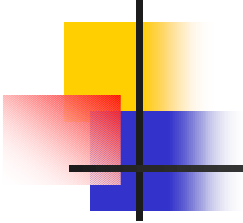




# ***Southeastern Wisconsin Regional Freeway Reconstruction System Study***



**February 8, 2001**



# **Agenda Item 1**

## **Welcome and Introductions**





## ***Study Purpose***

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- **To develop a consensus as to how to best approach the reconstruction of the freeway system of Southeastern Wisconsin**





## ***Desired Regional Consensus***

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- **Need for, and timing of, reconstruction**
- **Deficiencies of the existing freeway system**
  - **Design**
  - **Safety**
  - **Congestion**





## ***Desired Regional Consensus—continued***

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- **Plan for the reconstruction for the freeway system**
  - **Reconstruction in-kind**
  - **Reconstruction with minor design improvements**
  - **Reconstruction with substantial design improvements**
  - **Reconstruction with substantial design improvements and additional traffic lanes**
  - **Downgrading from freeway to surface arterial or removal**
  
- **Program for freeway system reconstruction and funding shortfall**





# ***Study Advisory Committee***

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## **■ Purpose**

- To guide and direct the study, including:**
  - the determination of the need for freeway system reconstruction**
  - the identification of freeway system deficiencies**
  - the definition and evaluation of freeway system reconstruction alternatives**
  - the preliminary recommendation of freeway reconstruction system plan and program**



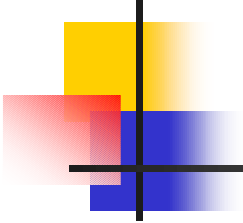


## ***Advisory Committee Members***

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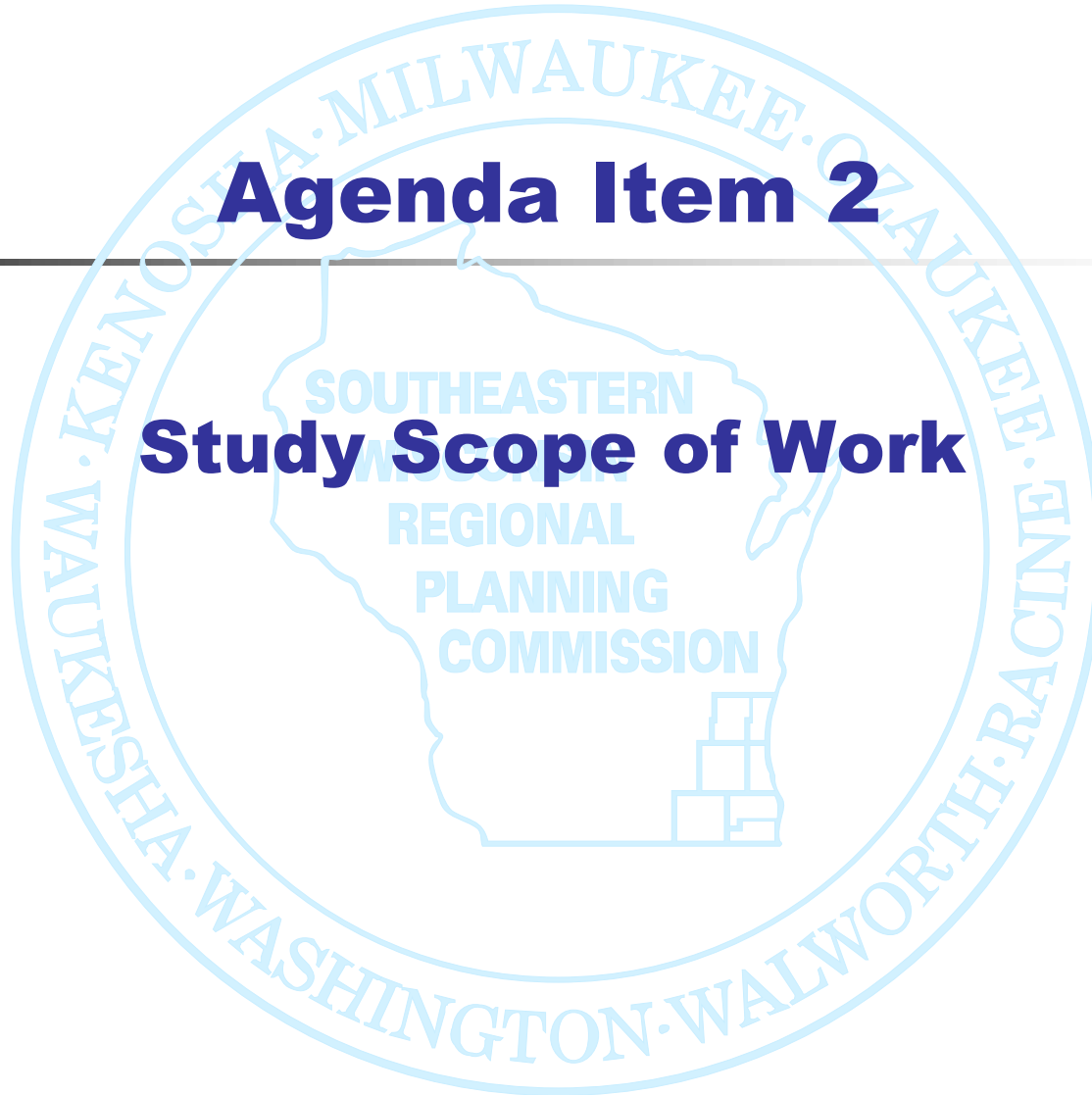
- **Local Government**
  - **Seven Southeastern Wisconsin counties**
  - **Municipalities in Milwaukee and Waukesha counties**
- **State Government**
  - **Wisconsin Department of Transportation**
  - **Wisconsin Department of Natural Resources**
- **Federal Government**
  - **Federal Highway Administration**
- **Business and Labor Associations**
  - **Metropolitan Milwaukee, Kenosha, Racine, and West Bend business associations**
  - **Transportation Development Association**
  - **Teamsters Union**





