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## MEMORANDUM REPORT NUMBER 157

# REVIEW AND REAFFIRMATION OF YEAR 2020 REGIONAL LAND USE AND TRANSPORTATION PLANS AND EXTENSION OF PLAN DESIGN YEAR TO 2025

Prepared by the

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# REVIEW AND REAFFIRMATION OF YEAR 2020 REGIONAL LAND USE AND TRANSPORTATION PLANS AND EXTENSION OF PLAN DESIGN YEAR TO 2025

### INTRODUCTION

The year 2020 regional transportation system plan was adopted by the Regional Planning Commission in December 1997. The plan was reviewed and reaffirmed by the Commission early in the year 2000. In addition, the Commission's regional transportation planning process, and regional transportation plan, underwent a Federal certification review in 2001 and 2002, and have been certified by the U. S. Department of Transportation, Federal Highway and Transit Administrations as fully meeting federal transportation planning requirements.

This report documents another review and reaffirmation of the year 2020 regional transportation plan, and provides an interim extension of the plan design year to 2025. The Commission has initiated a major review and reevaluation of the regional land use and transportation plans; however, much of the data to support this effort will not be available until sometime in mid-to-late 2003, and the major review and reevaluation will not be completed until late 2005. Thus, this review and reaffirmation of the regional land use and transportation plans, and the interim extension of design year to 2025, will be valid for about three years.

The following sections of this memorandum document this review and reaffirmation of the year 2020 regional land use and transportation system plans. The document includes a review of the year 2020 plan, including a review of the year 2020 plan recommendations, a review of the forecasts and plans for regional growth and development which provide the framework for the regional transportation system plan, a review of transportation trends since the completion of the year 2020 regional transportation system plan in December 1997 based on available data, and a review of the status of implementation of the year 2020 regional transportation system plan. Following a reaffirmation of the year 2025 with respect to demographic and economic forecasts, regional land use plan, and regional transportation plan.

# REGIONAL LAND USE AND TRANSPORTATION SYSTEM PLANS FOR SOUTHEASTERN WISCONSIN: 2020

The year 2020 regional land use plan is documented in SEWRPC Planning Report No. 45, A Regional Land Use Plan for Southeastern Wisconsin: 2020, and the year 2020 regional transportation plan is documented in SEWRPC Planning Report No. 46, A Regional Transportation System Plan for Southeastern Wisconsin: 2020.

#### Land Use Plan

The regional land use plan recommends attainment of a centralized regional settlement pattern and seeks to reverse current land use development trends. The plan, as shown on Map 1, recommends stabilization and revitalization of the urban centers of the Region, particularly of the Milwaukee, Racine, and Kenosha urbanized areas. It recommends that new urban development be encouraged to occur largely as infill in existing urban centers, and in defined urban growth areas emanating outward from the existing urban centers of the Region. Moreover, new urban development in the defined urban growth areas is proposed to occur at densities which can efficiently and effectively support essential urban services, including water supply, sanitary sewerage, and public transit.

The plan also seeks to discourage and reduce urban sprawl, which typically involves use of onsite sewage disposal and water supply facilities. Such decentralized development is costly and difficult, if not impossible, to serve efficiently with public transit, and reduces the potential for carpooling. In addition, the number of trips required to serve such development and the length of those trips may be expected to be higher than for comparable centralized development. Urban development occurring in a scattered, low-density pattern also results in a demand for urban facilities and services, such as improved highways, throughout a widespread area of mixed rural-urban land uses, and can result in conflicts with, and diseconomies for, remaining agricultural uses.

Although the land use plan envisions continued reliance on the private land market as the major determinant of the location, density, and character of future land use development within the Region, it proposes to influence the operation of that market and its effects on land use development through public land use development regulations in order to promote a more orderly and economic regional development pattern, to avoid intensification of existing and the creation of new areawide developmental and environmental problems, and to achieve a more healthful and attractive, as well as more efficient, regional settlement pattern.



Map 1

#### ADOPTED LAND USE PLAN FOR SOUTHEASTERN WISCONSIN: 2020



Source: SEWRPC.

The plan also seeks to influence the operation of the private land market in three significant ways. First, the plan recommends that urban development be encouraged to occur only in those areas of the Region which are covered by soils suitable for such development; which are not subject to special hazards, such as flooding and shoreline erosion; and which can be readily served by essential municipal facilities and services, including centralized public sanitary sewerage, water supply, and public transit service. The plan further recommends that new residential development in the defined urban growth areas occur primarily in planned neighborhoods at medium urban densities, averaging about five dwelling units per net residential acre. In this respect, the plan seeks to moderate the declining trend in urban population density experienced within the Region. The plan envisions a total of 27 major industrial centers and 18 major commercial centers within existing urban areas and areas proposed to be converted to urban use by the plan design year 2020.

Second, the plan recommends the protection of all remaining primary environmental corridors of the Region from intrusion by incompatible urban development, and discourages the location of urban development, as well, in the secondary environmental corridors and isolated natural areas. The primary environmental corridors encompass only about 17 percent of the total area of the Region and include all the major lakes and streams and most of the associated undeveloped shorelands and floodlands; most of the best remaining woodlands, wetlands, and wildlife habitat areas; areas with rough topography and significant geologic formations; most of the best remaining sites having scenic, historic, and scientific value; the major groundwater recharge and discharge areas; and many existing park sites and most of the best remaining potential park sites. The preservation of these corridors is important to the maintenance of a high level of environmental quality in the Region, to the protection of its natural beauty and cultural heritage, and to the provision of opportunities for certain scientific, educational, and recreational activities. The exclusion of urban development from these corridors will also prevent the creation of serious and costly development problems, such as wet and flooded basements, pavement and building foundation failures, and excessive clearwater infiltration and inflow into sanitary sewerage facilities.

Third, the plan recommends the retention in essentially rural use of almost all remaining prime agricultural lands, consisting of the most productive farmlands and units in the Region. Protection and preservation of this prime agricultural land is recommended not only for economic reasons, but also to assure the wholesomeness of the future regional environment and to contribute to the preservation of the unique cultural heritage of the Region, as well as of its natural beauty.

Although the adopted regional land use plan contains many other recommendations for guiding land use development within the Region into a better settlement pattern, the three recommendations summarized above are the most important.

## **Transportation System Plan**

The regional transportation system plan is designed to serve the regional land use plan and not a projection of current land use development trends toward further decentralization of population, employment, and urban land uses. All future needs for transit and highway improvements considered in regional transportation planning are derived from the future growth proposed in the regional land use plan. Thus, if transportation facilities and services do indeed promote land use development and redevelopment, implementation of the transportation system plan should promote implementation of the land use plan, which recommends a desirable pattern of future land use with respect to travel requirements.

The regional transportation system plan has been developed in concert with the principles of congestion management, including the definition of performance measures to establish congestion problems and to assist in the evaluation of alternative measures to address congestion and the evaluation and recommendation of alternative measures to resolve the identified congestion problems. The development and evaluation of transportation alternatives which would address existing and anticipated future traffic congestion problems was done in a disciplined way so as to ensure that highway capacity expansion projects were proposed for inclusion in the plan only as a last resort. Appropriate, detailed, quantified attention was paid to determining the extent to which a wide variety of transportation system management measures, including pricing, land use, traffic management, and transit, could be used to resolve congestion problems. Once that extent was determined, highway capacity improvement proposals were placed into the plan to resolve most, but not all, of the residual congestion problems.

The year 2020 transportation system plan has been developed to be fiscally constrained. The total costs of the transportation plan, including both capital and operating costs, are estimated and compared to existing expected available Federal, State, and local revenues, and any funding shortfalls are identified. This comparison of estimated plan costs and revenues indicates that the plan may be funded largely within existing revenues. This finding is consistent with the substantial progress made during the last few years in plan implementation with respect to both public transit and arterial streets and highways, and with the increased Federal highway and transit funding being provided to the State of Wisconsin and the Southeastern Wisconsin Region as a result of ISTEA and its reauthorization. The year 2020 transportation system plan has three principal components: public transit, transportation systems management, and arterial streets and highways. These three components are described in the following sections.

#### Public Transit

The regional transportation system plan calls for major increases in the levels of rapid and express transit service provided within the Region, as well as increases in the level of local service provided (see Table 1). The plan

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proposes the development of a true system of rapid and express transit routes integrated with local transit service. Rapid transit routes would operate within all major travel corridors oriented to the Milwaukee central business district (CBD), with express transit operating over a grid pattern of routes largely within Milwaukee County. In total, the plan proposes an approximately 70 percent increase in transit service as measured by vehicle-miles of service, from the 65,000 vehicle-miles of such service provided in 1995 to 111,500 vehicle-miles in 2020. This

#### Table 1

#### TRANSIT SYSTEM OPERATING CHARACTERISTICS IN THE REGION: 1995 AND 2020 RECOMMENDED PLAN

Transit Service Characteristics	Existing 1995 <sup>b</sup>	Recommended Plan
Round-Trip Route Length (miles)		
Bapid Boutes	523	1,360
Express Boutes	437	430
Local Boutes		
Kenosha Urhanized Area	192	210
Milwaukee Urbanized Area	1 135	1.530
Bacing Urbanized Area	186	200
	1 513	1 940
Subtotal	1,010	1,540
Total	2,473	3,730
Average Weekday Vehicle Requirements		
Peak Period	537	819
Midday Off-Peak Period	286	375
Revenue Vehicle-Miles (average weekdav)		
Rapid	3,800	14,700
Fxpress	5,400	21,500
Local	55,800	75,300
Total	65,000	111,500
Bevenue Vehicle-Hours (average weekdav)		
Banid	200	600
Fxpress	310	1.400
	4 730	6,600
	5 2/0	8 600
Total	J,240	0,000

<sup>a</sup> Represents only the vehicles required for daily system operation. Excludes vehicles needed as spare or backup.

