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MINUTES OF THE FOURTH MEETING

ADVISORY COMMITTEE ON REGIONAL TRANSPORTATION PLANNING

DATE: January 5, 2005
TIME: 1:00 p.m.
PLACE: Commission Offices
W239 N1812 Rockwood Drive
Waukesha, WI

Committee Members Present

Frederick J. Patrie, Chairman ..... Director of Public Works, Kenosha County
Robert Anderson (Representing Donna L. Brown) ..... Transportation Planning and Corridor Supervisor, District 2, Wisconsin Department of Transportation
John M. Bennett ..... City Engineer, City of Franklin
Larry H. Bruss (Representing Lloyd L. Eagan) ..... Regional Pollutant and Mobile Source Section Chief, Bureau of Air Management, Wisconsin Department of Natural Resources
Allison M. Bussler ..... Chief of Staff, Waukesha County Executive's Office
Shane Crawford ..... Public Works Director, Walworth County Public Works Department
Robert R. Dennik ..... Deputy Chief of Staff, Milwaukee County Executive's Office
Paul A. Feller ..... Director of Public Works, City of Waukesha
Thomas M. Grisa ..... Director of Public Works, City of Brookfield
William Kappel ..... Director of Public Works, City of Wauwatosa
Glenn M. Lampark ..... Director of Public Works, Racine County
Michael M. Lemens ..... Director of Engineering, City of Kenosha
Michael K. Lynett ..... Village Engineer/Commissioner of Public Works, Village of Fox Point
Jeffrey J. Mantes ..... Commissioner of Public Works, City of Milwaukee
Gloria L. McCutcheon ..... Southeast Regional Director, Wisconsin Department of Natural Resources
Kenneth M. Pesch ..... Highway Commissioner, Washington County
Jeffrey S. Polenske ..... City Engineer, City of Milwaukee
Guy D. Smith (Representing Susan Black) ..... Trails Coordinator, Department of Parks and Public Infrastructure, Milwaukee County
Wallace Thiel ..... Village Administrator, Village of Hartland
Michael Vebber (Representing Kenneth J. Warren) ..... Director of Operations, Milwaukee County Transit System

Staff Members and Guests Present

Robert E. Beglinger ..... Chief Transportation Engineer, SEWRPC
Daniel A. Boehm ..... Manager of Research and Planning, Milwaukee County Transit System
Christopher T. Hiebert ..... Senior Engineer, SEWRPC
David M. Jolicoeur ..... Senior Engineer, SEWRPC
Patrick A. Pittenger ..... Senior Planner, SEWRPC

Kerry Thomas .....Communications Director,
Southeastern Wisconsin Coalition for Transit NOW
Kenneth R. Yunker ..... Deputy Director, SEWRPC

WELCOME AND ROLL CALL

Chairman Patrie welcomed all of those in attendance and indicated that roll call would be accomplished through a sign-in roster circulated by Commission staff.

CONSIDERATION OF APPROVAL OF MINUTES OF NOVEMBER 10, 2004, MEETING

Chairman Patrie asked if there were any questions or comments on the minutes of the Advisory Committee's third meeting held on November 10, 2004.

Mr. Bruss noted that, in response to Committee comments at the November 10, 2004, meeting, information regarding the 2004 Urban Mobility Study conducted by the Texas Transportation Institute was included on pages 6 and 7 and in Attachment C to the minutes. He suggested that this information be included in an appendix to the final study report. Mr. Yunker indicated that this information would be included in an appendix to the final study report as suggested by Mr. Bruss.

There being no further questions or comments, a motion to approve the minutes was made by Mr. Crawford, seconded by Mr. Pesch, and carried unanimously by the Committee.

REVIEW OF PRELIMINARY DRAFT OF CHAPTER VII, "OBJECTIVES, PRINCIPLES, AND STANDARDS," OF SEWRPC PLANNING REPORT NO. 49, *"A REGIONAL TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN: 2035"*

Chairman Patrie asked Mr. Yunker to briefly comment on the preliminary draft of Chapter VII, "Objectives, Principles, and Standards," prior to soliciting Committee comments on the chapter. Mr. Yunker stated that the objectives, principles, and standards are a refinement of those adopted under the years 2010 and 2020 regional transportation planning efforts. He pointed out that there is no hierarchy among the objectives – they are of equal importance. He also pointed out, as is stated on page 4, that there are several overriding considerations that must be recognized. He stated that one example is cost. He indicated that cost will be a consideration that may result in the selection between two otherwise equal alternatives and an analysis of cost could show that the implementation of some alternate plans are beyond the economic capability of the Region.

Following Mr. Yunker's comments, the following questions were raised and comments were made by Committee members:

1. With respect to the overriding considerations addressed in the text on page 4, Ms. McCutcheon noted that the first overriding consideration indicated that alternative plans will be compared based on how well each plan achieves each objective, followed by resolution though compromise. She suggested that the statement should be revised to indicate that resolution will come through balancing competing objectives. Mr. Yunker stated that the text would be revised to reflect Ms. McCutcheon's suggestion.

Also with respect to the overriding considerations, Mr. Yunker pointed out that the third overriding consideration addressed the assessment of benefits and costs of transportation plans. He stated that the text would be revised to state that such an assessment will be conducted rather than "should" be conducted.

[Secretary's Note: The first numbered paragraph on page 4 has been revised to read as follows: "It is unlikely that any one plan proposal will be determined to best meet all the objectives and standards. Certain objectives and standards are complementary; however, other objectives and standards are conflicting. Consideration will need to be given to a comparison of how well each plan achieves each objective, followed by resolution through balancing competing objectives."

The third numbered paragraph on page 4 has been revised to read as follows: "An assessment of the distribution of the benefits and costs of transportation plans within the Region will be conducted to determine whether there are any disproportionate impacts, particularly on minority and low-income populations."]

2. With respect to the principle associated with Objective No. 3 on pages 6 and 7, Mr. Grisa noted that the principle stated that for the portion of the regional population that is dependent upon public transit, access to the metropolitan area is only available if provided by public transit. He suggested that the population referenced in this portion of the principle should be referred to as the Region's population without access to an automobile. Mr. Yunker stated that the text would be revised in response to Mr. Grisa's suggestion.

   [Secretary's Note: The fifth sentence of the last paragraph on page 6 continuing to page 7 which contains the principle associated with Objective No. 3 has been revised to read as follows: "For that substantial portion of the Region's population without access to an automobile, access to the metropolitan area – jobs, medical and other services, parks and recreation, and shopping – is only available if provided by public transit."]

3. In reference to Standard 1c of Objective No. 3 on page 7, Mr. Yunker stated that the Standard would be revised to state that arterial street and highway facilities should be provided with adequate traffic-carrying capacity to minimize, rather than avoid, traffic congestion.

   [Secretary's Note: Standard 1c of Objective No. 3 on page 7 has been revised to read as follows: "Arterial street and highway facilities should be provided with adequate traffic-carrying capacity to minimize traffic congestion."]

4. In reference to Standard 2j of Objective No. 3, Mr. Grisa pointed out that the desirable service hours for the public transit system were the same for weekdays, Saturdays, and Sundays and Holidays. He questioned if meeting this standard for non-weekdays would be feasible. Mr. Vebber stated that transit service serves persons without access to automobiles who need to make trips for purposes such as shopping, medical needs, and employment on weekends as well as on weekdays. He pointed out that while the desirable service hours are the same weekdays and during weekend periods and holidays, the frequency of service provided within those hours differs between weekdays and weekend periods and holidays. He noted that Standard 2k of Objective No. 3 indicates that the desirable and maximum headways were generally greater for

weekend periods and holidays compared to weekdays, meaning less frequent service during weekend periods and holidays. Mr. Yunker added that the service hours are described as desirable, and that transit service may not necessarily meet this standard.

5. With respect to Standard 3a of Objective 3 on page 10, Mr. Bennett noted that the standard indicates that a physically separate bicycle path should be considered for arterial streets and highways that have motor-vehicle operating speeds that exceed 35 miles per hour. He stated that in his experience, the Wisconsin Department of Transportation has encouraged such separate facilities when operating speeds exceed 45 miles per hour. Mr. Yunker responded that the Commission would discuss the issue with Wisconsin Department of Transportation representatives further and report the results, and any potential revisions of the standard, in the minutes of this meeting.

   [Secretary's Note: After reviewing the criteria under which a physically separate bicycle path should be considered, and comparing the criteria with Wisconsin Department of Transportation practices, it was determined that consideration of the criteria under Standard 3a is consistent with the practices of the Wisconsin Department of Transportation. The criteria listed in Standard 3a include not only the motor-vehicle operating speed, but also the number of traffic lanes, amount of heavy trucks and buses, the grade of the roadway, and traffic volume that results in traffic congestions. All of the criteria under Standard 3a are to be considered. The Wisconsin Department of Transportation has no guideline that indicates the use of a 45 mile per hour motor-vehicle operating speed as a threshold for the consideration of a physically separate bicycle path. The Wisconsin Department of Transportation commented that if there are 30 or more street intersections or commercial driveways per mile on a surface arterial street or highway, bicyclists should be accommodated either on-street or on a parallel collector or land access. The last paragraph on page 10 has been revised as follows to reflect the Wisconsin Department of Transportation comment: "As an alternative, the designation of bicycle routes on parallel collector or land access streets may be considered. Bicyclists should be accommodated either on-street or on a parallel collector or land access street, particularly if there are 30 or more street intersections or commercial driveways per mile.]

6. With respect to Standard 3c of Objective No. 3 on page 11, which addresses the provision of sidewalks in areas of urban development in the Region, Mr. Yunker stated that an additional bulleted paragraph regarding sidewalks would be added in response to a Committee member comment made to Commission staff prior to the meeting. He indicated that the additional text would indicate that in low density residential cluster developments, sidewalks could be replaced by perimeter and internal pathway systems, and that the additional text would be included in the minutes of this meeting.

   [Secretary's Note: The following text has been added as the fourth bulleted paragraph of Standard 3c of Objective No. 3 on page 11: "In low density residential cluster developments, sidewalks could be replaced by perimeter and internal pathway systems."]

7. With respect to Objective No. 5 on page 12, Ms. McCutcheon suggested that a standard be added to state that the sharing of arterial street and highway system corridors with major utility facilities – electrical transmission, communication, major pipeline – should be considered to the extent

practical as those utility facilities are expanded and upgraded. Mr. Yunker indicated that an additional standard would be added as suggested by Ms. McCutcheon.

> [Secretary's Note: The following text has been added as Standard 9 of Objective No. 5 on page 12: "Arterial street and highway system corridors should be considered for the location of major utility facilities – electrical transmission, communication, major pipeline – to the extent practical as those utility facilities are expanded and upgraded."]

8. In reference to Standard 7 of Objective No. 5 on page 12, which stated that the location of transportation facilities should be minimized in or through Wisconsin Department of Natural Resources managed lands, Wisconsin Department of Natural Resources land legacy places, and lands protected by land trusts and other non-profit natural resource conservation organizations, Ms. McCutcheon suggested that this standard should not be applied to bicycle and pedestrian facilities. Mr. Yunker indicated that this standard would be revised to reflect Ms. McCutcheon's suggestion, and that the revised text would be included in the minutes of this meeting.

   > [Secretary's Note: Standard 7 of Objective No. 5 on page 12 has been revised to read as follows: "The location of transportation facilities – other than bicycle and pedestrian facilities – in or through Wisconsin Department of Natural Resources managed lands, Wisconsin Department of Natural Resources land legacy places, and lands protected by land trusts and other non-profit natural resource conservation organizations should be minimized."]

9. With respect to Standard 2 of Objective No. 6 on page 13, which stated that the average speed of highway and transit travel should be maximized, Mr. Bruss questioned if the maximization of travel speeds should be a standard applied during the evaluation of transportation plans. Mr. Yunker stated that there are numerous standards contained in this chapter, and that no individual standard would be considered by itself, and that the maximization of travel speed – highway and transit travel – would be one of many considerations. Mr. Bruss suggested that the standard be revised to state that travel time should be minimized instead of stating that travel speed should be maximized. Mr. Yunker indicated that the standard would be revised to reflect Mr. Bruss' suggestion, but noted that such a change to the standard would not actually change its meaning, as minimizing travel time is equivalent to maximizing travel speed.

   > [Secretary's Note: Standard 2 of Objective No. 6 on page 13 has been revised to read as follows: "The average travel time of highway and transit travel should be minimized."]

10. Mr. Bruss noted that the implementation of travel demand management and transportation systems management measures were not included in this chapter. Additionally, he noted that the chapter did not include a reference to the cost of operations and maintenance costs of transportation facilities and services. He asked when such measures and costs would be addressed. Mr. Yunker stated that as was discussed in Chapters I and II as reviewed by this Committee and in previous Commission planning efforts, transportation systems management measures will be considered during the development and evaluation of transportation system alternatives. He pointed out that – as was stated in the report outline reviewed by the Committee at its first meeting – Chapter VIII of the study report will document the travel demand management, transportation systems management, and public transit alternatives that are considered, tested, and evaluated. Additionally, as has previously been discussed by this Committee, the potential for these types of transportation system improvements to address

highway traffic volume and congestion will be quantitatively tested and determined, with highway improvements then to be considered to address highway traffic and congestion which may not be expected to be alleviated by other transportation system improvements. With respect to costs associated with operations and maintenance of transportation facilities and services, Mr. Yunker stated that the evaluation of alternative transportation plans will include not only the consideration of capital costs, but the consideration of operations and maintenance costs as well.

There being no further discussion, a motion to approve the preliminary draft of Chapter VII, "Objectives, Principles, and Standards," as amended was made by Mr. Lampark, seconded by Mr. Mantes, and carried unanimously by the Committee.

REVIEW OF PRELIMINARY DRAFT OF CHAPTER III, "INVENTORY OF TRANSPORTATION FACILITIES AND SERVICES," OF SEWRPC PLANNING REPORT NO. 49, *"A REGIONAL TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN: 2035"*

Chairman Patrie asked Mr. Yunker to review for the Committee the preliminary draft of Chapter III, "Inventory of Transportation Facilities and Services," of SEWRPC Planning Report No. 49, *"A Regional Transportation System Plan for Southeastern Wisconsin: 2035."* During Mr. Yunker's review of the chapter, the following questions were raised and comments made by Committee members:

1. With respect to the description of the arterial street and highway system which began on page 3, Mr. Yunker pointed out, as was stated in the text, that the mileage of arterials increased from 3,188 miles in 1963 to 3,292 miles in 2001, an increase of only about 100 miles, or 3 percent. He pointed out that the lane-miles of arterials have increased over that same period by about 12 percent. He indicated that the increase in lane-miles from 1963 to 2001 was not included in the text, but that the text would be revised to include that statement. Additionally, he indicated that a statement regarding the increase in lane-miles of arterials would be added to Table 3-1, which displayed the distribution of street and highway mileage within the Region by county in 1963, 1972, 1991, and 2001.

   [Secretary's Note: The following text has been added before the last sentence of the first full paragraph on page 3: "The lane-miles of arterials have increased over that same period by about 12 percent."

   The fourth sentence of the second numbered paragraph on page 27 in the summary section has been revised to read as follows: "Between 1963 and 2001, average weekday vehicle-miles of travel on the arterial street and highway system increased by over 200 percent, while miles of arterial streets and highways increased by only about 3 percent and arterial lane-miles increased by only about 12 percent."

   The following text has been added as a footnote to Table 3-1: "The estimated lane-miles of arterials was 7,827 lane-miles in 1963, 7,627 lane-miles in 1972, 8,383 lane-miles in 1991, and 8,790 lane-miles in 2001."]

2. With respect to Table 3-4, which displayed the average annual growth rate of average weekday vehicle-miles of travel within southeastern Wisconsin by county, Mr. Yunker stated that the average annual figures presented for the 1990's were incorrect for the Region as a whole as well as for each county. He stated that the average annual growth rate for the Region should have

appeared as 1.9 percent instead of 2.1 percent. He indicated that a revised version of the table would be attached to the minutes of this meeting.