## **Agenda Item 2**

### **Study Scope of Work**







# ***Southeastern Wisconsin Regional Freeway System Study–Scope of Work***

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- **Work Elements of Study**
- **Consensus Seeking Process**





## ***Work Elements of Study***

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### **1. Overview of the regional transportation and freeway system**

- **Description of transportation system**
- **Definition of travel on transportation system**
- **Description of system costs and funding**





## ***Work Elements of Study—continued***

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### **2. Definition of condition of freeway system and need for reconstruction**

- **Construction history**
- **Expected remaining life**
- **Anticipated time period of reconstruction**





## ***Work Elements of Study—continued***

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### **3. Function of freeway system**

- **Origins and destinations of trips**
- **Trip length of trips**





## ***Work Elements of Study—continued***

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### **4. Deficiencies of the existing freeway system**

- **Physical design deficiencies**
- **Traffic safety problems**
- **Traffic congestion problems**
  - **Historic, existing, and probable future**





## ***Work Elements of Study—continued***

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### **5. Design and evaluation of alternatives for freeway reconstruction**

- **Segment-by-segment design and evaluation**
  - **Reconstruction in-kind**
  - **Reconstruction with minor design improvements**
  - **Reconstruction with substantial design improvements**
  - **Reconstruction with substantial design improvements and additional traffic lanes**
  - **Downgrading from freeway to surface arterial or removal**
- **System evaluation**





## ***Work Elements of Study—continued***

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### **6. Development of preliminary and final recommended regional freeway reconstruction system plan and program**





## ***Project Involvement and Outreach***

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- **Five key stages of study**
  - **Study initiation and system overview**
  - **Problem identification**
  - **Design and evaluation of reconstruction alternatives**
  - **Development of preliminary reconstruction plan and program**
  - **Development of final reconstruction plan and program**