<sup>b</sup>Transit vehicle-miles of service in Southeastern Wisconsin increased by over 20 percent from about 65,000 vehicle-miles of service in 1995 to 80,000 vehicle-miles of service in 2001, with the bulk of the expansion between 1997 and 2001. Service expansion included the initiation of new service between Milwaukee County and Ozaukee and Washington Counties, new evening service in the Waukesha and Racine areas, and additional service in Milwaukee and Waukesha Counties, including in the IH 94 East-West travel corridor. It is estimated that transit vehicle-miles of service declined in 2002 to about 76,000 vehicle-miles of service, and will decline in 2003 to about 72,600 vehicle-miles of service. This estimated decline in transit service is principally in the Milwaukee, Waukesha, and Washington County transit systems and includes reductions in service frequency, route restructuring and cutbacks, and elimination of selected routes. The estimated amount of transit service expected to be provided on an average weekday in 2003 represents about a 12 percent increase in service since 1995. The transit service element of the plan may be considered consistent with, or slightly ahead of, the implementation schedule in the year 2020 plan; however, to stay on schedule in future years will require stabilization of transit service levels in the next few years and then a return to annual increases in transit service as did occur in the mid to late 1990s.

Source: SEWRPC.

increase embodies the combined effects of proposed improvements in the frequency of operation of rapid and express and local transit and the additions and extensions of rapid, express, and local transit routes. The transit recommendations are shown in graphic summary form on Maps 2 and 3.

#### Rapid Transit

The plan recommends that existing freeway flyer bus service within the Region continue to be operated from the Milwaukee CBD southwesterly to the Village of Mukwonago; westerly to the Cities of Waukesha and Oconomowoc; northwesterly to the Villages of Germantown and Jackson and to the Cities of Hartford and West Bend; and northerly to the Cities of Mequon, Cedarburg, and Port Washington. The plan also proposes the enhancement of the level of freeway flyer bus service provided in these corridors. The plan also calls for the expansion of such service in the south corridor to the Cities of Racine and Kenosha. The network of rapid transit routes is shown in red on Map 2. The planned rapid transit system would serve intermediate stations spaced about every three to five miles and would provide service in both directions during both peak periods.

The plan recommends that the number of rapid transit revenue vehicle-miles of service provided be increased by 11,900 vehicle-miles, from 3,800 in 1995 to 14,700 by 2020. Similarly, the plan recommends that the number of rapid transit revenue vehicle-hours of service be increased by 400 vehicle-hours, from 200 in 1995 to 600 by 2020.

The rapid transit service provided under the recommended plan would operate primarily during peak periods, from 6:00 a.m. to 8:30 a.m. and from 3:30 p.m. to 6:30 p.m. on weekdays. Midday service would be provided over some routes, with limited weekend and evening service. Headways on the rapid transit system would range from five to 30 minutes during peak periods to 30 to 60 minutes during off-peak periods over those routes provided with service during the midday and evening.

The fares for rapid transit service would remain at the current 1997 levels, adjusted only for future general price inflation. The freeway flyer rapid transit bus fare for a trip within Milwaukee County would be \$1.60. The fare charged for a trip between points within Milwaukee County and the limits of the Milwaukee urbanized area would be \$2.10. The fare charged for a trip between the Milwaukee CBD and the outer limits of the rapid transit system would be \$3.10.

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Under the regional transportation system plan, rapid transit commuter rail facilities and express transit light rail facilities would be considered as alternatives to motor-bus transit service over arterial street and highway lanes. Consideration of such fixed-guideway transit service facilities would be initiated as part of federally required detailed transit planning alternatives analysis studies for each of the corridors identified under the plan. The potential corridors for commuter rail and light rail facilities are shown on Map 3. The implementation of these fixed-guideway transit facilities would be considered upon the outcome of the corridor studies. Upon completion of each study, the local units of government concerned-particularly, the potential transit operator involved--the Wisconsin Department of Transportation, and the Regional Planning Commission would have to affirm the study findings and, if necessary, amend the regional transportation system plan.





Under the adopted regional transportation system plan express transit light-rail and bus guideway facilities and rapid transit commuter rail facilities could be considered as alternatives to motor-bus transit service in mixed traffic over arterial street and highway lanes. Consideration of such fixed-guideway transit service facilities would be initiated as part of federally required detailed planning transit alternatives analysis studies for each of the identified corridors. The addition of these potential fixed guideway transit facilities to the regional plan, and the ultimate implementation of these fixed guideway transit facilities, depends upon the outcome of the corridor studies. Upon completion of a study, the local units of government concerned -- specifically, the transit operator concerned -- the Wisconsin Department of Transportation and the Regional Planning Commission would have to affirm the study findings, determine to pursue guideway implementation, and, as necessary, amend the regional transportation system plan.

Source: SEWRPC

The plan identifies a potential system of commuter-rail passenger service lines as an alternative to freeway flyer bus rapid transit service in four major Milwaukee-oriented travel corridors: from Milwaukee through the Cities of St. Francis, Cudahy, South Milwaukee, Oak Creek, and Racine to the City of Kenosha and to Chicago over the Canadian Pacific Railway and Union Pacific Railroad lines; from Milwaukee through the City of Wauwatosa, Village of Elm Grove, City of Brookfield, Village of Pewaukee, Village of Hartland, City of Delafield, and Village of Nashotah to the City of Oconomowoc over the Canadian Pacific Railway lines; from Milwaukee through the Villages of Germantown and Jackson to the City of West Bend over the Canadian Pacific Railway, Wisconsin & Southern Railroad, Union Pacific Railroad, and Canadian National Railway lines; and from Milwaukee through the Village of Brown Deer, City of Cedarburg, and Village of Grafton to the Village of Saukville over the Canadian Pacific Railway, Wisconsin & Southern Railroad, and Canadian National Railway lines (see Map 3). The plan also recognizes the potential to provide commuter-rail passenger service in two Chicago-oriented corridors: from the Village of Walworth through Fox Lake, Illinois, to Chicago over Wisconsin & Southern Railroad and Metra railway lines, and from the City of Burlington through the Village of Silver Lake and Antioch, Illinois, to Chicago over Canadian National Railway lines. Corridor transit alternatives analysis studies would be required for these potential commuter rail facilities and services; as a result, these facilities and services are not explicitly included in the regional plan. Consideration of commuter rail transit service would be initiated as part of Federally required detailed planning transit alternatives analysis studies for each of the identified corridors. The addition of these commuter rail facilities to the regional plan, and their ultimate implementation, depends upon the outcome of the corridor studies. Upon completion of a study, the local units of government concerned-specifically, the transit operator concerned-the Wisconsin Department of Transportation and the Regional Planning Commission would have to affirm the study findings, determine to pursue commuter rail implementation, and amend the regional transportation system plan. Feasibility studies-a precursor to alternatives analysis studies—have been completed in two potential commuter rail corridors— Burlington to Chicago, and Walworth to Chicago-and have been completed in the Milwaukee to Kenosha corridor. A corridor transit alternatives analysis study is underway in the Milwaukee to Kenosha and Chicago corridor.

The plan also recognized the potential to establish exclusive busway facilities (see Map 31 of SEWRPC Planning Report No. 46, *A Regional Transportation System Plan for Southeastern Wisconsin: 2020.*) These facilities would be located within, or parallel to, the most heavily congested freeway corridors. The ultimate decision concerning the provision of such facilities would also be made following detailed corridor alternatives analysis study/preliminary engineering study/final environmental impact statement of the corridors. Therefore, these facilities have not been explicitly included in the regional transportation plan.

#### **Express Transit**

The regional transportation system plan recommends that 12 regular express transit bus routes be provided in a grid pattern, largely within Milwaukee County. Within the Milwaukee urbanized area, the express transit would be provided in major travel corridors to connect major activity centers, including the Milwaukee CBD and high-and medium-density residential areas. One express transit route would also connect the CBD's of the Cities of Racine and Kenosha. The planned express routes are shown in blue on Map 2. Express route stop spacing would range from one-quarter mile to one-mile, and generally average one-half-mile between stops.

Under the plan, the extent of express transit service would be significantly expanded through the provision of a grid of express routes. The frequency of operation of transit vehicles over the express routes would also be significantly increased. As shown in Table 1, the number of vehicle-miles provided on an average weekday would increase by 16,100 vehicle-miles, from about 5,400 in 1995 to about 21,500 in 2020. Similarly, vehicle-hours of express service provided on an average weekday would increase by 1,090 vehicle-hours, from 310 in 1995 to 1,400 in 2020.

Express transit service would be provided on weekdays from 6:00 a.m. to 6:00 p.m. on all routes and during weekday evenings and weekends on some routes. Peak-period headways would range from five to 15 minutes in the Milwaukee urbanized area and extend to 30 minutes on the route connecting Racine and Kenosha. Off-peak headways would range from 20 to 30 minutes within the Milwaukee urbanized area to 60 minutes on the Racine-Kenosha route. Express transit fares would remain at 1997 levels, \$1.35 in Milwaukee County and \$1.00 on the Racine-Kenosha route. It is assumed that these fares would increase with general price inflation over the plan design period.

