a) of the Wisconsin Statutes.

The sewer service area, or urban service area, delineated on Map 38, reflects the recommendations in a recently completed sanitary sewer facility study which correlates the sewer service area boundary with drainage basins more closely than with streets and property lines.¹

¹Comprehensive Sanitary Sewer Plan, City of West Bend, Wisconsin, Donohue & Associates, Inc., August 1985.

Two recommended improvements in this report include the extension of the south branch of the existing west trunk sewer from 18th Avenue across the USH 45 bypass in a southerly direction to connect with the Paradise Drive trunk sewer, and the construction of a northeast trunk sewer along the north side of the Milwaukee River from an existing 36-inch trunk sewer extending northerly from the City sewage treatment plant along the west side of the West Bend Municipal Airport across Washington Street (STH 33) to Creek Road.

Neighborhoods

The Regional Planning Commission, almost since its inception in 1960, has urged local plan commissions to consider the preparation of detailed neighborhood unit development plans as an important means of guiding and shaping urban land use development and redevelopment in the public interest. The preparation of detailed neighborhood unit development plans and special planning district plans is based upon the concept that an urban area should be formed of, and developed in, a number of spatially organized, individually planned units rather than as a single, large, formless mass.

The area in which people seek day-to-day services such as an elementary school, neighborhood park, and neighborhood shopping facilities form the basis of neighborhood delineation. Insofar as possible, each residential neighborhood should be bounded by arterial streets; major park, parkway, or institutional lands; bodies of water; or other natural or cultural features that serve to clearly define and physically separate each neighborhood from the surrounding units. Medium- and low-density neighborhoods are generally about one square mile and four square miles, respectively, in size.

The elementary school should be centrally located adjacent to a neighborhood park so that the school and park together function as a neighborhood center. The neighborhood shopping center, or neighborhood retail and service center, should be located on the edge of the neighborhood, at the intersection of two arterial streets. To the extent possible, the internal street pattern should be designed to facilitate vehicular and pedestrian circulation within the neighborhood, but to discourage the movement of heavy volumes of traffic through the neighborhood. In some instances, however, the presence of natural features such as rivers and wetlands may

require that arterial traffic intrude within neighborhoods. Such is the case of Washington Avenue (STH 33) within the City's eastern neighborhoods. Each neighborhood should have ready access to the arterial street system and, thereby, to urban activities and services such as major employment centers, community shopping centers, major recreational facilities, and major cultural and educational centers.

As part of the West Bend land use planning effort, Map 37 identifies 23 neighborhoods and nine special planning districts in the City of West Bend and environs. The neighborhoods were delineated so that they are bounded, insofar as possible, by distinct land features such as the Milwaukee River, Silver and Lucas Lakes, the Fox River Valley Railway, and major arterials such as USH 45, Washington Street, Paradise Drive, Main Street, CTH P, Decorah Road, and Newark Drive. These neighborhoods were also delineated so that the resident population within each neighborhood can support neighborhood facilities such as schools and parks. Map 37 shows the recommended location of such neighborhood facilities as existing and proposed elementary schools, parks, and shopping centers, or retail and service centers, in relation to the neighborhoods. In certain neighborhoods, such as Fair Park, Wingate, Sand Ridge, and Riverside, an arterial street separates the neighborhoods into subneighborhoods. Although identified as part of the larger neighborhoods for facility planning purposes, these areas have developed as, and will remain, distinct and separate subneighborhoods.

It is important to note that the recommended facility locations shown on this map are not intended to imply that such facilities are needed by the year 2010. In addition, only those elementary schools and neighborhood parks located within the newly defined urban service area are shown on the land use plan presented herein. This information is provided to permit the City to reserve lands for future neighborhood schools and parks that may be needed to serve the resident population beyond the year 2010, as well as the projected resident population to the year 2010, based on ultimate neighborhood development. Even though the plan map designates a specific location for each of the proposed facilities on the basis of preliminary analysis, final selection of a site for such facilities should be based on a detailed development plan for each

neighborhoods. Neighborhood planning is described in further detail in Chapter IX of this report.

THE RECOMMENDED LAND USE PLAN FOR THE CITY OF WEST BEND URBAN SERVICE AREA

As shown on Map 38, the recommended land use plan for the City of West Bend planning area indicates those areas in which urban development now exists and those areas in which such development should be permitted and encouraged. Table 40 also summarizes the existing 1985 and ultimate planned urban service area land uses. Figure 21 provides a graphic comparison between the existing 1985 land uses and the proposed land uses for the urban service area.

It is important to note that the recommended land use plan presented herein was prepared after public informational meetings were held on a preliminary land use plan. Most of the land use recommendations depicted on the preliminary plan were similar to those shown the recommended plan; however, the recommended plan incorporates proposals advanced in response to information provided at the public informational meetings and City Plan Commission meetings held on the preliminary plan. The City Plan Commission determined that these proposals should be reflected on the recommended plan.

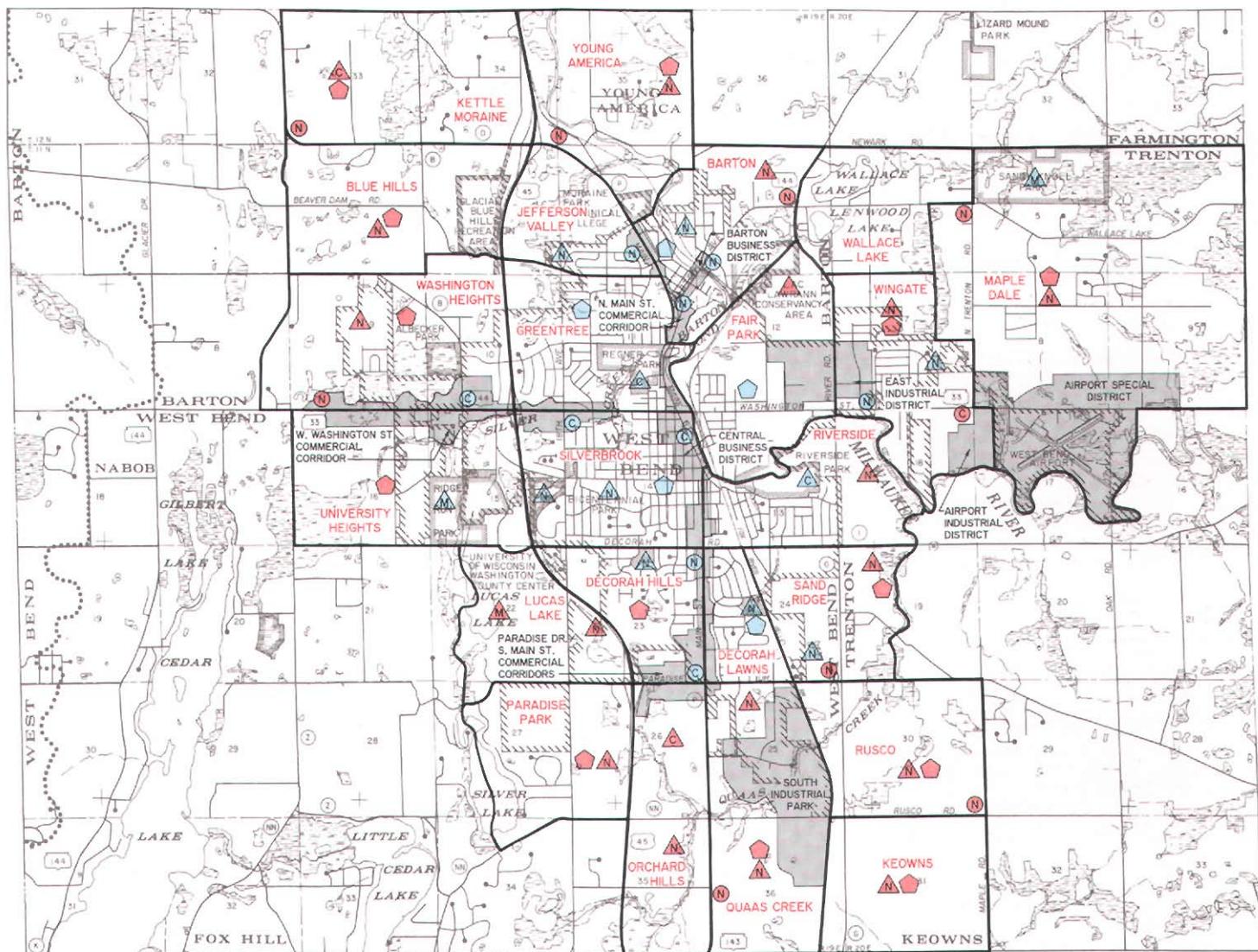
Environmental Corridors and Other Environmentally Significant Areas

In order to effectively guide land use development and redevelopment in the City of West Bend urban service area into a pattern that is efficient, stable, safe, healthful, and attractive, it is necessary to carefully relate the location of various land uses to the natural resource base of the area. Locating new urban development outside environmental corridors and other environmentally significant areas will serve to maintain a high level of environmental quality in the area and also avoid costly development problems such as flood damage, wet basements, and failing pavements.

Primary Environmental Corridors: Environmental corridors, more fully described in Chapter III of this report, are linear areas in the landscape containing concentrations of high-value elements of the natural resource base. These corridors contain almost all of the best remaining woodlands, wetlands, and wildlife habitat

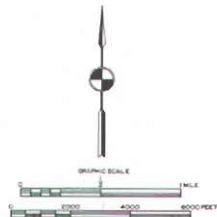
Map 37

RECOMMENDED LOCATIONS OF NEIGHBORHOOD FACILITIES IN DELINEATED NEIGHBORHOODS AND SPECIAL PLANNING DISTRICTS IN THE CITY OF WEST BEND PLANNING AREA



LEGEND

- | | |
|------------------------------|--|
| — NEIGHBORHOOD BOUNDARY | (●) EXISTING COMMERCIAL CENTERS |
| ■ SPECIAL PLANNING DISTRICT | N NEIGHBORHOOD RETAIL AND SERVICE CENTER |
| ◆ EXISTING ELEMENTARY SCHOOL | C COMMUNITY RETAIL AND SERVICE CENTER |
| ◆ PROPOSED ELEMENTARY SCHOOL | (●) PROPOSED COMMERCIAL CENTERS |
| ▲ EXISTING PARKS | N NEIGHBORHOOD PARK |
| N NEIGHBORHOOD PARK | C COMMUNITY PARK |
| M MAJOR PARK | M MAJOR PARK |
| ▲ PROPOSED PARKS | (●) PROPOSED PARKS |
| N NEIGHBORHOOD PARK | N NEIGHBORHOOD PARK |
| C COMMUNITY PARK | C COMMUNITY PARK |
| M MAJOR PARK | M MAJOR PARK |



Source: The City of West Bend Community Development Department and SEWRPC.

Table 40

**SUMMARY OF EXISTING 1985 AND PLANNED ULTIMATE
LAND USE IN THE CITY OF WEST BEND URBAN SERVICE AREA**

Land Use Category	Existing 1985 Land Use		Recommended Total Land Use Requirements: 2010		Recommended Ultimate Land Use Plan		Difference between Recommended 2010 Land Use Requirements and Planned Ultimate Land Use	
	Total Acres ^a	Percent of Total	Total Acres ^a	Percent of Total	Total Acres ^a	Percent of Total	Acres ^a	Percent
Urban Residential								
Single-Family Suburban-Density (1.5- to 4.9-acre lots)	80.7	0.6	0.0	--	23.4 ^b	0.2	23.4	--
Low-Density (20,000- to 65,399-square-foot lots)	381.7	2.9	278.0	2.1	419.3	3.2	141.3	50.8
Medium-Density (7,200- to 19,999-square-foot lots)	1,509.4	11.6	2,362.8	18.1	4,349.0	33.2	1,986.2	84.1
Single-Family Subtotal	1,971.8	15.1	2,640.8	20.2	4,791.7	36.6	2,150.9	81.5
Two-Family (6.1 to 10.9 dwelling units per net residential acre)	178.7	1.4	298.7	2.3	572.7	4.4	274.0	91.7
Multi-Family								
Medium-High-Density (6.1 to 10.9 dwelling units per net residential acre)	9.6	0.1	289.9	2.2	323.5	2.5	33.6	11.6
High-Density (11.0 to 15.0 dwelling units per net residential acre)	159.9	1.2	274.6	2.1	377.4	2.9	102.8	37.4
Multi-Family Subtotal	169.5	1.3	564.5	4.3	700.9	5.4	136.4	24.2
Residential Subtotal	2,320.0	17.8	3,504.0	26.8	6,065.3	46.4	2,561.3	73.1
Commercial	345.5	2.6	452.1	3.5	947.7	7.3	495.6	109.6
Industrial	235.2	1.8	696.2	5.3	959.3	7.3	263.1	37.8
Transportation, Communications, and Utilities ^c	332.3	2.5	805.9	6.2	805.9	6.2	0.0	--
Governmental and Institutional	485.4	3.7	604.1	4.6	693.6 ^d	5.3	89.5	14.8
Recreational	117.2	0.9	401.2 ^e	3.1	384.1 ^{e,f}	2.9	-17.1	-4.3
Urban Subtotal	3,835.6	29.3	6,463.5	49.5	9,855.9	75.4	3,392.4	52.5
Rural								
Primary Environmental Corridor	2,651.6	20.3	2,552.6	19.5	2,545.9	19.4	-6.7	-0.3
Secondary Environmental Corridor	64.0	0.5	88.1	0.7	88.1	0.7	0.0	--
Isolated Natural Areas	274.0	2.1	279.2	2.1	279.2	2.2	0.0	--
Rural-Estate, Agricultural, and Other Open Lands	6,143.3	47.0	3,690.9	28.2	305.2 ^g	2.3	-3,385.7	-91.7
Extractive and Landfill	105.8	0.8	0.0	--	0.0	--	0.0	--
Rural Subtotal	9,238.7	70.7	6,610.8	50.5	3,218.4	24.6	-3,392.4	-51.3
Total	13,074.3	100.0	13,074.3	100.0	13,074.3	100.0	--	--

^aIncludes associated street rights-of-way and off-street parking areas for each land use category.

^bExisting platted lots in this category may be developed; however, it is assumed that most suburban-density residential areas in the urban service area will be converted to more intensive uses. For this reason, a net loss of 57.3 acres of suburban-density residential land is anticipated in comparison to the 1985 level.

^cIncludes only railroad and freeway rights-of-way, and communication, utility, and transit station properties.

^dExcludes lands for future elementary schools to be located in the Washington Heights, Sand Ridge, and Quaas Creek residential neighborhoods. Final site selection for these schools should be based on a detailed plan for these three neighborhoods.

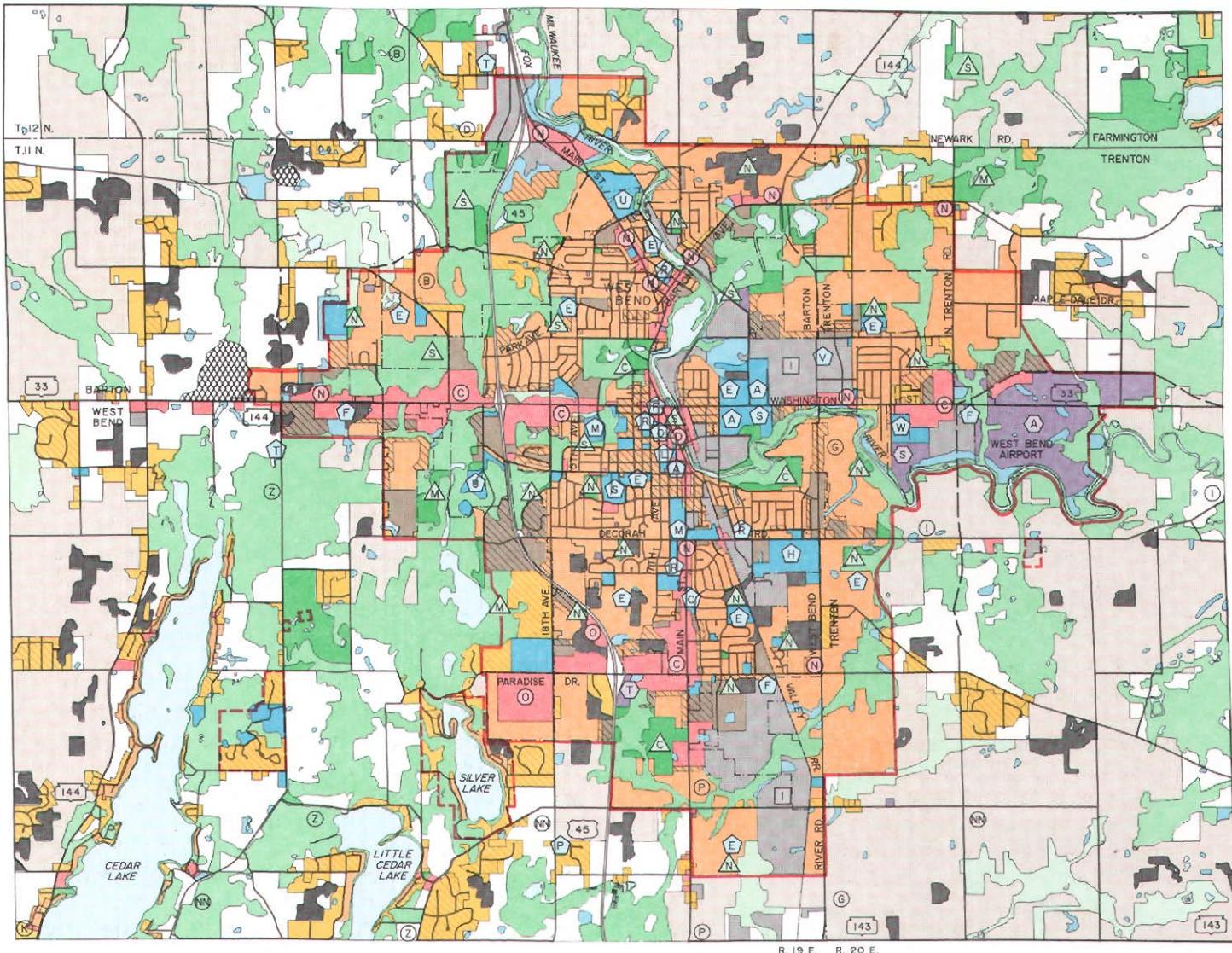
^eDoes not include possible increases due to development of private recreational facilities.