[Secretary's Note: A revised version of Table 3-4 is included in Attachment A to these minutes.]

3. With respect to Table 3-5, which presented the estimated freeway and surface arterial facility design capacity and attendant level of congestion, Mr. Yunker stated that a Committee member questioned prior to the meeting if the descriptions of levels of congestion were identical to the descriptions included in the *Highway Capacity Manual 2000*. Mr. Yunker indicated that only two minor differences existed between the contents of this table and the descriptions in the *Highway Capacity Manual 2000*. The first difference was the description of operating conditions on a freeway with level of service C. Table 3-5 indicates that under level of service C, there would be "Some restrictions on ability to maneuver and change lanes." In the *Highway Capacity Manual 2000*, the same level of service C on a freeway is described as "Freedom to maneuver within the traffic stream is noticeably restricted." Additionally, Table 3-5 indicates that on a freeway with level of service D, there would be "Substantial restrictions on ability to maneuver and change lanes." In the *Highway Capacity Manual 2000*, level of service D on a freeway is described as "Freedom to maneuver within the traffic stream is more noticeably limited and the driver experiences reduced physical and psychological comfort levels."

4. With respect to the discussion of arterial street system traffic congestion on pages 5 and 6 and the associated data presented in Table 3-6, Mr. Grisa noted that there was a regionwide decrease in arterial mileage experiencing traffic congestion from 1963 to 1972 and from 1991 to 2001. Mr. Yunker stated that, as was stated in the text, the decline in arterial mileage experiencing traffic congestion from 1963 to 1972 despite a 50 percent increase in traffic was due to the completion of the freeway system during that period. He indicated that the decrease in arterial mileage experiencing traffic congestion during the period of 1991 to 2001 was due to two factors. The first factor was the implementation of a number of significant arterial street and highway widening and new construction projects between 1991 and 2001, examples of which include the widening of STH 36 in Milwaukee, Racine, and Milwaukee Counties; the widening of portions of STH 59 in Waukesha County; the widening of portions of STH 50 in Kenosha and Walworth Counties; the conversion of STH 41 to a freeway in Washington County; and the construction of the Lake Parkway (STH 794) in Milwaukee County. He stated that the second factor was that a lower design capacity applied for two lane rural arterials was applied prior to 2001, as it has been concluded that many two lane arterials in Southeastern Wisconsin lying in rural areas carry substantial traffic volumes and generally function as urban arterials. Mr. Yunker indicated that Commission staff would attempt to apply the design capacity used in 2001 for two lane rural arterials to the data from 1963, 1972, and 1991. He stated that any revisions to the chapter would be reported in the minutes to this meeting.

   Mr. Bruss and Mr. Grisa suggested that additional figures, potentially bar charts, presenting the traffic congestion data be included in this section of the chapter. Mr. Yunker stated that Commission staff would explore alternatives for presenting this data, and invited Mr. Grisa, Mr. Bruss, or any other Committee member to suggest other methods of presenting these data.

   [Secretary's Note: Commission staff applied the design capacity for two lane rural arterials previously applied only for year 2001 traffic data to years 1963, 1972, and 1991 to determine the extent of arterial streets and highways over design capacity and

experiencing traffic congestion using consistent criteria. After this refinement, the data now show fewer miles of the arterial street and highway system over design capacity and experiencing traffic congestion for the years 1963, 1972, and 1991. With these decreases, a modest increase between 1991 and 2001 in the amount of arterial street and highway mileage over design capacity and experiencing traffic congestion is now indicated.

The text that addressed arterial street and highway traffic congestion beginning on page 5 and continuing to page 6 has been revised to read as follows: "The traffic congestion on the arterial street and highway system can be assessed by comparing the average week-day traffic volume on each segment of arterial street and highway to its design capacity. Table 3-5 presents the estimated design capacity of freeway and surface arterial facilities, and the estimated traffic congestion which occurs as those design capacities are exceeded.

Table 3-6 and Map 3-2 present the existing level of traffic congestion experienced in the year 2001 on the arterial street system. Table 3-7 in Figure 3-1a present more detail on existing year 2001 congestion on the freeway system, and historic freeway congestion, including the number of hours of congestion experienced on congested freeway segments on an average weekday.

Table 3-8 and Figure 3-1b compare the estimated change in traffic congestion on the arterial street and highway system over the years 1963, 1972, 1991, and 2001. The miles of arterials carrying traffic volumes exceeding design capacity and experiencing traffic congestion declined from 217 miles in 1963 to 160 miles in 1972, even though traffic grew during that period by over 50 percent. The decline in traffic congestion may be attributed to the completion of the freeway system during that period. Between 1972 and 1991, the miles of arterials carrying traffic volumes exceeding their design capacity and experiencing traffic congestion is estimated to have increased from 160 miles to 273 miles, as traffic grew during that period by nearly 65 percent, as Regional employment and households increased by about 30 percent, and vehicle occupancy and carpooling significantly declined. The decline in vehicle occupancy from an average of 1.39 persons per vehicle to 1.22 persons per vehicle alone is estimated to have resulted in nearly a 15 percent increase in vehicle traffic. As well, limited transportation system improvement and expansion was completed between 1972 and 1991 in Southeastern Wisconsin. The miles of arterials carrying traffic volumes exceeding their design capacity and experiencing traffic congestion is estimated to have increased modestly from 273 miles in 1991 to 290 miles in 2001. During that period, traffic is estimated to have increased by about 21 percent. The modest increase in traffic congestion from 1991 to 2001 may be attributed to the implementation of an extensive number of significant surface arterial street and highway widening and new construction projects between 1991 and 2001. The estimated modest increase in congestion between 1991 and 2001 is not uniform systemwide, as for example, the extent and severity of congestion on the Milwaukee area freeway system is estimated to have substantially increased between 1991 and 2001 (see Table 3-7)."

Revised versions of Tables 3-6, 3-7, and 3-8 which presented data regarding traffic congestion on the arterial street and highway system are included in Attachment B to these minutes. Attachment B also includes two additional figures, Figures 3-1a and 3-1b,

which display data regarding traffic congestion on the arterial street and highway system.]

5. With respect to the section of the chapter that described express transit service on pages 9 and 10, Mr. Vebber pointed out that the two routes operated by the Milwaukee County Transit system between Milwaukee County and the Quad Graphics, Inc., plants in Waukesha County in 2001 were funded jointly by Milwaukee County, Waukesha County, and Quad Graphics, Inc. He requested that the text be revised to state the nature of this transit service. With respect to the text that described express transit services that existed in the fall of 2004, Mr. Vebber noted that two routes serving the UWM had been eliminated since 2001 rather than the one stated in the text. Additionally, he stated that the adult cash fare for express transit service within Milwaukee County was $1.75 rather than the $1.80 indicated in the text. Mr. Yunker stated that the text would be revised to reflect Mr. Vebber's comments, with the revisions reported in the minutes of this meeting.

   [Secretary's Note: The third sentence of the second full paragraph on page 9 has been revised as follows: "Milwaukee County, Waukesha County, and Quad Graphics, Inc., sponsored the operation of two other Milwaukee County Transit System routes operated between Milwaukee County and the Quad Graphics, Inc., plants in Waukesha County."

   The first full paragraph on page 10 has been revised to read as follows: "In the fall of 2004, express transit service within the Region was provided over six bus routes. The difference from 2001 of five bus routes reflects service reductions implemented by the Milwaukee County Transit System due to budgetary constraints which caused the system to eliminate the three express routes serving the Milwaukee CBD and two routes serving the UWM. The service periods and headways on the remaining express services in the Region were similar to those operated in 2001. The adult cash fare for express transit service within Milwaukee County was $1.75 per trip while the adult cash fares charged for the services operated or sponsored by the City of Racine ranged from $1.25 to $4.00 per trip.

6. With respect to the section of the chapter that described fixed-route local transit service on pages 10 through 13, Mr. Lemens noted that the electric streetcar line in downtown Kenosha is operated with different hours of service compared to the regular bus routes. He requested that the text be revised to indicate the difference in the hours of service. Mr. Yunker indicated that the text would be revised in response to Mr. Lemen's request.

   In reference to local public transit service provided in the Racine area, it was pointed out the demand-responsive, shared-ride taxi service operated in the Town of Caledonia in 2001 was provided the City of Racine Belle Urban System, but was funded by the Town of Caledonia. Mr. Yunker stated that the text would be revised to indicate that the service was funded by the Town of Caledonia.

   [Secretary's Note: The fifth sentence of the second full paragraph on page 10 has been replaced with the following text: "In 2001, the bus system provided service on most routes from 6:00 a.m. to 7:30 p.m., Monday through Saturday, with 30- to 60-minute headways during weekday peak-periods and 60-minute headways during weekday off-peak periods and on Saturday. Service was provided on the streetcar line with 15 minute headways from 11:00 a.m. to 7:00 p.m. on weekdays and from 10:00 a.m. to 5:30 p.m. on Saturdays."

The following text has been added after the fourth sentence of the first full paragraph on page 12: "The City of Racine contracted for the shared-ride taxi service from a private transportation operator. The Town of Caledonia provided the local funding for the service."]

7. With respect to the section of the chapter entitled "Interregional Public Transit" beginning on page 16, Mr. Vebber pointed out that this section includes descriptions of several private services. He suggested that the section be renamed "Interregional Transit" to reflect the nature of the services discussed. Mr. Yunker stated that the section of the chapter would be renamed as suggested by Mr. Vebber.

   Also with respect to interregional transit services, Mr. Lemens observed that page 18 includes a description of the four intercity carriers, including United Limo which provides service between Milwaukee and Chicago's O'Hare International Airport. He noted that in addition to the stop at General Mitchell International Airport, there is also a stop in Kenosha County at the interchange of IH 94 and STH 50. Mr. Yunker stated that the text would be revised to indicate the additional stop pointed out by Mr. Lemens.

   [Secretary's Note: The second sentence of the first full paragraph on page 18 has been revised to read as follows: "Of these 71 weekday one-way bus trips, 39 trips were operated by Greyhound to Chicago, to various locations in Wisconsin and Upper Michigan, and to cities as far away as Minneapolis-St. Paul; 12 trips were operated by Badger Coaches between Milwaukee and Madison; 18 trips were operated by United Limo between Milwaukee and Chicago's O'Hare International Airport with stops at General Mitchell International Airport and at the interchange of IH 94 and STH 50 in Kenosha County; and two trips were operated by Lamers Bus Lines between Milwaukee and Wausau with a stop in Appleton."]

8. Mr. Grisa noted that the data presented for park-ride facilities on pages 20 and 21 and for transportation management and operations systems on pages 22 through 26 were for the year 2001, but the data presented for bicycle and pedestrian facilities on pages 21 and 22 were for the year 2004. He suggested that data presented for park-ride facilities and transportation management and operations systems also be for the year 2004. Mr. Yunker responded that the data would be updated, with the revisions to the chapter reported in the minutes to this meeting.

   [Secretary's Note: The changes necessary to update the park-ride facility and the transportation management and operations system data from 2001 to 2004 are documented in Attachment C to these minutes.]

9. With respect to the discussion of park-ride lots which began on page 20, Mr. Yunker noted that park-ride lots also provide points of transfer from bicycle to transit and carpools in addition to points for transferring between private vehicle and public transit, and between single occupant or solo driver private vehicles and carpools. He indicated that the text would be revised to reflect this information.

   Also in reference to the discussion of park-ride lots, Mr. Yunker noted that the park-ride lot located at the interchange of USH 41 and Lannon Road in Germantown was incorrectly listed as a facility served by transit service and as a facility not served by transit service. He indicated that

transit service was available at that location in 2001, and that the text, maps, and tables would be revised to count that park-ride only once, as a facility served by transit.

[Secretary's Note: The first sentence of the last paragraph on page 20 has been revised to read as follows: "Park-ride facilities enable more efficient travel within southeastern Wisconsin through transfer of mode between private vehicle and public transit, and between single occupant or solo driver private vehicles and carpools, and also from bicycle to transit and carpools."

The text of pages 21 though 23 and 28, as well as Map 3-8 and Table 3-13 have been revised to indicate the park-ride lot located at the interchange of USH 41 and Lannon Road in Germantown is a facility served by transit service. The revised text was previously included in a secretary's note in these minutes, a revised version of Map 3-8 is included in Attachment C to these minutes, and a revised version of Table 3-13 is included in Attachment C to these minutes.]

10. With respect to the discussion of bicycle and pedestrian facilities that began on page 21, Mr. Yunker noted that the data regarding the accommodation of bicycles on the arterial street and highway system was not complete. He stated that Commission staff would be working primarily with the Wisconsin Department of Transportation and each county to determine the extent of accommodation of bicycles on the arterial street and highway system. He indicated that the information would be presented to the Committee for its review when it was available.

    Also with respect to the discussion of bicycle and pedestrian facilities, and specifically Map 3-10 which displayed existing off-street bicycle and pedestrian facilities in 2004, Mr. Anderson indicated that he would provide information to Commission staff regarding additional State trails that were implemented by 2004. Mr. Yunker indicated that the map and text would be revised to reflect the information provided by Mr. Anderson.

    [Secretary's Note: The first sentence of the second full paragraph on page 22 has been revised to read as follows: "Map 3-10 displays the existing 203 miles of regional off-street bicycle paths largely developed within former railway rights-of-way and parkway corridors."

    The first full sentence on page 29 has been revised to read as follows: "Also, 203 miles of regional off-street bicycle paths exist on former railway rights-of-way and in parkways."

    A revised copy of Map 3-10 is included in Attachment C to these minutes.]

11. With respect to the discussion of park-ride lot bicycle parking and storage on page 22 and displayed on Map 3-11, Mr. Thiel stated that the park-ride lot located at the interchange of STH 16 and STH 83 does not have bicycle racks as indicated in the text and on Map 3-11. Mr. Anderson indicated that he would provide information to Commission staff regarding the existence of bicycle racks at numerous park-ride lots in the Region. Mr. Yunker stated that the text and map would be revised, with the revisions included in the minutes of this meeting.

    [Secretary's Note: The third full paragraph on page 22 has been revised to reflect the comments of Committee members regarding the existence of bicycle racks at selected park-ride lots as well as the correction related to the park-ride lot at the interchange of

STH 41 and Lannon Road previously discussed in these minutes. The paragraph has been revised to read as follows: "Map 3-11 displays the 48 park-ride lots within the Region as of 2004. Of the 35 lots with transit service, 16 have bicycle racks, and 19 have no bicycle parking facilities. Of the 13 lots without transit service, none of them have bicycle racks."

A revised version of Map 3-11 is included in Attachment C to these minutes.]

12. With respect to the discussion of off-street bicycle paths in the second paragraph on page 22, Mr. Bennett pointed out that off-street bicycle and pedestrian facilities are typically not maintained for commuting and recreational purposes in the winter. He suggested that it be noted in the text that these facilities are intended for seasonal use. Mr. Yunker noted that the Committee had previously discussed the use of such facilities during the review of Chapter II at a previous meeting, and had revised the preliminary draft of Chapter II to indicate that the network of off-street paths was intended for seasonal use. He indicated that Chapter III would be revised to be consistent with the Committee's conclusions regarding Chapter II, with the revised text of Chapter III included in the minutes of this meeting.

    [Secretary's Note: the second paragraph on page 22 has been revised to read as follows: "Map 3-10 displays the existing 203 miles of regional off-street bicycle paths largely developed within former railway rights-of-way and parkway corridors. These paths are envisioned, upon completion, to connect the Region's major urban centers—Milwaukee, Racine, Kenosha, and Waukesha—and the Region's urban communities. These paths – intended for seasonal use – provide particularly safe and aesthetically attractive routes with separation from motor vehicle traffic."]

13. With respect to the discussion of standard arterial street and highway traffic management and operation systems beginning on page 25, Mr. Yunker noted that the documentation of extent of existing coordinated signal systems and emergency preemptive signal systems would be provided to the Committee for its review upon completion. He stated that Commission staff would be meeting with representatives of appropriate units of government to assist in determining how to best address the documentation of this information.