Five travel corridors are identified in the plan as having potential for light-rail express or express bus guideway transit service and would represent upgrading of the proposed express bus transit routes. (See Map 3). The ultimate decision concerning the provision of light-rail or express bus guideway facilities in these corridors would be determined in Federally required alternative analysis studies/preliminary engineering studies/final environmental impact statements. Therefore, these facilities have not been explicitly included in the regional transportation plan. Consideration of light rail and express bus guideway transit service facilities would be initiated as part of federally required detailed planning transit alternatives analysis studies for each of the identified corridors. The addition of light rail and express guideway transit facilities to the regional plan, and the ultimate implementation of a study, the local units of government concerned—specifically, the transit operator concerned—the Wisconsin Department of Transportation and the Regional Planning Commission would have to

affirm the study findings, determine to pursue light rail or bus guideway implementation, and amend the regional transportation system plan. The potential light-rail or express bus guideway facilities are envisioned to operate with preferential treatment over reserved street lanes within street rights-of-way or over exclusive rights-of-way, such as along railway or former electric interurban railway rights-of-way. Light-rail and express bus guideway operating characteristics may be expected to vary, depending upon the type of right-of-way and adjacent development and attendant station spacing, and may approach rapid transit operating characteristics. An alternatives analysis study considering a guided busway alternative is underway in the Milwaukee CBD including corridors to the west to Miller Park and to the north to the University of Wisconsin-Milwaukee.

#### Local Transit

The level of local service envisioned in the plan consists of buses operating over arterial and collector streets, with frequent stops for passenger boarding and alighting. As an alternative to buses providing local transit service, streetcars or trolleys could provide local transit service, as is done in the City of Kenosha today. Local fixed-route service would continue to be provided and would be extended within Milwaukee County and the Cities of Waukesha, Racine, and Kenosha and their environs. The plan recommends that the local transit operators undertake detailed implementation studies to identify the best way to provide for service enhancement and extensions, holding open the possibility of transit-center oriented local route systems, and route-deviation or demand-responsive systems to replace, in some areas, existing and potential extensions of grid route systems. As shown on Map 2, areas of expanded local transit service are generally located in southern and northern Milwaukee County and in the most heavily developed portions of Waukesha County. Under the plan, local transit service would operate over 75,300 vehicle-miles of service on an average weekday round trip route-miles within the Region, representing an increase of 19,500 vehicle-miles, or 35 percent, over the approximately 55,800 vehicle-miles provided in 1995.

The frequency of local transit service would be substantially improved over 1995 levels. Within Milwaukee County, peak-period headways on the major routes in the area south of Silver Spring Drive, east of 76th Street, and north of Layton Avenue would be improved from 10 to 40 minutes to 10 minutes. Peak-period headways in the Racine and Kenosha urban areas would be improved from 20 to 30 minutes to 15 to 30 minutes. Peak-period headways in the Waukesha urban area would be improved such that all routes would operate at 30-minute headways.

Under the plan, local transit fares would remain at 1997 levels, adjusted only for the effects of general price inflation. Accordingly, fares within Milwaukee County would be \$1.35; within the Cities of Kenosha, Racine, and Waukesha, \$1.00, increasing only with general price inflation. The plan also recognizes the need to provide local

transit service in the smaller urban communities of the Region, particularly through shared-ride taxi service, including the continuation of the shared-ride taxi services provided in the Cities of Hartford, Port Washington, West Bend, and Whitewater.

#### **Arterial Street and Highway System**

The planned arterial street and highway system in the Region in the year 2020 is summarized in Table 2. In 1995, the arterial street and highway system in the Region consisted of about 3,277 route-miles of facilities. Under the regional plan, the arterial system would be increased by about 323 route-miles, by the year 2020, to a total of 3,600 route-miles. The additional arterial mileage reflects primarily the conversion of existing nonarterial facilities to arterial function as urban development occurs within the Region. About 124 route-miles, or 3.5 percent of the proposed total arterial system mileage, would be added through new construction.

The recommended year 2020 arterial street and highway system for the Region identifies the number of traffic lanes to be provided on each segment of arterial street. Arterial facilities are identified as having either two, four, six, or eight lanes. The number of lanes identified refers to through travel lanes, that is, those lanes that would carry traffic directly through intersections. Thus, the number does not include any auxiliary traffic lanes provided at intersections for left- and right-turning movements, or any auxiliary lanes provided along the facility for vehicle parking, or for use by vehicles in distress. The roadway cross-section to be selected for each roadway improvement project—whether or not the roadway would include turn lanes, auxiliary lanes, and a median—would be determined by the State, county, and local government implementing agencies following their conduct of preliminary engineering. The preliminary engineering study would, as well, determine whether the proposed roadway improvement would, or would not, be implemented.

The plan recommended arterial street and highway system capacity improvement and expansion to add traffic lanes to the existing arterial street system are shown for each county on Maps 4 through 10.

#### System Expansion: Constructing New Facilities

System expansion consists of all projects which would significantly increase the capacity of the existing system through construction of new facilities. The plan would provide for the construction of 124 route-miles of new arterial facilities. These include such long-planned facilities as the STH 16 bypass of Oconomowoc, the completion of the Waukesha bypass, and the STH 36 bypass of Burlington, and also the extension of Canal Street in Milwaukee. In all, proposed new arterial street and highway facilities would represent about 3.5 percent of the total planned arterial route-miles in the year 2020.

#### Table 2

# ARTERIAL STREET AND HIGHWAY SYSTEM PRESERVATION, IMPROVEMENT, AND EXPANSION BY ARTERIAL FACILITY TYPE BY COUNTY: 2020 REGIONAL TRANSPORTATION SYSTEM PLAN<sup>a,b</sup>

	-			·····
	System	System	System	
	Preservation	Improvement	Expansion	Total
County	(miles)	(miles)	(miles)	Miles
Kenosha				
Freeway	12.0	0.0	0.0	12.0
Standard Arterial	290.3	44.8	8.5	343.6
Subtotal	302.3	44.8	8.5	355.6
Milwaukee				
Freeway	62.4	4.4	0.0	66.8
Standard Arterial	679.9	40.3	10.3	730.5
Subtotal	742.3	44.7	10.3	797.3
Ozaukee				
Freeway	23.2	4.0	0.0	27.2
Standard Arterial	223.9	47.7	7.0	278.6
Subtotal	247.1	51.7	7.0	305.8
Racine				
Freeway	12.0	0.0	0.0	12.0
Standard Arterial	342.0	50.6	21.5	414.1
Subtotal	354.0	50.6	21.5	426.1
Waiworth				
Freeway	48.9	0.0	16.7	65.6
Standard Arterial	361.0	36.7	17.8	415.5
Subtotal	409.9	36.7	34.5	481.1
Washington				s.
Freeway	42.8	0.0	0.0	42.8
Standard Arterial	348.2	43.6	21.8	413.6
Subtotal	391.0	43.6	21.8	456.4
Waukesha				
Freeway	59.0	1.0	5.7	65.7
Standard Arterial	555.2	141.6	15.0	711.8
Subtotal	614.2	142.6	20.7	777.5
Region				
Freeway	260.3	9.4	22.4	292.1
Standard Arterial	2,800.5	405.3	101.9	3307.7
Total	3,060.8	414.7	124.3	3599.8

<sup>a</sup>To date, since the completion of the year 2020 plan in 1997, an estimated 81 miles of the 539 miles of system improvement and expansion have been completed.

<sup>b</sup>Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a planned project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC

Map 4

## ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN KENOSHA COUNTY: 2020°



\* Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.

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#### ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN MILWAUKEE COUNTY: 2020°

#### ARTERIAL STREET OR HIGHWAY



WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY

 RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY

4 NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE



MICHIGAN

<sup>6</sup> Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.



Source: SEWRPC.



Map 6



## Map 7



## ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN RACINE COUNTY: 2020°

<sup>6</sup> Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.



# ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN WALWORTH COUNTY: 2020\*

\* Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.



\* Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.

Map 9

# ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN WASHINGTON COUNTY: 2020°



# ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN WAUKESHA COUNTY: 2020°

Map 10

ARTERIAL STREET OR HIGHWAY

- NEW WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
  - NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED 4
  - AND/OR IMPROVED FACILITY (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- NEW INTERCHANGE
- NEW HALF INTERCHANGE EXISTING



<sup>3</sup> Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.

#### System Improvement: Widening Existing Facilities

System improvement consists of all projects which would significantly increase the capacity of the existing system through street widening to provide additional through traffic lanes. Under the final plan, a total of 415 route-miles of facilities would be widened and improved with respect to traffic carrying capacity. Proposed improvements would include the widening of CTH J and STH 164 in Washington and Waukesha Counties; of Cleveland Avenue (CTH D) and Racine Avenue (CTH Y) in Waukesha County; of STH 31 and CTH Y in Kenosha and Racine Counties; of Northwestern Avenue (CTH K) and Spring Street (CTH C) in Racine County; of STH 57 and Port Washington Road (CTH W) in Ozaukee County; of STH 33 in Ozaukee and Washington Counties; and of Ryan Road (STH 100) in Milwaukee County. The system improvement activities would comprise about 11.5 percent of the total planned arterial system.

The Commission is currently conducting a study of the reconstruction of the freeway system of Southeastern Wisconsin. The preliminary plan for that study recommends the widening of 127 miles of freeway with additional lanes as the freeway system is reconstructed. The regional transportation plan does not include this proposed freeway system capacity expansion. The proposed lanes would need to be included in the final freeway system plan, and the regional transportation plan would need to be formally amended in order for those proposed lanes to be part of the plan.

#### System Preservation: Maintaining Existing Facilities

System preservation consists of all arterial preservation projects required to maintain the structural adequacy and serviceability of the existing arterial system without significantly increasing the capacity of that system. This would include all projects classified as resurfacing and reconstruction for the same capacity. The plan proposes system preservation activities for about 3,061 route-miles of the arterial system representing about 85 percent of the total planned arterial system in the year 2020.