## ***Project Involvement and Outreach— At Each of These Five Study Stages***

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- **Advisory Committee**
  - **Review, discuss, and reach consensus (two to four meetings per stage)**
- **County Executives/Boards/Public Works Committees**
  - **Provide briefings**
- **Municipal Elected and Appointed Officials**
  - **Offer briefings**
- **State Legislators**
  - **Provide briefings**





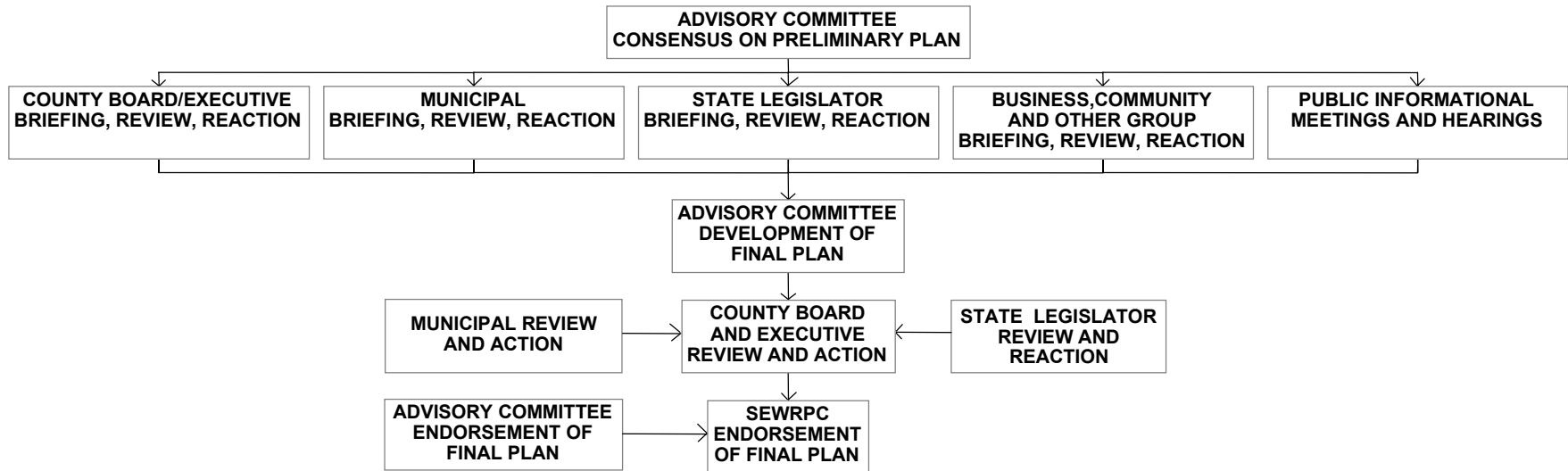
## ***Project Involvement and Outreach— At Each of These Five Study Stages—continued***

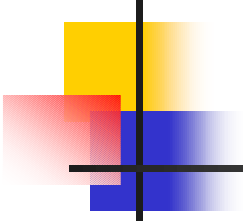
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- **Business, Community, and Other Groups**
  - Offer briefings
- **Study Website**
- **Public Informational Meetings and Hearings**
  - Problem definition
  - Preliminary plan and program



# Consensus Seeking Process— Preliminary and Final Plan





# **Agenda Item 3**

## **Schedule and Content of Future Advisory Committee Meetings**





## ***Potential Schedule of Advisory Committee Meetings***

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<u>Meeting</u>	<u>Date</u>	<u>Topic</u>
2	March	Freeway Function and Need for Reconstruction
3	April	Design, Safety, Congestion Problems
4	May	Congestion Problems and Reconstruction Alternatives
5 and 6	June and July	Evaluation of Alternatives
7 and 8	August and September	Evaluation of Alternatives and Preliminary Plan
9	November	Final Plan and Program