There being no further discussion, a motion to approve the preliminary draft of Chapter III, "Inventory of Transportation Facilities and Services," as amended was made by Mr. Thiel, seconded by Ms. Bussler, and carried unanimously by the Committee.

REVIEW OF PRELIMINARY DRAFT OF INITIAL SECTION OF CHAPTER V, "ANTICIPATED REGIONAL GROWTH AND CHANGE," OF SEWRPC PLANNING REPORT NO. 49, *"A REGIONAL TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN: 2035"*

Chairman Patrie asked Mr. Yunker to provide the Committee with a summary of the preliminary draft of the initial section of Chapter V, "Anticipated Regional Growth and Change."

Mr. Yunker stated that the initial section describes the demographic and economic forecasts for the year 2035 that will serve as a basis for the year 2035 regional land use and transportation system plans. He indicated that the regional land use and transportation system plans will be designed to accommodate the anticipated changes in the demographic and economic characteristics of the Region. He stated that the section includes projections of population, households, personal income, and employment. He indicated

that, as has been past practice, three projections—high, intermediate, and low—were developed. The intermediate projection is considered the most likely to be achieved for the Region overall, and, in this sense, constitutes the Commission's "forecast," to be used as a basis for the preparation of the regional land use and transportation plans. The high and low projections are intended to provide an indication of the range of population and household levels which could conceivably be achieved under significantly higher and lower, but nevertheless plausible, growth scenarios for the Region.

Mr. Yunker noted that a review was previously conducted to compare how the current characteristics compare to levels expected under the previous projections made for the year 2020. Ms. McCutcheon asked if the comparison referenced by Mr. Yunker had been documented. Mr. Yunker responded that it was documented in Chapter II, "Review of the Current Adopted Regional Transportation System Plan," which was reviewed by the Committee.

Mr. Yunker stated that the final section of Chapter V would summarize the year 2035 regional land use plan, which was still under development. He indicated that the final section of Chapter V would be prepared for Committee review after the completion of the land use plan, which is expected to be completed in late spring 2005.

There being no further discussion, a motion to approve the preliminary draft of the initial section of Chapter V, "Anticipated Regional Growth and Change," was made by Mr. Feller, seconded by Mr. Lemens, and carried unanimously by the Committee.

UPDATE ON REEVALUATION, UPDATE, AND EXTENSION TO YEAR 2035 OF REGIONAL LAND USE PLAN

Chairman Patrie asked Mr. Yunker to provide the Committee a brief update on the progress of developing a year 2035 regional land use plan.

Mr. Yunker noted that a roster for the Advisory Committee on Regional Land Use Planning and a report outline for the regional land use plan under development were distributed to members of this Committee prior to the meeting. He indicated that a review of the membership of the Advisory Committee on Regional Land Use Planning shows that the Committee membership representation is similar to that which is on Advisory Committee on Regional Transportation Planning. He noted that, like this Committee, the membership of the Advisory Committee on Regional Land Use Planning includes representatives of each county in the Region, representatives of numerous municipalities, representatives of the Wisconsin Departments of Natural Resources and Transportation, and representation from Federal agencies.

With respect to the work completed to date and additional tasks to be completed, Mr. Yunker stated that the Advisory Committee on Regional Land Use Planning had already reviewed the preliminary drafts of the first three chapters of SEWRPC Planning Report No. 48, *"A Regional Land Use Plan for Southeastern Wisconsin: 2035."* He stated that those first three chapters included an introductory chapter, a chapter which presented inventory information regarding existing conditions and trends, and a chapter which reviewed the existing year 2020 regional land use plan and an assessment of the progress of implementing that plan. Mr. Yunker indicated that each of these chapters is available on the Commission's website, and that copies would be provided to Committee members upon request. He stated that at its next meeting, scheduled for February 2005, the Advisory Committee on Regional Land Use Planning would review Chapters IV and V, which will present objectives, principles, and standards, and population and employment projections, respectively. He noted that Chapter V of the land use plan

will be very similar to the initial section of Chapter V of the transportation plan reviewed at this meeting. He stated that, following the development of these initial five chapters, work will begin on the design of the new land use plan. He indicated that he expects the new land use plan to be complete in late spring 2005.

RESCHEDULING OF MAY 11, 2005, MEETING TO MAY 4, 2005

Chairman Patrie stated that the Advisory Committee's previously scheduled May 11, 2005, meeting has been rescheduled to May 4, 2005. Mr. Yunker noted that the meeting had previously been moved from May 4 to May 11 due to a scheduling conflict, and that it was now being moved back to the original date of May 4 because the scheduling conflict was resolved.

ADJOURNMENT

Mr. Yunker stated that the Advisory Committee's next meeting was scheduled for February 2, 2005. He stated that Commission staff would determine if sufficient materials would be ready for Advisory Committee review at a February 2 meeting. He stated that Commission staff would contact Advisory Committee members via e-mail in about two weeks to inform them if the February 2 meeting would be held. He indicated that if the February 2 meeting were cancelled, the Advisory Committee's next meeting would be held on March 2, 2005, as previously scheduled.

The fourth meeting of the Advisory Committee on Regional Transportation Planning was adjourned at 2:05 p.m. on a motion by Mr. Thiel, seconded by Mr. Bennett, and carried unanimously by the Committee.

Signed

Kenneth R. Yunker
Recording Secretary

* * *

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Attachment A

Table 3-4

AVERAGE ANNUAL GROWTH RATE OF AVERAGE WEEKDAY VEHICLE-MILES OF TRAVEL WITHIN SOUTHEASTERN WISCONSIN BY COUNTY

County	Average Annual Growth Rate of Average Weekday Vehicle-Miles of Travel			
	1960s	1970s	1980s	1990s
Kenosha	4.8	3.4	2.7	2.2
Milwaukee	4.3	1.5	1.6	1.5
Ozaukee	6.5	4.1	4.6	1.4
Racine	5.4	2.7	2.5	1.3
Walworth	2.7	5.3	3.3	2.0
Washington	5.8	3.6	4.0	2.6
Waukesha	7.0	4.2	3.7	2.7
Region	4.9	2.7	2.6	1.9

Source: SEWRPC.

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Table 3-6

TRAFFIC CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION BY COUNTY: 2001

County	2001								Total Mileage
	Under or At Design Capacity		Over Design Capacity						
			Moderate Congestion		Severe Congestion		Extreme Congestion		
	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	
Kenosha	303.2	95.5	9.9	3.1	1.5	0.5	3.0	0.9	317.6
Milwaukee	641.1	82.0	72.1	9.2	24.7	3.2	43.4	5.6	781.3
Ozaukee	244.2	97.4	4.3	1.7	1.5	0.6	0.8	0.3	250.8
Racine	341.3	96.8	9.4	2.7	0.5	0.1	1.4	0.4	352.6
Walworth	430.1	98.4	5.1	1.2	1.1	0.3	0.3	0.1	436.6
Washington	391.1	96.2	15.4	3.8	- -	- -	- -	- -	406.5
Waukesha	650.9	87.2	70.7	9.5	11.4	1.5	13.4	1.8	746.4
Region	3,001.9	91.2	186.9	5.7	40.7	1.2	62.3	1.9	3,291.8

Source: SEWRPC.

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1/21/2005

Table 3-7

ESTIMATED EXISTING SOUTHEASTERN WISCONSIN FREEWAY SYSTEM TRAFFIC CONGESTION ON AN AVERAGE WEEKDAY: 1972, 1991, AND 2001

Year	Highest Level of Hourly Congestion Experienced	Miles of Congested Freeways		Average Hours of Congestion on an Average Weekday			
		Number	Percent of Freeway System	Extreme	Severe	Moderate	Total
2001	Extreme	24	8.9	1.4	3.3	4.4	9.1
	Severe	18	6.7	- -	1.5	2.5	4.0
	Moderate	22	8.1	- -	- -	2.1	2.1
	Total	64	23.7	- -	- -	- -	- -
1991	Extreme	11	4.4	1.0	2.1	3.1	6.2
	Severe	12	4.8	- -	1.1	2.9	4.0
	Moderate	23	9.1	- -	- -	2.3	2.3
	Total	46	18.3	- -	- -	- -	- -
1972	Extreme	- -	- -	- -	- -	- -	- -
	Severe	2	1.2	- -	1.0	3.0	4.0
	Moderate	7	4.3	- -	- -	2.8	2.8
	Total	9	5.5	- -	- -	- -	- -

Source: SEWRPC.

#102310 V4

Table 3-8

TRAFFIC CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION: 1963, 1972, 1991, AND 2001

	Arterial Street and Highway Mileage			
	1963	1972	1991	2001
Under or At Design Capacity	2,971	2,959	2,986	3,002
Over Design Capacity and Experiencing Traffic Congestion..	217	160	273	290
Total	3,188	3,119	3,259	3,292

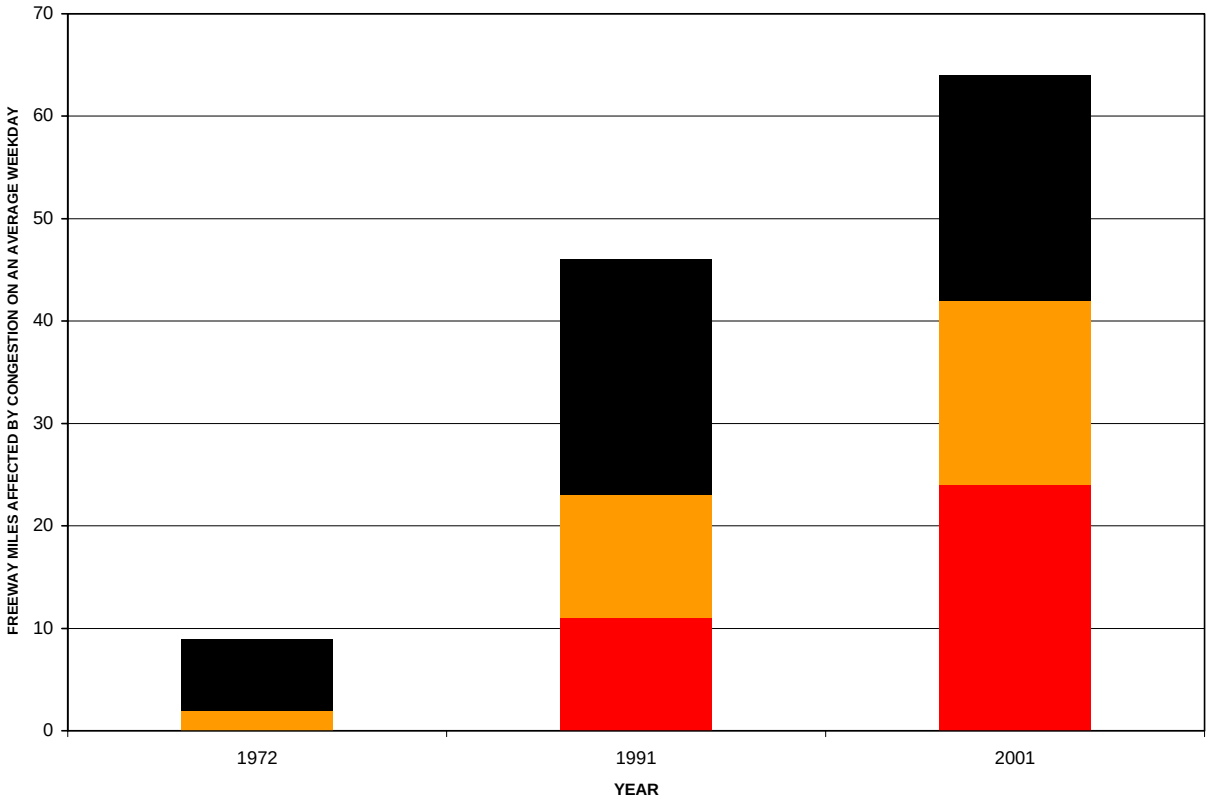
Source: SEWRPC.

#104090

Attachment B (continued)

Figure 3-1a

ESTIMATED EXISTING SOUTHEASTERN WISCONSIN FREEWAY SYSTEM TRAFFIC CONGESTION ON AN AVERAGE WEEKDAY: 1972, 1991, AND 2001



Extreme Congestion - Freeway segment experiences for at least one hour in each direction on an average weekday average travel speeds which are typically 20 to 30 miles per hour or less with breakdowns in traffic flow and stop-and-go, bumper-to-bumper traffic.

Severe Congestion - Freeway segment experiences for at least one hour in each direction on an average weekday average travel speeds up to 10 miles per hour below the free-flow speed with virtually no ability to maneuver and change lanes.

Moderate Congestion - Freeway segment experiences for at least one hour in each direction on an average weekday average travel speeds of one to two miles per hour below the free-flow speed, and substantial restrictions on the ability to maneuver and change lanes.

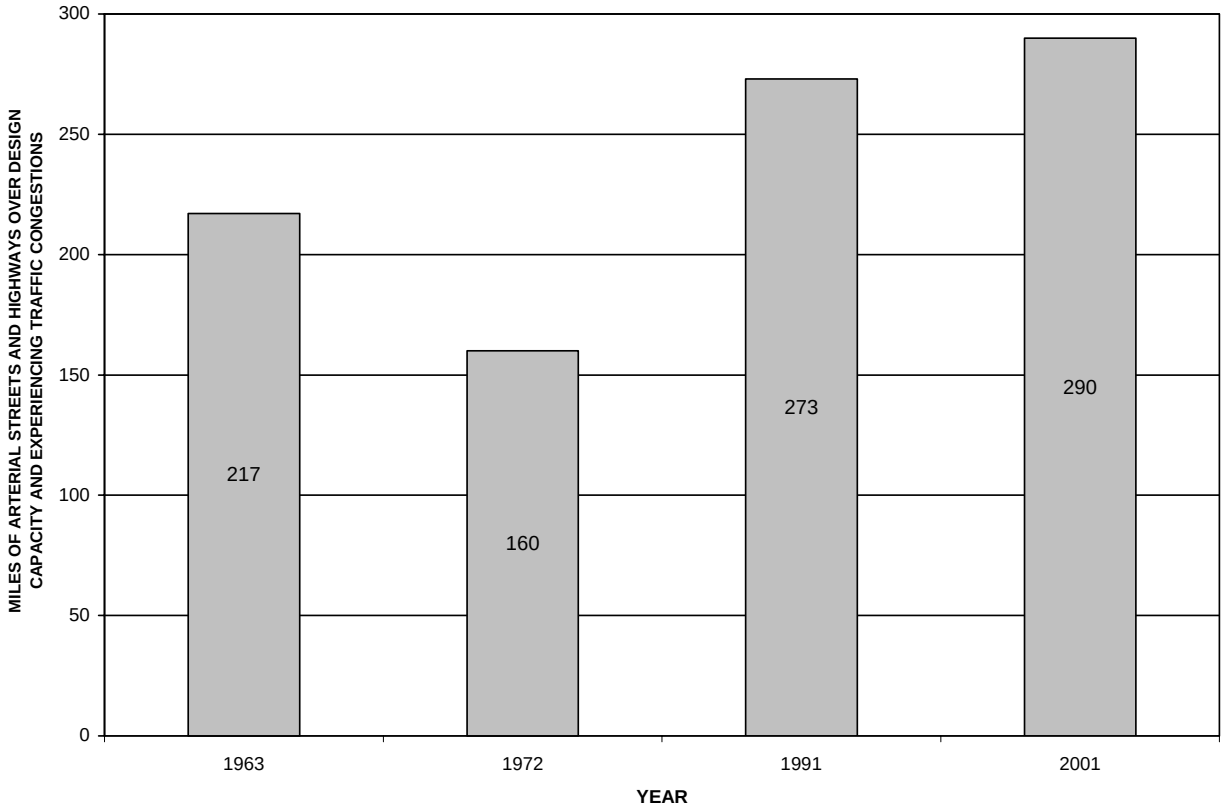
Source: SEWRPC.