Included in the category of preservation is the reconstruction needed to renew the freeway system in Southeastern Wisconsin. That freeway system is nearing the end of its physical and economic life, and is the "backbone" of the entire regional arterial street and highway system. The freeway system represents about 8 percent of the mileage of arterial streets and highways in the Region, but carries over 36 percent of the total daily traffic. The pavement and bridge structures and surfaces will wear out over the next 30 years. Moreover, the geometric design of this freeway system and, in particular, the configuration of the major interchanges, is obsolete and, given the extremely heavy traffic loading, increasingly dangerous.

The plan recommends the reconstruction and consideration in preliminary engineering and environmental impact studies of modernization of the Southeastern Wisconsin freeway system, particularly the Zoo, Mitchell, Hale, Stadium, and Marquette interchanges, and the reconstruction of freeway interchanges as needed in Kenosha and Racine Counties to urban design standards. Consideration in reconstruction is recommended to be given to elimination of lane drops at interchanges, provision of adequate merging and diverging lane lengths, provision of auxiliary lanes, provision of adequate shoulders and lateral clearance, improvements in horizontal and vertical curvature, and conversion of left-hand off-ramps and on-ramps to the right hand side of the freeway.

Highway improvements are recommended in the regional transportation plan only as a last resort, that is, to address the congestion which may not be expected to be alleviated by land use, systems management, or public transit measures. The first elements considered for inclusion in the regional transportation plan were the transit and transportation system management elements. The potential of these elements to eliminate congestion was explicitly identified. Highway improvements were then recommended to be added to the regional transportation plan to resolve to the extent practicable the residual existing and probable future traffic congestion.

#### **Transportation Systems Management Element**

The transportation systems management element of the plan is intended to encourage more efficient use of the existing transportation system. It includes travel demand management measures to encourage carpooling and transit travel and thereby reduce vehicular travel. It also includes traffic management measures which seek to obtain the maximum vehicular capacity practicable from existing arterial street and highway facilities. The transportation systems management element of the plan includes the following seven measures:

#### 1. <u>Freeway Traffic Management</u>

Implementation of an areawide freeway traffic management system, including an operational control strategy that would, through restricted access of single-occupancy vehicles at ramp meters, attempt to minimize freeway traffic flow breakdown and stop-and-go traffic and provide for minimum average operating speeds of about 30 miles per hour on all freeway segments during peak traffic periods. Buses and high-occupancy vehicles would receive preferential access at the ramps. The system would also include elements to provide advisory information and to better manage traffic incidents.

#### 2. <u>Arterial Curb-Lane Parking Restrictions</u>

Restriction of curb-lane parking as needed during peak periods along about 400 miles, or about 11 percent, of the planned 3,600-mile arterial street and highway system in order to reduce traffic congestion and help provide good transit service. Local governmental units would consider the

proposed curb-lane parking restrictions as traffic volumes and congestion increase, and implement these restrictions rather than considering expansion of highway capacity through widening and new construction beyond that envisioned in the plan.

## 3. <u>Traffic Engineering</u>

The use of state-of-the-art traffic engineering practices to assist in achieving efficient traffic flow on arterial facilities, including intersection treatments with turn lanes as needed, and efficient traffic signalization, and the facilitation of pedestrian and bicycle movements on arterial streets and highways.

## 4. <u>Traffic Management Technology</u>

The application of advanced traffic management technology, known as Intelligent Transportation Systems (ITS), as such technology becomes practicable and available over the plan implementation period. This may include traveler information for transit and highway travel, and advanced traffic management systems for improved transportation facility operation.

## 5. <u>Travel Demand Management Promotion</u>

A regionwide program to promote travel through ridesharing, transit use, bicycle use, and pedestrian movement, together with telecommuting and work-time rescheduling as may be found feasible.

## 6. <u>Detailed Land Use Planning and Site Design</u>

The preparation and implementation by local governmental units of detailed, site-specific neighborhood land use plans to facilitate travel by transit, bicycle, and pedestrian movement, as recommended in the adopted regional land use plan.

## 7. <u>Transit Systems Management and Service Enhancement Measures</u>

The undertaking by the transit agencies in the Region of a range of activities to enhance the quality of transit services and to facilitate transit use, including conduct of marketing and public information and education activities, improvement of bus speeds through priority systems and signal preemption, and promotion of innovative fare-payment systems.

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# **REVIEW OF YEAR 2020 POPULATION, HOUSEHOLD, AND EMPLOYMENT FORECASTS**

Figures 1 through 3 document the population, household, and employment forecasts for the year 2020 upon which the regional land use and transportation plans are based, and the trends in the historic growth and change in population, households, and employment in the seven county Region and in each of the seven counties through the year 2001. Comparison of estimated current population, household, and employment levels to forecast levels indicate that the forecasts remain valid for long-range planning at both regional and county levels. Estimates of population and households have been closely following forecasts. Estimates of employment have exceeded forecasts due to unprecedented 15 years of economic growth without any significant reversal. However, the economic downturn of recent years may be expected to bring employment estimates more in line with intermediate growth forecasts in the long term, and employment growth over the next 20 years may be expected to be slower due to labor force requirements to be met almost entirely by in-migration rather than growth from existing Region population through increased female labor force participation or movement of population into ages of labor force. Also presented in Figures 1 through 3 are the interim extensions of the year 2020 forecasts to the year 2025. The interim extensions represent an increase of about 1 to 3 percent in regional population, households, and employment from the year 2020 to the year 2025. The Commission staff will be conducting a major review of forecasts to be initiated in mid-2003. This major review will result in the preparation of new population, household, and employment forecasts with a design year of 2035, which will be used for the preparation of new regional land use and transportation plans to be completed by the end of the year 2005.

# **REVIEW OF ADOPTED YEAR 2020 REGIONAL LAND USE PLAN**

The year 2020 regional land use plan has served to substantially guide local land use planning and development decisions throughout the Region. The Counties of Kenosha, Milwaukee, Racine, Walworth, Washington, and Waukesha have endorsed and adopted the plan to serve as a guide for land use planning and development decisions within their counties. In addition, Walworth and Waukesha Counties have prepared land use plans which served to implement, refine, and detail the recommendations of the year 2020 regional land use plans. In addition, the following municipalities have either completed or have under preparation, community land use plans which serve to implement, refine, and detail the regional land use plan: the Cities of Kenosha, Mequon, New Berlin, Oak Creek, St. Francis, and West Bend; the Villages of Germantown, Hartland, Kewaskum, Pleasant Prairie, Rochester, Saukville, Sharon, Sussex, Twin Lakes, Union Grove, and Wales; and the Towns of Bloomfield, Belgium, Caledonia, Dover, Fredonia, Geneva, LaGrange, Linn, Lyons, Randall, Rochester, Saukville, Sharon, Spring Prairie, Somers, Sugar Creek, Trenton, Troy, Waterford, Wayne, and Yorkville.





Source: SEWRPC



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Source: SEWRPC



Source: SEWRPC

## **REVIEW OF YEAR 2020 ADOPTED REGIONAL TRANSPORTATION SYSTEM PLAN**

The review of the validity of the adopted regional transportation system plan may be accomplished by a review of its status of implementation, and a review of transportation trends since the completion of the year 2020 transportation plan in December 1997. Review of the implementation of the regional transportation plan since its preparation and completion indicates that the plan is being implemented. With respect to the transit element of the year 2020 plan, approximately a 70 percent expansion of transit service as measured by vehicle-miles of bus service was recommended from the base year of the plan of 1995, with an emphasis on expanding rapid and express bus transit services, and improving local transit services. These recommendations for expanded and improved transit services represented a departure from a historic trend of stable or declining transit service levels within Southeastern Wisconsin since 1982. Between 1995 and 2001 transit vehicle-miles of service in Southeastern Wisconsin increased by over 20 percent from about 65,000 to 80,000 vehicle-miles of service on an average weekday. The bulk of this expansion was implemented between 1997 and 2001. The improvement and expansion of transit service has included the implementation of rapid bus transit services linking Ozaukee County and Milwaukee County, and linking Washington County and Milwaukee County, and the expansion of rapid and express bus services linking Milwaukee and Waukesha Counties. In addition, expansion of local transit service was implemented by each transit operator: Milwaukee County, the City of Waukesha, Waukesha County, and the Cities of Racine and Kenosha. It is expected that final estimates of public transit vehicle-miles of service on an average weekday will show a decline in 2002 to 76,000 vehicle-miles of service, and based upon 2003 transit operator budgets and operating plans, a further decline in 2003 to about 72,600 vehicle-miles of service. This expected decline in transit service over the years 2002 and 2003 is principally with respect to the Milwaukee, Washington, and Waukesha transit systems and includes reductions in service frequency, route restructuring, and selected elimination of routes. The estimated amount of transit service expected to be provided on an average weekday in the year 2003 of about 72,600 vehicle-miles still represents an increase in transit service of about 12 percent since 1995. The estimated level of transit service to be provided within Southeastern Wisconsin in the year 2003 may be considered consistent with, and even slightly ahead of the schedule in the year 2020 plan. However, to stay on schedule in future years will require stabilization of transit service levels in the next few years and then a return to annual increases in transit service levels as did occur in the mid to late 1990s.

Also, since 1995, public shared-ride taxi service has significantly increased from 1,700 vehicle-miles of service in 1995, to 7,600 vehicle-miles of service in 2001, and is expected to further increase to 8,100 vehicle-miles of service in 2003, with much of the expansion due to the implementation of countywide shared-ride public taxi service in Ozaukee and Washington Counties. In addition, transit fares have generally remained stable, with

increases at about the level of general price inflation. Milwaukee County Transit System base fare has increased from \$1.25 in 1995 to \$1.50 in 2003, about a 20 percent increase. The Milwaukee County Transit System average fare per revenue passenger which accounts for changes in the base fare and in price of passes and tickets increased from \$0.79 in 1995 to \$0.86 in 2002, about a nine percent increase. In comparison, general price inflation from 1995 to 2002 was estimated to increase by about 15 percent. Also, two corridor alternatives analysis studies considering fixed guideway transit as an alternative to bus service are underway in corridors identified in the regional plan. These transit alternatives analyses include the consideration of commuter rail as an alternative to rapid bus service linking the Kenosha, Racine, and Milwaukee areas and the consideration of a guided bus connector system as an alternative to bus service in the Milwaukee.