# ***Study Report***

## ***“A Regional Freeway Reconstruction Plan for Southeastern Wisconsin”***

### **Chapter I Introduction**

#### **II Overview of Regional Freeway and Transportation System**

#### **III Function of Freeway System**

#### **IV Need for Freeway System Reconstruction**

#### **V Freeway System Design, Safety, and Congestion Problems**

#### **VI Design and Evaluation of Freeway Reconstruction Alternatives**

#### **VII Recommended Freeway System Plan and Program**





## **Agenda Item 4**



### ***Overview of the Regional Freeway and Transportation System of Southeastern Wisconsin***



## ***Overview Outline***

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- **Travel within Southeastern Wisconsin**
- **Regional Transportation System**
  - **Streets and Highways**
  - **Freeways**
  - **Urban and Rural Public Transit Systems**
- **Regional Transportation System Plan**







## ***Regional Travel***

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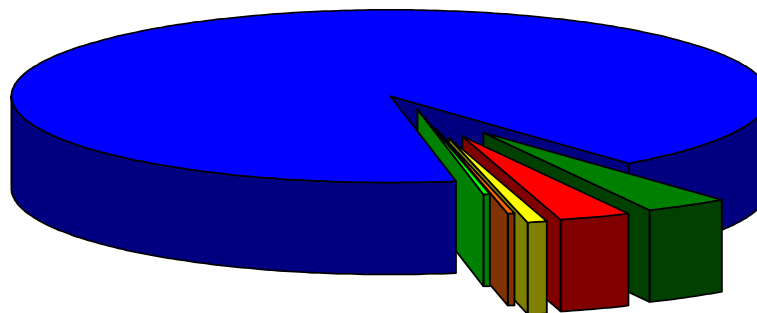
- **The dominant form (almost 95 percent) of all travel within Southeastern Wisconsin on an average weekday is made over streets and highways**
  - **By automobile for personal travel**
  - **By truck for freight travel**



# Personal Travel

- **About 92 percent of all personal travel on an average weekday is made by automobile**

	<u>Number of Trips</u>	<u>Percent</u>
■ Automobile	5,449,300	91.8
■ School Bus	229,000	3.9
■ Urban and Intercity Bus/Rail	181,090	3.0
■ Bicycle and Walking	39,200	0.7
■ Taxi and Motorcycle	22,700	0.4
■ Airplane	12,600	0.2
Total	5,933,890	100.0





## ***Freight Travel***

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- **About 88 percent by weight, and 93 percent by value, of all freight moved within, and to and from, Wisconsin is moved by truck over streets and highways.**