#104088

Attachment B (continued)

Figure 3-1b

TRAFFIC CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION: 1963, 1972, 1991, AND 2001



Source: SEWRPC.

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Attachment C

REVISED TEXT FOR PARK-RIDE FACILITIES AND TRANSPORTATION MANAGEMENT SYSTEMS SECTIONS ON PAGES 20 THROUGH 26 OF THE INITIAL DRAFT OF CHAPTER III, "INVENTORY OF TRANSPORTATION FACILITIES AND SERVICES"

[New or replacement text is underlined; text to be replaced has a strikeout line through it.]

PARK-RIDE FACILITIES

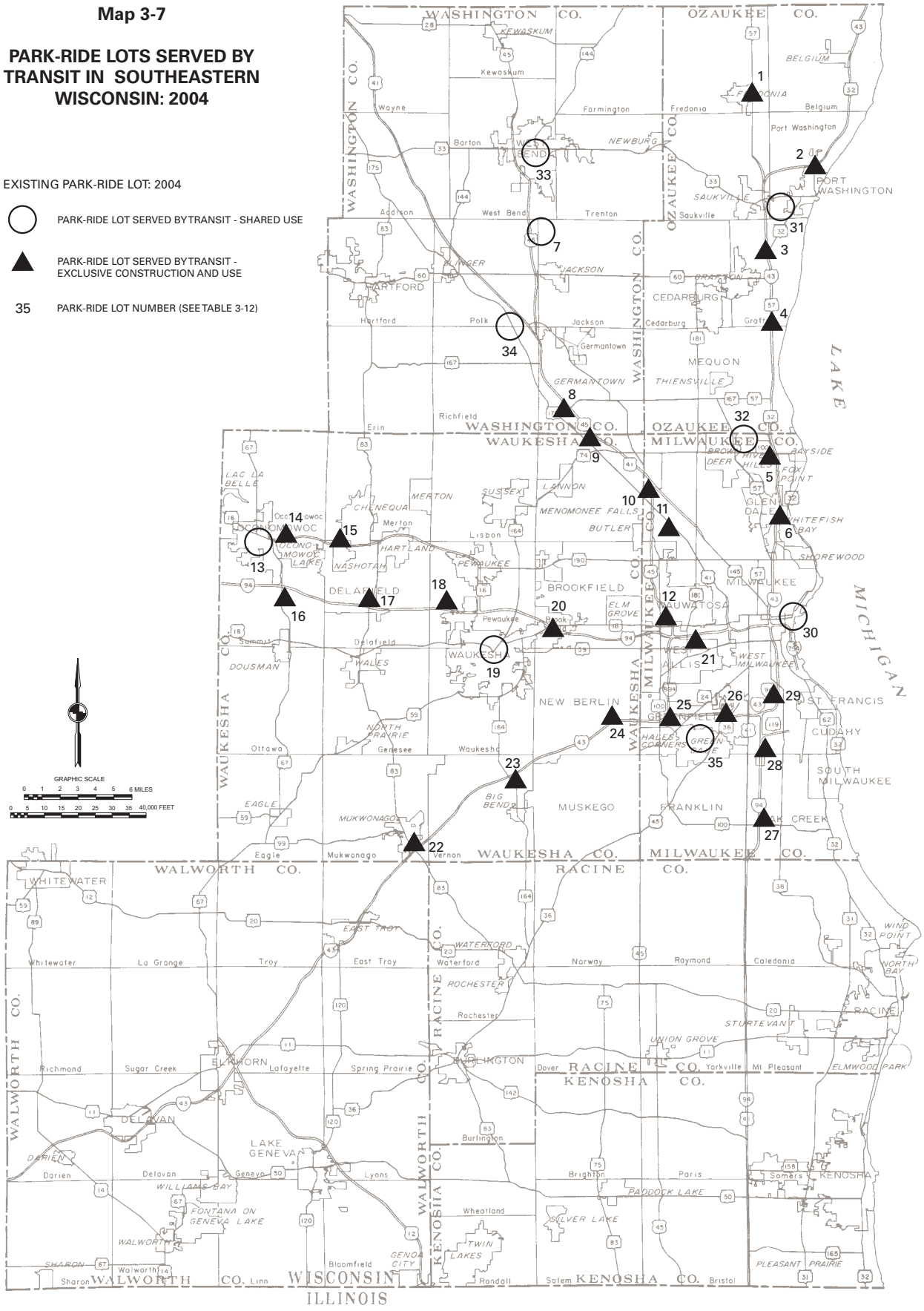
Park-ride facilities enable more efficient travel within southeastern Wisconsin through transfer of mode between private vehicle and public transit, and between single occupant or solo driver private vehicles and carpools, and also from bicycle to transit and carpools. In ~~2001~~ 2004, there were ~~46~~ 48 park-ride lots serving intra-regional travel within the Region, with ~~37~~ 35 served by rapid or express transit bus service. In comparison, there were 37 park-ride lots within southeastern Wisconsin in 1991 including 19 served by public transit, and, eight park-ride lots all served by public transit in 1972.

Park-Ride Lots Served by Transit

In ~~2001~~ 2004, rapid or express transit bus service was provided to ~~37~~ 35 park-ride lots within the Region, as shown on Map 3-7 and in Table 3-12. These intermodal parking facilities provided ~~6,120~~ 5,595 parking spaces. The utilization of parking spaces at all park-ride lots served by transit in ~~2001~~ 2004 is set forth in Table 3-12, and ranged from a high of ~~86~~ 81 percent, at the ~~Pilgrim Road~~ Southridge park-ride lot in the Village of ~~Menomonee Falls~~ Greendale, to a low of 8 10percent, at the ~~Northridge~~ STH 57 and CTH H park-ride lot in the ~~City~~ Town of ~~Milwaukee~~ Fredonia. In addition to the ~~Pilgrim Road~~ Southridge site, other park-ride lots served by transit with utilization rates greater than 60 percent, include: ~~IH 43 and STH 32/CTH H in the City of Port Washington~~ Pilgrim Road park-ride lot in the Village of Menomonee Falls; IH 43 and CTH C in the Town of Grafton; State Fair Park in the City of Milwaukee; ~~STH 67 and CTH DR in the Town of Summit~~; IH 94 at CTH Y (Goerke's Corners) in the Town of Brookfield; ~~IH 43 and STH 83 in the Village of Mukwonago; IH 94 and STH 20 (Ives Grove) in the Town of Yorkville;~~ and Kohl's Shopping Center in the Village of Brown Deer. On an average weekday during ~~2001~~ 2004, nearly ~~37~~ 41 percent of the ~~6,120~~ 5,595 parking spaces at park-ride lots served by transit were in use.

Map 3-7

PARK-RIDE LOTS SERVED BY TRANSIT IN SOUTHEASTERN WISCONSIN: 2004



Source: SEWRPC.

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Table 3-12

AVERAGE WEEKDAY USE OF PARK-RIDE LOTS SERVED BY TRANSIT: 2004

Number[a]	Location	Available Parking Spaces	Autos Parked on an Average Weekday: 2004	Percent of Spaces Used
	Public Facilities (Exclusive and Shared Use)			
1	STH 57 and CTH H (Fredonia)	60	6	10
2	IH 43 and STH 32-CTH H (Port Washington)	50	19	38
3	IH 43 and CTH V (Grafton)	85	30	35
4	IH 43 and CTH C (Grafton)	65	47	72
5	Brown Deer (River Hills)	360	80	22
6	North Shore (Glendale)	195	87	45
7	Washington County Fair Park (Polk)	100	- -[c]	- -[c]
8	USH 41 and Lannon Road (Germantown)	100	49	49
9	Pilgrim Road (Menomonee Falls)	70	56	80
10	W. Good Hope Road (Milwaukee)	135	33	24
11	Timmerman Field (Milwaukee)	140	51	36
12	W. Watertown Plank Road (Wauwatosa)	240	131	55
13	Collins Street Parking Lot (Oconomowoc)[b]	- -[c]	- -[c]	- -[c]
14	STH 16 and CTH P (Oconomowoc)	45	7	12
15	STH 16 and CTH C (Nashotah)	60	51	51
16	STH 67 and CTH DR (Summit)	100	65	33
17	IH 94 and STH 83 (Delafield)	200	54	22
18	IH 94 and CTH G/CTH SS (Pewaukee)	245	7	12
19	Waukesha Metro Transit System			
	Downtown Transit Center (Milwaukee)[b]	- -[c]	- -[c]	- -[c]
20	Goerke's Corners (Brookfield)	315	249	79
21	State Fair Park (Milwaukee)	285	176	62
22	IH 43 and STH 83 (Mukwonago)	105	62	38
23	IH 43 and STH 164 (Big Bend)	145	51	35
24	IH 43 and Moorland Road (New Berlin)	175	60	34
25	Whitnall (Hales Corners)	360	202	56
26	W. Loomis Road (Greenfield)	410	97	24
27	W. Ryan Road (Oak Creek)	305	137	45
28	W. College Avenue (Milwaukee)	650	286	44
29	W. Holt Avenue (Milwaukee)	230	103	45
30	Milwaukee County Transit System			
	Downtown Transit Center (Milwaukee)[b]	- -[c]	- -[c]	- -[c]
	Subtotal	5,270		
	Private Facilities (Shared Use)			
31	Wal-Mart (Saukville)	50	- -[c]	- -[c]
32	Kohl's (Brown Deer)	100	60[d]	60[d]
33	Field's Furniture (West Bend)	50	- -[c]	- -[c]
34	Pioneer Plaza (Polk)	25	- -[c]	- -[c]
35	Southridge (Greendale)	80	65[d]	81[d]
	Subtotal	305	125	41
- -	Total	5,595	2314	41

[a] *See Map 3-7*

[b] *There is a fee for parking at these facilities*

[c] *Data not available.*

[d] *Estimated.*

Source: SEWRPC.

Park-Ride Lots Not Served by Transit

In ~~2001~~ 2004, there were ~~9~~ 13 park-ride lots not served by transit located within the Region containing ~~390~~ 670 parking spaces as shown on Map 3-8 and in Table 3-13. ~~Most of~~ Of these parking spaces, about ~~50~~29 percent, were located within Waukesha County, ~~with~~ about ~~another 29~~ 21 percent within Racine County, about 18 percent in Walworth County, about 17 percent in Washington County, and the remaining ~~21~~ 15 percent in ~~Walworth~~ Milwaukee County.

The utilization of parking spaces on an average weekday at the individual park-ride lots not served by transit varied from a high of ~~77~~ 90 percent at the STH 60 and CTH P park-ride lot in the Village of Jackson to a low of ~~16~~ 10 percent at the ~~USH 41~~ STH 16 and ~~CTH K~~ STH 83 park-ride lot in the ~~Town~~ City of ~~Addison~~ Delafield. In addition to the STH 60 and CTH P park-ride lot, other park-ride lots not served by transit with average weekday utilization rates greater than 60 percent included: USH 41 and STH 33 (Allenton) in the Town of Addison, and IH 94 and ~~CTH C~~ STH 20 (Ives Grove) in the ~~City~~ Town of ~~Delafield~~ Yorkville .

BICYCLE AND PEDESTRIAN FACILITIES

This section of the chapter documents the existing bicycle and pedestrian facilities in the Region associated with the arterial street and highway system and public transit system, including the accommodation of bicycles on the Region's arterial street and highway system, the provision of a system of off-street bicycle paths connecting the Region's urban centers and communities, and the provision of bicycle parking and storage facilities at the Region's park-ride lots.

Accommodation of Bicycles on the Arterial Street and Highway System

On arterial streets and highways with a rural cross-section, bicycles may be accommodated with a four foot paved shoulder and six foot gravel shoulder on a two traffic-lane facility, and with an eight foot paved shoulder on a four-traffic lane facility. On arterial streets with an urban cross-section, bicycles may be accommodated with bicycle lanes five to six feet in width, or with a widened outside lane of 14 feet. Accommodations may also be provided on urban and rural arterials with parallel, physically separate paths of eight to 12 feet in width (five to six feet for one-way paths) and ten feet of separation from the travel lanes. Map 3-9 identifies those __ miles of arterial streets and highways which provide accommodation through paved shoulders, bicycle lanes, or separate paths. Data is not available to identify those urban arterials with outside lanes of 14 feet in width which also accommodate bicycles.

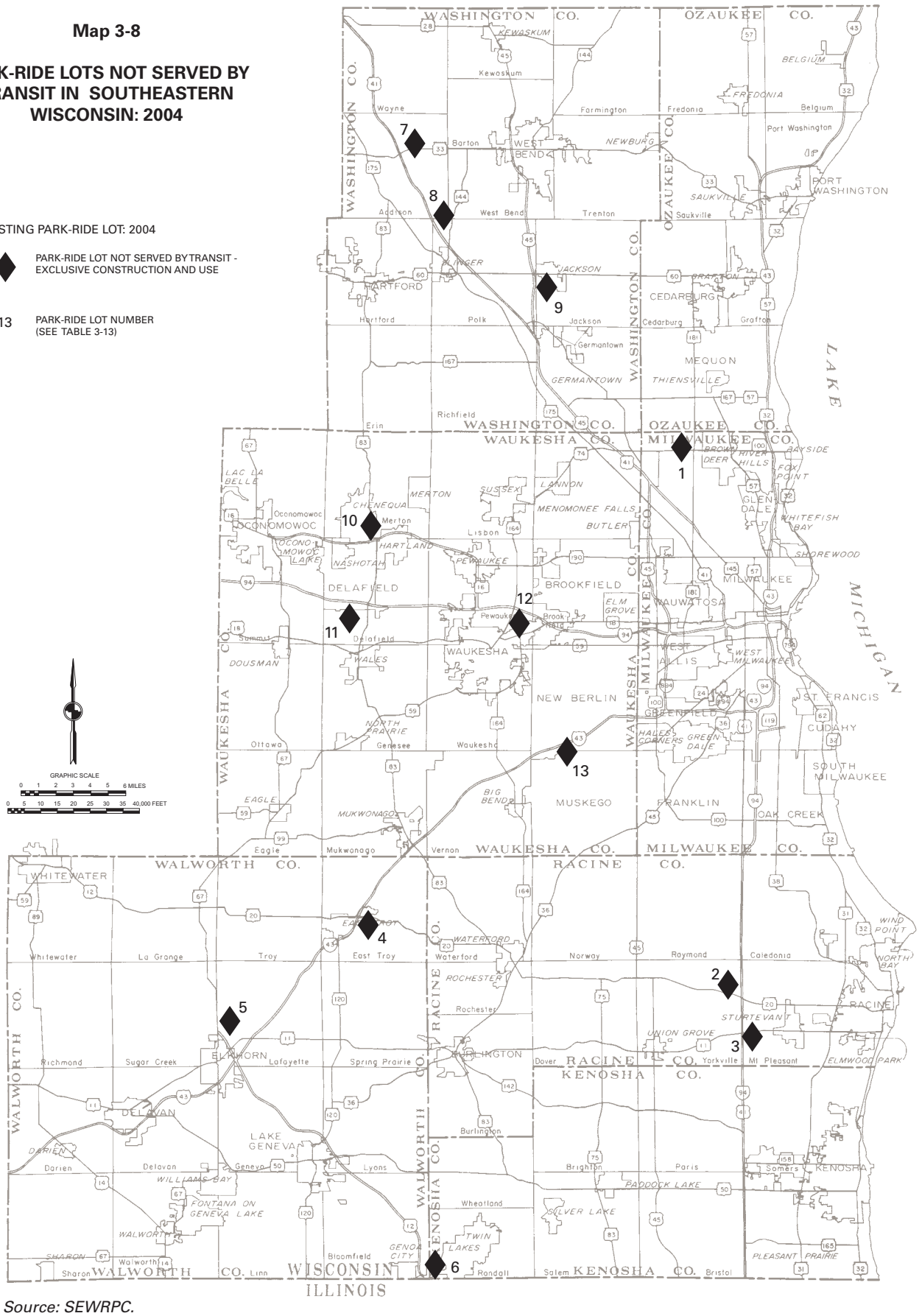
Map 3-8

PARK-RIDE LOTS NOT SERVED BY TRANSIT IN SOUTHEASTERN WISCONSIN: 2004

EXISTING PARK-RIDE LOT: 2004

PARK-RIDE LOT NOT SERVED BY TRANSIT - EXCLUSIVE CONSTRUCTION AND USE

13 PARK-RIDE LOT NUMBER (SEE TABLE 3-13)



Source: SEWRPC.