With respect to the arterial street and highway element of the plan, implementation of that plan has also occurred since the adoption of the regional transportation system plan in 1997. Approximately 81 miles of the proposed 539 miles of arterial street widening or new surface arterial facilities have been implemented and are open to traffic. Other planned surface arterial improvements and extensions are in the process of being implemented, including preliminary engineering, final engineering design, or construction.

With respect to transportation trends, trends in vehicle-miles of travel may be considered, along with trends in transit ridership. With respect to vehicle-miles of travel, the regional transportation system plan and its underlying forecasts anticipated an average increase in regional vehicle-miles of travel of about 1.25 percent to the year 2020, with a more substantial average annual increase of approximately 2.0 percent through the 1990s. Wisconsin Department of Transportation and Regional Planning Commission estimates of regional miles of travel indicate that annual increases in vehicle-miles of travel in the seven-county region through the 1990s have averaged approximately 2.0 percent, consistent with the forecasts anticipated in the year 2020 regional transportation system plan.

With respect to transit ridership, the regional transportation system plan anticipated an increase in transit ridership of approximately 30 percent by the year 2020. Since 1995, the base year of the year 2020 regional transportation system plan, transit ridership has increased by approximately 9 percent.
# SUMMARY AND CONCLUSIONS – REVIEW AND REAFFIRMATION OF REGIONAL TRANSPORTATION PLAN

This review of the adopted year 2020 regional transportation system plan indicates the continued validity of this plan, and provides the basis for the reaffirmation of this plan to guide transportation system development within Southeastern Wisconsin, and as well, the continued validity of the underlying population, household, and employment forecasts, and regional land use plan. The year 2020 regional transportation system plan was adopted by the Regional Planning Commission in late 1997, about five years ago. A first review and reaffirmation of the year 2020 regional transportation system plan was completed in early 2000, about three years ago. This current review of the regional transportation system plan indicates that the population, household, and employment forecasts which underlie the plan remain valid. The regional transportation plan, including both transit and highway elements, is being substantially implemented. Therefore, it is appropriate that the year 2020 regional transportation system plan is reaffirmed, and the design year for this plan is extended to the year 2025 in the interim until the year 2005, when a major reevaluation of the forecasts and plans will have been completed. The extension of the plan design year to 2025 will provide a 20-year timeframe for the plan and its forecasts. The next section of this report presents the extension of the plan design year to 2025, and all proposed changes to the 2020 plan to be made as part of that extension.

# EXTENSION OF YEAR 2020 REGIONAL TRANSPORTATION PLAN DESIGN YEAR TO THE YEAR 2025

### Population, Household, and Employment Forecasts for Year 2025

Figures 1, 2, and 3 present the proposed interim extensions of the year 2020 forecasts of population, households, and employment to the year 2025. The proposed interim forecasts represent an increase from the year 2020 to the year 2025 of about 1 percent in population and 3 percent in households and employment and a continuation of the rates of growth projected through the year 2020.

### **Regional Land Use Plan Extension to Year 2025**

The adopted year 2020 regional land use plan is proposed to be extended as well to the year 2025 with no significant change. The modest increase in population, households, and employment of 1 to 3 percent would be added to the plan largely through additional infill and redevelopment of existing urban centers, with the remainder added to already defined urban growth areas.

### **Regional Transportation Plan Extension to Year 2025**

Based upon consideration of the projected regional demographic and economic growth from the year 2020 to the year 2025, and the extension of the regional land use plan, the incremental transportation needs from the year 2020 to the year 2025 were defined, and incremental changes were proposed to extend the year 2020 plan to the year 2025.

### Public Transit

The extension of the public transit element of the year 2020 regional transportation plan to the year 2025 proposes the continuing expansion the Region's public transit system. The expansion, as shown in Table 3 and Figure 4, would be from 111,500 vehicle-miles of service in the year 2020 to 124,700 vehicle-miles of service in the year 2025, or about a 13 percent increase. The expansion of transit service between the years 2020 and 2025 would largely include continuing improvements in service frequency and, as well, some extension of routes into more completely developed areas. Maps 11 and 12 display the proposed year 2025 public transit element of the regional transportation plan.

### **Transportation Systems Management Element**

The transportation systems management element of the plan is intended to encourage more efficient use of the existing transportation system, and includes travel demand management measures to encourage carpooling and transit travel and thereby reduce vehicular travel. It also includes traffic management measures which seek to obtain the maximum vehicular capacity practicable from existing arterial street and highway facilities. The year 2025 interim plan will continue to recommend the following transportation systems management measures included in the year 2020 plan:

### 1. Freeway Traffic Management

Implementation of a regionwide freeway traffic management system, including an operational control strategy that would, through restricted access of single-occupancy vehicles at ramp meters, attempt to minimize freeway traffic flow breakdown and stop-and-go traffic and provide for minimum average operating speeds of about 30 miles per hour on all freeway segments during peak traffic periods. Buses and high-occupancy vehicles would receive preferential access at the ramps. The system would also include elements to provide advisory information and to better manage traffic incidents.

### Table 3

### TRANSIT SYSTEM OPERATING CHARACTERISTICS IN THE REGION: 1995 AND 2025 RECOMMENDED PLAN

Transit Service Characteristics	Existing 1995 <sup>®</sup>	Recommended Plan
Round-Trip Route Length (miles)		
Rapid Routes	523	1,360
Express Routes	437	430
Local Routes		
Kenosha Urbanized Area	192	220
Milwaukee Urbanized Area	1,135	1,560
Racine Urbanized Area	186	210
Subtotal	1,513	1,990
Total	2,473	3,780
Average Weekday Vehicle Requirements		
Peak Period	537	894
Midday Off-Peak Period	286	453
Revenue Vehicle-Miles (average weekday)		
Rapid	3,800	16,100
Express	5,400	22,800
Local	55,800	85,800
Total	65,000	124,700
Revenue Vehicle-Hours (average weekdav)		
Rapid	200	700
Express	310	1,500
Local	4,730	7,400
Total	5,240	9,600

<sup>a</sup>Transit vehicle-miles of service in Southeastern Wisconsin increased by over 20 percent from about 65,000 vehicle-miles of service in 1995 to 80,000 vehicle-miles of service in 2001, with the bulk of the expansion between 1997 and 2001. Service expansion included the initiation of new service between Milwaukee County and Ozaukee and Washington Counties, new evening service in the Waukesha and Racine areas, and additional service in Milwaukee and Waukesha Counties, including in the IH 94 East-West travel corridor. It is estimated that transit vehicle-miles of service declined in 2002 to about 76,000 vehicle-miles of service, and will decline in 2003 to about 72,600 vehicle-miles of service. This estimated decline in transit service is principally in the Milwaukee, Waukesha, and Washington County transit systems and includes reductions in service frequency, route restructuring and cutbacks, and elimination of selected routes. The estimated amount of transit service expected to be provided on an average weekday in 2003 represents about a 12 percent increase in service since 1995. The transit service element of the plan may be considered consistent with implementation schedule in the year 2020 plan; however, to stay on schedule in future years will require stabilization of transit service levels in the next few years and then a return to annual increases in transit service as did occur in the mid to late 1990s. (Public shared-ride taxi service increased from about 1,700 taxi miles of service on an average weekday in 1995 to 7,600 taxi miles of service in 2001, and is estimated to have increased to 8,000 taxi miles of service in 2002 and may be expected to increase slightly again in 2003.)

Source: SEWRPC.

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# HISTORIC AND PLANNED VEHICLE MILES OF PUBLIC TRANSIT SERVICE ON AN AVERAGE WEEKDAY IN THE SOUTHEASTERN WISCONSIN REGION: 1995 – 2025°

<sup>a</sup> Estimates of average weekday year 2002 and 2003 transit vehicle-miles of service are preliminary, as year 2002 estimates are based upon 11 months of data and year 2003 estimates are based upon transit operator budgets.

YEAR

Source: SEWRPC.

Figure 4



Under the regional transportation system plan, rapid transit commuter rail facilities and express transit light rail facilities would be considered as alternatives to motor-bus transit service over arterial street and highway lanes. Consideration of such fixed-guideway transit service facilities would be initiated as part of federally required detailed transit planning alternatives analysis studies for each of the corridors identified under the plan. The potential corridors for commuter rail and light rail facilities are shown on Map 12. The implementation of these fixed-guideway transit facilities would depend upon the outcome of the corridor studies. Upon completion of each study, the local units of government concerned-particularly, the potential transit operator involved--the Wisconsin Department of Transportation, and the Regional Planning Commission would have to affirm the study findings and, if necessary, amend the regional transportation system plan.

Source: SEWRPC

### **Map 12**



Under the adopted regional transportation system plan express transit light-rail and bus guideway facilities and rapid transit commuter rail facilities could be considered as alternatives to motor-bus transit service in mixed traffic over arterial street and highway lanes. Consideration of such fixed-guideway transit service facilities would be initiated as part of federally required detailed planning transit alternatives analysis studies for each of the identified corridors. The addition of these potential fixed guideway transit facilities to the regional plan, and the ultimate implementation of these fixed guideway transit of government concerned – specifically, the transit operator concerned – the Wisconsin Department of Transportation and the Regional Planning Commission would have to affirm the study findings, determine to pursue guideway implementation and as accessers and the regional transportation system plan. implementation, and, as necessary, amend the regional transportation system plan.