^fDoes not include land for a future neighborhood park in the Quaas Creek neighborhood. Final site selection for this park should be based on a detailed plan for this neighborhood.

^gThis total represents the areas identified as "Other Open Lands to be Preserved" in the recommended land use plan.

Map 38

THE RECOMMENDED LAND USE PLAN FOR THE CITY OF WEST BEND PLANNING AREA: 2010



LEGEND

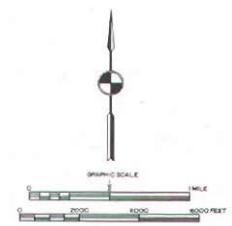
- URBAN SERVICE AREA BOUNDARY
- - - SPECIAL SANITARY SEWER SERVICE AREAS
- PROPOSED ARTERIAL STREET
- SINGLE-FAMILY SUBURBAN RESIDENTIAL (1.5 TO 4.9 ACRE LOTS)
- SINGLE-FAMILY LOW DENSITY RESIDENTIAL (20,000- TO 65,399- SQUARE-FOOT LOTS)
- SINGLE-FAMILY MEDIUM DENSITY RESIDENTIAL (7,200- TO 19,999- SQUARE-FOOT LOTS)
- TWO-FAMILY RESIDENTIAL DEVELOPMENT (6.1 TO 10.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- MULTI-FAMILY MEDIUM-HIGH DENSITY RESIDENTIAL (6.1 TO 10.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- MULTI-FAMILY HIGH DENSITY RESIDENTIAL (11.0 TO 15.0 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- COMMERCIAL DEVELOPMENT
 - D CENTRAL BUSINESS DISTRICT
 - C COMMUNITY RETAIL AND SERVICE CENTER
 - N NEIGHBORHOOD RETAIL AND SERVICE CENTER
 - O OFFICE CENTER
- QUARRYING AND EXTRACTIVE DEVELOPMENT
- INDUSTRIAL DEVELOPMENT
 - I INDUSTRIAL PARK

- TRANSPORTATION, COMMUNICATIONS, AND UTILITIES
 - A AIRPORT
 - T TRANSIT STATION
 - S SEWAGE TREATMENT PLANT

- GOVERNMENTAL AND INSTITUTIONAL
 - C CITY HALL AND POLICE DEPARTMENT
 - A COUNTY ADMINISTRATIVE OFFICES
 - T TOWN HALL
 - L LIBRARY
 - F FIRE STATION
 - W PUBLIC WORK FACILITIES
 - V VEHICLE EMISSIONS TESTING STATION
 - O POST OFFICE
 - S HOSPITAL
 - P PUBLIC PRE-SCHOOL
 - E PUBLIC ELEMENTARY SCHOOL
 - M PUBLIC MIDDLE SCHOOL
 - H PUBLIC HIGH SCHOOL
 - R PRIVATE SCHOOL
 - U COLLEGE

- PARKS AND RECREATION
 - M MAJOR PARK
 - C COMMUNITY PARK
 - N NEIGHBORHOOD PARK
 - S SPECIAL OUTDOOR RECREATION AND OTHER OPEN SPACE SITES

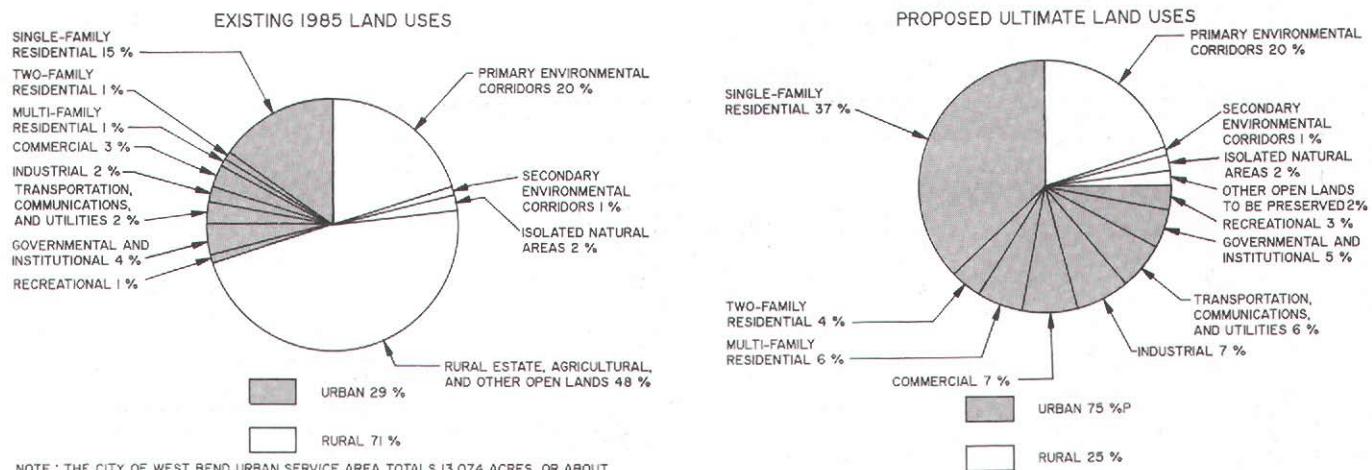
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- OTHER OPEN LANDS TO BE PRESERVED
- PRIME AGRICULTURAL LANDS
- RURAL ESTATE AND OTHER AGRICULTURAL AND OPEN LANDS
- WATER



Source: SEWRPC.

Figure 21

COMPARISON OF EXISTING 1985 AND PROPOSED ULTIMATE LAND USES IN THE CITY OF WEST BEND URBAN SERVICE AREA



Source: SEWRPC.

areas, as well as floodlands and areas of steep slope where intensive development would be ill-advised. The protection of the primary environmental corridors from additional intrusion by urban development is one of the objectives of the proposed land use plan.

Primary environmental corridors occupied approximately 2,652 acres, or about 20 percent, of the newly defined urban service area in 1985. Table 40 indicates that primary environmental corridors would occupy about 2,546 acres, or about 19 percent of the urban service area, under the recommended land use plan. The latter figure represents a decrease of about 4 percent from the 1985 level. This loss is due primarily to the development of small areas of the corridors. The City Plan Commission determined at its meeting on a preliminary land use plan held February 19, 1992, that the recommended land use plan should show approximately seven acres of corridor located south of Regner Park proposed for medium-density single-family residential development. The plan shows such corridor loss, accordingly. The entire parcel, referred to as the Renard property, contains wetlands, floodlands, woodlands, and steep slopes. The portion of the site with woodlands on steep slopes is currently zoned for single-family residential development and the City Plan Commission determined to honor this zoning. It is important to note that, before the development of this subject area, a sanitary sewer extension permit will be required from the Department of

Natural Resources (DNR) which, in turn, the DNR will review in relation to the potential impact the disturbance of the woodlands and steep topography on the subject site may have on water quality.

Primary environmental corridors should, to the maximum extent practicable, be preserved in essentially natural, open uses for resource preservation and limited recreational purposes. Accordingly, it is recommended that sanitary sewers not be extended into such corridors for the purpose of accommodating urban development in the corridor. However, the recommended plan recognizes that there may be specific situations in which the objective of preserving corridor lands may directly conflict with legitimate community development needs, such as the needed crossing of the corridors by streets and utilities. When such conflicts occur, the benefits and disadvantages of disturbing corridor lands must be carefully considered and, if development within the corridor occurs, such development should be carefully planned and executed to minimize damage to the corridor resources.

Secondary Environmental Corridors: The secondary environmental corridors in the urban service area are generally located along a watercourse and serve as a link between segments of primary environmental corridors. Under the recommended plan, these secondary corridors would occupy about 88 acres, or about 1 percent, of the proposed urban service area. It

is recommended, to the maximum extent practicable, that secondary environmental corridors be preserved or maintained for certain uses such as parks, drainageways, or stormwater detention or retention areas.

Isolated Natural Areas: Isolated natural areas are areas with important natural resource values which are separated geographically from primary and secondary environmental corridors. Most of the isolated natural areas in the urban service area consist of wetlands or woodland tracts at least 200 feet wide and five acres in area. Isolated natural areas, under the recommended plan, would occupy approximately 279 acres, or about 2 percent of the proposed urban service area. The plan recommends that careful consideration be given to preserving such areas in open uses. In this respect, isolated natural areas also lend themselves to use for public purposes such as parks or stormwater detention or retention areas.

Other Open Lands to Be Preserved: In addition to the primary and secondary environmental corridors and isolated natural areas, other areas that are environmentally significant exist in the urban service area. Even though these areas do not presently qualify as an environmental corridor or isolated natural area, they are environmentally significant in the sense that they contain poor soils, wetland vegetations, steep slopes, floodlands, or provide buffering between incompatible land uses. These areas are located either adjacent to lands classified as an environmental corridor or are small isolated areas less than five acres in size. Such lands would occupy approximately 305 acres, or about 2 percent of the proposed urban service area, under the recommended land use plan. Similar to isolated natural areas, it is recommended that careful consideration be given to preserving such areas to the maximum extent practicable. As natural vegetations develop on these undisturbed areas during the life of the recommended plan, these vegetated areas may be converted to, and reclassified as, either environmental corridors or isolated natural areas.

Residential Land Uses

Under the recommended plan, new residential development is proposed to occur through the infilling of vacant platted residential lots and through the creation of new residential areas contiguous to, and extending outward from,

existing residential development. Table 40 indicates that areas designated for residential use in the City of West Bend urban service area would total approximately 6,065 acres, or about 46 percent of the total urban service area, under the recommended land use plan. This figure represents an increase of about 160 percent over the 1985 level. The recommended land use plan for the City of West Bend urban service area identifies six categories of residential land use based upon the residential density standards advanced in Chapter VI. Housing types in three, suburban-, low-, and medium-density, of the six classifications would consist of single-family housing units. The medium-high-density classification would consist of either two-family or multi-family housing units with three or more dwelling units. The high-density residential classification would consist primarily of multi-family housing units with five or more dwelling units.

Suburban-Density Residential Development: Suburban-density residential developments would utilize lot sizes ranging from 1.5 up to 5.0 acres. The area proposed for such single-family residential development under the recommended land use plan would total about 23 acres, a decrease of about 57 acres, or about 71 percent, from the 1985 level. This decrease is attributable to the expected conversion of existing suburban-density development areas to higher-density residential development or other uses. The only area designated for such development on the plan is an existing development located southwest of the intersection of USH 45 and Paradise Drive. The recommended plan accommodates the infilling of this development; however, no new lots in this density classification are recommended because of the high cost of providing public water and sanitary sewer services to the large lots concerned.

Low-Density Residential Development: The areas proposed for low-density residential development under the recommended land use plan would total about 419 acres, an increase of about 38 acres, or about 10 percent, over the 1985 level. This classification of single-family residential development would consist of lot sizes ranging from 20,000 square feet up to 1.5 acres. New areas of this residential classification are recommended to be located primarily in the southwest portion of the urban service area, with lot sizes averaging approximately 30,000 square feet. A lot size on the lower end of the range is anticipated to be 20,000 square feet.

pated to facilitate the more economical provision of sewer and water services to such new developments.

Medium-Density Residential Development: The areas proposed for medium-density residential development would total about 4,349 acres under the recommended plan, an increase of about 2,840 acres, or about 188 percent, over the 1985 level. This classification of single-family residential development would include lot sizes ranging from 7,200 up to 20,000 square feet. These areas are proposed to be located in the City of West Bend and are proposed to be served by a full range of urban services, including public sewer and water, engineered stormwater drainage, street lighting, and sidewalks.

Two-Family Residential Development: The areas proposed for two-family residential development would total about 573 acres under the recommended plan, an increase of about 394 acres over such land uses in 1985. The City Plan Commission also determined, at its February 1992 meeting on the preliminary land use plan, that the recommended plan should provide additional lands for such development southeast of the intersection of USH 45 and Lighthouse Lane (CTH D). The two-family residential developments would have densities ranging from 6.1 to 10.9 dwelling units per net acre. These areas are proposed to be located generally in the City of West Bend, adjacent to commercial and multi-family residential developments.

Medium-High-Density, Multi-Family Residential Development: The areas proposed for medium-high-density, multi-family residential development would total about 324 acres under the recommended land use plan. This figure represents an increase of about 314 acres over the 1985 level. The medium-high-density, multi-family residential developments would have densities ranging from 6.1 to 10.9 dwelling units per net acre. The areas proposed for such developments would be served by public sanitary sewer and water supply and are proposed to be located throughout the City of West Bend near and along arterial streets and highways.

High-Density, Multi-Family Residential Development: The areas proposed for high-density, multi-family residential development under the recommended plan would total about 377 acres, an increase of about 218 acres, or about 136 percent, over the 1985 level. These multi-

family residential developments would have densities ranging from 11.0 to 15.0 dwelling units per net acre. The plan recommends that the new residential development under this classification contain development densities at the lower end of the range, approximately 11.0 to 12.0 dwelling units per net acre. Such developments are proposed to be located in the City of West Bend, generally near and along arterial streets and highways. These areas are also proposed to be located in convenient proximity to neighborhood and community shopping centers.

Commercial Land Uses

The recommended land use plan depicts a variety of areas devoted to commercial land uses. Under the recommended land use plan, commercial land uses would encompass an area of about 948 acres, or about 7 percent of the urban service area. The City Plan Commission determined at its meeting on the preliminary plan held February 19, 1992, that the recommended land use plan should show the approximately two acres of existing commercial land use located northeast of the intersection of STH 144 and Wallace Lake Drive to be converted to medium-density single-family residential development.²

Categories of specific commercial development shown on the recommended plan include a total of 10 neighborhood retail and service centers; five community retail and service centers, including the Central Business District; and two office centers.

²*The City of West Bend Plan Commission determined, at its meeting of February 19, 1992, that the area along the south side of Paradise Drive between 18th Avenue and USH 45 (comprising about 18 acres) should be identified on the recommended land use plan as medium-density single-family residential development. However, the City Plan Commission also indicated that the Commission would reconsider this area for commercial use if the proposed commercial development is formed into a planned unit development, contains suitable parcel depth, is under joint ownership, and maintains controlled access, rather than individual lot access, which latter would increase the number of driveways along the heavily traveled Paradise Drive, thus increasing potential traffic conflicts.*

Retail and Service Centers: The recommended land use plan identifies the locations of shopping centers, both neighborhood- and community-oriented retail and service centers, that are generally characterized by the provision of onsite parking for customer automobiles. Shopping centers generally include both retail-oriented establishments, such as grocery, drug, variety, and clothing stores, and service-oriented establishments, such as banks, dry cleaners, hair salons, and restaurants.

Neighborhood shopping centers, retail and service centers, should provide the day-to-day retail and service needs of nearby residents, and should be oriented to residential areas. A grocery store or supermarket typically serves as the anchor of a neighborhood retail and service center, and services such as banking and dry cleaning are commonly provided. The service radius standard, as indicated in Table 31, recommends that all homes in medium or higher density residential areas be located within one mile of a neighborhood retail and service center. Community shopping centers can serve as the neighborhood center for residences within one mile of the community center.

Application of the service radius standard for neighborhood retail and service centers indicates the need for five additional centers within the newly defined urban service area based on the neighborhoods delineated on Map 37 and the land use patterns proposed under the recommended land use plan. The five new neighborhood shopping centers are proposed to be located near the intersections of CTH P and Lighthouse Lane (CTH D), STH 144 and Wallace Lake Road, N. Trenton Road and Wallace Lake Road, CTH Z and W. Washington Street (STH 33), and CTH G and Paradise Drive. The recommended plan designates a specific location for each of the proposed centers after a preliminary analysis; final selection of a site for neighborhood retail and service center development, however, should be based on a detailed plan for each of the neighborhoods concerned.