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AAB/DMJ/aab
02/16/05
Doc# 104311

Table 3-13

AVERAGE WEEKDAY USE OF PARK-RIDE LOTS NOT SERVED BY TRANSIT: 2004

Number[a]	Location	Available Parking Spaces	Autos Parked on an Average Weekday: 2004	Percent of Spaces Used
	Milwaukee County			
1	STH 100 and 85th Street (Milwaukee)	100	- -	- -
	Racine County			
2	IH 94 and STH 20 (Ives Grove)	75	59	79
3	IH 94 and STH 11 (Mount Pleasant)	65	20	31
	Walworth County			
4	East Troy Municipal Airport (East Troy)	40	14	35
5	USH 12 and STH 67 (Elkhorn)	40	9	23
6	USH 12 and CTH P (Genoa City)	40	6	15
	Washington County			
7	USH 41 and STH 33 (Allenton)	35	27	77
8	USH 41 and CTH K (Addison)	50	9	18
9	STH 60 and CTH P (Jackson)	30	27	90
	Waukesha County			
10	STH 16 and STH 83 (Chenequa)	35	35	11
11	IH 94 and CTH C (Delafield)	30	30	20
12	IH 94 and STH 164 (Pewaukee)	85	85	33
13	IH 43 and CTH Y (New Berlin)	45	45	16
- -	Total	670	251	37

[a]*See Map 3-8.*

Source: SEWRPC.

#102659

Map 3-9

EXISTING ON-STREET BICYCLE ACCOMMODATIONS ON THE ARTERIAL SYSTEM WITHIN THE SOUTHEASTERN WISCONSIN REGION:2004

[Map under preparation.]

Off-Street Bicycle Paths

Map 3-10 displays the existing ~~185~~ 203 miles of regional off-street bicycle paths largely developed within former railway rights-of-way and parkway corridors. These paths are envisioned, upon completion, to connect the Region's major urban centers—Milwaukee, Racine, Kenosha, and Waukesha—and the Region's urban communities. These paths—intended for seasonal use--provide particularly safe and aesthetically attractive routes with separation from motor vehicle traffic.

Park-Ride Lot Bicycle Parking and Storage

Map 3-11 displays the 48 park-ride lots within the Region as of 2004. Of the 35 lots with transit service, ~~25~~ 14 have bicycle racks, and ~~10~~ 21 have no bicycle parking facilities. Of the 13 lots without transit service, ~~four~~ none of them have bicycle racks. ~~and 9 have no bicycle parking facilities~~.

TRANSPORTATION MANAGEMENT AND OPERATIONS SYSTEMS

Regional transportation system management and operations systems currently exist on the regional freeway system, selected elements of the standard arterial street and highway system, and the public transit system. The goals of these systems include improving operations, reducing travel time, improving safety, and reducing operating costs.

Freeway Traffic Management and Operation System

The existing freeway traffic management system in southeastern Wisconsin consists of many elements which are often referred to as intelligent transportation systems. The elements of the southeastern Wisconsin freeway traffic management system include: traffic detectors, ramp metering, high-occupancy vehicle bypass ramps, variable message signs, highway advisory radio, closed-circuit television, service patrols, crash investigation sites, and enhanced reference markers.

Traffic detectors measure the speed, volume, and density of freeway traffic. This data is monitored at the Wisconsin Department of Transportation's Traffic Operation Center in Milwaukee for disruptions in traffic flow and for use in determining the operation of the ramp meter system in southeastern Wisconsin. Congestion information derived from the speed, volume, and density data collected via the detectors is mapped, and may be viewed by the traveling public through the Department's website. In ~~2001~~ 2004, the traffic detectors were located throughout the Milwaukee area freeway system and on the freeways in Racine and Kenosha Counties. The spacing of these traffic detectors is about one-half mile on the freeways in

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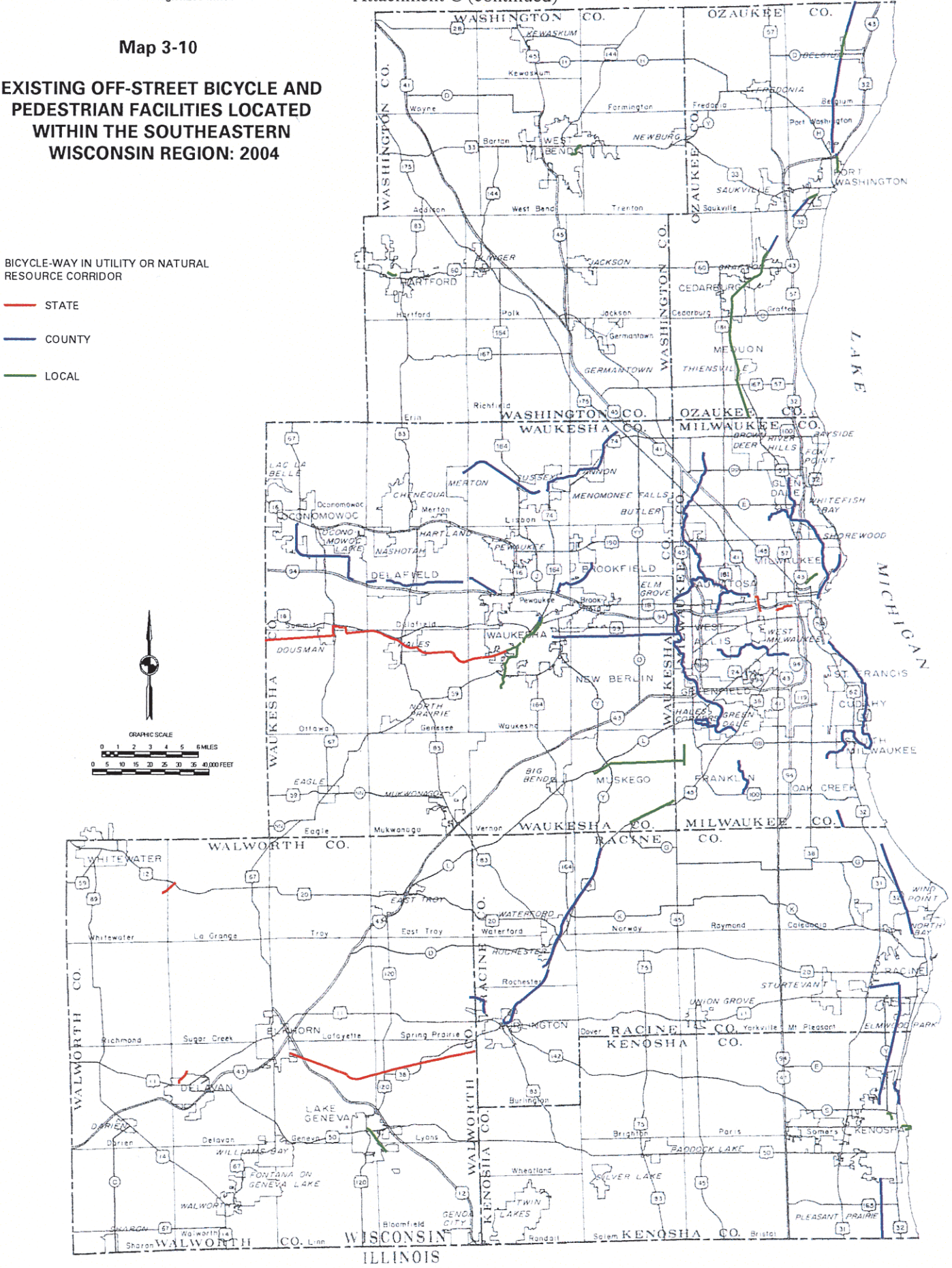
Attachment C (continued)

Map 3-10

EXISTING OFF-STREET BICYCLE AND PEDESTRIAN FACILITIES LOCATED WITHIN THE SOUTHEASTERN WISCONSIN REGION: 2004



Source: SEWRPC.

Map 3-11

PARK-RIDE LOTS LOCATED WITHIN SOUTHEASTERN WISCONSIN: 2004

PARK-RIDE LOT NOT SERVED BY TRANSIT

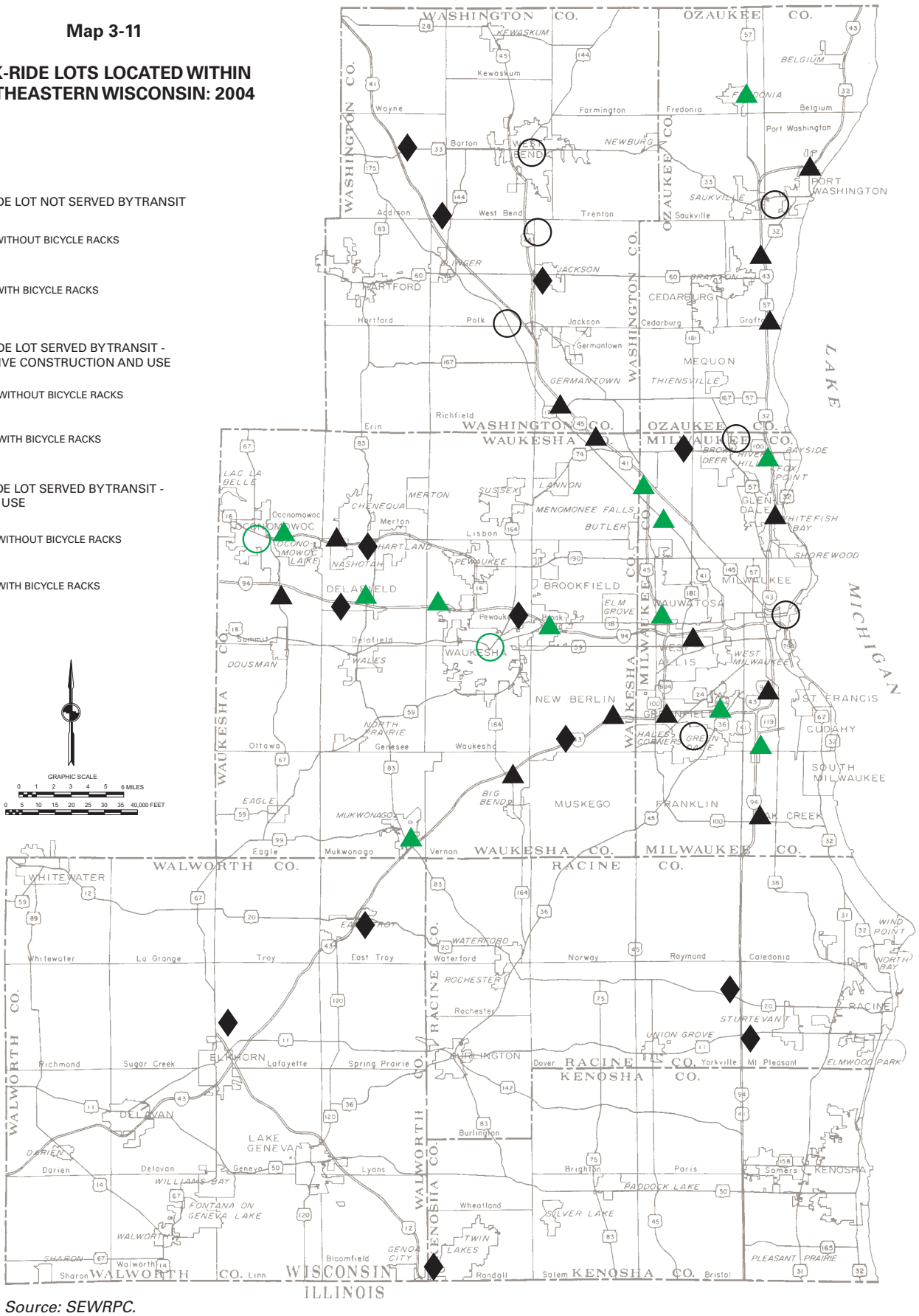
- WITHOUT BICYCLE RACKS
- WITH BICYCLE RACKS

PARK-RIDE LOT SERVED BY TRANSIT - EXCLUSIVE CONSTRUCTION AND USE

- WITHOUT BICYCLE RACKS
- WITH BICYCLE RACKS

PARK-RIDE LOT SERVED BY TRANSIT - SHARED USE

- WITHOUT BICYCLE RACKS
- WITH BICYCLE RACKS



Source: SEWRPC.

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Milwaukee County and on IH 94 in Waukesha County, and about one to two miles on the remaining freeway segments.

In ~~2001~~ 2004, ~~108~~ 120 freeway on-ramps were equipped with ramp meters and attendant traffic detectors in southeastern Wisconsin. The metered on-ramps are located adjacent to and upstream of freeway segments that experience traffic congestion during the morning and evening peak-traffic periods. In ~~2001~~ 2004, preferential access was provided at ~~61~~ 62 freeway on-ramps to high-occupancy vehicles[1]. Map 3-12 and Table 3-14 indicate the location and ramp meter type provided on the freeway system in southeastern Wisconsin.

Variable message signs provide real-time information to travelers about downstream freeway traffic conditions. The Wisconsin Department of Transportation uses the variable message signs to display current travel times to selected areas and to display information about lane and ramp closures as well as where travel delays begin and end. In the event of child abduction, the variable message signs are also used to display an amber alert. In ~~2001~~ 2004, there were ~~23~~ 21 variable message signs at fixed locations on the freeway system in southeastern Wisconsin as shown on Map 3-13 and in Table 3-15, as well as six portable variable message signs used primarily for special events and incident management. .

Highway advisory radio is a system of low-power radio transmitters licensed for state use. The Wisconsin Department of Transportation uses highway advisory radio to transmit pre-recorded messages in areas with ongoing highway construction projects as well as information regarding special events to the motoring public. In the event of child abduction, the highway advisory radio system is also used to broadcast the amber alert. Roadside signing with flashing beacons is used to advise motorists of the specific locations of individual transmitters and the frequency to which they need to tune to receive the transmission.