Source: SEWRPC

### 2. Arterial Curb-Lane Parking Restrictions

Restriction of curb-lane parking as needed during peak periods along about 400 miles, or about 11 percent, of the planned 3,600-mile arterial street and highway system in order to reduce traffic congestion and help provide good transit service. Local governmental units would consider the proposed curb-lane parking restrictions as traffic volumes and congestion increase, and implement these restrictions rather than considering expansion of highway capacity through widening and new construction beyond that envisioned in the plan.

### 3. <u>Traffic Engineering</u>

The use of state-of-the-art traffic engineering practices to assist in achieving efficient traffic flow on arterial facilities, including intersection treatments with turn lanes as needed, and efficient traffic signalization, and the facilitation of pedestrian and bicycle movements on arterial streets and highways.

### 4. <u>Traffic Management Technology</u>

The application of advanced traffic management technology, known as Intelligent Transportation Systems (ITS), as such technology becomes practicable and available over the plan implementation period. This may include traveler information for transit and highway travel, and advanced traffic management systems for improved transportation facility operation.

### 5. Travel Demand Management Promotion

A regionwide program to promote travel through ridesharing, transit use, bicycle use, and pedestrian movement, together with telecommuting and work-time rescheduling as may be found feasible.

### 6. Detailed Land Use Planning and Site Design

The continuing preparation and implementation by local governmental units of detailed, site-specific neighborhood land use plans to facilitate travel by transit, bicycle, and pedestrian movement, as recommended in the adopted regional land use plan.

### 7. Transit Systems Management and Service Enhancement Measures

The undertaking by the transit agencies in the Region of a range of activities to enhance the quality of transit services and to facilitate transit use, including conduct of marketing and public information and education activities, improvement of bus speeds through priority systems and signal preemption, and promotion of innovative fare-payment systems.

### Arterial Street and Highway System

The potential incremental traffic volume, traffic congestion, and needs on the arterial street and highway system from the year 2020 to the year 2025 were reviewed. The incremental traffic volume and traffic congestion is defined as that traffic volume and traffic congestion which would not be alleviated through the proposed public transit or systems management elements of the plan.

The arterial street and highway element of the year 2020 regional transportation plan recommended the expansion of arterial capacity on 539 miles, or about 15 percent of the planned 3,600 mile arterial street and highway system, including 124 miles of new arterials and 415 miles of widened arterials. Based upon the incremental traffic volume and traffic congestion which may be expected between the years 2020 and 2025, an additional 54 miles of arterials may require consideration of capacity expansion after the year 2020. These arterials are shown on Maps 13 through 19. It is not recommended that these identified 54 miles of arterials be added at this time to the regional transportation plan for recommended capacity expansion. Rather, it is recommended that the Commission work over the next three years with each county and the municipalities in each county to consider the addition to the plan of these 54 miles of arterial capacity expansion.

\* \* \*

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Map 13





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\* Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal formunicipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.



### Map 14

### ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN MILWAUKEE COUNTY: 2025\*

### ARTERIAL STREET OR HIGHWAY

	NEW FACILITY RECOMMENDED UNDER PLAN
	NEW FACILITY RECOMMENDED UNDER PLAN
	WHICH HAS BEEN IMPLEMENTED AND IS OPEN
	TO TRAFFIC
	WIDENING AND/OR OTHER IMPROVEMENT TO
	PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
	RECOMMENDED UNDER PLAN
	WIDENING AND/OR OTHER IMPROVEMENT TO
	PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
	RECOMMENDED UNDER PLAN WHICH HAS
	BEEN IMPLEMENTED AND IS OPEN TO TRAFFIC
	- RESURFACING OR RECONSTRUCTION TO
	PROVIDE ESSENTIALLY THE SAME CAPACITY
	- POTENTIAL WIDENING NEEDED AFTER YEAR
	2020 TO BE CONSIDERED IN COUNTY HIGHWAY
	SYSTEM PLANNING OVER NEXT THREE YEARS
4	NUMBER OF TRAFFIC LANES FOR NEW OR
	WIDENED AND/OR IMPROVED FACILITY (2
	LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

EXISTING

MICHIGAN

\* Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.



Source: SEWRPC.



Source: SEWRPC.

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### Map 16



### ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN RACINE COUNTY: 2025\*

\* Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal for municipal activities and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal acterial streets) at the conclusion of preliminary engineering.





NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 LANES WHERE UNNUMBERED) 4

**NEW INTERCHANGE** 

NEW HALF INTERCHANGE

EXISTING

<sup>a</sup> Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.



<sup>a</sup> Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

Source: SEWRPC.

# ARTERIAL STREET AND HIGHWAY SYSTEM PLAN ELEMENT IN WASHINGTON COUNTY: 2025"





PLAN IN COUNTY HIGHWAY SYSTEM PLANNING OVER NEXT THREE YEARS NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY

4 NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILIT (2 LANES WHERE UNNUMBERED)

<sup>a</sup> Each proposed arterial street and highway improvement and expansion, and, as well, preservation project, would need to undergo preliminary engineering and environmental studies by the responsible state, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible state, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

NEW HALF INTERCHANGE

EXISTING

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APPENDICES

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### Appendix A

### COMPARISON OF YEAR 2025 REGIONAL TRANSPORTATION PLAN COSTS TO AVAILABLE REVENUES

A review was conducted of the estimated costs of implementing the regional transportation plan with its design year extended to the year 2025 and the estimated revenues which may be available to implement the plan. This comparison of estimated plan costs and revenues is presented in Table A-1. The comparison of plan costs and revenues indicates a modest gap in estimated plan costs and available fund revenues of about \$39 million annually, or about 8 percent over the approximate 20 year plan design period. This would indicate the plan may be funded largely, with existing available revenues. This finding is consistent with the substantial progress made during the last few years in plan implementation with respect to both public transit and arterial streets and highways. It is also consistent with the increased Federal highway and transit funding being provided to the State of Wisconsin and the Southeastern Wisconsin Region as a result of ISTEA reauthorization. Obtaining dedicated funding for public transit and a modest shift of state highway funding to Southeastern Wisconsin as the freeway system is reconstructed would meet this modest gap between plan costs and revenues.

### Table A-1

# AVERAGE ANNUAL COSTS AND REVENUES ASSOCIATED WITH THE YEAR 2025 REGIONAL TRANSPORTATION SYSTEM PLAN: 2003 THROUGH 2025<sup>a</sup>

Cost or Revenue Item	2025 Plan
Transportation System Cost (average annual 2003-2025 expressed as millions of dollars) Arterial Street and Highway System Capital Operating Subtotal Transit system	\$285 69 \$354
Capital Operating <sup>b</sup>	\$29 149
Subtotal	\$178
Total	\$532
Transportation System Revenues (average annual 2003-2025 expressed as millions of dollars) Highway Capital	¢000
Local	\$200 16
Subtotal	\$276
Highway Operating State Local	\$33 33
Subtotal	\$66
Transit Capital Federal Local	\$23 4
Subtotal	\$27
Transit Operating Federal State Local	\$24 80 20
Subtotal	\$124
Total	\$493
Cost Revenue Comparison Average Annual Difference between Cost and Revenue (millions of dollars)	\$39 8 percent

<sup>a</sup>All cost and revenue figures in this table are expressed in constant 2001 dollars.

<sup>b</sup>Net operating cost (total operating costs less fare-box revenue).

Source: SEWRPC.

### **Appendix B**

# EVALUATION OF THE IMPACTS OF THE REGIONAL TRANSPORTATION PLAN ON MINORITY AND LOW-INCOME POPULATIONS IN SOUTHEASTERN WISCONSIN

### **INTRODUCTION**

The regional transportation plan provides advisory recommendations with respect to public transit, transportation systems and demand management, and arterial streets and highways. Each plan recommendation will undergo further detailed consideration and study by the responsible level and unit of government—State, county, or municipal—in preliminary engineering and environmental studies for each arterial street and highway project, and in short-range planning and programming for each public transit recommendation for improvement and expansion. Ultimately, the responsible level and unit of government—State, county, or municipal—will determine whether and when each plan recommendation may proceed to implementation.

This section of this report provides an evaluation of the estimated impacts of the regional transportation plan recommendations on minority and low-income populations within Southeastern Wisconsin. Estimates of the magnitude and location of the minority and low-income populations are taken from data available in the decennial U.S. Census of Population. The Commission's definition of the magnitude and location of minority populations is based upon the recent year 2000 census and is shown in Maps B-1 through B-5 and in Tables B-1 and B-2. The magnitude and location of the low-income population within Southeastern Wisconsin is based upon the year 2000 census and is shown in Tables B-1 through B-5 and in Tables B-1 and B-2. The magnitude and location of the low-income population within Southeastern Wisconsin is based upon the year 2000 census and is shown on Map B-6 and summarized in Table B-3. The low-income population was defined as families with income below federally-defined poverty levels.

# PUBLIC TRANSIT ELEMENT OF THE REGIONAL TRANSPORTATION PLAN

The year 2025 regional transportation plan recommends significant improvement and expansion of public transit within Southeastern Wisconsin, specifically an expansion of more than 70 percent from expected current year 2003 transit service levels. It is estimated that in the year 2003, approximately 72,600 vehicle-miles of transit will be operated on an average weekday, and the regional plan recommends expansion of service to nearly 125,000 vehicle-miles of transit service. The expansion of transit service would include the development of an express transit system within the Milwaukee area, the significant expansion of rapid transit bus services serving Milwaukee County, and connecting to the other counties of the Region and, as well, the expansion of local bus service with respect to service availability and service frequency.