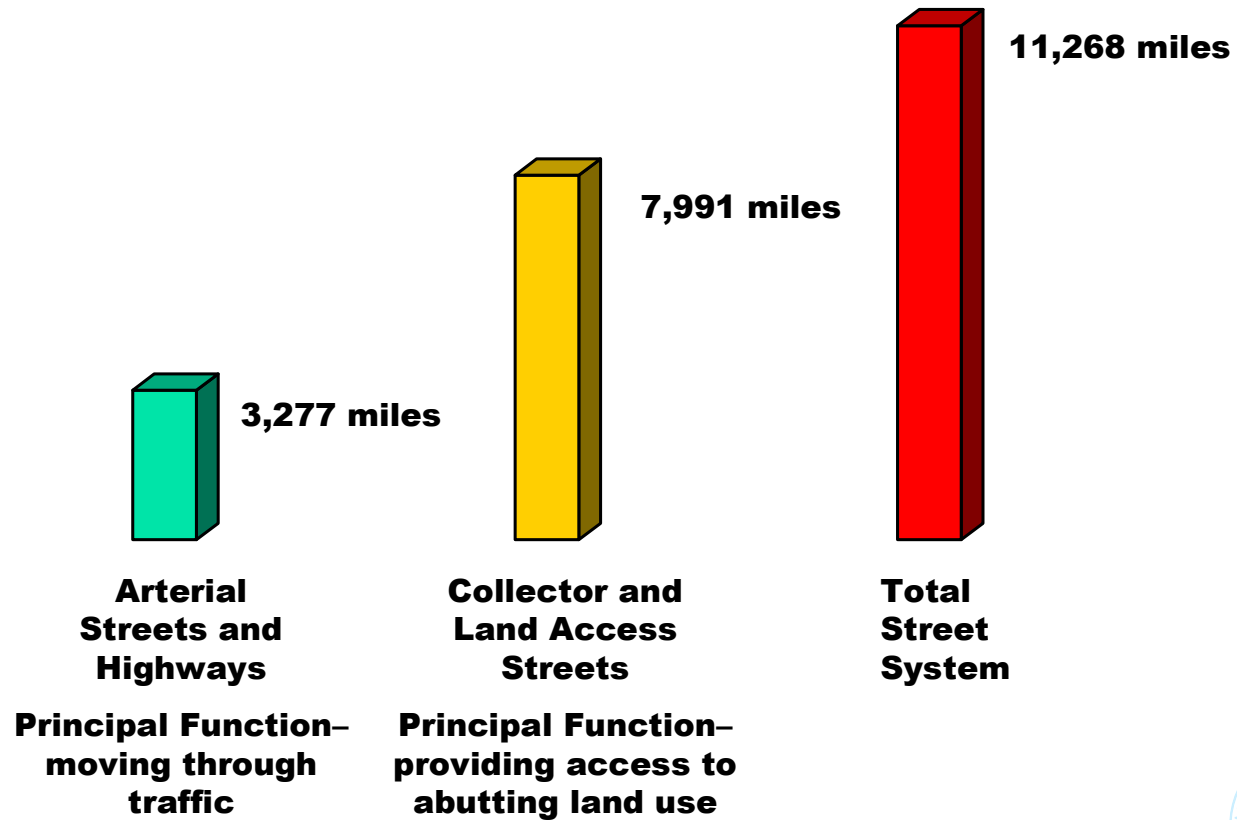
## ***Regional Travel***

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- **About 95 percent of all travel within Southeastern Wisconsin on an average weekday is internal to the Region**
  - **Internal — both ends of trip within Southeastern Wisconsin**
  - **External — one or both ends of trip outside Southeastern Wisconsin**