Community shopping centers, retail and service centers, should provide for the sale of both convenience and shopper goods and should be oriented to the community as a whole. In addition to supermarkets, community retail and service centers should generally include a junior department store or discount store. Application

of the service radius standard for community-oriented retail and service centers, which recommends that such a center be located within 1.5 miles of homes in medium- or higher-density residential areas, indicates the need for one more center to serve the resident population of the City of West Bend urban service area. The new community retail and service center is proposed to be located near the intersection of N. Trenton Road and E. Washington Avenue (STH 33). Final selection of the site should be based upon a detailed neighborhood unit development plan.

Office Centers: The recommended land use plan proposes two new office centers, to be located northwest of the intersection of USH 45 and Paradise Drive and southwest of the intersection of Paradise Drive and 18th Avenue on the West Bend Mutual Insurance Company property. Both centers would have a combined area of approximately 109 acres. Both sites have characteristics suitable for development of community office centers, including adequate size; ready access to, and high visibility from, the arterial highway system; proximity to the freeway; and potentially adequate land use buffering from less intense land uses.

Central Business District and Barton Business District: Map 37 identifies the City of West Bend Central Business District and the Barton Business District as special planning districts proposed to continue to serve as major focal points for commercial activities in the greater West Bend area. These two business districts have become a primary source of identity for the City, an identity that is due, in part, to the significant historic character of their buildings. In fact, the Barton Historic District, shown on Map 24, whose location generally coincides with that of the Barton Business District, is currently being considered for inclusion in the National Register of Historic Places.

The City has been working actively for many years to maintain and improve the vitality of the West Bend Central Business District and of the Barton Business District. Amenities such as decorative lightings, benches, trees, brick pavements, and related street furniture were installed in the 1970s and 1980s. The recommended land use plan proposes that the City continue its efforts to maintain and improve the vitality of the West Bend and the Barton Business Districts in accordance with the urban design standards

set forth in Chapter VI and local plan documents identified earlier in Chapter I. The plan also recommends the promotion of a defined cultural center in the West Bend Central Business District, consisting of the West Bend Gallery of Fine Arts, the City of West Bend Community Memorial Library, and the Washington County Historical Society Museum. The museum is located in the Old Washington County Jail and Courthouse which are both listed on the National Register of Historic Places.

Riverfront Parkway: The Milwaukee River, a vital focal point of both Business Districts and of the City, should be brought to its full potential as a major environmental and aesthetic resource for the City. The provision of enhanced opportunities to experience the River in both districts is underway. Redevelopment to provide scenic views and to facilitate access to the river would enhance the attractiveness of both the West Bend Central Business District and the Barton Business District. The City should continue to pursue implementation of the master plan for the West Bend Riverfront Parkway.³ This plan basically recommends the development of an attractive 4.5 mile pedestrian walkway along the Milwaukee River connecting sites of historic interest, of business and industry, of neighborhoods, and of park areas along the river corridor. The walkway is envisioned to begin at the old Gadow Mill in historic Barton, through the North Point Wildlife Area, past Regner Park, through the Central Business District, continuing on to and through Riverside Park, to end at the S. River Road bridge.

Industrial Land Uses

The areas proposed for industrial land uses would total about 959 acres, or about 7 percent of the urban service area, under the recommended land use plan. This represents an increase of about 724 acres over the 1985 level. During a public meeting on the preliminary land use plan in February 1992, the City Plan Commission determined that the recommended land use plan should show an additional 0.8 acre of industrial land to be located east of 2nd Avenue behind the existing homes.⁴

Most of the increase in industrial lands would take place through the infilling and expansion of the existing West Bend Industrial Parks South and East, the creation of a new industrial park west of the airport, and the development of areas that are located adjacent to existing industrial areas zoned for industrial use.

Governmental and Institutional Uses

The recommended land use plan envisions a total of about 693 acres of governmental and institutional land uses in the urban service area. This figure represents an increase of about 208 acres over the 1985 level. The City Plan Commission determined at a meeting on the preliminary plan that the recommended plan should include an additional three acres of land for such developments, to be located on the vacant portion of the American Legion Post property west of Marcia Avenue.⁵

The plan also recommends additional governmental and institutional land uses in the urban service area to allow for the future expansion and promotion of a cultural center, as noted earlier, and to include the new City Hall and attendant administrative offices, new fire stations, and future public school facilities.

Fire Protection Facilities: In 1985, there was one fire station in the City of West Bend urban service area. Map 39 shows the location of this

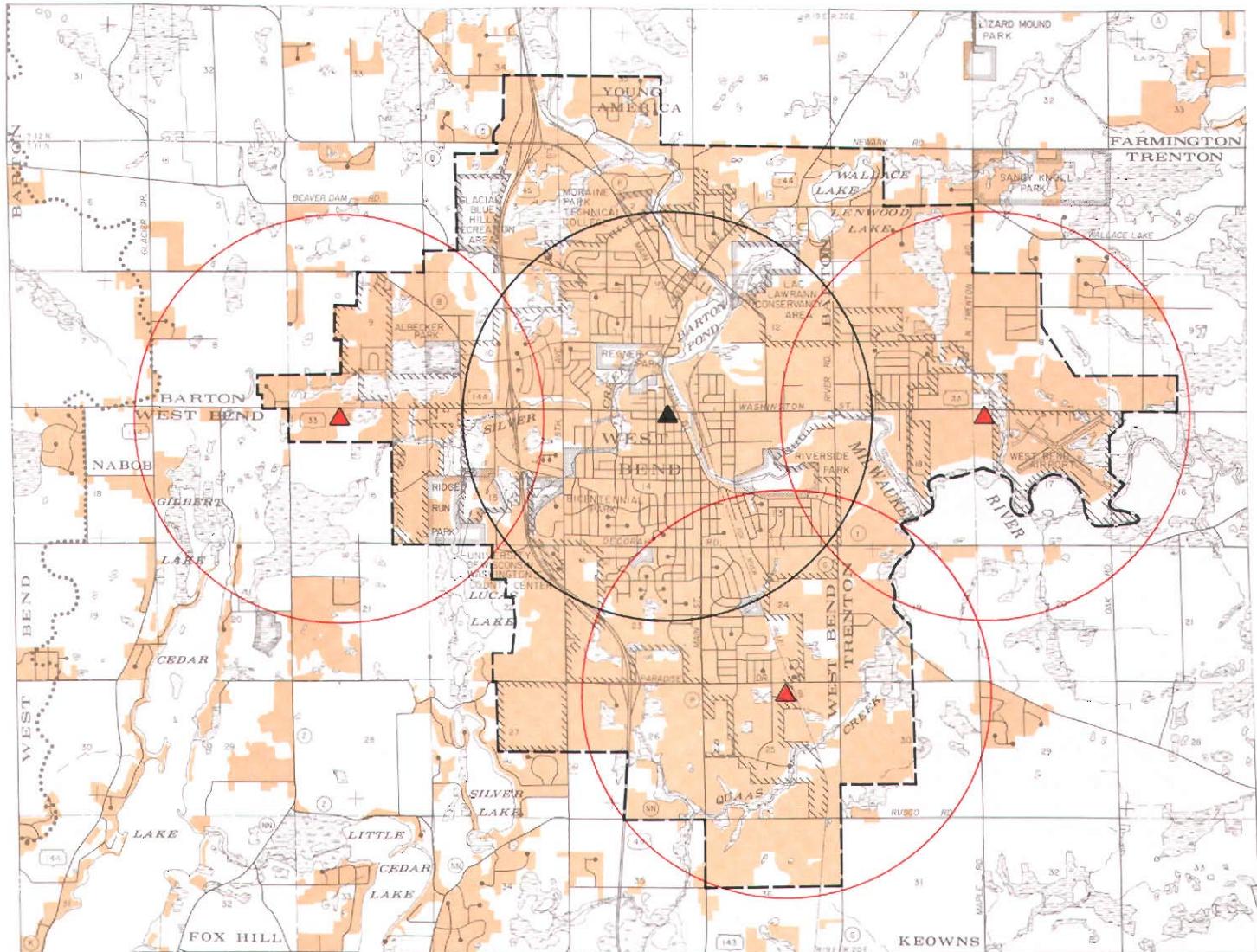
⁴The City Plan Commission also determined that the existing residential parcels fronting on South Street and Linwood Terrace, between Forest Avenue and Indiana Avenue, should be identified for industrial use on the recommended land use plan; however, the short-term zoning of this area would remain RD-2, Two-Family Residential District.

⁵The City Plan Commission also determined at this February 19, 1992, meeting that the parcels west of the library, bounded by Walnut Street, an alley, Poplar Street, and 7th Avenue; and the parcels west of the West Bend Gallery of Fine Arts; and the west half of the block bounded by Poplar Street, 6th Avenue, Chestnut Street, and 7th Avenue should be proposed for future governmental and institutional uses on the recommended land use plan, with the short-term zoning of this area remaining RD-2, Two-Family Residential District.

³A Master Plan for the West Bend Riverfront Parkway, The City of West Bend Park, Recreation, and Forestry Department, 1985.

Map 39

OPTIMAL TRAVEL DISTANCES FOR FIRE-FIGHTING VEHICLES FROM THE EXISTING AND PROPOSED FIRE STATIONS SERVING THE CITY OF WEST BEND URBAN SERVICE AREA AND ENVIRONS

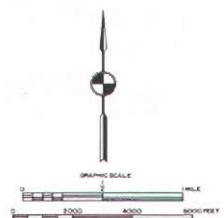


LEGEND

- EXISTING AND FUTURE URBAN DEVELOPMENT
- PROPOSED URBAN SERVICE AREA BOUNDARY
- EXISTING FIRE STATION
- PROPOSED NEW FIRE STATION

OPTIMUM 1 1/2 MILE SERVICE RADIUS OF FIRE STATION

- EXISTING FIRE STATION
- PROPOSED FIRE STATION



Source: The City of West Bend Fire and Community Development Departments; and SEWRPC.

fire station within the newly defined urban service area and its recommended 1.5-mile optimal fire protection service radius of the station. As shown on this map, and as mentioned in Chapter VII, the West Bend planning area will require additional fire-fighting facilities to provide adequate fire protection services for future urban development located beyond the present West Bend corporate limits.

Map 39 indicates that certain areas, most notably in the south, west, and east of the newly defined urban service area, lie outside of the recommended service radius of the existing fire station. The recommended land use plan therefore proposes the construction of three additional fire stations so located as to include most of the existing and planned urban development within a desirable fire protection service radius. As noted earlier in Chapter IV, the City acquired about three acres of land in 1988 for a new fire station in the vicinity of the southeast corner of the intersection of Paradise Drive and Stonebridge Road in the West Bend Industrial Park South. The other two new fire stations would serve urban development in the western and eastern portion of the urban service area. Both are proposed to be located on W. Washington Street (STH 33); one approximately 0.25 mile west of its intersection with Scenic Drive and one just east of its intersection with N. Trenton Road. As noted in Chapter VII, a more detailed analysis concerning the location of the new fire stations, taking into account a number of other factors that affect the adequacy of fire protection services, will be needed.

Educational Facilities: The potential growth in the elementary school-age population in the planning area over the next 20 years may warrant the provision of additional educational facilities in the West Bend urban service area. Five potential new elementary school sites are identified on the recommended land use plan. The selection of these sites was based on the recommended area and service radius standards set forth in Chapter VI, in addition to the goal of providing an elementary school in each neighborhood delineated under ultimate neighborhood development conditions. Only those elementary school sites shown on Map 37 and lying within the newly defined urban service area are identified on the recommended land use plan. It is likely, however, that two of these sites, in the Washington Heights and Quaas Creek

neighborhoods, would be reserved for development beyond the year 2010, since these neighborhoods extend beyond the delineated urban service area.

The new school sites were slated for neighborhoods that currently do not have an elementary school. To the extent practicable, the new school sites were located adjacent to neighborhood parks, so that recreational facilities could be shared between students and neighborhood residents. New joint school and park sites are recommended in the Wingate, Sand Ridge, and Quaas Creek neighborhoods. New neighborhood parks were not recommended adjacent to the new schools in the Washington Heights neighborhood because of site suitability problems, and in the Decorah Hills neighborhood, because of the provision of existing neighborhood park facilities in Decorah Hills Park.

The need to reexamine potential changes in the school-age population and the impact of such changes on the need for, and location of, additional educational facilities should be stressed. If the resident population of the City urban service area reaches the higher end of the forecast range noted in Table 38, there may be a need not only for additional elementary schools, but also for new middle and high schools, as well as ancillary recreational facilities for these school-age students. It also should be recognized that not all the potential elementary school sites may be needed by the year 2010 if the school-age population does not reach the upper end of the forecast range. In addition, school officials may decide to enlarge existing schools rather than build one or more of the new schools. Should the need for the additional school sites shown on the recommended land use plan not develop by the year 2010, the need to reserve such lands for school sites to serve a population beyond 2010 should be considered.

Park and Recreational Land Uses

The park and recreational land uses shown on the recommended plan are based upon recommendations contained in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000; SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County; and SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for the City of West Bend. Detailed recommendations for park and recrea-

tional land acquisition and development within the City of West Bend are presented in the latter report and summarized on Map 5 of Chapter I of this report. Under the recommended land use plan, intensive outdoor recreational land uses would encompass a total of about 384 acres, or about 3 percent of the land use in the urban service area. Existing and proposed parks within the urban service area shown on the recommended land use plan include the development of eight new neighborhood parks, a community park, and a major park as discussed below.

Neighborhood Parks: Eight new neighborhood parks are shown on the recommended land use plan. Selection of these sites was based on the park and open space plans cited above and on the service radius standards set forth in Table 31, and on the goal of providing at least one park in each neighborhood, as illustrated on Map 37. Only those neighborhood parks shown on this map and located within the newly defined urban service area are identified in the recommended land use plan. In addition, community or regional parks containing recreational facilities similar to those provided by neighborhood parks can serve the need for a neighborhood park. Some park sites have been identified on the recommended land use plan in addition to those needed to meet the per capita standard, based on the neighborhood park service radius standard of 0.75 mile in medium-density urban areas. This was done primarily to assure safe pedestrian access to new neighborhood parks where no other park facility is provided within a safe walking distance and to avoid the need to cross heavily traveled arterial streets to reach such parks.

According to the standards set forth in Table 31, neighborhood parks should be at least 11 acres in area if associated with a school site and at least 16 acres in area if not associated with a school. These types of parks should provide facilities for outdoor recreation, such as play equipment, playfields, and tennis and basketball courts. The eight new neighborhood parks are proposed for the Barton, Washington Heights, Wingate, Riverside, Lucas Lake, Sand Ridge, and Quaas Creek (two parks) neighborhoods.

Community Parks: Community parks, which should range in size from 25 to 99 acres in area, provide community-oriented facilities such as baseball and softball diamonds, soccer fields,

and swimming pools. The standards recommend that such parks be provided within two miles of the home of each resident in a medium-density residential area. Existing community parks in the West Bend urban service area include Regner and Riverside Parks. Major parks can also serve as community parks; and, in the case of West Bend, Ridge Run and Sandy Knoll County Parks, and the proposed Paradise Valley State Park near Lucas Lake, discussed below, are envisioned as serving community park needs. Based on the service area standards, it was determined that one additional community park would be needed in the southern portion of the urban service area. Accordingly, an approximately 113 acre site, including approximately 44 acres of primary environmental corridor, has been identified for a new community park on the recommended land use plan. It is to be located on the west side of CTH P, midway between Paradise Drive and Rusco Road (CTH NN).

Major Public Parks, Trails, and Special Outdoor Recreation and Other Open Space Sites: The need for major parks, parkways, and trails was not factored into the need assessment for park and recreational land in the urban service area. The Washington County and City of West Bend Park and Open Space Plans address the need for these facilities, and set forth the size and locations of major recreation facilities in the urban service area. The recommended land use plan reflects the recommendations made in these two park plans.

One major park, Ridge Run County Park, exists within the urban service area. Another major park, proposed to be located adjacent to Lucas Lake and named Paradise Valley State Park, is identified on the recommended land use plan. This park would be located partly inside and partly outside the urban service area. These two parks would serve a multi-county area by providing intensive outdoor recreation facilities such as a nature center, swimming beach, camping area, and areas for picnicking or other passive recreation activities. Both sites would also encompass large areas of significant natural resource base-related amenities located in primary environmental corridors.

Other significant special outdoor recreation and open space sites within the urban service area are also shown on the recommended land use plan. These existing areas include the Glacial

Blue Hills Recreation Area, encompassing significant high-value woodlands with picnicking, hiking, and other passive recreational activities; the Lac Lawrann Conservancy Area, which includes woodlands, wetlands, wildlife habitat, and other natural resources within a primary environmental corridor; the Juech Wildlife Area, which also includes wetlands and wildlife habitat areas along with a natural ice skating area; Albecker County Park, which contains a play apparatus and picnicking areas surrounded by significant wetlands located within a primary environmental corridor; Old Settler's Triangle, which is a site of less than one acre, in the Central Business District, commemorating the first European settlers in the West Bend area; and the Silverbrook Middle School property, which contains significant wetlands along a perennial stream located in a primary environmental corridor.