In ~~2001~~ 2004, ~~79~~ 83closed-circuit television cameras (see Map 3-13 and Table 3-15) provided live video of traffic conditions. The video provided by these cameras allows for the identification and confirmation of congested areas and incident locations. Video is monitored at the Wisconsin Department of Transportation Traffic Operation Center in Milwaukee. Video is supplied to some emergency response agencies so that their dispatchers can provide personnel with incident locations and information. The Wisconsin Department of Transportation also provides some of its camera images to the media and to its website for viewing by the

[1] *In southeastern Wisconsin the definition of high-occupancy vehicle is defined as a transit vehicle or passenger vehicle with a minimum of at least two occupants.*

Table 3-14

LOCATION OF RAMP METERS ON THE EXISTING FREEWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004

Reference Number[a]	Ramp Meter Location
IH 94 East-West Corridor	
1	Westbound at CTH SS
2	Eastbound at CTH SS
3	Westbound at CTH G
4	Eastbound at CTH G
5	Westbound at CTH T
6	Eastbound at CTH T (Grandview Boulevard)
7	Eastbound at CTH J
8	Eastbound at STH 164
9	Eastbound at USH 18
10	Eastbound at Barker Road
11	Westbound at CTH JJ
12	Westbound at CTH O (Moorland Road)
13	CTH O (Moorland Road) Southbound to Eastbound IH 94
14	CTH O (Moorland Road) Northbound to Eastbound IH 94
15	Westbound at STH 100 (S. 108th Street)
16	Eastbound at STH 100 (S. 108th Street)
17	Westbound at STH 181 (N. 84th Street)
18	Eastbound at STH 181 (N. 84th Street)
19	Westbound at N. 70th Street
20	Eastbound at N. 68th Street
21	Westbound at Hawley Road
22	Eastbound at Hawley Road
23	Eastbound at Mitchell Boulevard
24	Westbound at Mitchell Boulevard
25	USH 41 Southbound to Westbound IH 94
26	USH 41 Southbound to Eastbound IH 94
27	STH 341 Northbound to Eastbound IH 94
28	STH 341 Northbound to Westbound IH 94
29	Westbound at N. 35th Street
30	Eastbound at N. 35th Street
31	Westbound at N. 28th Street
32	Eastbound at N. 25th Street
33	Westbound at N. 17th Street
34	Westbound at N. 13th Street and Clybourn Avenue
35	Westbound at N. 7th Street and Clybourn Avenue
IH 94 South Corridor	
36	Southbound at S. 9th Street and Mineral Street
37	Southbound at Mineral Street and National Avenue
38	Southbound at Lapham Boulevard
39	Northbound at Lapham Boulevard
40	Southbound at Becher Street
41	Southbound at Holt Avenue
42	Northbound at Holt Avenue
43	Southbound at W. Howard Avenue
44	Northbound at W. Howard Avenue
45	Westbound CTH Y (W. Layton Avenue) to Northbound IH 94
46	Eastbound CTH Y (W. Layton Avenue) to Northbound IH 94
47	Southbound at S. 20th Street, south of CTH Y (W. Layton Avenue)
48	STH 119 Westbound to Northbound IH 94
49	Southbound at CTH ZZ (W. College Avenue)
50	Northbound at CTH ZZ (W. College Avenue)
51	Southbound at CTH BB (W. Rawson Avenue)
52	Westbound CTH BB (W. Rawson Avenue) to Northbound IH 94
53	Eastbound CTH BB (W. Rawson Avenue) to Northbound IH 94
54	Southbound at STH 100 (W. Ryan Road)

Table 3-14 (continued)

Reference Number[a]	Ramp Meter Location
IH 43 North Corridor	
55	Northbound at STH 100 (W. Ryan Road)
56	Southbound at CTH C (Pioneer Road)
57	Southbound at STH 57/167 (Mequon Road)
58	Southbound at Milwaukee—Ozaukee County Line Road
59	Eastbound STH 100 (W. Brown Deer Road) to Southbound IH 43
60	Westbound STH 100 (W. Brown Deer Road) to Southbound IH 43
61	Southbound at CTH PP (W. Good Hope Road)
62	Southbound at W. Silver Spring Drive
63	Southbound at W. Hampton Avenue
64	Southbound at Green Bay Avenue
65	Southbound at N. 9th Street and W. Abert Place
66	Northbound at Atkinson Avenue
67	Southbound at W. Keefe Avenue
68	Southbound at W. Locust Street
69	Northbound at W. Locust Street
70	Southbound at W. North Avenue
71	Northbound at W. North Avenue
IH 43 South Corridor	
72	Eastbound at STH 100 (S. 108th Street)
IH 894 Corridor	
73	Eastbound STH 59 (W. Greenfield Avenue) to Northbound IH 894
74	Westbound STH 59 (W. Greenfield Avenue) to Northbound IH 894
75	Southbound at STH 59 (W. Greenfield Avenue)
76	Northbound at W. Lincoln Avenue
77	Southbound at W. National Avenue
78	Northbound at W. National Avenue
79	Northbound at CTH NN (W. Oklahoma Avenue)
80	Northbound at W. Beloit Road
81	Southbound at W. Beloit Road
82	Westbound at S. 84th Street
83	Eastbound at STH 24 (W. Forest Home Avenue)
84	Eastbound at CTH U (S. 76th Street)
85	Westbound at S. 60th Street
86	Eastbound at S. 60th Street
87	Westbound at STH 36 (S. Loomis Road)
88	Eastbound at STH 36 (S. Loomis Road)
89	Southbound USH 41 (S. 27th Street) to Westbound IH 894
90	Northbound USH 41 (S. 27th Street) to Westbound IH 894
91	Eastbound at USH 41 (S. 27th Street)
USH 45 Corridor	
92	Southbound at Lannon Road
93	Southbound at CTH Q (Washington—Waukesha County Line Road)
94	Northbound at Pilgrim Road
95	Southbound at Pilgrim Road
96	Southbound at STH 74 (Main Street)
97	Northbound at STH 74 (Main Street)
98	Northbound at N. 124th Street (Waukesha—Milwaukee County Line)
99	Southbound at N. 124th Street (Waukesha—Milwaukee County Line)
100	Northbound STH 145 to Northbound USH 45
101	Westbound CTH PP (W. Good Hope Road) to Southbound USH 45
102	Southbound from STH 145 to USH 45
103	Northbound at CTH PP (W. Good Hope Road)
104	Eastbound CTH PP (W. Good Hope Road) to Southbound USH 45
105	Northbound at USH 41 (W. Appleton Avenue)
106	Southbound at STH 175 (W. Appleton Avenue)
107	Southbound at CTH E (W. Silver Spring Drive)
108	Northbound at CTH E (W. Silver Spring Drive)

Table 3-14 (continued)

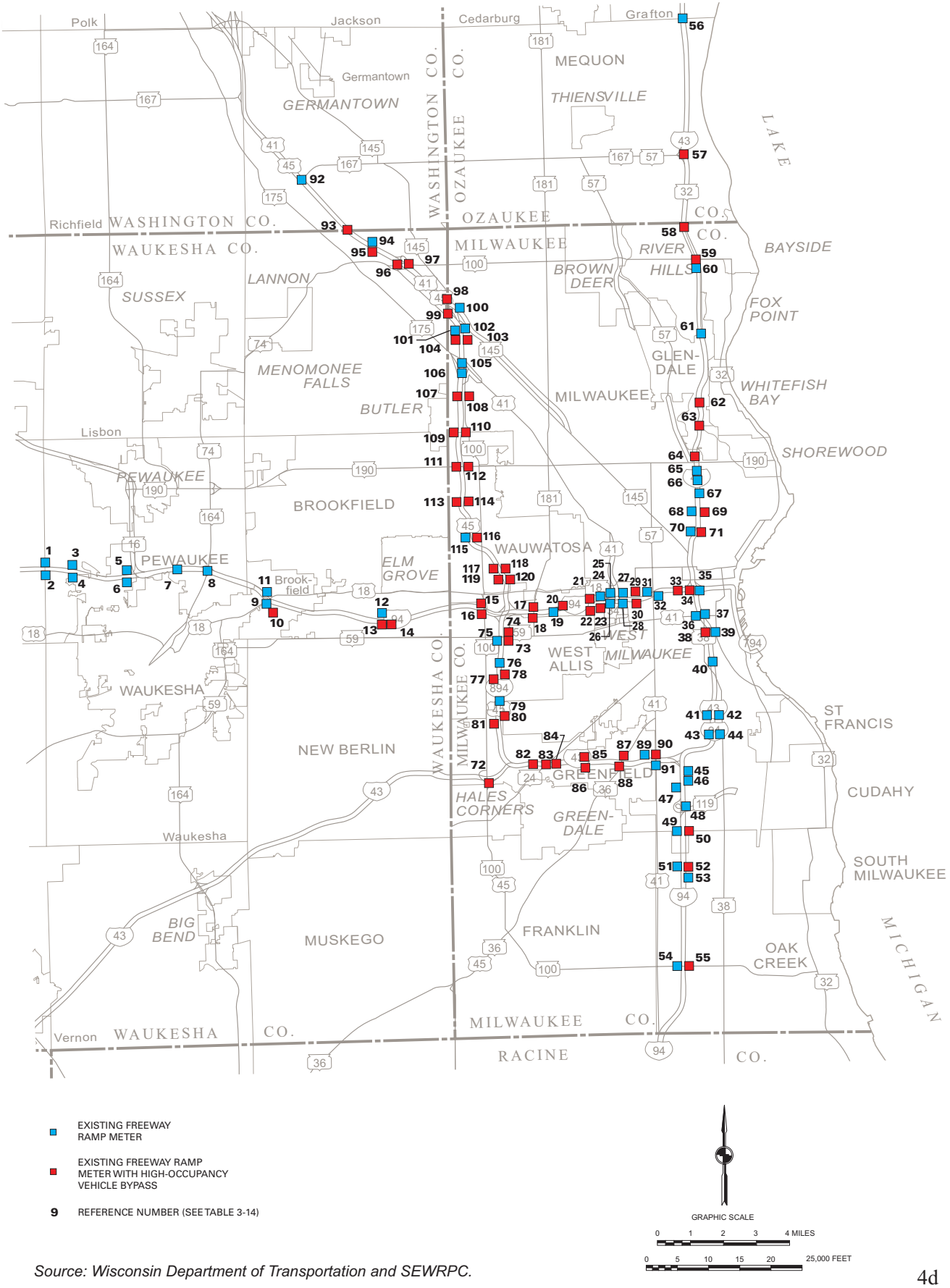
Reference Number[a]	Ramp Meter Location
USH 45 Corridor--continued	
109	Southbound at CTH EE (W. Hampton Avenue)
110	Northbound at CTH EE (W. Hampton Avenue)
111	Southbound at STH 190 (W. Capitol Drive)
112	Northbound at STH 190 (W. Capitol Drive)
113	Southbound at W. Burleigh Street
114	Northbound at W. Burleigh Street
115	Southbound at W. North Avenue
116	Northbound at W. North Avenue
117	Southbound at Watertown Plank Road
118	Northbound at Watertown Plank Road
119	Southbound at N. 97th Street and W. Wisconsin Avenue
120	Northbound at W. Wisconsin Avenue

[a] *See Map 3-12.*

Source: Wisconsin Department of Transportation and SEWRPC.

Map 3-12

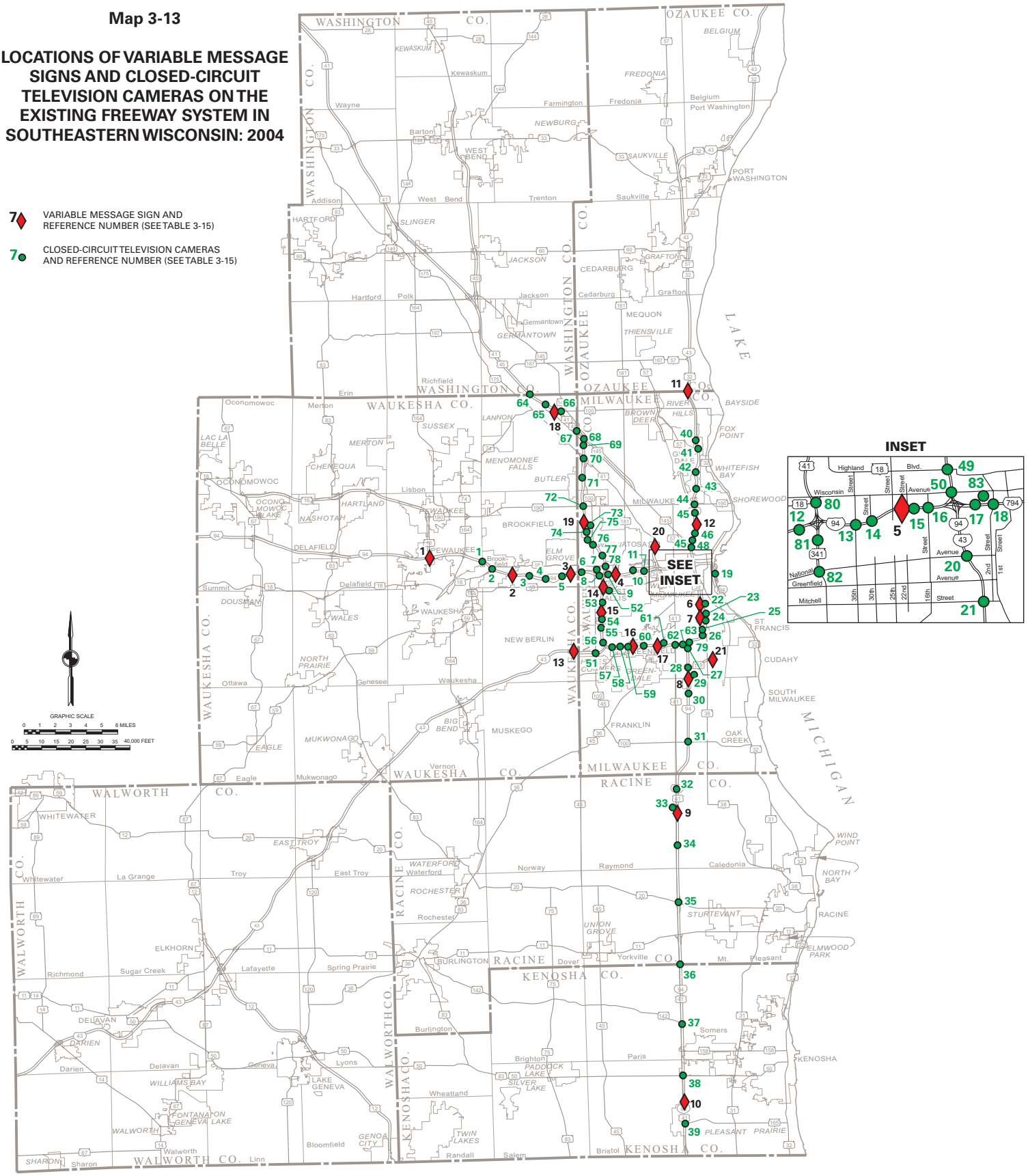
LOCATION OF RAMP METERS ON THE EXISTING FREEWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004



Source: Wisconsin Department of Transportation and SEWRPC.

Map 3-13

LOCATIONS OF VARIABLE MESSAGE SIGNS AND CLOSED-CIRCUIT TELEVISION CAMERAS ON THE EXISTING FREEWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004



Source: Wisconsin Department of Transportation and SEWRPC.