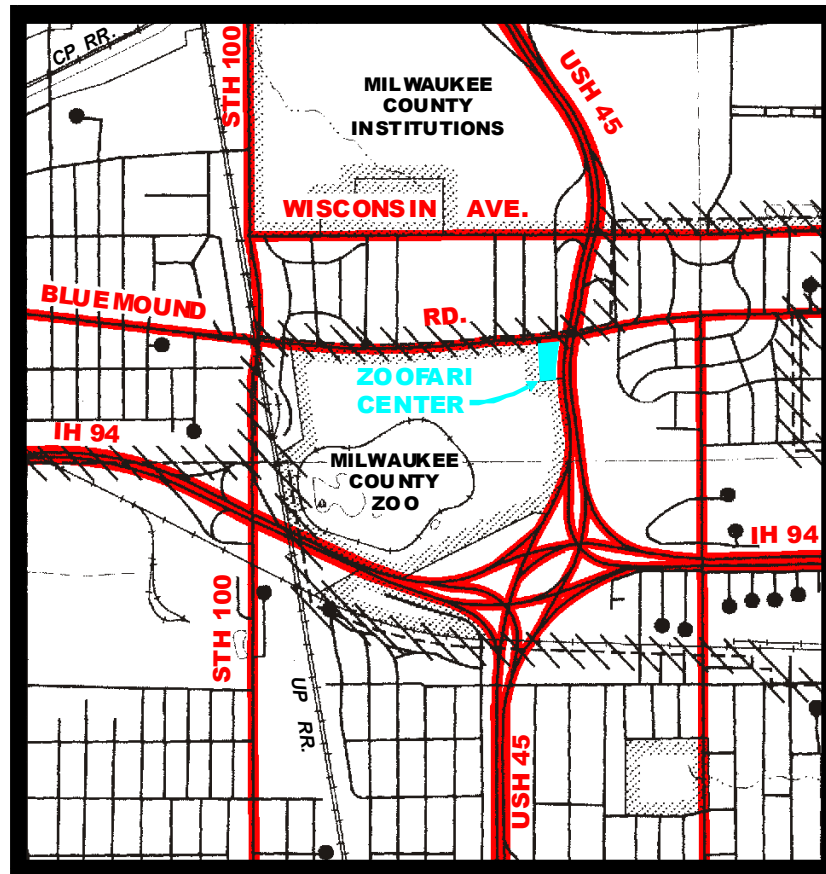


# Streets and Highways



# Arterial Streets and Highways and Collector and Land Access Streets

-  ARTERIAL STREETS AND HIGHWAYS
-  COLLECTOR AND LAND ACCESS STREETS





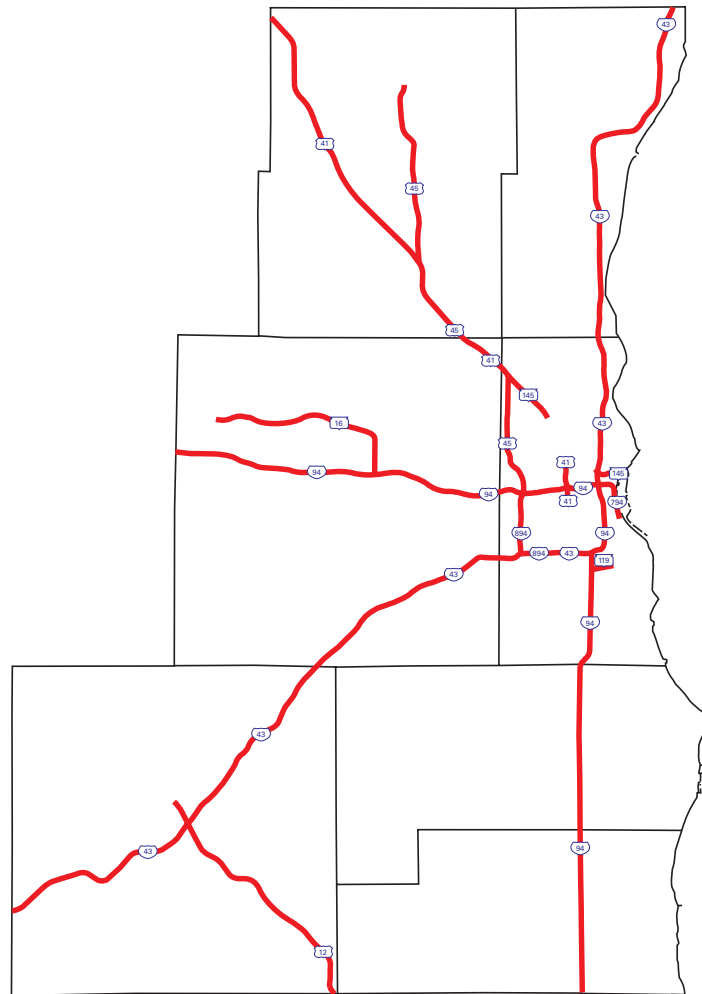
# ***Freeways***

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- **A special type of arterial street and highway**
  - **A divided arterial highway with full control of access, including grade separations at all intersections**
    - **All access at interchanges via on-and-off ramps**
    - **No driveways, street intersections, moveable bridges or at-grade railway crossings**
  - **The highest traffic speeds—50 to 65 mph**
  - **The highest traffic carrying capacities—about 2.5 times that of a standard surface arterial street and highway with the same number of traffic lanes**