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

Map B-1

# CONCENTRATIONS OF BLACK/AFRICAN AMERICAN PERSONS WITHIN SOUTHEASTERN WISCONSIN: 2000

# B-3 Map B-2

### CONCENTRATIONS OF AMERICAN INDIAN AND ALASKA NATIVE PERSONS WITHIN SOUTHEASTERN WISCONSIN: 2000



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



# CONCENTRATIONS OF ASIAN AND PACIFIC ISLANDER PERSONS WITHIN SOUTHEASTERN WISCONSIN: 2000



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



# CONCENTRATIONS OF OTHER MINORITY PERSONS WITHIN SOUTHEASTERN WISCONSIN: 2000

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

Map B-4



### CONCENTRATIONS OF HISPANIC PERSONS WITHIN SOUTHEASTERN WISCONSIN: 2000

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

Map B-5

### **B-7**

### Table B-1

### POPULATION BY RACE IN THE REGION BY COUNTY: 2000

			Nonwhite								
	White		White Black/African American		American Indian and Alaska Native		Asian and Pacific Islander		Other Race		-
County	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Total Population
Kenosha Milwaukee Ozaukee Racine Walworth Washington . Waukesha	134,737 633,446 80,186 159,582 89,584 115,491 348,496	90.1 67.4 97.4 84.5 95.5 98.3 96.6	8,629 240,113 917 21,100 983 641 3,480	5.8 25.5 1.1 11.2 1.0 0.5 1.0	1,314 11,907 335 1,448 495 587 1,733	0.9 1.3 0.4 0.8 0.5 0.5 0.5	1,930 28,930 1,131 1,885 859 938 6,497	1.3 3.1 1.4 1.0 0.9 0.8 1.8	5,990 48,227 382 8,168 2,946 659 4,013	4.0 5.1 0.5 4.3 3.1 0.6 1.1	149,577 940,164 82,317 188,831 93,759 117,493 360,767
Region	1,561,522	80.8	275,863	14.3	17,819	0.9	42,170	2.2	70,385	3.6	1,932,908

NOTE: As part of the 2000 Federal census, individuals could be reported as being of more than one race. The figures on this table indicate the number of persons reported as being of a given race (as indicated by the column heading), including those who were reported as that race exclusively and those who were reported as that race and one or more other races. Accordingly, the population figures by race sum to more than the total population for each area.

Source: U.S. Census Bureau and SEWRPC.

### Table B-2

### **HISPANIC POPULATION IN THE REGION BY COUNTY: 2000**

		Hispanic Population				
County	Total Population	Number	Percent of Total Population			
Kenosha	149,577	10,757	7.2			
Milwaukee	940,164	82,406	8.8			
Ozaukee	82,317	1,073	1.3			
Racine	188,831	14,990	7.9			
Walworth	93,759	6,136	6.5			
Washington	117,493	1,529	1.3			
Waukesha	360,767	9,503	2.6			
Region	1,932,908	126,394	6.5			

NOTE: Persons of Hispanic origin may be of any race.

Source: U.S. Census Bureau and SEWRPC.



# CONCENTRATIONS OF FAMILIES IN POVERTY WITHIN SOUTHEASTERN WISCONSIN: 2000



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

### Table B-3

		Families With Income Below the Poverty Level				
County	Total Families	Number	Percent of Total Families			
Kenosha	38,671	2,094	5.4			
Milwaukee	226,685	26,454	11.7			
Ozaukee	23,153	391	1.7			
Racine	50,052	2,908	5.8			
Walworth	23,388	1,078	4.6			
Washington	32,953	867	2.6			
Waukesha	101,008	1,674	1.7			
Region	495,910	35,466	7.2			

### FAMILIES WITH INCOME BELOW THE POVERTY LEVEL IN THE REGION BY COUNTY: 2000

NOTE: The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine poverty status. If a family's total income is less than that family's threshold, then that family, and every individual in it, is considered to be below poverty. Poverty is not defined for people in military barracks, institutional group quarters, or for unrelated individuals under age 15, such as foster children.

### POVERTY THRESHOLDS BY SIZE OF FAMILY AND NUMBER OF RELATED CHILDREN UNDER 18 YEARS OF AGE FOR PURPOSES OF THE 2000 CENSUS

	Weighted	eighted Related Children Under 18 Years										
Size of family unit	Average Thresholds	None	One	Two	Three	Four	Five	Six	Seven	Eight or more		
One person (unrelated individual) Under 65 years 65 years and over	\$8,501 8,667 7,990	 \$8,667 7,990					• - • -					
Two persons Householder under 65 years Householder 65 years and over	10,869 11,214 10,075	 11,156 10,070	\$11,483 11,440							, ,		
Three persons Four persons Five persons Six persons Seven persons Eight persons Nine persons or more	13,290 17,029 20,127 22,727 25,912 28,967 34,417	13,032 17,184 20,723 23,835 27,425 30,673 36,897	13,410 17,465 21,024 23,930 27,596 30,944 37,076	\$13,423 16,895 20,380 23,436 27,006 30,387 36,583	\$16,954 19,882 22,964 26,595 29,899 36,169	\$19,578 22,261 25,828 29,206 35,489	\$21,845 24,934 28,327 34,554	\$23,953 27,412 33,708	\$27,180 33,499	   \$32,208		

Source: U.S. Census Bureau and SEWRPC.

### Rapid Transit Service

Bus rapid transit service would serve Milwaukee County and connect Milwaukee County with the other six counties of the Region. The planned bus rapid transit service would provide for travel in both directions at all times, that is, to and from Milwaukee County, as well as within Milwaukee County. Service would be provided not just during peak periods, but during the midday and evenings as well. Stops on bus rapid transit service would be spaced about every three to five miles to provide service not just to and from the Milwaukee central business district, but to other major job and activity centers within Milwaukee County and within the other Counties of the Region. Bus rapid transit would be increased by more than a factor of three under the recommended plan.

### • Express Transit Service

The plan recommends the development of a network of 12 express bus transit routes largely within Milwaukee County, but also extending to Waukesha County. Express transit would be provided in all major travel corridors connecting all major activity centers. Express routes would be higher speed than local routes as express stop spacing would range from one-quarter to one mile and generally average one-half mile. Service would be provided at attractive frequencies of service throughout the day. The express transit service recommended represents nearly four times the amount of express service operated today within Southeastern Wisconsin.

### Local Transit Service

The plan also recommends the expansion of local transit service to serve trips which would not use the higher speed express or rapid transit service. The plan recommends an expansion of local transit service over the next 20 to 25 years of about 35 percent. The recommended improvements would provide for extensions of service into southern and northern Milwaukee County, Waukesha County, and, as well as within the Cities of Kenosha, Racine, and Waukesha and their surrounding areas. The frequency of local transit service would also be improved over existing levels.

### Potential Upgrading to Rail or Bus Guideway Transit

The plan recommends that rapid and express transit service initially be provided with buses, but that consideration be given through the conduct of detailed corridor transit alternatives analysis studies to upgrading bus service to commuter rail for rapid transit service and light rail for express transit service (see Map 3 of the Memorandum). Through these detailed corridor transit alternatives analysis studies, decisions would be made by the concerned local governments and transit operators whether to provide rapid transit service through buses on existing freeways or through commuter rail, and whether to provide express transit service through buses on surface arterials or through light rail. Such studies are currently underway in the Milwaukee-Racine-Kenosha corridor considering rapid transit commuter rail, and the Milwaukee downtown connector study considering express light rail and bus guideway technology.

**B-10** 

The public transit recommendations of the regional transportation plan would, in particular, serve minority and low-income populations within Southeastern Wisconsin. As shown in Table B-4, low-income households and a number of minority populations are particularly dependent upon public transit, as a significant proportion of those populations have no private vehicle available for travel. A comparison of Maps 11 and 12 in the Memorandum, which display the public transit plan element, to Maps B-1 through B-6, which display concentrations of minority and low-income populations within Southeastern Wisconsin, indicates that the transit service recommendations of the plan would be particularly directed to serving minority and low-income populations.

A series of travel time standards has been developed by the Commission to measure the adequacy of available transit service. These standards are listed in Table B-5. Map B-7 documents the areas within the urban areas of the Region which currently meet these transit travel time standards. Map B-8 documents the areas which under the regional transportation system plan, and specifically, with the transit improvements under that plan, would meet those standards. A comparison indicates that the transit recommendations of the regional transportation system plan would improve accessibility by transit to employment opportunities and other activity centers over existing conditions. A significant portion of the areas provided with such improved accessibility coincide with areas having the largest concentrations of minority populations and low-income families.

# ARTERIAL STREET AND HIGHWAY ELEMENT OF THE REGIONAL TRANSPORTATION PLAN

The planned arterial street and highway system under the regional transportation system plan totals 3,600 routemiles. Approximately 85 percent, or 3,061 of these route-miles, are recommended to be resurfaced and reconstructed to their same capacity. Approximately 415 route-miles of the total year 2025 arterial street and highway system is recommended for widening to provide additional through traffic lanes. The remaining 124 route-miles, or about 3 percent of the total arterial system mileage, are proposed new arterial facilities to be constructed.

The Commission is currently conducting a study of the reconstruction of the freeway system of Southeastern Wisconsin. The preliminary plan recommends the widening of 127 miles of freeways with additional lanes as the freeway system is reconstructed. The regional transportation plan does not include this proposed freeway system capacity expansion. The proposed lanes would need to be included in the final freeway system plan, and the regional transportation plan would need to be formally amended in order for those proposed additional freeway lanes to be part of the plan.