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Table 3-15

LOCATIONS OF VARIABLE MESSAGE SIGNS AND CLOSED-CIRCUIT TELEVISION CAMERAS ON THE EXISTING FREEWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004

Reference Number[a]	Variable Message Sign Locations
1	IH 94 eastbound at STH 16
2	IH 94 eastbound at Brookfield Road
3	IH 94 eastbound at Elm Grove Road
4	IH 94 eastbound at S. 89th Street
5	IH 94 westbound at N. 22nd Street
6	IH 43 and IH 94 northbound at Kinnickinnic River
7	IH 43 and IH 94 southbound at Oklahoma Avenue
8	IH 94 northbound at CTH ZZ (W. College Avenue)
9	IH 94 northbound at CTH G
10	IH 94 northbound at CTH C
11	IH 43 southbound at Ozaukee—Milwaukee County Line Road
12	IH 43 southbound at W. Locust Street
13	IH 43 northbound at CTH T (W. Beloit Road)
14	IH 894 and USH 45 southbound at STH 59 (W. Greenfield Avenue)
15	IH 894 and USH 45 northbound at Cleveland Avenue
16	IH43 and IH 894 eastbound at S. 72nd Street
17	IH43 and IH 894 westbound at STH 36 (W. Loomis Road)
18	USH41 and USH 45 southbound at STH 74 (Main Street)
19	USH 45 southbound at W. Burleigh Street
20	USH 41 southbound at W. Cherry Street
21	STH 119 westbound at Mitchell Airport

Reference Number[a]	Closed-Circuit Television Camera Locations
1	IH 94 at Springdale Road
2	IH 94 at USH 18 (Blue Mound Road)
3	IH 94 at Calhoun Road
4	IH 94 at CTH O (Moorland Road)
5	IH 94 at Sunnyslope Road
6	IH 94 at S. 121st. Street
7	IH 94 at STH 100 (N. 108th Street)
8	IH 94 at IH 894 and USH 45 (Zoo Interchange)
9	IH 94 at S. 92nd Street
10	IH 94 at S. 76th Street
11	IH 94 at Hawley Road
12	IH 94 at Mitchell Boulevard
13	IH 94 at N. 35th Street
14	IH 94 at N. 30th Street
15	IH 94 at N. 22nd Street
16	IH 94 at N. 16th Street
17	IH 794 at James Lovell Drive
18	IH 794 at N. 2nd Street
19	IH 794 at Daniel W. Hoan bridge
20	IH 94 and IH 43 at STH 59 (W. National Avenue)
21	IH 94 and IH 43 at W. Mitchell Street
22	IH 94 and IH 43 at STH 38 (Chase Avenue)
23	IH 94 and IH 43 at W. Oklahoma Avenue
24	IH 94 and IH 43 at W. Holt Street
25	IH 94 and IH 43 at W. Howard Avenue
26	IH 94 and IH43 at W. Plainfield Avenue
27	IH 94 at CTH Y (W. Layton Avenue)
28	IH 94 at STH 119 (Airport Interchange)

Table 3-15 (continued)

Reference Number[a]	Closed-Circuit Television Camera Locations
29	IH 94 at CTH ZZ (W. College Avenue)
30	IH 94 at CTH BB (W. Rawson Avenue)
31	IH 94 at S. STH 100 (W. Ryan Road)
32	IH 94 at Seven Mile Road
33	IH 94 at CTH G
34	IH 94 at CTH K
35	IH 94 at STH 20 (Washington Avenue)
36	IH 94 at CTH KR (County Line Road)
37	IH 94 at STH 142 (Burlington Road)
38	IH 94 at STH 50 (75th Street)
39	IH 94 at STH 165 (104th Street)
40	IH 43 at CTH PP (W. Good Hope Road)
41	IH 43 at W. Daphne Road
42	IH 43 at W. Silver Spring Drive
43	IH 43 at W. Hampton Avenue
44	IH 43 at STH 190 (W. Capitol Drive)
45	IH 43 at W. Keefe Avenue
46	IH 43 at W. Wright Street
47	IH 43 at W. Brown Street
48	IH 43 at Hillside Interchange (former Park East Freeway)
49	IH 43 at W. Highland Avenue
50	IH 43 at W. Wisconsin Avenue
51	IH 43 at STH 100 (S. 108th Street)
52	IH 894 and USH 45 at STH 59 (W. Greenfield Avenue)
53	IH 894 and USH 45 at W. Lincoln Avenue
54	IH 894 and USH 45 at CTH NN (W. Oklahoma Avenue)
55	IH 894 and USH 45 at CTH T (W. Beloit Road)
56	IH 894 and USH 45 at Cold spring Road
57	IH 894 and IH 43 at CTH N (S. 92nd Street)
58	IH 894 and IH 43 at S. 84th Street
59	IH 894 and IH 43 at CTH U (S. 76th Street)
60	IH 894 and IH 43 at S. 60th Street
61	IH 894 and IH 43 at STH 36 (W. Loomis Road)
62	IH 894 and IH 43 at USH 41 (S. 27th Street)
63	IH 894 and IH 43 at 20th Street
64	USH 41 and USH 45 at CTH Q (Washington—Waukesha County Line Road)
65	USH 41 and USH 45 at CTH YY (Pilgrim Road)
66	USH 41 and USH 45 at STH 74 (Main Street)
67	USH 41 and USH 45 at Waukesha—Milwaukee County Line (W. 124th Street)
68	USH 41 and USH 45 at STH 145
69	USH 41 and USH 45 at CTH PP (W. Good Hope Road)
70	USH 45 and STH 100 at USH 41 (W. Appleton Avenue)
71	USH 45 at CTH E (W. Silver Spring Drive)
72	USH 45 at STH 190 (W. Capitol Drive)
73	USH 45 at W. Burleigh Road
74	USH 45 at W. Center Street
75	USH 45 at W. North Avenue
76	USH 45 at STH 100 (Mayfair Road)
77	USH 45 at Watertown Plank Road
78	USH 45 at USH 18 (Bluemound Road)
79	IH 43 and IH 94 at Mitchell Interchange
80	USH 41 at USH 18 (Bluemound Road)
81	STH 341 at Stadium
82	STH 341 at STH 59 (W. National Avenue)
83	Wisconsin Department of Transportation Traffic Operations Center

[a] *See Map 3-13.*

Source: Wisconsin Department of Transportation and SEWRPC.

general public.

Freeway service patrols assist disabled motorists with specially equipped vehicles. When freeway service patrols encounter severe incidents, they have the appropriate communication equipment to ensure that the appropriate personnel and equipment may be dispatched to the scene, prior to arrival by a first responder. In ~~2001~~ 2004, there were freeway service patrols in Kenosha, Milwaukee, Racine, and Waukesha Counties (see Map 3-14 and Table 3-16). In Milwaukee County, the enhanced freeway patrol is operated by the Milwaukee County Sheriff's Department and consists of a special fleet of ~~four~~ two vehicles dedicated to handling and clearing incidents. There ~~are two~~ is one patrol~~s~~ on duty during the morning and evening peak-traffic periods, which are staffed with uniformed officers. In Kenosha, Racine, and Waukesha Counties, the freeway service patrol is known as the Gateway Patrol. Gateway Patrol involves four vehicles under contract with the Wisconsin Department of Transportation. The Gateway Patrol vehicles are tow vehicles which have been painted bright lime green for better visibility at night and during inclement weather. The Gateway Patrol operates on I-94 throughout Racine and Kenosha Counties, and between STH ~~83~~ 67 and the Milwaukee-Waukesha County line in Waukesha County.

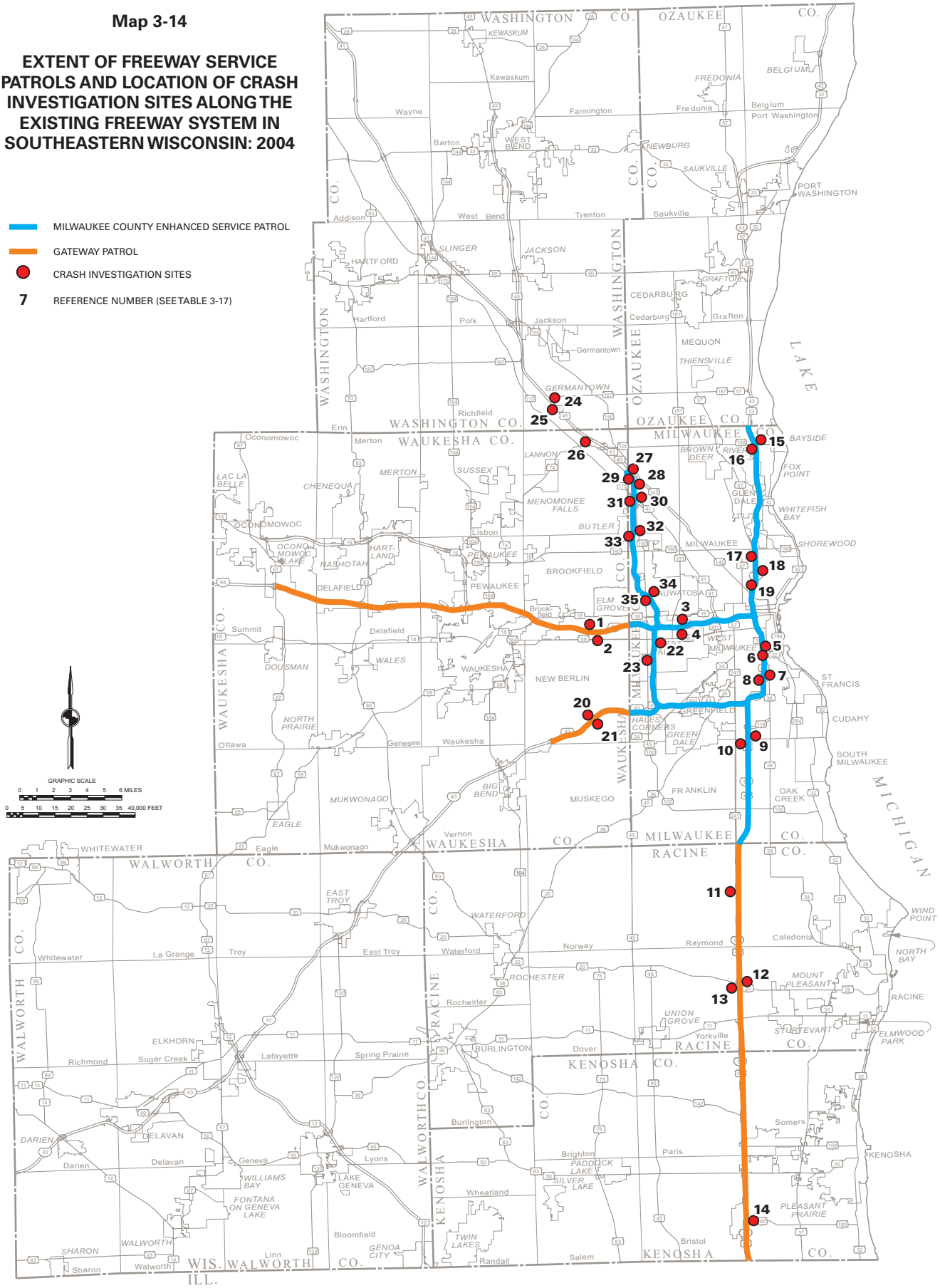
Crash investigation sites are designated safe zones for distressed motorists to relocate to if they are involved in a crash or an incident on the freeway. In ~~2001~~ 2004, there were ~~14~~ 35 crash investigation sites (see Map 3-14 and Table 3-17) on the freeway system in southeastern Wisconsin. These sites are intended for use by motorists involved in an incident to exchange insurance information or to make emergency repairs to their vehicle following a minor collision or breakdown. These sites are also used by the freeway service patrols to relocate the distressed motorists they assist.

Enhanced reference markers are designed to save time in identifying locations of disabled motorists to improve emergency response times to highway incidents. Enhanced reference markers can improve emergency response times, improve traffic incident clearance times, reduce crash related delays, and reduce the number of secondary crashes. In southeastern Wisconsin enhanced reference markers have been installed in Milwaukee County in the freeway median at each one-tenth mile on I-94 from the ~~Milwaukee-Waukesha County line~~ Mitchell Interchange to the ~~Milwaukee-Racine County~~ Illinois-Wisconsin State line and on USH 45 from the Zoo Interchange to the Milwaukee-Waukesha County line.

The day to day operation and management of the southeastern Wisconsin regional freeway system is conducted at the Wisconsin Department of Transportation Traffic Operation Center in Milwaukee. The traffic

Map 3-14

EXTENT OF FREEWAY SERVICE PATROLS AND LOCATION OF CRASH INVESTIGATION SITES ALONG THE EXISTING FREEWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004



Source: Wisconsin Department of Transportation and SEWRPC.

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Table 3-16

EXTENT OF FREEWAY SERVICE PATROLS IN SOUTHEASTERN WISCONSIN: 2004

Service Patrol	Freeway Segment	Service Hours
Milwaukee County	Systemwide within Milwaukee County	Monday-Friday 6a.m. to 10p.m.
Gateway Patrol	Kenosha County – IH 94: State-line to the Racine County line	Monday-Thursday 7a.m. to 10a.m., 4p.m. to 7 p.m. Friday-Sunday 10a.m. to 8p.m.
Gateway Patrol	Racine County – IH 94: Kenosha County line to the Milwaukee County line	Monday-Thursday 7a.m. to 10a.m., 4p.m. to 7 p.m. Friday-Sunday 10a.m. to 8p.m.
Gateway Patrol	Waukesha County – IH 94: STH 67 to the Milwaukee County line	Monday-Friday 6a.m. to 9a.m., 3p.m. to 7p.m.

Source: Wisconsin Department of Transportation and SEWRPC.

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Table 3-17

LOCATION OF CRASH INVESTIGATION SITES ALONG THE EXISTING FREEWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004

Reference Number[a]	Crash Investigation Site
IH 94 Corridor	
1	Westbound exit ramp to CTH O (Moorland Road)
2	Eastbound exit ramp to CTH O (Moorland Road)
3	Westbound exit ramp to State Fair Park park - ride lot (S.76th Street)
4	Eastbound exit ramp to State Fair Park park - ride lot (S.76th Street)
5	Northbound exit ramp to E. Becher/Mitchell (exit #312 A-B)
6	Southbound exit ramp to E. Becher/Lincoln (exit #312 B)
7	Northbound exit ramp to Holt Avenue park-ride lot
8	Southbound exit ramp to Holt Avenue park-ride lot
9	Northbound exit ramp to CTH ZZ(W. College Avenue) park-ride lot
10	Southbound exit ramp to CTH ZZ (W. College Avenue) park-ride lot
11	Southbound exit ramp to State Patrol truck weigh station (CTH G)
12	Northbound exit ramp to Racine County Sheriff's substation (STH 20)
13	Southbound exit ramp to Racine County Sheriff's substation (STH 20)
14	Northbound exit ramp to Wisconsin Tourism Information Center (STH 165)
IH 43 Corridor	
15	Northbound exit ramp to STH 100 (W. Brown Deer Road) park-ride lot
16	Southbound exit ramp to STH 100 (W. Brown Deer Road) park-ride lot
17	Southbound exit ramp to Atkinson Avenue
18	Northbound exit ramp to Locust Street
19	Southbound exit ramp to W. North Avenue
20	Westbound exit ramp to CTH O (Moorland Road)
21	Westbound exit ramp to CTH O (Moorland Road)
IH 894 Corridor	
22	Northbound exit ramp to STH 59 (S. Greenfield Avenue)
23	Southbound exit ramp to W. Lincoln Avenue
USH 45 Corridor	
24	Northbound exit ramp to Lannon Road park-ride lot
25	Southbound exit ramp to Lannon Road park-ride lot
26	Southbound exit ramp to Pilgrim Road
27	Northbound exit ramp to STH 145
28	Northbound exit ramp to CTH PP (W. Good Hope Road) park-ride lot
29	Southbound exit ramp to CTH PP (W. Good Hope Road) park-ride lot
30	Northbound exit ramp to USH 41 (W. Appleton Avenue)
31	Southbound exit ramp to USH 41 (W. Appleton Avenue)
32	Northbound exit ramp to CTH EE (W. Hampton Avenue)
33	Southbound exit ramp to CTH EE (W. Hampton Avenue)
34	Northbound exit ramp to Milwaukee County Sheriff's substation (Watertown Plank Road)
35	Southbound exit ramp to Milwaukee County Sheriff's substation (Watertown Plank Road)

[a] *See Map 3-14.*

Source: Wisconsin Department of Transportation and SEWRPC.

operation center staff coordinates the freeway lane and ramp closures in southeastern Wisconsin, including construction projects and county maintenance work. Additionally, the Wisconsin Department of Transportation works closely with local law enforcement, media, emergency responders, tow operators, transit operators, municipal governments, and others through the Traffic Incident Management Enhancement (TIME) program. The TIME program's goals are to improve and enhance freeway incident management, improve freeway safety, and enhance the quality and efficiency of freeway travel.

Standard Arterial Street and Highway Traffic Management and Operation Systems

In ~~2001~~ 2004, the standard arterial street and highway traffic management systems in southeastern Wisconsin consisted mainly of coordinated traffic signal systems, emergency vehicle preemption, closed-circuit television cameras, and variable message signs.

> *[Documentation of the extent of existing coordinated signal systems is under preparation, and will be provided to the Advisory Committee upon completion.]*

Coordinated traffic signal systems included the Wisconsin Department of Transportation Integrated Corridor Operations Project (ICOP). A multi-agency initiative, ICOP, provides a traffic management system for local arterial streets and highways as alternatives to freeway travel. The initial ICOP route consisted of a number of signal system upgrades along Layton Avenue between Packard Avenue and 20th Street and along STH 38 between Layton Avenue and STH 119 in the City of Milwaukee. This project was to improve traffic flow through the corridor by automatically adjusting red-green times of traffic signals along the route regardless of the jurisdiction of the signal (state, county, or municipal) to accommodate freeway traffic diverted to the ICOP route as a result of an incident or special event.