Primary environmental corridors in urban or urbanizing areas in public ownership are often termed "parkways". Parkways are generally located along a stream or river, ridge line, or other linear natural feature and are intended to provide aesthetic and natural resource continuity. Parkways often serve as ideal locations for trail facilities. The Washington County and City of West Bend park plans call for the acquisition of land and establishment of parkways along ridge lines and streams, including the three major identified watercourses within the planning area: the Milwaukee River, Silver Creek, and Quaas Creek. The City's park plan proposes a total of eight parkways within the urban service area: Four Lakes Parkway, Milwaukee River Parkway, Quaas Creek Parkway, Silverbrook Parkway, Silver Creek Parkway, Sunset Parkway, Glacier Parkway, and Wingate Parkway. The County and the City both have begun to acquire land for these parkways.

The West Bend park plan also recommends the development of major trails, or recreational corridors, in these parkways as illustrated on Map 5. One segment of this system of corridors with trail facilities would include the West Bend Riverfront Walkway, located within the Milwaukee River Parkway. As already noted, a master plan was prepared by the City for this riverfront walkway, which would ultimately consist of an attractive 4.5-mile pedestrian trail along the Milwaukee River connecting sites and features of historic interest, of business and industry, of

residential areas, and of parks along the river corridor. Another segment of the recreation corridor system within the urban service area would include a portion of the 11 miles of Ice Age Trail located within the West Bend planning area, as shown on Map 21.

Map 21 also shows the Kettle Moraine Scenic Drive traversing the planning area. This is a pleasure-drive route connecting the Kettle Moraine State Forest—Southern Unit in Jefferson, Walworth, and Waukesha Counties with the Kettle Moraine State Forest—Northern Unit in Fond du Lac, Sheboygan, and Washington Counties. The Washington County park plan also proposes a bicycle trail along this scenic drive to the Milwaukee River whence the trail would then travel southwest along the River to Barton Avenue, continue north along Barton Avenue and STH 144 to Wallace Lake Drive, proceeding easterly along Wallace Lake Drive beyond the planning area.

THE RECOMMENDED LAND USE PLAN FOR THE CITY OF WEST BEND PLANNING AREA

A recommended land use plan for the entire City of West Bend planning area was also prepared as shown Map 38. This plan indicates both those areas in which urban development now exists and those areas in which such development should be permitted and encouraged, in accordance with the land use development objectives, principles, and standards set forth in Chapter VI. In addition, the plan calls for the preservation of the best remaining farmlands located outside of the urban service area, but within the planning area. The recommended plan was quantitatively analyzed, with the findings presented in Table 41, and compared in that table to the existing 1985 land uses in the City of West Bend planning area. Figure 22 illustrates graphically the differences between the existing 1985 and the proposed land uses in the planning area.

It is important to note that most of the land use features shown on the land use plan recommended for the planning area are similar to those shown on the preliminary plan prepared for the same area. As noted earlier, proposals were advanced in response to information provided at public meetings held on the preliminary plan. These proposals were discussed in the

Table 41

SUMMARY OF EXISTING 1985 AND PLANNED LAND USE IN THE CITY OF WEST BEND PLANNING AREA

Land Use Category	Existing 1985 Land Use		Recommended Land Use Plan			
			Planned Increment		Planned Land Use under Full Development of Urban Service Area	
	Total Acres ^a	Percent of Total	Total Acres ^a	Percent of Total	Total Acres ^a	Percent of Total
Urban						
Residential	4,120.2	10.2	4,532.8	110.0	8,653.0	21.3
Commercial	400.0	1.0	639.5	159.9	1,039.5	2.6
Industrial	266.9	0.7	776.5	290.9	1,043.4	2.6
Transportation, Communications and Utilities ^b	381.2	0.9	492.8	129.3	874.0	2.1
Governmental and Institutional ^a	498.3	1.2	267.9 ^c	53.8	766.2	1.9
Recreational	413.3	1.0	415.7 ^d	100.6	829.0	2.0
Subtotal	6,079.9	15.0	7,125.2	117.2	13,205.1	32.5
Rural						
Primary Environmental Corridor	10,294.0	25.4	-65.4	-0.6	10,228.6	25.2
Secondary Environmental Corridor	890.0	2.2	75.1	8.4	965.1	2.4
Isolated Natural Areas . . .	1,134.0	2.8	-76.8	-6.8	1,057.2	2.6
Prime Agricultural Lands	10,843.2	26.7	-2,183.0	-20.1	8,660.2	21.3
Rural Estate and Other Agricultural and Open Lands	11,100.5	27.3	-4,743.7	-42.7	6,356.8	15.7
Extractive and Landfill . . .	249.3	0.6	-131.4	-52.7	117.9 ^e	0.3
Subtotal	35,511.0	85.0	-7,125.2	-20.6	27,385.8	67.5
Total	40,590.9	100.0	--	--	40,590.9	100.0

^aIncludes associated street rights-of-way and off-street parking areas for each land use category.

^bIncludes only railroad and freeway rights-of-way, and communication, utility, and transit station properties.

^cExcludes lands for future elementary schools to be located in the Washington Heights, Sand Ridge, and Quaas Creek residential neighborhoods. Final site selection for these schools should be based on a detailed plan for these three neighborhoods.

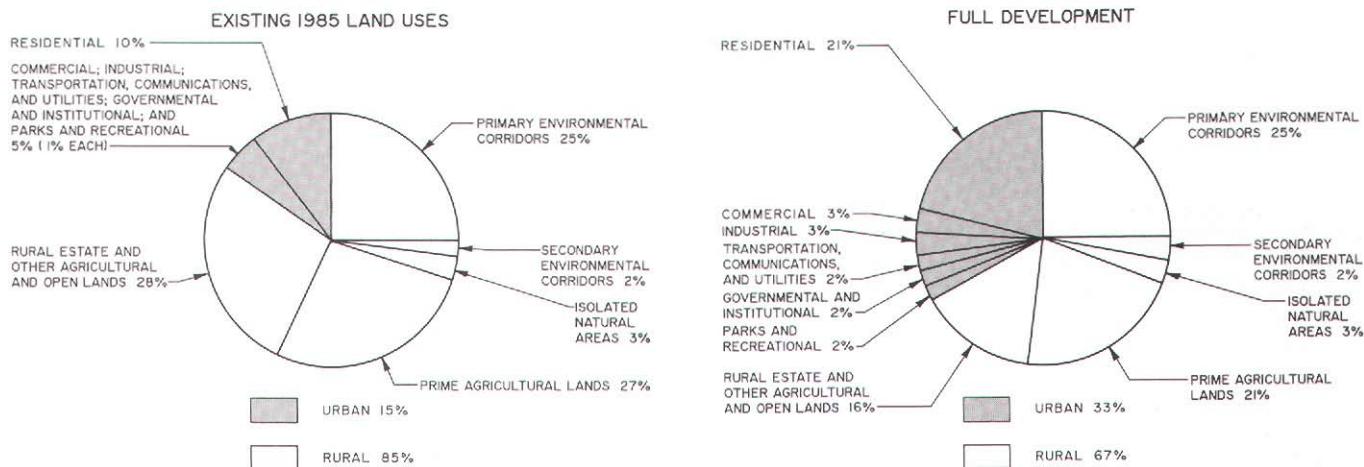
^dIncludes only those increases attributable to recommended increases in public recreational land. Does not include possible increases due to development of private recreational facilities. Also, this increment does not include land for a future neighborhood park in the Quaas Creek neighborhood. Final site selection for this park should be based on a detailed plan for this neighborhood.

^eIncludes only quarrying and extractive developments.

Source: SEWRPC.

Figure 22

**COMPARISON OF EXISTING AND PROPOSED LAND USES
IN THE CITY OF WEST BEND PLANNING AREA: 1985 AND 2010**



NOTE : THE CITY OF WEST BEND PLANNING AREA TOTALS 40,591 ACRES, OR ABOUT 63.4 SQUARE MILES

Source: SEWRPC.

previous section, and are the only differences between the land use patterns shown on the preliminary and the recommended land use plans for the entire planning area. The land use pattern for the "rural" areas, areas located outside of the urban service area but within the planning area, in both of these plans is identical.

Environmental Corridors and Other Environmentally Significant Areas

Primary environmental corridors occupied approximately 10,294 acres, or about 25 percent, of the City of West Bend planning area in 1985. Table 41 indicates that these corridors would occupy about 10,229 acres under the recommended land use plan. This figure is about 25 percent of the total planning area; however, the recommended plan shows a loss of corridor lands in comparison to those existing in 1985 primarily because of the development of USH 45. Smaller areas of the corridors were converted to other urban developments, such as residential and commercial developments. The remaining primary environmental corridors should be preserved in essentially natural, open uses unless otherwise recommended in this report.

The secondary environmental corridors shown on the recommended land use plan occupy about 965 acres, or about 2 percent, of the entire planning area, an increase of about 75 acres, or

about 8 percent, over the 1985 total. The increase is due primarily to wetland and woodland areas removed from agricultural production between 1985 and 1990. Secondary environmental corridors within the planning area are generally associated with intermittent watercourses and contain large areas of wetlands and woodlands, as shown on the recommended plan. It is recommended, to the maximum extent practicable, that secondary environmental corridors be maintained for public or private uses such as parks, drainageways, or stormwater detention or retention areas.

Isolated natural areas consist of small areas with important natural resource values separated geographically from primary and secondary environmental corridors. Under the recommended land use plan, isolated natural areas would occupy about 1,057 acres, or about 3 percent, of the total planning area, a decrease of about 77 acres, or about 7 percent, from the 1985 total. This decrease is primarily due to subdivision and development in wooded areas between 1985 and 1990. The plan recommends that careful consideration be given to preserving such areas in open uses to the maximum extent practicable. In this respect, isolated natural areas lend themselves to use for such public purposes as parks, drainageways, or stormwater detention or retention areas.

The plan also recommends that other small areas containing important natural resource values be preserved. Even though these areas do not currently qualify as environmental corridors or isolated natural areas, they are environmentally significant in the sense that they contain poor soils, wetland vegetations, steep slopes, floodlands, or provide buffering between incompatible land uses. These areas are either adjacent to lands classified as environmental corridors or are small isolated areas, less than five acres, scattered throughout the planning area. Lands in this land use category occupy approximately 592 acres, or about 2 percent of the entire planning area, under the recommended land use plan. The plan recommends that careful consideration be given to preserving such areas, similar to isolated natural areas, which are in essentially natural, open space use whenever practicable. As noted earlier, these open lands may eventually be reclassified as environmental corridors or isolated natural areas as vegetation develops on such undisturbed areas during the life of the recommended land use plan, especially those open lands located in floodlands.

Residential Land Uses

Those areas recommended for residential use, as shown on Map 38 and as set forth in Table 41, total about 8,653 acres under the recommended land use plan. This figure represents approximately 21 percent of the total planning area, an increase of about 110 percent over the 1985 level. Even though the data in Table 41 includes all residential developments, it is important to note that only those residential areas that contain clusters of five or more residential lots, with lot sizes less than five acres in size, are shown on Map 38.

The plan identifies those areas recommended for suburban residential development with lot sizes ranging from 1.5 up to 5.0 acres. Such single-family residential developments are diffused throughout the planning area, generally located where such developments were already platted before 1991. The plan also identifies those areas recommended for low-density, single-family residential development with lot sizes ranging from 20,000 square feet up to 1.5 acres. Such single-family residential developments are also diffused throughout planning area, generally located where such developments were already platted before 1991, except for several new

locations within the urban service area. The suburban- and low-density residential areas outside the urban service area and the special sanitary sewer service areas consist of existing land subdivisions, including divisions created by certified survey maps, and are areas which are not proposed to be served by public sanitary sewer service during the life of the recommended land use plan. Partly because of the lack of these services, no additional urban residential developments on lots less than five acres are recommended outside of the urban service area. New urban residential developments outside of the urban service area should be encouraged to locate only on existing vacant lots, provided the soils and size of each lot proposed for development are capable of properly accommodating an onsite sewage disposal system and a private well.

The recommended land use plan also identifies those areas for more intense residential developments such as medium-density, single-family residential developments with lot sizes ranging from 7,200 up to 20,000 square feet; two-family residential developments; and multi-family resident developments. At best, any new residential developments of these types are recommended to be located primarily within the newly defined urban service areas shown on the plan, where public water, sanitary sewer, and other urban services would be provided. The medium-density, single-family residential areas shown outside the urban service area, around the lakes and in the northeastern part of the planning area, already existed or were platted before 1991.

Commercial and Industrial Land Uses

Map 38 identifies specific commercial land uses, together with other commercial areas of a more general type, that would encompass an area of approximately 1,040 acres, or about 3 percent, of the total planning area under the recommended land use plan. As noted earlier, the specific commercial uses identified in the plan includes 10 neighborhood retail and service centers; five community retail and service centers, including the Central Business District; and two office centers. As the plan shows, most of the commercial uses would be located within the urban service area, with other small commercial sites, that already exist, located outside this urban service area. No new commercial areas are recommended outside the urban service area during the life of the recommended land use plan.

Industrial uses would occupy about 1,043 acres, or about 3 percent, of the total planning area under the recommended land use plan. As shown in this plan and noted earlier, all new industrial developments are proposed to be located within the urban service area. Those uses shown outside this area existed before 1991. No new industrial areas are recommended outside the urban service area during the life of the plan.

Extractive

The recommended land use plan recognizes the existence of two gravel pits that encompass an area of approximately 118 acres, or less than 1 percent of the planning area. Both are currently active and are outside the urban service area in the Town of Barton. One is on the east side of Kettle View Drive between Lighthouse Lane (CTH D) and Beaver Dam Road, and the other is on the north side of the intersection of STH 33 and Riescl Drive.

Governmental and Institutional Land Uses

Those areas recommended for governmental and institutional uses, as shown on Map 38, would total about 766 acres under the recommended plan. This figure represents approximately 2 percent of the total planning area. These uses include the continuation of already existing governmental and institutional uses outside of the urban service area as well as new developments of this type within the urban service area as discussed earlier. The scattered governmental and institutional uses shown in the plan outside the urban service area consist primarily of churches, cemeteries, Cedar Lake Homes, Silver Maple Pre-School, and the town halls of the Towns of Barton and West Bend. No additional lands for governmental or institutional uses are identified in the recommended land use plan because of the insignificant amount of additional area that is expected to be required for such uses during the life of the plan.

Parks and Recreational Land Uses

As already noted, the park and recreational uses shown on Map 38 are based on recommendations contained in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000; SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County; and SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for the City of West Bend.

Specific park and recreational uses, including trails, have been described in the preceding section of this report. Under the recommended land use plan, public as well as private intensive outdoor recreational uses would encompass approximately 829 acres, or about 2 percent of the total planning area. Two significant parks that were not discussed in detail in the previous section lie outside the urban service area are the Sandy Knoll and Lizard Mound County Parks. The existing Sandy Knoll Park is a 263-acre major park located adjacent to the northeast part of the City of West Bend urban service area and contains such facilities as softball fields, picnic areas with shelters, play areas, and hiking and ski-touring trails. The Washington County park plan recommends that this park be expanded by adding 360 acres, which fact is not reflected in the recommended land use plan, to include 219 acres of primary environmental corridor for resource preservation purposes, to link this park with Lizard Mound County Park to the north, and to provide additional softball diamonds, picnic areas, play areas, and trail facilities. The proposed site boundary for the park expansion should be based on a detailed site plan for this area. Lizard Mound County Park is essentially a special 32-acre park containing Indian effigy mounds among high-value upland woodlands.

Prime Agricultural Lands

Prime agricultural lands are defined as parcels 35 acres or larger that are covered by soils well suited for the production of food and fiber, and occur in aggregates of 640 acres of farmland or conservancy lands. Prime agricultural lands are proposed to encompass approximately 8,660 acres, or about 21 percent, of the total planning area under the recommended land use plan. As shown Map 38, all prime agricultural lands are located outside of the City of West Bend urban service area.

Rural-Estate and Other Agricultural and Open Lands

The areas shown in white on Map 38 in the City of West Bend planning area include nonprime agricultural lands and other open lands, excluding the 592 acres of open lands to be preserved, and would encompass approximately 5,764 acres, or about 14 percent, of the total planning area under the recommended land use plan. These areas are generally intended for agricultural use, but are covered by less productive

agricultural soils not considered prime farmland soils, or are held in parcels that are smaller than 35 acres and could thus be converted to residential development at a rural-estate density of at least five acres per dwelling unit. Rural-estate residential development can be permitted conditionally in these areas without public sanitary sewer or water supply facilities. Such large lot sizes increase the likelihood that suitable areas, with good soils and level topography, exist on the lot for proper siting of private sewage disposal systems, building pads, driveways, and other residential structures. Rural-estate development should be carefully designed to avoid steep slopes, poorly drained soils, and other physical constraints.