### Table B-4

### HOUSEHOLDS BY NUMBER OF VEHICLES AVAILABLE AND RACINE AND ETHNICITY OF HOUSEHOLDER: 2000

### HOUSEHOLDS BY NUMBER OF VEHICLES AVAILABLE AND RACE OF HOUSEHOLDER: 2000

	White Households		Black/African American Households			American Indian and Alaska Native Households			Asian and Pacific Islander Households			
County	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available
Kenosha Milwaukee Ozaukee Racine Walworth Washington Waukesha	3,099 32,462 988 3,756 1,567 1,695 5,399	48,400 242,842 29,111 57,724 31,650 41,491 125,716	6.0 11.8 3.3 6.1 4.7 3.9 4.1	458 24,604 29 1,631 17 2 98	1,714 53,174 183 4,717 196 153 608	21.1 31.6 13.7 25.7 8.0 1.3 13.9	22 539 0 20 7 9 0	256 2,204 126 173 123 89 347	7.9 19.7 0.0 10.4 5.4 9.2 0.0	25 854 8 35 23 14 40	337 5,571 187 309 176 93 1,435	6.9 13.3 4.1 10.2 11.6 13.1 2.7
Region	48,966	576,934	7.8	26,839	60,745	30.6	597	3,318	15.2	999	8,108	11.0

	Other Race Households			Two or N	Aore Race Ho	useholds	Total Households		
County	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available
Kenosha Milwaukee Ozaukee Racine Walworth Washington Waukesha	128 2,102 14 242 34 0 87	1,022 8,181 87 1,554 567 137 660	11.1 20.4 13.9 13.5 5.7 0.0 11.6	92 1,070 75 15 0 65	504 4,126 124 583 147 159 774	15.4 20.6 0.0 11.4 9.3 0.0 7.7	3,824 61,631 1,039 5,759 1,663 1,720 5,689	52,233 316,098 29,818 65,060 32,859 42,122 129,540	6.8 16.3 3.4 8.1 4.8 3.9 4.2
Region	2,607	12,208	17.6	1,317	6,417	17.0	81,325	667,730	10.9

### HOUSEHOLDS BY NUMBER OF VEHICLES AVAILABLE AND ETHNICITY OF HOUSEHOLDER: 2000

	Non-Hispanic Households			His	panic Househ	olds	Total Households		
County	Vehicles Available	One or More Vehicles Available	No Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available	No Vehicles Available	One or More Vehicles Available	Percent with No Vehicles Available
Kenosha Milwaukee Ozaukee Racine Walworth Washington Waukesha	3,597 57,374 1,018 5,304 1,577 1,713 5,511	49,919 298,848 29,525 61,771 31,616 41,793 127,351	6.7 16.1 3.3 7.9 4.8 3.9 4.1	227 4,257 21 455 86 7 178	2,314 17,250 293 3,289 1,243 329 2,189	8.9 19.8 6.7 12.2 6.5 2.1 7.5	3,824 61,631 1,039 5,759 1,663 1,720 5,689	52,233 316,098 29,818 65,060 32,859 42,122 129,540	6.8 16.3 3.4 8.1 4.8 3.9 4.2
Region	76,094	640,823	10.6	5,231	26,907	16.3	81,325	667,730	10.9

Source: U.S. Census Bureau and SEWRPC.

### B-13

### Table B-5

# TRANSIT-RELATED TRAVEL TIME STANDARDS USED IN THE DESIGN AND EVALUATION OF THE REGIONAL TRANSPORTATION SYSTEM PLAN

Opportunity or Activity Center Concerned	Overall Travel Time Standards
Employment	45 minutes of 40 percent of urbanized area jobs
Major Retail-Service	35 minutes of three major retail and service centers in Milwaukee urbanized area and one major retail and service center in Kenosha and Racine urbanized areas
Medical Facility	40 minutes of a major regional medical center and/or 30 minutes of a hospital or medical clinic
Major Park	40 minutes of a major outdoor recreation center
Higher Education Facility	40 minutes of a vocational school, college, or university
Scheduled Air Transport	60 minutes of General Mitchell International Airport

Source: SEWRPC.

### Map B-7

### AREAS MEETING TRAVEL TIME STANDARDS FOR EMPLOYMENT AND SELECTED ACTIVITY CENTERS THROUGH TRAVEL BY TRANSIT: 1995



EMPLOYMENT: 1995

### MAJOR RETAIL AND SERVICE CENTERS: 1995



B-14

### MAJOR MEDICAL CENTERS: 1995



### MAJOR RECREATIONAL CENTERS: 1995



### MAJOR EDUCATIONAL CENTERS: 1995

### SCHEDULED AIR TRANSPORT TERMINALS: 1995



In terms of providing timely access to employment opportunities throughout the urbanized areas of the Region, public transit service is not as adequate as highway service. In the Milwaukee urbanized area, the percentage of urbanized area population able to access 40 percent of urbanized area employment opportunities within 30 minutes through travel by transit was in 1995 about 1 percent, while the corresponding percentages of urbanized area population in the Kenosha and Racine urbanized areas were then about 62 percent and 49 percent, respectively.

Source: SEWRPC.
## AREAS MEETING TRAVEL TIME STANDARDS FOR EMPLOYMENT AND SELECTED ACTIVITY CENTERS THROUGH TRAVEL BY TRANSIT: 2025 REGIONAL TRANSPORTATION PLAN

#### EMPLOYMENT

## MAJOR RETAIL AND SERVICE CENTERS





B-17

#### Map B-8 (continued)

## AREAS MEETING TRAVEL TIME STANDARDS FOR EMPLOYMENT AND SELECTED ACTIVITY CENTERS THROUGH TRAVEL BY TRANSIT: 2025 REGIONAL TRANSPORTATION PLAN

MAJOR EDUCATIONAL CENTERS

#### NGTON URBANIZED AREA URBANIZED AREA BOUNDARY BOUNDARY AREA MEETING TRAVEL AREA MEETING TRAVEL TIME STANDARD\* TIME STANDARD\* \* 60 MINUTES OVERALL TRAVEL \* 40 MINUTES OVERALL TRAVEL TIME TIME OF A SCHEDULED AIR OF A VOCATIONAL SCHOOL, COLLEGE, TRANSPORT AIRPORT. OZAUKI GRAPHIC SCALE 0 1 2 3 4 5 6 Miles 0 1 2 3 4 5 6 Miles -(1)-411 tagte. ATH CO man 1 1 Walter warne Acres rectors to be write Lest 2 TC CO. 112 KENDSHA RESUSIA CO 1201 811,31 - 201 T reader 15 See. de -An 9 KENDSILA KENDSUA WISCONSIN" WISCONSIN Same WALWORTL ILLIN018

#### SCHEDULED AIR TRANSPORT TERMINALS

OR UNIVERSITY.

GRAPHIC SCALE

### Map B-8 (continued)

## AREAS MEETING TRAVEL TIME STANDARDS FOR EMPLOYMENT AND SELECTED ACTIVITY CENTERS THROUGH TRAVEL BY TRANSIT: 2025 REGIONAL TRANSPORTATION PLAN

#### MAJOR MEDICAL CENTERS

#### MAJOR RECREATIONAL CENTERS





Each proposed arterial street and highway improvement, expansion, and preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a planned project will proceed to implementation will be made by the responsible State, county, or municipal government at the conclusion of preliminary engineering.

An assessment was conducted to determine whether the arterial street and highway capacity improvements recommended under the plan were disproportionately located in areas of the Region with concentrations of minority and low-income populations. This was done by comparing Maps 13 through 19 in the Memorandum, which display the 539 miles of plan-recommended arterial capacity improvements, to the areas with concentrations of minority and low-income populations in the Region displayed in Maps B-1 through B-6. Also, Maps B-9 through B-15 provide a similar comparison of the location of the plan proposed arterial capacity expansion projects to the location of minority and low-income community, disproportionately bears the impact of the plan-recommended arterial street and highway capacity improvements.



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

ILLINOIS

## B-21

#### Map B-9

COMPARISON OF LOCATION OF CONCENTRATIONS OF BLACK/AFRICAN AMERICAN PERSONS WITHIN SOUTHEASTERN WISCONSIN TO THE ARTERIAL CAPACITY EXPANSION IMPROVEMENTS

#### COMPARISON OF LOCATION OF CONCENTRATIONS OF AMERICAN INDIAN AND ALASKA NATIVE PERSONS WITHIN SOUTHEASTERN WISCONSIN TO THE ARTERIAL CAPACITY EXPANSION IMPROVEMENTS RECOMMENDED UNDER THE YEAR 2025 REGIONAL TRANSPORTATION SYSTEM PLAN



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



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

## B-24 Map B-12

#### COMPARISON OF LOCATION OF CONCENTRATIONS OF OTHER MINORITY PERSONS WITHIN SOUTHEASTERN WISCONSIN TO THE ARTERIAL CAPACITY EXPANSION IMPROVEMENTS RECOMMENDED UNDER THE YEAR 2025 REGIONAL TRANSPORTATION SYSTEM PLAN



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

### COMPARISON OF LOCATION OF CONCENTRATIONS OF HISPANIC PERSONS WITHIN SOUTHEASTERN WISCONSIN TO THE ARTERIAL CAPACITY EXPANSION IMPROVEMENTS RECOMMENDED UNDER THE YEAR 2025 REGIONAL TRANSPORTATION SYSTEM PLAN



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

#### COMPARISON OF LOCATION OF CONCENTRATIONS OF TOTAL MINORITY PERSONS WITHIN SOUTHEASTERN WISCONSIN TO THE ARTERIAL CAPACITY EXPANSION IMPROVEMENTS RECOMMENDED UNDER THE YEAR 2025 REGIONAL TRANSPORTATION SYSTEM PLAN



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

## COMPARISON OF LOCATION OF CONCENTRATIONS OF FAMILIES IN POVERTY WITHIN SOUTHEASTERN WISCONSIN TO THE ARTERIAL CAPACITY EXPANSION IMPROVEMENTS RECOMMENDED UNDER THE YEAR 2025 REGIONAL TRANSPORTATION SYSTEM PLAN



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