Emergency vehicle preemption allows emergency vehicles to intervene in the normal operation of surface arterial intersection traffic signal systems using wireless communications installed on the traffic signal and the emergency vehicles. Light, radio waves, or sound emitted by the emergency vehicle allow the emergency vehicle to interrupt the regular signal cycle and either change the traffic signal cycle to initiate and hold green indication for the approach from which the emergency vehicle is oriented, or to extend the green indication for the which the emergency vehicle is oriented until the emergency vehicle has cleared the intersection. Emergency vehicle preemption reduces the amount of time for response and increases the safety for the law enforcement and emergency responder communities. In 2001, emergency preemption was deployed on

selected signal systems in the following communities:

> *[Documentation of emergency preemption signal systems is under preparation, and will be provided to the Advisory Committee upon completion.]*

In ~~2001~~ 2004, 13 closed-circuit television cameras (see Map 3-15 and Table 3-18) provided live video of traffic conditions. The video provided by these cameras allows for the identification and confirmation of congested areas and incident locations. Video is monitored at the Wisconsin Department of Transportation Traffic Operation Center in Milwaukee. Video is supplied to some emergency response agencies so that their dispatchers can provide personnel with incident locations and information.

Variable message signs provide real-time information to travelers about upcoming traffic conditions. The Wisconsin Department of Transportation uses the variable message signs to display current travel times to selected areas and to display information about lane closures as well as where travel delays begin and end. In the event of child abduction, the variable message signs are also used to display an amber alert. In ~~2001~~2004, there were 13 variable message signs on the surface arterial street and highway system in southeastern Wisconsin, all located near freeway access points, as shown on Map 3-15 and in Table 3-18.

Public Transit Operation and Management Systems

In ~~2001~~ 2004, the public transit operation and management systems in southeastern Wisconsin were limited to the Milwaukee County Transit System (MCTS) and the City of Waukesha Metro Transit. The MCTS has operational a computer-aided dispatch and automatic vehicle location (CAD/AVL) system. The CAD/AVL system enhances communication between bus operators and dispatchers and allows MCTS to use global positioning technology to provide updated location information of transit vehicles to dispatchers, and can be used to check the on-time performance of the system. The City of Waukesha Metro Transit CAD/AVL system was operational beginning in June 2004. The MCTS and the City of Waukesha Metro Transit also utilize designated shoulder lanes on USH 18 in Waukesha County between Barker Road and the Milwaukee-Waukesha County line. These shoulder lanes are designated as through lanes for transit vehicles only, and may only be accessed by passenger vehicles for right-turning movements or during distress.

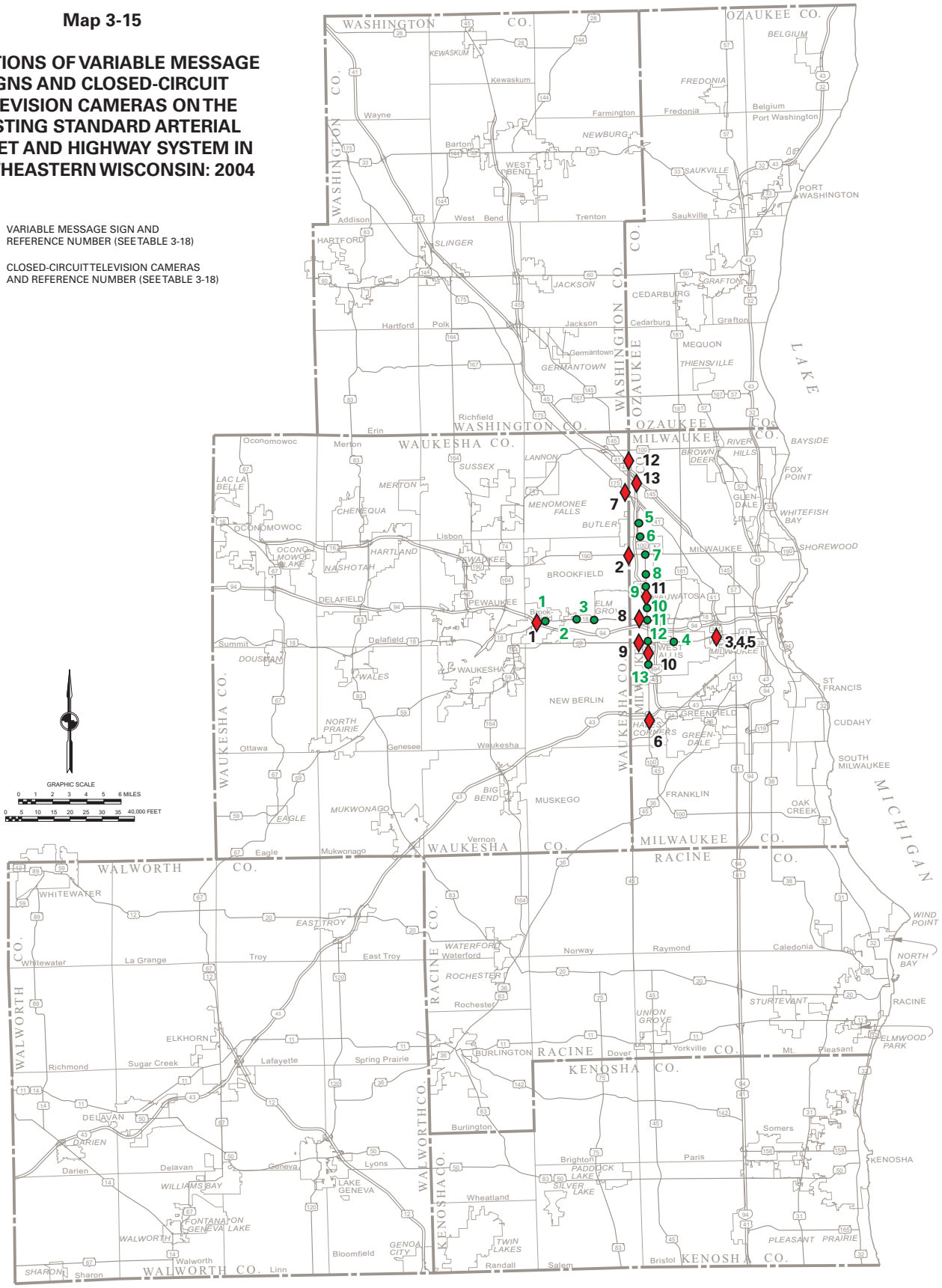
An area in which public transit operation management and systems in southeastern Wisconsin is beginning to explore is transit priority signal systems. Transit priority signal systems allow transit operators to extend the

Map 3-15

LOCATIONS OF VARIABLE MESSAGE SIGNS AND CLOSED-CIRCUIT TELEVISION CAMERAS ON THE EXISTING STANDARD ARTERIAL STREET AND HIGHWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004

7 VARIABLE MESSAGE SIGN AND REFERENCE NUMBER (SEE TABLE 3-18)

7 CLOSED-CIRCUIT TELEVISION CAMERAS AND REFERENCE NUMBER (SEE TABLE 3-18)



Source: Wisconsin Department of Transportation and SEWRPC.

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Table 3-18

LOCATIONS OF VARIABLE MESSAGE SIGNS AND CLOSED-CIRCUIT TELEVISION CAMERAS ON THE EXISTING STANDARD ARTERIAL STREET AND HIGHWAY SYSTEM IN SOUTHEASTERN WISCONSIN: 2004

Reference Number[a]	Variable Message Sign Locations
1	USH 18 (Blue Mound Road) eastbound at IH 94 (Goerke's Corners)
2	STH 190 (W. Capitol Drive) eastbound at N. 124th Street
3	STH 59 (W. National Avenue) westbound at Miller Park Way
4	Miller Park Way northbound at STH 59 (W. National Avenue)
5	STH 59 (W. National Avenue) eastbound at Miller Park Way
6	STH 100 northbound at Edgerton Avenue
7	STH 175 (N. Appleton Avenue) eastbound at STH 100
8	USH 18 (W. Bluemound Road) eastbound at STH 100
9	STH 59 (W. Greenfield Avenue) eastbound at STH 100
10	STH 100 northbound at W. Lapham Street
11	STH 100 southbound at W. Walnut Street
12	N. 124th Street southbound at W. Bradley Road
13	CTH PP (W. Good Hope Road) westbound at USH 45

Reference Number[a]	Closed-Circuit Television Camera Locations
1	USH 18 (Blue Mound Road) at CTH Y (Barker Road)
2	USH 18 (Blue Mound Road) at Calhoun Road
3	USH 18 (Blue Mound Road) at CTH O (Moorland Road)
4	STH 181 (S. 84th Street) at STH 59 (W. Greenfield Avenue)
5	STH 100 (N. 108th Street) at CTH E (W. Silver Spring Drive)
6	STH 100 (N. 108th Street) at CTH EE (W. Hampton Avenue)
7	STH 100 (N. 108th Street) at STH 190 (W. Capitol Drive)
8	STH 100 (N. 108th Street) at W. Burleigh Road
9	STH 100 (N. 108th Street) at W. North Avenue
10	STH 100 (N. 108th Street) at Watertown Plank Road
11	STH 100 (N. 108th Street) at USH 18 (W. Bluemound Road)
12	STH 100 (S. 108th Street) at STH 59 (W. Greenfield Avenue)
13	STH 100 (S. 108th Street) at W. Lincoln Avenue

[a] *See Map 3-15.*

Source: Wisconsin Department of Transportation and SEWRPC.

green phase of signal cycles using wireless communications between the transit vehicle and the traffic signal. In ~~2001~~ 2004, City of Milwaukee traffic signals located at the intersections of Fond du Lac Avenue and 60th Street and at Fond du Lac Avenue and Congress Street had transit priority programmed into their operation. Currently, MCTS does not utilize the transit signal priority programmed into these two traffic signals.

SUMMARY

This chapter has described the characteristics of the existing regional transportation system, including arterial streets and highways, public transit, park-ride lots, bicycle and pedestrian facilities, and transportation management and operations systems. The chapter has also documented to the extent data is available the changes that have occurred in the system since 1991, 1972, and 1963, the base years of the third, second, and first generation regional transportation system plans. Inventory findings include:

1. As of 2001, there were approximately 11,937 miles of streets and highways—land-access, collector, and arterial—within the Region. Only 27.5 percent, or 3,292 miles, of the street and highway system were arterials with the principal function of moving traffic. The miles of arterials within the Region have increased from 3,188 in 1963 to 3,292 miles in 2001, an increase of 100 miles or 3 percent. The freeway system in 2001 of 270 miles accounted for 8 percent of the total arterial street and highway system and 2 percent of the total street and highway system.

2. In 2001, approximately 40.0 million vehicle-miles of travel were estimated to occur on the arterial street and highway system on an average weekday within the Region. The arterial street and highway system accounted for about 28 percent of the total miles of streets and highway within the Region, and 90 percent of the total average weekday traffic within the Region. Freeways within the Region constituted about 270 miles and 8 percent of the total arterial system, but carried 37 percent of total arterial system vehicle-miles of travel on an average weekday in 2001. Between 1963 and 2001, average weekday vehicle-miles of travel on the arterial street and highway system increased by over 200 percent, while miles of arterial streets and highways increased by only about 3 percent. The growth in vehicle-miles of travel which has slowed in the rate of growth each decade is a result of growth in average weekday trips made by Region residents due to increases in households and jobs; increases in the proportion of drive-alone trips due to increases in vehicle ownership and changes in population lifestyles, including declines in household size; and increases in trip length.

3. The miles of arterials carrying traffic volumes exceeding design capacity and experiencing traffic congestion declined from 217 miles in 1963 to 160 miles in 1972, even though traffic grew during that period by over 50 percent. The decline in traffic congestion may be attributed to the completion of the freeway system during that period. Between 1972 and 1991, the miles of arterials carrying traffic volumes exceeding their design capacity and experiencing traffic congestion is estimated to have increased from 160 miles to 273 miles, as traffic grew during that period by nearly 65 percent, as Regional employment and households increased by about 30 percent, and vehicle occupancy and carpooling significantly declined. The decline in vehicle occupancy from an average of 1.39 persons per vehicle to 1.22 persons per vehicle alone is estimated to have resulted in nearly a 15 percent increase in vehicle traffic. As well, limited transportation system improvement and expansion was completed between 1972 and 1991 in Southeastern Wisconsin. The miles of arterials carrying traffic volumes exceeding their design capacity and experiencing traffic congestion is estimated to have increased modestly from 273 miles in 1991 to 290 miles in 2001. During that period, traffic is estimated to have increased by about 21 percent. The modest increase in traffic congestion from 1991 to 2001 may be attributed to the implementation of an extensive number of significant arterial street and highway widening and new construction projects between 1991 and 2001. The estimated modest increase in congestion between 1991 and 2001 is not uniform systemwide, as for example, the extent and severity of congestion on the Milwaukee area freeway system is estimated to have substantially increased between 1991 and 2001.

4. The extent of fixed route public transit service in southeastern Wisconsin significantly increased from 1991 to 2001 from 63,300 vehicle-miles of service on an average weekday to 79,600 vehicle-miles of service, an increase of 26 percent. The extent of fixed route service provided in 2001 was also 24 percent greater than that provided in 1972 and only 6 percent less than that provided in 1963. Demand-responsive transit service in the Region also significantly increased from 1991 to 2001, from 1,800 vehicle-miles of service on an average weekday to 7,700 vehicle-miles of service. However, since 2001, the extent of fixed route transit service has significantly declined by about 10 percent to 71,900 vehicle-miles of service on an average weekday due to the economic downturn following September 11, 2001, reduced Federal funds, and State and local budget problems.

5. Public transit ridership measured in terms of transit passenger trips made from origin to destination on an average weekday has declined from 320,500 trips, representing 8 percent of regional internal

personal travel, to 184,200 trips and 4 percent of travel in 1972, to 172,200 trips and 3 percent in 1991, and to 142,200 trips and 2 percent in 2001.

6. Between 1963 and 2001, the amount of commercial air passenger service and passengers traveling to and from southeastern Wisconsin has significantly increased, while significant declines in service and in passengers have occurred on other intercity modes of passenger travel, including rail, bus, and ferry. Commercial air carrier passengers represented only 27 percent of intercity transit passenger travel in southeastern Wisconsin in 1963, and represented over 84 percent of intercity passenger travel to, from, and through, southeastern Wisconsin in 2001. During this period from 1963 to 2001, passenger travel measured in average weekday passenger trips on intercity transit modes to and from southeastern Wisconsin increased by about 100 percent. Over that same period, intercity personal vehicle travel to, from, and through southeastern Wisconsin also experienced about a 100 percent increase. Of total intercity or interregional travel over the past 40 years to and from southeastern Wisconsin, personal vehicle travel has consistently accounted for 95 percent of total travel, and intercity transit modes for 5 percent of total travel.

7. The number of park-ride lots enabling the transfer of mode between private vehicles and public transit and from solo driver private vehicles to carpools has increased from 8 in 1972, to 37 in 1991, and to ~~46~~ 48 in ~~2001~~ 2004. Of the ~~46~~ 48 park-ride lots in ~~2001~~ 2004, ~~37~~ 35 were provided with transit service. On an average weekday in ~~2001~~ 2004, about ~~38~~ 41 percent of the approximately ~~6,500~~ 6,300 spaces at the ~~46~~ 48 park-ride lots were estimated to be in use.

8. Of the Region's _____ miles of arterial streets and highways, it is estimated that _____ miles accommodate bicycles through paved shoulders, _____ miles through exclusive bicycle lanes, and _____ miles through physically separate parallel off-street paths. Also, ~~185~~ 203 miles of regional off-street bicycle paths exist on former railway rights-of-way and in parkways. These off-street paths provide particularly safe and aesthetically attractive routes separate from motor vehicle traffic which connect—though with gaps—the Region's urban centers and communities.

9. Transportation management and operations systems on the transportation system of southeastern Wisconsin include an extensive freeway traffic management system, including monitoring, metering, advisory information, and incident management elements; coordinated standard arterial traffic signal systems; and public transit computer aided dispatch and automated vehicle location systems.