TRANSPORTATION SYSTEM DEVELOPMENT

Street and Highway System

An efficient arterial street and highway network provides the necessary means of access from both rural and urban areas to supporting service, employment, recreational, and cultural centers. It is essential, therefore, that land use development be designed to protect the efficiency of the arterial street and highway system and to utilize that system as fully as practicable. Transportation system plans should also work to minimize street and highway improvement costs as well as the level of disruption new transportation improvements may cause to existing development.

Map 4 in Chapter I reflects the arterial street and highway system adopted in the Washington County Jurisdictional Highway System Plan—2000, as it relates to the City of West Bend planning area. Map 38 depicts the general location of the proposed arterial streets recommended in this system plan. Suggested cross-sections for the arterial streets and highways are shown in Figure 5 of Chapter VI.

It is important to note that the presentation on Map 4 of the arterial street and highway system as a framework for land use plan design is not a substitute for a detailed arterial street and highway plan for the City of West Bend and environs. The City should pursue preparation of such a plan, taking into consideration recommended land uses and the possible need for changes in the existing arterial street and highway system plan to serve such uses. A

detailed street and highway system plan should also address such factors as the need for dedicated right- and left-turn lanes, channelization, signalization, medians, and the issue of driveway locations. As a separate element of the evolving comprehensive plan, the City of West Bend Transportation System Plan Advisory Committee, with the assistance of the Regional Planning Commission, is presently preparing such a plan, which would not only complement the land use plan provided herein, but also the local transit system plan described below.

There is also a need to identify the width and location of future collector and land access streets in the City of West Bend urban service area. This should be accomplished as part of the detailed planning for each of the neighborhoods and special planning districts delineated on Map 37.

Collector streets should be arranged so as to provide for the ready collection and distribution of traffic from and to residential or other land uses and for the conveyance of this traffic to and from the arterial street and highway system. The land access street network should be designed to achieve an efficient use of land; to discourage use by through traffic; to minimize street area; to provide an attractive setting for residential development; to facilitate the provision of efficient stormwater drainage, sanitary sewerage, and public water supply facilities; and to fit the natural terrain, thereby minimizing the need for earthwork during the development process. Suggested cross-sections for collector and land access streets are also shown in Figure 5 of Chapter VI.

Mass Transit System

Another element of the comprehensive plan closely related to the street and highway system plan and to the recommended land use plan is the transit system plan. All modes of travel should be considered in transportation planning, with emphasis on how those modes may affect the utilization of the arterial street and highway system.

Car-Pooling Plan: As noted in Chapter VII, the adopted regional transportation system plan recommends that a “park and pool” lot be provided near the USH 45 and Paradise Drive interchange within the City of West Bend urban service area. By promoting car-pooling, vehicu-

lar travel demand would be reduced, thus saving motor fuel and capital investment in arterial street and highway improvements. Map 38 shows a "park and pool" lot to be provided southeast of the USH 45 and Paradise Drive interchange, where a future transit station would be located, as discussed below.

Regional Transit System Plan: Under recommendations contained in the regional transit system plan, as noted in Chapter VII, the City of West Bend urban service area would be provided with express bus transit services between the City of West Bend and the greater Milwaukee area. This regional transit system plan recommends that transit park-ride facilities be located near the intersections of Main and Washington Streets, and of USH 45 and Paradise Drive. Due to the limited availability of space to provide such a facility at the intersection of Main Street and Washington Street, the recommended land use plan only recommends such a transit station near the USH 45 and Paradise Drive interchange, the same parking facility that would also function as the "park and pool" lot.

Local Transit System Plan: The City recently completed and adopted a local transit system plan, documented in SEWRPC Community Assistance Planning Report No. 189, City of West Bend Transit System Feasibility Study and Development Plan: 1992-1996. Under that plan the City elected to establish a demand-responsive, shared-ride taxicab service to serve the resident population of the West Bend area. The plan further recommended that any public transit system established be operated by a private transit operator and that the City own the necessary transit system operating equipment. The City is presently seeking federal and state fundings under available transit assistance programs to implement this plan.

Railway: The recommended plan envisions that the existing railway through the planning area will continue to provide railway freight services during the life of the plan. The Fox River Valley Railroad Company provides common railway

services over the railway line from Milwaukee to Green Bay via Fond du Lac, the former Chicago & North Western Railway line. The Fox River Valley line passes through the City of West Bend generally along the east side of Milwaukee River and would serve as a focus for the location of certain land uses.

Airport System Plan: As noted earlier, the adopted regional airport system plan contains specific recommendations for the improvement of the West Bend Municipal Airport in the City of West Bend urban service area. Map 27 shows the recommended site improvement plan for this municipally owned airport. The plan recommends that this airport be upgraded from a General Utility-Stage I facility to a General Utility-Stage II facility capable of accommodating all types of business jets. The City of West Bend, together with the Wisconsin Department of Transportation and the Federal Aviation Administration, has completed many of the recommended improvements, including the installation of a localizer; reconstruction of a runway, taxiways, and the apron; the acquisition of additional land for runway extension and clear zone protection areas; and the installation of improved runway lighting, signing, and airport electrical power supply. On October 4, 1989, the Federal Aviation Administration designated the West Bend Municipal Airport as a reliever facility to Milwaukee County's General Mitchell International Airport. This status would provide opportunities for financial assistance for eligible capital improvements and land acquisition.

The recommended land use plan presented herein shows the proposed realignment of E. Washington Street (STH 33) as recommended in the regional airport system plan and also shows the recently acquired airport land. However, the City is currently in the process of determining which additional land should be acquired and reserved as clear-zone protection areas by a clear zone or avigation easement. Once these areas have been determined, the land use plan should be amended to reflect the additional airport property.

Chapter IX

PLAN IMPLEMENTATION

INTRODUCTION

The recommended land use plan described in Chapter VIII of this report provides a design for the attainment of the community land use objectives set forth in Chapter VI. In a practical sense, however, the plan is not complete until the steps necessary to implement that plan have been specified. After formal adoption of the land use plan, realization of the plan will require faithful, long-term dedication to the underlying objectives by municipal officials concerned with its implementation. Thus, the adoption of the plan is only the beginning of a series of actions necessary to achieve the objectives expressed in this report. The plan should be used as a guide for making decisions concerning land development in the City and in the planning area. Adjustments to the plan should be made if and as required by changing conditions. Consequently, one of the important tasks of plan implementation is a periodic reevaluation and reexamination of the plan to ensure that it properly reflects current conditions. It is recommended that this reevaluation and reexamination take place about every ten years, or more frequently if warranted by changing conditions.

Attainment of the recommended land use plan for the City of West Bend planning area will require some changes in the development policies of the City. Since the maintenance of the present character of the planning area is dependent to a considerable extent upon preserving and protecting the natural resource base, the density of new development should be carefully regulated to ensure that new residential development at urban densities, that is, at densities generally greater than 0.7 dwelling unit per net residential acre or less than 1.5 acres per dwelling unit, are confined to those areas where urban services can be efficiently and economically provided.

Urban development outside the West Bend urban service area that would require the conversion of the best remaining agricultural lands to urban use or the encroachment of urban development into primary environmental corridors, secondary environmental corridors, or other environmentally significant lands; the

draining and filling of wetlands; or the grading of hilly wooded sections should be avoided. These policies are central to a sound development strategy for the planning area. In fact, the effectiveness of many of the more specific recommendations of this report will be lost if these policies are ignored or greatly compromised. Development policies and practices that consider the limitations of the natural environment will, in the long term, not only preserve the overall quality of the environment in the City and planning area, but will avoid the creation of serious and costly environmental and developmental problems and will avoid the need to provide costly urban facilities and services over an ever-widening area. Residential development outside of the urban service area should be limited to the infilling of already existing platted residential lots or to rural-estate lots, or equivalent overall densities, in order to preserve the rural character and setting of the area. Such rural-estate-density lots should have a minimum area of five acres per lot or equivalent overall density. The soils maps presented in Chapter III of this report should be carefully considered by the City prior to the approval of any additional land subdivisions within its extraterritorial plat review jurisdiction.

Attainment of the recommended land use plan for the City will require not only changes in certain development policies of the City, but also the introduction of some, and modification of other, plan implementing instruments. Certain modifications should be made to the West Bend land subdivision control ordinance to bring that ordinance into conformance with several urban design standards set forth in Chapter VI of this report and also with a recent revision to Chapter 236 of the Wisconsin Statutes. The municipal zoning ordinance should be revised to better reflect current land uses and to make zoning a more effective tool for implementing the plan. More specifically, a new zoning district should be considered for inclusion in the zoning ordinance in order to protect and preserve more effectively the natural resource base in the planning area. In addition, extraterritorial zoning should be considered as a basis to guide development in the fringe areas. All rezoning applications should be

carefully reviewed regarding their relationship to the adopted land use plan.

The official map should be amended, as necessary, to reflect planned arterial streets and highways, waterways, parkways, and the location and extent of parks and playgrounds.

All sanitary sewer extensions should be carefully reviewed for compliance to the land use plan implementation.

PUBLIC INFORMATIONAL MEETINGS AND HEARINGS

Wisconsin city planning enabling legislation does not require local plan commissions to hold public hearings on proposed master plans prior to their adoption. It is nevertheless good planning practice to do so, in order to provide for, and promote, active citizen participation in the planning process. Such public hearings and related public informational meetings are desirable to acquaint residents and landowners with the details of the proposed plan and to solicit public reaction to the plan proposals. The plan should then be modified to reflect any pertinent new information and to incorporate any sound and desirable new ideas advanced at the informational meetings and hearings. Accordingly, two public informational meetings were held on a preliminary plan, on February 12 and 19, 1992. Based in part upon comments received at these public meetings, an alternative plan, the recommended plan, was developed as directed by the City Plan Commission. This plan was designed to address the concerns raised and to incorporate desirable new ideas advanced at these meetings.

PLAN ADOPTION

An important step in plan implementation is the formal adoption of the recommended land use plan by the City Plan Commission and certification of the adopted plan to the Common Council pursuant to state enabling legislation. Upon such adoption, the recommended plan becomes the official guide to the decision-making of the City's officials concerning the development and redevelopment of the City and environs. The recommended land use plan was adopted by the City Plan Commission on May 12, 1992, and subsequently endorsed by the City Common Council on June 1, 1992, as

indicated in the resolutions in Appendices A and B, respectively.

ZONING

Of all the land use implementation devices presently available, perhaps the most important and most versatile is the zoning ordinance. Following adoption of the land use plan by the City Plan Commission and certification of the adopted plan to the Common Council, as provided by Section 62.23 of the Wisconsin Statutes, the City Plan Commission should initiate appropriate amendments to the West Bend zoning ordinance and zoning district map, where necessary, to bring the ordinance and map into conformance with the concepts and proposals advanced in the adopted land use plan. Pursuant to state enabling legislation, the zoning changes recommended by the City Plan Commission can be enacted by the Common Council only after a formal public hearing. Based upon the findings of an analysis of the current zoning ordinance as reported in Chapter V, the plan policies set forth in Chapter VI, and the recommended land use plan set forth in Chapter VIII, the following new zoning district and attendant regulations are recommended for consideration by the City to help implement the land use plan and related urban design standards.

C-1 Conservancy District

A Conservancy District should be considered for inclusion in the City zoning ordinance. This district is intended to be used to prevent the destruction of valuable natural resources, particularly woodlands, wildlife habitat areas, areas of steep topography, and related scenic areas. Regulation of these areas should serve to control erosion and sedimentation and to protect the natural resource base and to promote and maintain the natural beauty of the area, and the public welfare. This district should permit certain uses of the land compatible with the protection and preservation of the natural resource base, such as recreational uses and open space for adjoining higher intensity urban land uses, such as small lot subdivisions and multi-family residential developments. The district should have no minimum area requirements. The district should generally be used in those areas of the planning area identified as encompassing significant combinations of natural features and would basically be applied to the upland portions of areas identified in the

plan as primary or secondary environmental corridors, isolated natural areas, or other open lands to be preserved.

Extraterritorial Zoning

State law allows any city or village that has created a plan commission and adopted a zoning ordinance to exercise extraterritorial zoning authority in unincorporated areas contiguous to the municipality's corporate limits, provided the procedures set forth in Section 62.23(7a) of the Wisconsin Statutes are followed. The purpose of extraterritorial zoning is to ensure that lands intended for future expansion of urban development will not be prematurely developed in the absence of adequate urban services and to discourage fragmented land divisions that may make orderly development of future areas of urban expansion more difficult. The City of West Bend has the option of exercising extraterritorial zoning in unincorporated areas within three miles of its boundaries, except when the area within three miles includes area within the extraterritorial zoning jurisdiction of another city or village. The extraterritorial area need not extend to the full limits specified by Statute. When the extraterritorial jurisdiction of two cities or villages overlap, the dividing line is drawn at a point that is equidistant from the corporate boundaries of the municipalities concerned. Such a situation could arise given the proximity of the City of West Bend to the Villages of Jackson, Kewaskum, and Newburg. At this time, only the City of West Bend has taken formal steps to enact extraterritorial zoning in accordance with the Wisconsin Statutes for a portion, not the full limits, of its extraterritorial jurisdiction.

The City of West Bend Common Council adopted a resolution on February 4, 1991, expressing its intent to exercise extraterritorial zoning authority in identified portions of the Towns of Barton, Farmington, Trenton, and West Bend. To date, only two six-member joint extraterritorial zoning committees, comprised of three members each from the Towns of Trenton and Farmington and three members from the City, were established. State law requires that an extraterritorial zoning committee consisting of three city representatives, and three town representatives be established in each extraterritorial town to formulate the extraterritorial zoning ordinance for that town. State law requires that three citizen members of the Plan Commission serve as the

City representatives. State law requires that three citizens of the town, who may also be town officials, be appointed to represent the town. The joint committees are charged with developing a proposed extraterritorial zoning ordinance, including district regulations, a zoning map, and provision for administration and enforcement of the ordinance. Each joint committee must hold a public hearing regarding the proposed ordinance before recommending its adoption to the Common Council. State law allows the entire City Plan Commission to participate in preparing the extraterritorial zoning maps and regulations, but only the six members from each committee may vote on matters relating to extraterritorial zoning. The City of West Bend Common Council may not approve the extraterritorial zoning ordinance or any amendments thereto unless a majority of the members on the joint committee vote in favor of the ordinance or amendment.

Upon adoption of the resolution expressing the intent of the City of West Bend to exercise its extraterritorial zoning authority, the existing zoning in the Towns may be "frozen" for a period of two years, to allow time for the extraterritorial zoning ordinance to be prepared for each of the Towns concerned. State law allows the two-year period to be extended for up to one year if the extension is recommended by the joint committee. As noted earlier, two joint extraterritorial zoning committees have been formed between the City of West Bend and the Towns of Trenton and Farmington. A joint committee with the Towns of Barton and West Bend have yet to be established. The preparation of a zoning ordinance and attendant zoning map for the areas concerned in each of the townships have yet to be prepared. The land use plan presented herein would serve as the basis for the extraterritorial zoning map.

Landscape and Architectural Plan Review and Regulations

To continue to ensure that the built environment will foster the attractiveness of the community as a place to live and work, the City's Zoning Ordinance should establish specific minimum landscape requirements and architectural review requirements consistent with the urban design standards set forth in Chapter VI. Minimum landscape requirements should be established for, but not limited to, building foundation planting, ground-level sign landscaping, parking

lot screening, solid waste collection and disposal equipment and mechanical equipment screening, interior parking lot landscaping, and perimeter and buffer yard landscaping.

The attractiveness of the architectural features in a built environment is just as important as the beauty of natural features. Architectural review guidelines should be provided in the City Zoning Ordinance to assure respect for, and reduce incompatible and adverse impacts on, the visual experience in a community, yet without stifling innovative architecture. Specifically, architectural review guidelines would promote an attractive community atmosphere, compatible development, stability of property values, and prevent impairment or depreciation of property values. A detailed analysis of the existing zoning ordinance should be conducted to determine its probable deficiencies for systematically implementing the urban design elements of the land use plan.

OFFICIAL MAPPING

Section 62.23(6) of the Wisconsin Statutes provides that the common council of any city may establish an official map for the precise identification of existing and proposed right-of-way lines and site boundaries of streets, highways, railways, waterways, parkways, and the location and extent of public transit facilities, and parks and playgrounds. The official map, which has the force of law and is deemed to be final and conclusive, is intended to be used as a precise planning tool for implementing public plans for the aforementioned features. One of the basic purposes of the official map is to prohibit the construction of buildings or structures and their associated improvements on land that has been designated for future public use. Furthermore, the official map is the only arterial street and highway system plan implementation device which operates on a communitywide basis in advance of land development, and can thereby effectively assure the integrated development of the street and highway system. The official map is a useful device for achieving public acceptance of long-range plans in that it serves legal notice of the government's intention to all parties concerned well in advance of any actual improvements.

The existing City of West Bend official map, adopted in 1940, has been periodically revised to

reflect various changes that have taken place since the adoption of the map. The present revised official map, however, does not reflect the availability of cadastral mapping prepared by the Regional Planning Commission under contract to the City from 1986 through 1989. Accordingly, the official map of the City should be updated as more precise cadastral maps become available and as new lands are platted and other changes relating to streets, highways, railways, waterways, parkways, public transit facilities, parks, and playgrounds are planned. Pertinent recommendations contained in the land use plan, as well as subsequently prepared precise neighborhood unit development plans, should be incorporated in such updates as detailed development plans are prepared for delineated neighborhoods and special planning districts. Such plans should identify precise locations for, and boundaries of, these features. The preparation of precise neighborhood unit development plans is discussed later in this chapter.

SUBDIVISION PLAT REVIEW AND REGULATION

This land use plan should serve as a basis for the review by appropriate officials of the City of West Bend of land subdivision plats and certified survey maps. Urban subdivisions should not be approved in areas recommended in the plan to remain in nonurban uses unless the developer can justify changing the land use plan. Any such proposed departures from the land use plan should be carefully considered by the City Plan Commission and should be allowed by that body only when it finds that such departures are warranted in the public interest. All urban subdivisions should be required to provide for a full complement of urban services.

The City land subdivision ordinance as set forth in Chapter 18 of the Municipal Code has relatively few deficiencies. The few deficiencies that do exist can be readily corrected through the amendment of the existing ordinance by revising the urban street design requirements so that the minimum dimension between the sidewalk and right-of-way line would be one foot versus two feet, while adding this one foot width to the minimum width of the tree bank for each urban street; revising the minimum pavement width for a two-lane urban arterial street from 46 to 48 feet, and for a two-lane rural collector street from 20 to 22 feet; adding a provision that requires the

developer to install in the tree bank of an urban street one street tree for every 35 feet of public street frontage, located in accordance with the City's standards; adding a provision that requires property lines at street intersections to be rounded with a minimum radius of 15 feet or greater, or of a comparable cut-off or chord in lieu of a rounded corner when permitted by the City Plan Commission; and revising the 20-day preliminary plat review period of an objecting authority to 30 days, to be consistent with Chapter 236 of the Wisconsin Statutes.

THE CAPITAL IMPROVEMENTS PROGRAM

A capital improvements program consists basically of a list of fundable major public improvements needed in a community over the next five years, arranged in order of priority of need and adjusted to the community's ability to pay. Major public improvements include such items as streets, sanitary sewers, storm sewers, water mains, and public buildings and parks, which together form the "urban infrastructure" required to support urban land use development and redevelopment. A capital improvements program is intended to promote well-balanced community development without overemphasis on any particular phase of such development and to promote coordinated development both in time and between functional areas. With such a program, required bond issues and tax revenues can be foreseen and provisions made. Needed land for the projects can be acquired in a timely fashion and staged construction facilitated.

It is recommended that those elements of the land use plan requiring public expenditures for implementation be integrated into the City capital improvements program.

IMPACT FEE ORDINANCE

An impact fee ordinance is a legal tool which may be used by a community for financing off-site public facilities and services. The impact fees or charges as outlined in the ordinance are levied by local governments against developers for their pro-rata share of the capital funding for public facilities and services necessitated by new development. Impact fees serve to shift the burden of the cost of providing new and expanded off-site facilities from the general public to the land developers who create the need

for the facilities. Impact fees can be used to assist in promoting community development by providing municipalities with the opportunity to expand the existing public facility system capacity while maintaining a level of services compatible with the objectives of the community. Local facilities and services which have been financed through impact fees include water and sewer facilities, parks, libraries, schools, roads, and police and fire protection services. Impact fees can also restrict the development of a community, particularly in a metropolitan area where other communities may not impose such fees.

The enactment of any proposed impact fee system should be carefully considered by the City. A number of issues should be addressed in the development of any legally sound impact fee system, including: relating the impact fee system to land use and transportation system plan implementation, defining and evaluating public facility service needs, identifying the geographic area for the impact fee ordinance, identifying the type of development to which impact fees are to be applied, measuring and pricing individual impacts of each development, administering impact fee revenues, and administering impact fee expenditures.

THE NEED FOR PRECISE NEIGHBORHOOD AND URBAN DEVELOPMENT PLANNING

The Regional Planning Commission, almost since its inception in 1960, has recommended that local plan commissions consider preparing detailed neighborhood unit development plans to help guide and shape land use development and redevelopment in the public interest. SEWRPC Planning Guide No. 1, Land Development Guide, published in November 1963, discussed the importance of neighborhood planning in the attainment of good residential land subdivision. The preparation of detailed neighborhood unit development plans, as well as special planning district plans, is based upon the concept that an urban area should be formed of, and developed in, a number of spatially organized, individually planned cellular units rather than as a single, large formless mass. These cellular units may be categorized by their primary or predominant land use and, as such, may be industrial, commercial, institutional, or residential. If practicable, each neighborhood or special planning district should be bounded by arterial streets; major park, parkway, or institutional lands;

bodies of water; or other natural or cultural features which serve to clearly and physically separate each neighborhood unit from the surrounding units.

Each residential neighborhood should provide housing for that population for which, by prevailing local standards, one public elementary school of reasonable size is typically required. The unit should further provide, within established overall density limitations, a range of lot sizes and housing types; a full complement of those public and semipublic facilities needed by the family within the immediate vicinity of its dwelling, such as religious facilities, neighborhood parks, and neighborhood shopping facilities; and ready access to the arterial street system and, thereby, to those urban activities and services which cannot, as a practical matter, be provided in the immediate vicinity of all residential development, namely, major employment centers, community and regional shopping centers, major recreational facilities, and major cultural and educational centers.

As noted in Chapter VIII, the internal street pattern of a residential neighborhood should be designed to facilitate vehicular and pedestrian circulation within the neighborhood, but to discourage, insofar as possible, penetration of the neighborhood by heavy volumes of fast through traffic. An elementary school should be centrally located adjacent to a neighborhood park so that the school and park together may function as a neighborhood center within walking distance of all areas of the neighborhood. In certain residential neighborhoods, it may be necessary to provide additional neighborhood parks or smaller subneighborhood parks for pedestrian safety purposes if such subneighborhoods are separated by a heavily traveled arterial street.

Ultimately, a residential neighborhood should promote convenience in living and traveling

within an urban area, promote harmony and beauty in urban development, preserve invaluable natural resources to be experienced by the residents, and bring the living area of the urban family into a scale which encourages the individual to take an active part in neighborhood and community affairs.

Unlike the land use plan, which is necessarily general, the plan developed for a neighborhood or special planning district is quite precise. It explicitly depicts development patterns which are practicable to meet such physical needs as traffic circulation, stormwater drainage, sanitary sewerage, water supply, and a sound arrangement of compatible land uses. Neighborhood and other urban development planning, therefore, must involve careful consideration of such factors as soil suitability, land slopes, drainage patterns, flood hazards, woodlands and wetland cover, climate variables, existing and proposed land uses in and surrounding the neighborhood or special planning district, and real property boundaries.

As shown on Map 37 of Chapter VIII, 23 residential neighborhoods and their attendant neighborhood facilities and nine special planning districts have been identified. Detailed and precise development plans should be prepared for each of the delineated neighborhoods and special planning districts. These plans should not only designate future ultimate land use patterns and specific neighborhood facility site locations, but should also define future collector and land access street locations and alignments and attendant lot and block configurations. In addition, these plans should identify areas to be protected from intensive urban development for environmental reasons, and should indicate the need to reserve major drainageways and utility easements. The preparation of detailed urban development plans for these defined areas will serve to further refine and detail the adopted land use plan.

Chapter X

SUMMARY

INTRODUCTION

Late in 1987, the City of West Bend requested the Southeastern Wisconsin Regional Planning Commission (SEWRPC) to assist the City in the preparation of a land use plan. The plan was to provide West Bend officials with a tool to help guide in the public interest land use development and redevelopment within the West Bend area. This report sets forth the findings and recommendations of the planning effort undertaken in response to that request. The plan identifies the land use development objectives of the City and the means for achieving those objectives over time.

The planning effort involved extensive inventories and analyses of the factors and conditions affecting land use development within the West Bend area, including existing and probable future resident population and employment levels, the natural resource base, existing land uses, and existing local plan implementation devices. The planning effort also involved the formulation of a set of land use development objectives and supporting standards for the West Bend area and the preparation of a land use plan which could accommodate the forecast population and employment levels while meeting the agreed-upon land use development objectives. The plan, when adopted by the City Plan Commission and endorsed the Common Council, is intended to serve as a guide to making land use development decisions in the West Bend area in a manner consistent with the promotion of the public health, safety, and general welfare. The planning effort also included recommendations for the implementation of the recommended land use plan over time. The findings and recommendations of the planning effort, as set forth in this report, are summarized below.

CHAPTER SUMMARY

Chapter I: Introduction

Chapter I defines and briefly describes the planning area, its early history, the findings and recommendations of past local and regional planning efforts as those efforts relate to the planning area, the purpose of the land use

planning efforts, and the procedure used to prepare the plan. The planning area was defined as an approximately 63.4-square-mile area encompassing the City proper and those portions of the surrounding Towns of Barton, Farmington, Trenton, and West Bend lying substantially within the extraterritorial plat approval jurisdiction of the City.

Chapter II: Population and Employment

Inventories, Analyses, and Forecasts

Chapter II provides information on the size, characteristics, and distribution of the resident population and employment in the planning area, and on anticipated changes in these important socioeconomic factors over time. This information is essential to the preparation of a sound community land use plan, because these factors directly influence land use requirements and needs. The primary purpose of the land use plan is to identify the best means of meeting those needs over time.

Population and Employment Forecasts: The population and employment forecasts, and ultimately related land use requirements as well, which were used in the planning for the West Bend area were based upon consideration of alternative population and employment projections developed at the regional level to the design year 2010. Two alternative population and employment projections were considered the most likely future scenarios for the planning area: an intermediate future growth scenario, centralized-development pattern and an optimistic future growth scenario, decentralized-development pattern. Under these alternatives, the population of planning area may be expected to increase from about 31,000 persons in 1985 to between 39,400 and 61,100 persons respectively by the year 2010. Employment in the planning area may be expected to increase from about 14,400 jobs in 1985 to between 20,700 and 25,900 jobs respectively by 2010. For the City of West Bend urban service area, the 20.4-square-mile area encompassing the City itself and the surrounding area envisioned to be capable of being provided with a full range of urban services, including sanitary sewer service, by the year 2010, the resident population may be expected to increase from about 23,800 persons

in 1985 to between 32,000 and 52,900 persons by the year 2010. Employment in the urban service area may be expected to increase from about 12,000 jobs in 1985 to between 18,600 and 23,200 jobs by 2010.

Future Age Distribution: Changes in the age composition of the resident population have important implications for land use and housing planning. Within the City of West Bend urban service area, for instance, the number of children in the five to 14 year age group may be expected to increase from about 4,000 in 1980 to over 4,500 by 2010 under the intermediate-growth, centralized-development scenario. This indicates a potential future need for additional elementary school and recreational facilities. Likewise, under the intermediate-growth, centralized-development scenario, the expected rise in the working-age population, 20 to 64 years of age, from about 12,300 in 1980 to about 19,100 by 2010, an approximately 55 percent increase, indicates a potential significant rise in the number of job seekers and the need for land and infrastructure suitable for commercial and industrial development within the urban service area. Finally, the demand for housing and services for the elderly within the urban service area may be expected, under the intermediate-growth, centralized-development scenario, to rise with the increase in the 65 year and older age group population, from 2,400 persons in 1980 to about 3,800 persons by 2010.

Household Size: In 1985, the average household size in the City of West Bend was 2.87 persons. Under the intermediate-growth, centralized-development scenario, this average may be expected to fall to 2.59 by 2010. This change in average household size has important implications for housing and residential land use planning since average household size is a basic factor used to convert resident population forecasts to the number of dwelling units needed.

Chapter III: Natural Resource Base Inventory and Analysis

The natural resources of the City of West Bend planning area are unique and vital to its ability to provide a pleasant and habitable environment for human life. Natural resources not only condition, but are conditioned by, urban growth and development. Any meaningful planning effort must, therefore, recognize the existence of a limited natural resource base to which urban

development must be properly adjusted if serious environmental and urban development problems are to be avoided.

Chapter III describes the principal elements of the natural resource base, which require careful consideration in any sound land use planning effort in the West Bend area. These elements in the West Bend area include the physiography, topography and surface drainage patterns, and soils; surface waters and groundwater, floodlands, and wetlands; woodlands; and wildlife habitat areas. Also considered were such aspects of the area as scenic viewpoints, natural areas of scientific value, and existing public and private parks and open space sites. The protection and preservation in essentially natural open uses of high-value natural resource areas, termed "environmental corridors", is one of the basic objectives of the recommended land use plan.

Soil Suitability: Soil properties exert a strong influence on the manner in which man uses land. Soil suitability maps of the West Bend area were prepared and analyzed, identifying soil limitations for urban development with and without sanitary sewer service. In general, intensive urban development should not be permitted in areas covered by soils unsuitable for either conventional onsite sewage disposal systems (septic tank systems) or aboveground systems (mound systems) unless public sanitary sewer service is provided.

As shown on Map 8 in Chapter III, about 40 percent of the total planning area is covered by soils having a high probability of being unsuitable, as defined by state regulations, for the use of conventional onsite sewage disposal systems. About 20 percent of the total planning area is covered by soils that are suitable for the use of conventional onsite systems. The remaining area either contains surface water or is covered by soils whose suitability for the use of such systems cannot be determined without onsite investigations. Similarly, as shown on Map 9, about 27 percent of the total planning area is covered by soils unsuitable for the use of mound systems, while about 47 percent of the area is covered by soils considered to be suitable for the use of such systems. The remaining areas either contains surface water or is covered by soils whose suitability for the use of such systems cannot be determined without onsite investigation.

Prime Agricultural Land: The rapid conversion of farmland to urban use has become a matter of increasing public concern. Prime agricultural lands are an important component of the natural resource base and, as such, should be preserved and protected whenever possible. In 1981, after the enactment of the Wisconsin Farmland Preservation Act, the Washington County Board of Supervisors adopted a farmland preservation plan for Washington County. This plan was intended to serve as a guide to the preservation of both agricultural lands and environmental corridors within the County. Prime agricultural lands in the planning area, defined in the latter plan as lands covered by soils well suited for agricultural production and in parcels of 35 acres or more in area, are shown on Map 12 in Chapter III. In 1985, such prime agricultural lands within the planning area encompassed about 17 square miles, or about 26 percent of the total planning area.

Primary Environmental Corridors: The primary environmental corridors are defined by the Regional Planning Commission as linear areas in the landscape at least 400 acres in size, two miles in length, and 200 feet in width encompassing concentrations of high-value elements of the natural resource base. As already noted, the protection of these corridors is one of the important objectives of the land use plan. As shown on Map 22 in Chapter III, primary environmental corridors, in 1985, covered about 16 square miles, or about 25 percent, of the total planning area. These corridors are located primarily along the streams in the eastern part of the planning area which flow into the Milwaukee River, and around Big and Little Cedar Lakes, Green Lake, Gilbert Lake, Wallace Lake, Lucas Lake, and Silver Lake. The primary environmental corridors contain the best remaining woodlands, wetlands, and wildlife habitat areas, as well as undeveloped floodlands, groundwater recharge and discharge areas, and areas covered by organic soils. These corridors have immeasurable environmental and recreational value. Their preservation in essentially open, natural uses, including park and open space uses, limited agricultural uses, and rural-estate residential uses, will help maintain a high level of environmental quality in the area, protect its natural beauty, and provide valuable recreational opportunities. Such preservation will also help prevent serious and costly environmental and developmental problems attendant

to the urban development of the corridors, such as flood damage, poor drainage, wet basements, excessive infiltration and inflow of clear water into sanitary sewers, failing foundations of roads, parking areas, walls, and buildings, and water pollution.

Secondary Environmental Corridors: Map 22 also delineates secondary environmental corridors within the planning area. Secondary environmental corridors, while not as significant as the primary environmental corridors in terms of the overall resource values concerned, should be preserved in essentially open natural uses to the extent practicable as urban development proceeds within the planning area, since the maintenance of such corridors in open use can facilitate drainage, provide wildlife travel routes through residential and agricultural areas, maintain "pockets" of natural resource features, and serve as local parks and open space areas. Such corridors are, by definition, at least 100 acres in size and one mile in length, except there are no size requirements for such secondary corridors linking to or connecting segments of primary environmental corridors. As of 1985, about 1.4 square miles, or 2 percent of the planning area, were classified as secondary environmental corridors. These corridors were located generally along intermittent streams and served as links between segments of primary environmental corridors.

Isolated Natural Areas: Isolated natural areas are also identified on Map 22. Isolated natural areas generally consists of areas containing natural resource base elements such as wetlands, woodlands, wildlife habitat areas, and surface water, but that are separated from the primary and secondary environmental corridors by intensive urban or agricultural land uses. Since isolated natural areas may provide the only available wildlife habitat in an area, provide good locations for local parks, and lend natural diversity to an area, these areas should also be protected and preserved to the extent practicable. Isolated natural areas of five acres or more in size totaled about 1.8 square miles, or about 3 percent of the total planning area in 1985.

Chapter IV: Existing Land Uses and Man-Made Features

If the land use plan is to constitute a sound and realistic guide to the making of decisions concerning the land use development and redevelopment in the City and environs, it must be based

upon careful consideration of certain pertinent man-made as well as natural features of the area. For the purposes of this land use planning effort, the pertinent man-made features were identified in Chapter IV of this report as: 1) existing land uses, 2) historic buildings and sites, 3) existing public community facilities, and 4) existing public utility systems. Each of these man-made features is described in Chapter IV as it affects the land use development in the City and environs.

Existing Land Uses: In 1985, the Regional Planning Commission conducted detailed inventories of existing land use within the planning area in order to determine the type, amount, and spatial distribution of the existing urban and rural land uses. The data gathered in this land use inventory were mapped and analyzed in order to provide a basis for both the determination of existing and probable future land use needs and for the design of appropriate patterns of future land use development in the planning area. The inventory findings are graphically shown on Map 23 in Chapter IV. The amount of land devoted to each existing land use in the City of West Bend planning area and in the City of West Bend proper are set forth in Tables 20 and 21, respectively, in Chapter IV.

As already noted, the planning area totals about 63.4 square miles. In 1985, urban land uses occupied about 11.7 square miles, or about 18 percent of the total planning area. Rural land uses, which include water, wetlands, woodlands, agricultural lands, and other open lands, occupied about 51.7 square miles, or about 82 percent of the total planning area. In 1985, the incorporated City of West Bend occupied about 9.2 square miles, or about 15 percent of the total planning area. Within the City, in 1985, urban land uses occupied about 5.3 square miles, or about 57 percent of the metropolitan area, while rural land uses occupied about 3.9 square miles, or about 43 percent of the area.

Several important elements of the character of the planning area can be noted from an examination of Table 20 and on Map 23. First, the largest single group of land uses in the City of West Bend planning area in 1985 were still agricultural related uses, representing about 50 percent of the total planning area. The next largest group of land uses were natural resource

related uses consisting of water, wetlands, and woodlands, occupying almost 26 percent of the total planning area. Third, residential land uses represented about 9 percent of the total planning area. Residential uses, however, represented the largest single land use in the City of West Bend in 1985, representing about 27 percent of the City area.

Chapter V: Existing Local Plan Implementation Devices

Land use development can be guided and shaped in the public interest through sound application of public land use controls. The existing regulations examined in this respect in Chapter V included the City of West Bend zoning ordinance, land subdivision control ordinance, construction site erosion control ordinance, interim stormwater management ordinance, and the official map. Regulations of Washington County and of the Towns located within the City of West Bend planning area were also considered. The most important of the regulations considered were the comprehensive zoning and land subdivision control ordinances.

Zoning Ordinances: Zoning ordinances and related zoning district maps within the planning area in 1991 included the City of West Bend zoning ordinance and map, summarized in Table 24 and shown on Map 33; the zoning ordinances and maps of the Towns of Barton, Farmington, Trenton, and West Bend, summarized in Tables 25 to 28, respectively, and shown on Map 34; and the Washington County floodplain zoning ordinance and shoreland and wetland zoning ordinance and maps.

Land Subdivision Ordinances: Land subdivision within the planning area is regulated by a group of ordinances. The City of West Bend land subdivision control ordinance covers land within the City's corporate limits and also within the extraterritorial plat approval jurisdiction of the City, which extends up to three miles beyond the corporate limits. The four Towns within the planning area each have land subdivision control ordinances. In addition, Washington County has an ordinance regulating land subdivisions in unincorporated areas of the County. Each of these land subdivision control ordinances contains design standards and specific data to be provided on all preliminary plats, final plats, and certified survey maps.

Chapter VI: Development Objectives, Principles, Standards, and Related Urban Design Criteria

Chapter VI of this report sets forth a recommended set of land use development objectives, principles, standards, and related urban design criteria. The objectives are intended to express the long-term physical development goals of the City of West Bend. The principles are intended to assert the validity of the objectives. The supporting standards perform a particularly important function in designing a land use plan since these standards form the basis upon which estimates of community land use needs are based. The objectives, principles, and standards deal chiefly with: 1) the allocation of land to the various land use categories consonant with the social, physical, and economic needs of the residents of the planning area, 2) the spatial distribution of the various land uses and their relation to transportation, utility, and public facility systems, 3) the protection of the natural resource base, 4) the preservation of sufficient high-quality open-space lands, including prime farmlands, 5) the provision of adequate outdoor recreation sites, 6) the provision of an integrated transportation system serving existing and proposed land use patterns, 7) the provision of adequate facilities for high-quality fire protection in the City, 8) the provision of an adequate variety of housing types for varying age and income groups and different household sizes, and 9) the preservation of the historical heritage of the area.

The urban design criteria are intended to assist in formulating and evaluating detailed solutions to urban design problems with respect to residential, industrial, commercial, and central business district development. These criteria are intended to be used by planners, engineers, and surveyors in land subdivision and site planning and by cognizant public officials in evaluating development proposals and related site and building plans.

Chapter VII: Year 2010 Community Land Use and Facility Requirements

As part of the land use planning process, the standards listed in Chapter VI were applied with the selected population and employment levels presented in Chapter II to estimate the land use requirements to be met in the plan design. The urban land use and community facility requirements so developed for the urban service area

and used in the land use plan design process are described in Chapter VII.

Land Use Requirements: The land use requirements of the probable future resident population and employment levels of the urban service area were determined by applying two basic types of standards: land use allocation standards and accessibility standards. The land use allocation standards were expressed as the number of acres of a given land use category required per hundred dwelling units, per hundred employees, or per thousand resident population, and were intended to help estimate the total number of acres of land needed for each major land use category to satisfy the basic land use requirements of the resident population and economy of the planning area to the year 2010 plan design period. Accessibility standards were expressed in terms of a maximum service area for certain sites, land uses, or facilities, and were intended to assure that such sites, land uses, or facilities are spatially distributed in an efficient manner convenient to use by the resident population and the economic activities which they are intended to serve. The accessibility standards, as outlined in Chapter VI, as well as the land use allocation standards, were embodied in the recommended plan presented herein.

Table 36 summarizes future urban land use requirements for the City urban service area to the plan design year 2010. An estimated 4.1 square miles of rural and other open lands in the West Bend area will need to be converted to urban use by the year 2010 to meet the forecast population and employment levels at the specified standards. Table 37 compares the 1985 housing mix within the city with the recommended housing mix for the plan design year 2010. This table also indicates the proportion of each type of residential land use category to be allocated in order to meet the recommended housing mix.

Transportation System Requirements: In preparing the plan, all existing transportation plans relating the West Bend area were considered. The arterial highway network required to serve the existing and probable future traffic demands within the City of West Bend planning area to the year 2000 is shown on Map 4 in Chapter I. Suggested cross-sections for these arterial streets and highways are shown in Figure 5 in Chap-

ter VI. Another separate element of the comprehensive plan for the planning area closely related to the arterial street and highway system plan and to the land use plan is the mass transit system plan. The existing and potential use of mass transit facilities were considered in the plan design process including parking facilities for commuter park-and-pool facilities and for express bus transit services, local shared-ride taxicab services, railway services, and airport services.

Community Facility Needs: In addition to providing general guidelines for land use development within the City of West Bend planning area, the land use plan is also intended to provide a more detailed guidance concerning land requirements for certain community facilities. Accordingly, estimates of land requirements are presented in Chapter VII for public schools, for City Hall, for fire stations, and for the public library. Further in-depth studies of the requirements for each of these community facilities will be necessary prior to any expansion activities to validate and further refine the preliminary requirements set forth in Chapter VII. Assessments of the long-term qualitative and quantitative needs for such facilities should be conducted at least once every 10 years so that the community can plan for the level of services it wishes to have provided.

Public Schools: The City of West Bend planning area lies within three school districts. The district with the greatest significance for the land use planning process, however, was the West Bend School District. The future urban service area would most likely be sited largely, if not entirely, within this District. Therefore, any educational facility expansion planned for the West Bend School District will probably occur within the urban service area of the City.

Table 38 provides a range of estimated population levels by school-age group for the West Bend School District. These data are provided to help in determining the need for additional primary and secondary educational facilities within the District. Under the intermediate-future scenario, the existing elementary schools will have to be expanded or an additional elementary school may need to be provided during the planning period. If the five to 11 year old school-age group reaches the higher end of the forecast range under the optimistic-future scenario, then three to four new elementary schools may be needed depending upon the future capacity levels of

existing schools. The middle schools currently have the capacity to meet the future increase in the 12 to 14 year old school-age group under the intermediate-future scenario. If this school-age group reaches the higher end of the forecast range, however, under the optimistic-future scenario, then either the existing middle schools will have to be expanded or an additional middle school may be needed during the planning period. Under the intermediate-future scenario, the existing high schools will have to be expanded in order to accommodate the future increase in the 15 to 18 school-age group. If this school-age group reached the higher end of the forecast range, then either the existing high schools will have to be further expanded or a new high school may be needed during the planning period. A comprehensive study will need to be undertaken by the School District to determine short- and long-term school facility needs before any additional facilities are constructed.

City Hall and Governmental Offices: A study of the spatial needs of governmental offices was completed by the City of West Bend Board of Public Works in October 1990. The study determined short-term, five-year, and long-term, 20-year, space needs for general municipal governmental purposes. The report analyzed the existing occupied space and the space needs of the City Hall, Park and Recreation Building, Police and Fire stations, Mayor's office, Common Council chambers, Cable Vision office, and West Bend Municipal Court. To meet long-term, year 2010, needs, the report recommended the acquisition of the West Bend Mutual Insurance building to serve as a new centralized governmental center for general administrative offices, the purchase of the Larson Colony building to serve as a recreation center, the renovation of the existing Park and Recreation building as a teen/youth center, the renovation of the existing Police Department space into office space, and the construction of a second fire station in the West Bend Industrial Park-South. Acting upon the recommendations of the report, the City recently acquired the West Bend Mutual Insurance and the Larson Colony buildings.

Fire Stations: To provide an indication of the extent to which the existing and proposed new fire stations could serve the recommended future pattern of land use in the City, Map 36 in Chapter VII was prepared. This map shows existing 1985 urban development in the City of

West Bend planning area and the limits of a 1.5-mile optimal service radius of the existing station and the proposed new station in the West Bend Industrial Park-South. This map also shows the adopted West Bend sanitary sewer service area where future urban development may be expected to occur. The map provides a preliminary indication that additional fire stations may be needed to serve the northern, western, and eastern parts of the City, where the sanitary sewer service areas and small concentrations of existing urban developments are located beyond the optimal 1.5-mile service radii of the existing and proposed new fire stations. A more detailed study of future fire station needs should be conducted by the West Bend Fire Department, taking into account a number of other factors that determine the adequacy of future fire protection services.

Public Library: In 1989, the City of West Bend Community Memorial Library occupied about 31,370 square feet of floor area with a collection of approximately 90,000 book volumes in 1989. In 1989, the average number of books per capita for Wisconsin libraries serving population ranging from 25,000 to 60,000 persons was 2.8, as indicated in Table 39; while for the West Bend Community Memorial Library this figure was 2.0. The latter is at the low end of the range of two to four books per capita recommended by the adopted regional library facilities and services plan for libraries serving a population of less than 1,000,000 persons and is also less than the 3.0 book volumes per capita recommended in the Wisconsin Public Library Standards for library service populations ranging from 25,000 to 49,999 persons.

A library building program study was completed by the City in 1991, as discussed in Chapter VII. This study estimated future space needs of the library and recommended specific facility improvements to meet the library needs of a projected service population of approximately 60,300 persons by the year 2010, working with service objectives established by the West Bend Board of Library Trustees. The study indicated potential library equipment, document, and space requirements and recommended that the existing library be expanded, or a new one be constructed, in order to provide the desired quality and quantity of library services to all residents of Washington County. These recommendations were based on the West Bend Board

of Library Trustees' determination to establish a library that will be positioned in the 80th percentile with a service population of 50,000 and over. The study stressed that, prior to any facility expansion, an in-depth library needs study should be conducted by a consultant.

Chapter VIII: The Land Use Plan

Chapter VIII presents a recommended land use plan for the City of West Bend planning area, including the City urban service area, to the year 2010. The recommended plan is shown in graphic summary form on Map 38. It sets forth specific recommendations concerning the type, amount, and geographic location of the various land uses for the planning area. The recommended land use plan represents only one of many possible patterns of land use development that could accommodate the future physical, social, and economic needs of the residents of the City of West Bend planning area to the year 2010. The selection of the plan involved the comparative evaluation of land use patterns and supporting community utility proposals against the agreed-upon land use development objectives, principles, standards, and related urban design criteria presented in Chapter VI of this report as well as against citizen reaction provided through public informational meetings and hearings held during the planning process.

The recommended land use plan, while recognizing the effects on, and importance of, the urban land market in shaping land use patterns, seeks to influence the operation of that market in two ways to achieve a more healthful, attractive, and efficient settlement pattern. First, the plan recommends that development trends be altered by encouraging intensive urban development to occur only in those areas which are covered by soils suitable for such development, which are not subject to special hazards such as flooding, and which can readily be served by essential municipal facilities and services, including centralized sanitary sewer and public water supply. Second, the plan recommends that development trends be altered by discouraging intensive and incompatible urban development in delineated primary environmental corridors and other environmentally significant lands.

The land use plan should not be considered as rigid and unchangeable, but rather as a flexible guide to help West Bend officials and concerned citizens in the review of development proposals as such proposals are advanced. As conditions

change from those used as the basis for the preparation of the plan, the plan should be revised as necessary.

The Delineation of Neighborhood Planning Units and Special Planning Districts: Map 37 in Chapter VIII identifies 23 neighborhoods and their related neighborhood facilities and nine special planning districts in the City of West Bend and environs. Detailed development and redevelopment plans should be prepared for each of the delineated neighborhoods and special planning districts as an important means of guiding and shaping urban land use development and redevelopment in the public interest. The preparation of such plans is based upon the concept that an urban area should be formed of, and developed in, a number of spatially organized, individually planned units rather than as a single, large formless mass. The area in which people seek day-to-day services, such as elementary schools, neighborhood parks, and neighborhood shopping facilities forms the basis of neighborhood delineation. Insofar as possible, each neighborhood unit should be bounded by arterial streets; major park, parkway, or institutional lands; bodies of water; or other natural or cultural features which serve to clearly and physically separate each neighborhood from the surrounding units.

Each of the detailed development plans should designate not only future ultimate land use patterns and specific neighborhood facility site location, but should also define future collector and land access street rights-of-way and alignments and lot and block configurations. In addition, these plans should also identify areas to be protected from intensive urban development for environmental reasons, and should also indicate the need to reserve major drainageways and utility easements.

The recommended facility locations shown on Map 37 are not intended to imply that such facilities are needed by the year 2010. Only those elementary schools and neighborhood parks located within the newly defined urban service area are shown on the land use plan presented herein. This information is provided to permit the City to consider reserving lands that may be needed for future neighborhood schools and parks to serve the resident population beyond the year 2010, as well as the resident population to the year 2010, under planned ultimate neighborhood development conditions. Final selection

of a site for such a facility should be based on a detailed development plan recommended for preparation for each of the neighborhoods.

The Recommended Land Use Plan for the City of West Bend Urban Service Area: As shown on Map 38, the recommended land use plan for the City of West Bend urban service area indicates those areas in which urban development now exists and those areas in which such development should be permitted and encouraged. Table 40 also summarizes the existing 1985 and planned urban service area land uses.

The population and employment forecasts initially selected by the City of West Bend Plan Commission for use in the plan design process envisioned that the City of West Bend urban service area would reach a resident population level of approximately 35,000 persons and an employment level of approximately 18,550 jobs by the year 2010. Based upon this forecast population level and the forecast household size of 2.59 persons under the intermediate-growth, centralized-development scenario, approximately 13,500 housing units is needed to serve the resident population of the urban service area. In addition, based on the standards in Chapter VI that were applied to these forecasts levels, an estimated 4.1 square miles of rural and other open lands in the West Bend area would have to be converted to urban use by the year 2010 to meet the needs of these forecast population and employment levels.

After examining the forecast year 2010 land requirements, and after considering the areal extent of the presently adopted sanitary sewer service area and the commitments made by the City to accommodate growth throughout that area, the City Plan Commission determined to prepare a recommended land use plan for the entire urban service area rather than just for that area which would be required to meet the forecast year 2010 needs. That urban service area is shown on Map 38 and reflects minor modifications to the limits of the presently planned sewer service area. Thus, the recommended land use plan in effect represents full urban development of the proposed urban service area. Upon full development, and given the spatial distribution of planned land uses described below, the City of West Bend urban service area would accommodate a total resident population of approximately 52,000 persons and a total employment level of nearly 32,000 jobs.

Thus, the recommended land use plan more closely approximates the residential optimistic-growth, decentralized-development scenario for the West Bend area than the intermediate-growth, centralized-development scenario. Based upon this forecast population level and the forecast household size of 2.87 persons under the optimistic-growth, decentralized-development scenario, a total of approximately 18,100 housing units is needed to serve the resident population of the urban service area, about 4,600 more housing units than that required under the initially selected forecast population level. In addition, full development of the urban service area would result in the conversion of about 9.4 square miles of rural and other open lands to urban use, about 5.3 square miles more than that required to accommodate the initially selected forecast population and employment levels. This provides flexibility to accommodate urban land market demand in the location of new development in areas committed by the City to sanitary sewer service beyond the present corporate limits. Such an approach should not affect the substance of the plan.

Environmental Corridors and Other Environmentally Significant Lands: The plan proposes the preservation of about 2,546 acres, or about 19 percent of the proposed urban service area, as primary environmental corridors. Under the plan, all primary environmental corridors would be preserved, to the maximum extent possible, in essentially natural, open uses. Accordingly, the adopted plan further recommends that sanitary sewers not be extended into such primary environmental corridors for the purpose of accommodating urban development within the corridors. However, it is recognized in the plan that it would be necessary, in some cases, to construct sanitary sewers across and through primary environmental corridors and that certain land uses requiring sanitary sewer service could be properly located in the corridors, including park and outdoor recreation facilities and certain institutional uses. In some cases, very low-density residential development on five-acre lots, compatible with the preservation of the corridors, may also be permitted to occupy corridor lands; it may be desirable to extend sewers into the corridors to service such uses. The plan further proposes the preservation of about 88 acres, or about 1 percent of the proposed urban service area, as secondary environmental corridors for certain uses such as parks,

drainageways, and stormwater detention or retention areas. The plan also recommends the preservation of about 279 acres of isolated natural areas and about 305 acres of other environmentally significant lands, each occupying about 2 percent of the total urban service area, in essentially natural, open space uses.

Residential Land Uses: Areas shown on the recommended plan for residential use approximate 6,065 acres, or about 46 percent of the urban service area. The plan identifies six distinct categories of residential land uses based upon the residential density standards advanced in Chapter VI and the land requirements set forth in Chapter VII. The six categories consist of three types of single-family residential uses: suburban-, low-, and medium-density classifications, with lot sizes ranging from 7,200 square feet up to 5.0 acres; one type of two-family residential use, medium-high-density housing with 6.1 to 10.9 dwelling units per net acre; and two types of multi-family residential uses, medium-high-density and high-density accommodations with 6.1 to 15.0 dwelling units per net acre.

Commercial Land Uses: The plan identifies a variety of areas devoted to commercial land uses which would encompass an area of about 948 acres, or about 7 percent of the urban service area. Categories of specific commercial development shown on the plan include 10 neighborhood shopping centers, including five new centers; five community shopping centers, including one new center; and two new office centers. Neighborhood shopping centers would meet the day-to-day retail and service needs of nearby residents and would be oriented to residential areas. Community shopping centers would serve the same purpose, but would also provide a larger array of goods and services to serve broader community needs.

The plan recommends that the City continue its efforts to maintain and improve the vitality of the City of West Bend Central Business District and of the Barton Business District through redevelopment according to recommended urban design standards and local plan documents. This includes the promotion of a defined cultural center, adjacent to the central business district, consisting of the West Bend Gallery of Fine Arts, the City of West Bend Community Memorial Library, and the Washington County Historical Society Museum, located in the Old Washington

County Courthouse and Jail. The Milwaukee River, a vital focal point of both districts and of the City, is recommended to be brought to its full potential as a major environmental and aesthetic resource of the City.

Industrial Land Uses: The areas proposed for industrial land uses would total about 959 acres, or about 7 percent of the urban service area, under the recommended land use plan. Most of the recommended increase in industrial development is encompassed by the infilling and expansion of the existing West Bend Industrial Parks South and East and the creation of a new industrial park west of the West Bend Municipal Airport.

Governmental and Institutional Land Uses: Governmental and institutional land uses under the recommended plan would occupy about 693 acres, or about 5 percent of the urban service area. Additional land for such uses is anticipated to be provided primarily for the new City Hall and related administrative offices; the development of a cultural center, including the expansion of the existing library; and the development of new public schools and fire stations.

Fire Protection Facilities: Map 39 shows the location of the existing fire station and of three proposed fire stations within the newly defined urban service area as well as the recommended 1.5-mile optimal fire protection service radius from these stations. This map indicates that the south, west, and east of the newly defined urban service area, lie outside the recommended travel distance from the existing fire station. To provide adequate fire protection services for future urban development in these areas, the plan recommends that three additional fire stations, including the proposed station in the West Bend Industrial Park-South, be located in these areas to allow the inclusion of most existing and planned urban development within the desirable fire protection service radius.

Educational Facilities: Five potential new elementary school sites are identified on the recommended plan. The selection of these sites were based on the recommended area and service radius standards set forth in Chapter VI, in addition to the goal of providing an elementary school in each neighborhood based on ultimate neighborhood development. Only those elementary school sites shown on Map 37 and located within the proposed urban service area are

identified on the plan. It is likely, however, that two of these sites, in the Washington Heights and Quaas Creek neighborhood, would be reserved for development beyond the year 2010 since the neighborhood boundaries concerned extend outside the delineated urban service area.

If the resident population of the City urban service area reaches the higher end of the forecast range noted in Table 38, there may be a need not only for additional elementary schools, but also new middle and high schools as well. It also should be recognized that not all of the potential elementary school sites may be needed by the year 2010 if the school-age population does not reach the upper end of the forecast range. In addition, school officials may decide to enlarge existing schools rather than build one or more of the new schools. Should the need for the additional school sites shown on the recommended land use plan not develop by the year 2010, the need to reserve such lands for school sites to serve a population beyond 2010 should be considered. As already noted, a detailed study should be undertaken by the West Bend School District to determine short- and long-term school facility needs before any additional facilities are constructed.

Park and Recreation Land Uses: The park and related open space uses under the recommended plan are based, in part, upon recommendations contained in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000; SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County; and SEWRPC Community Assistance Planning Report No. 104, A Park and Open Space Plan for the City of West Bend. Detailed recommendations for park and recreation land acquisition and development within the City of West Bend are presented in the latter report and are summarized on Map 5 of Chapter I of this report.

Under the recommended land use plan, intensive outdoor recreational land use would encompass a total of about 384 acres, or about 3 percent of the proposed urban service area. Existing and proposed parks, shown in the plan, include eight new neighborhood parks, a new community park, and a new major park. Neighborhood parks are usually centrally located adjacent to elementary schools so that the park and school together function as a neighborhood center. Community and major parks would serve neighborhood park

needs and also provide a larger array of recreational facilities to serve broader community and multi-community needs. The various recreational land uses, including parkways, trails, and other special outdoor recreation and open space sites, are discussed in Chapter VIII.

The Recommended Land Use Plan for the West Bend Planning Area: The land use plan for the entire West Bend planning area is also shown on Map 38 and is quantified in Table 41. It recommends the preservation of environmental corridors and other environmentally significant areas throughout the entire planning area and the preservation of the best remaining farmlands located outside the urban service area but within the planning area. As shown on this plan, most new urban developments are proposed to be located within the urban service area, with some small concentrations of existing urban developments outside this urban service area. The plan recommends that new urban residential development, that is, development on lots smaller than five acres per dwelling unit, take place only within the urban service area or on existing vacant urban lots located outside the urban service area, provided the soils and size of these lots are capable of properly accommodating an onsite sewage disposal system and a private well. Except for these areas, any new lots created outside the urban service area should be rural-estate lots at least five acres in size and capable of properly accommodating a single-family dwelling, private well, and sewage disposal system. Other than the development of residential and recreational land uses, including the expansion of Sandy Knoll Park, the plan does not recommend that other types of new urban developments occur outside the urban service area.

Of the total 63.4-square-mile planning area, approximately 20.6 square miles, or about 32.5 percent of the total planning area, would consist of urban uses; the remaining 42.8 square miles, or about 67.5 percent of the total planning area, would consist of rural uses under the recommended land use plan. Several important elements of the character of the planning area can be noted from the examination of Table 41 and Map 38. First, the largest single land use in the West Bend planning area would continue to be agricultural-related uses, representing about 36 percent of the total planning area. Natural areas, occupying almost 32 percent of the total

planning area and consisting of primary and secondary environmental corridors, isolated natural areas, and other environmentally significant land uses, identified as "Other Open Lands to be Preserved" on the land use plan, are the next largest land use. Third, residential land uses would represent about 21 percent of the total planning area. Residential uses, however, would continue to represent the largest single land use in the West Bend urban service area, representing about 21 percent of the urban service area.

Transportation System Development: In preparing the recommended land use plan, all existing transportation plans relating to the West Bend area were reviewed. The arterial street and highway facilities required to serve the probable future traffic demands within the City of West Bend planning area, as recommended in an amendment to SEWRPC Planning Report No. 23, A Jurisdictional Highway System Plan for Washington County, are shown on Map 4 in Chapter I. The plan also indicates the recommended number of traffic lanes needed for each arterial street segment in the planning area in order to carry the anticipated arterial traffic volumes through the year 2000, and also indicates the recommended jurisdictional classification of each transportation system: state, county, and local. Figure 5 in Chapter VI illustrates the types of cross-sections which could be used to accommodate the recommended number of traffic lanes shown on Map 4. It is important to note that the City is presently preparing, with the assistance of Regional Planning Commission staff, a more detailed arterial street and highway system plan which would consider needed intersection capacities and treatments, signalization, and safety features.

The plan also recommends the expansion and development of mass transit facilities. A "park-and-pool" lot is recommended southeast of the USH 45 and Paradise Drive interchange where an express bus transit facility is recommended. The transit-related parking facilities proposed in this location would serve future express bus transit service between the City of West Bend and the greater Milwaukee areas. The City is currently in the process of implementing a local transit system plan consisting of a demand-responsive, shared-ride taxicab service. This system would consist of City-owned equipment operated by a private transit operator that would

serve the resident population of the West Bend area. A City-owned transit facility that is recommended for expansion is the West Bend Municipal Airport. The plan shows the expansion of the airport property and the proposed realignment of E. Washington Street (STH 33) as recommended in the regional airport system plan.

Chapter IX: Plan Implementation

The recommended land use plan presented herein provides a design for the attainment of the community development objectives. The plan is not complete however, until the steps necessary to implement that plan have been specified. Attainment of the plan objectives will require the application and modification of certain plan implementation measures as discussed in Chapter IX.

After holding public informational meetings and hearings on the recommended land use plan, an important step in plan implementation is the formal adoption of the plan by the City Plan Commission and certification of the adopted plan to the Common Council pursuant to state enabling legislation. Upon such adoption, the plan becomes the official guide to the making of decisions by City officials concerning the development and redevelopment of the City and environs. The recommended land use plan was adopted by the City Plan Commission on May 12, 1992, and subsequently endorsed by the Common Council on June 1, 1992.

Following plan adoption, the City Plan Commission should initiate appropriate amendments to the West Bend land division and zoning ordinances and zoning district map, where necessary, to help implement the adopted land use plan and related urban design standards. Extraterritorial zoning should be implemented, under which

land use plan would serve as the basis for the extraterritorial zoning map, in order to guide development in the fringe areas. In addition, existing and proposed streets, highways, railways, waterways, parkways, public transit facilities, parks, and playgrounds shown on the plan should be incorporated into the official map for the City and surrounding area. The adopted land use plan should serve as a basis for the review of land subdivision plats and certified survey maps by municipal officials. All urban subdivision should be required to provide for a full complement of urban services. Likewise, those elements of the plan requiring public expenditures for implementation could be offset by requiring impact fee in accordance with an impact fee ordinance or could be integrated into the City capital improvements program.

Within the framework of the land use plan for the City of West Bend and environs, detailed plans should be prepared for the 23 residential neighborhoods and nine special planning districts that have been identified. The preparation of detailed urban development plans for these defined areas will serve to further refine and detail the adopted land use plan.

CONCLUDING REMARKS

The recommended land use plan, together with supporting plan implementation measures, provides a means for promoting the orderly growth and development of the West Bend area and for preserving and enhancing its unique urban and rural characteristics of that area over time. Consistent application of the plan will assure that individual physical development and redevelopment proposals will be channeled toward the sound development of the total area.

APPENDICES

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Appendix A

RESOLUTION OF THE WEST BEND CITY PLAN COMMISSION ADOPTING THE PROPOSED LAND USE PLAN: 2010

Resolution 92-1
West Bend City Plan Commission

A Land Use Plan for the City of West Bend: 2010, Washington County, Wisconsin

WHEREAS, the City of West Bend, pursuant to the provisions of Section 62.23 of the Wisconsin Statutes has created a City Plan Commission; and

WHEREAS, it is the duty and function of the City Plan Commission, pursuant to Section 62.23(2) of the Wisconsin Statutes, to make and adopt a master plan for the physical development of the City of West Bend; and

WHEREAS, the City of West Bend requested the Southeastern Wisconsin Regional Planning Commission (SEWRPC) to prepare a land use plan for the City; which plan includes:

1. Collection, compilation, processing and analyses of various types of demographic, economic, natural resource, historic resource, recreation and open space, land use, transportation, and other information pertaining to the City.
2. A forecast of growth and change.
3. Statements of land use objectives, principles, standards, and related urban design criteria.
4. A land use plan.
5. Recommendation of activities to implement the plan; and

WHEREAS, the aforementioned forecasts; inventories; analyses; objectives, principles, and standards; land use plan; and implementation recommendations are set forth in a published report, entitled SEWRPC Community Assistance Planning Report No. 167 A Land Use Plan for the City of West Bend: 2010, Washington County, Wisconsin; and

WHEREAS, the City of West Bend Plan Commission has held fifteen public work sessions and two public informational meetings to acquaint area residents and owners with plan recommendations:

WHEREAS, the City Plan Commission considered the plan, together with statements and requests of residents and landowners in the City, and has proceeded to incorporate, where deemed advisable, their requests into the recommended land use plan; and

WHEREAS, the City Plan Commission considers the plan to be a necessary guide to the future development of the City;

NOW THEREFORE, BE IT RESOLVED, that pursuant to Section 62.23(3)(b) of the Wisconsin Statutes, the City of West Bend Plan Commission on the 12th day of May 1992, hereby adopts the recommended land use plan for the City of West Bend Planning Area embodied in SEWRPC Community Assistance Planning Report No. 167, entitled A Land Use Plan for City of West Bend: 2010, Washington County, Wisconsin, as a guide for the future development of the City of West Bend and surrounding environs.

BE IT FURTHER RESOLVED that the Secretary of the City of West Bend Plan Commission transmit a certified copy of this resolution, after recording the action on the adopted plan, to the Common Council of the City of West Bend and the Southeastern Wisconsin Regional Planning Commission.

Michael R. Miller
Chairman
City of West Bend Plan Commission

ATTESTATION:

John B. Capelle
Secretary
City of West Bend Plan Commission

Appendix B

RESOLUTION OF THE WEST BEND COMMON COUNCIL ADOPTING THE PROPOSED LAND USE PLAN: 2010

RESOLUTION NO. 3
1992-93 COUNCIL

West Bend Land Use Plan: 2010

WHEREAS, the City of West Bend, pursuant to the provisions of Section 62.23 of the Wisconsin Statutes, has created a City Plan Commission; and

WHEREAS, the City Plan Commission has prepared, with the assistance of the Southeastern Wisconsin Regional Planning Commission (SEWRPC), a master plan for the physical development of the City of West Bend and environs, said plan shown as the Recommended Land Use Plan for the City of West Bend Planning Area embodied in SEWRPC Community Assistance Planning Report No. 167, A Land Use Plan for the City of West Bend: 2010, Washington County, Wisconsin; and

WHEREAS, the City Plan commission on the 12th day of May, 1992, adopted the land use plan embodied in SEWRPC Community Assistance Planning Report No. 167 as the City's master plan; and

WHEREAS, the Common Council of the City of West Bend concurs with the City Plan Commission and the objectives and policies set forth in SEWRPC Community Assistance Planning Report No. 167;

NOW, THEREFORE, BE IT RESOLVED, that the Common Council of the City of West Bend, hereby endorses the Land Use Plan for the City of West Bend Planning area embodied in SEWRPC Community Assistance Planning Report No. 167, as a guide for the future development of the City of West Bend and surrounding environs; and

BE IT FURTHER RESOLVED that the Plan Commission shall annually report to the Common Council on all extensions, changes and additions to the master plan adopted by the Plan Commission.

Passed and approved the 1st day of June, 1992.

Introduced by Alderman Albert Tennies.

Michael R. Miller, Mayor

Attest: Barbara Barringer, City Clerk