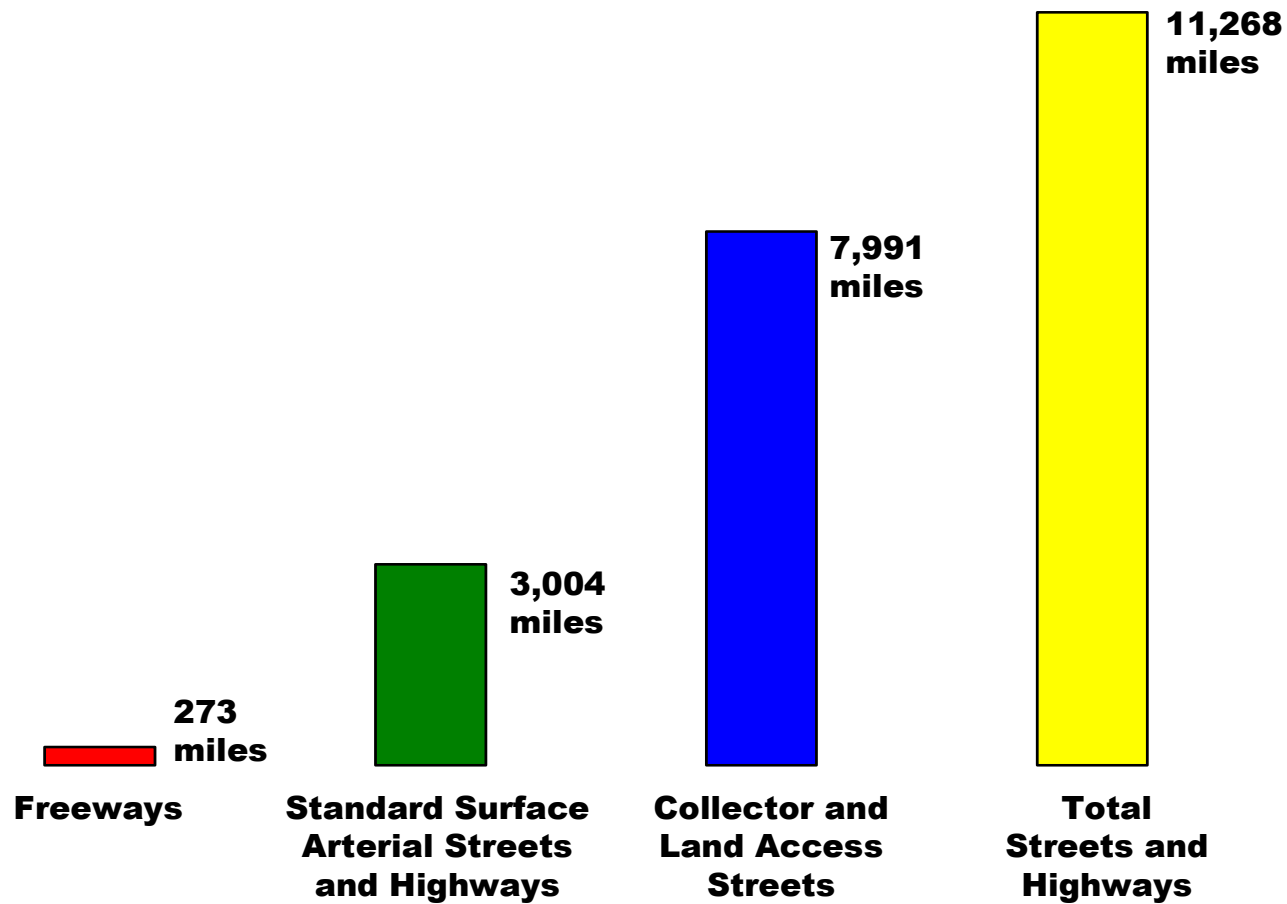


# ***Freeway System in Southeastern Wisconsin: 2000***



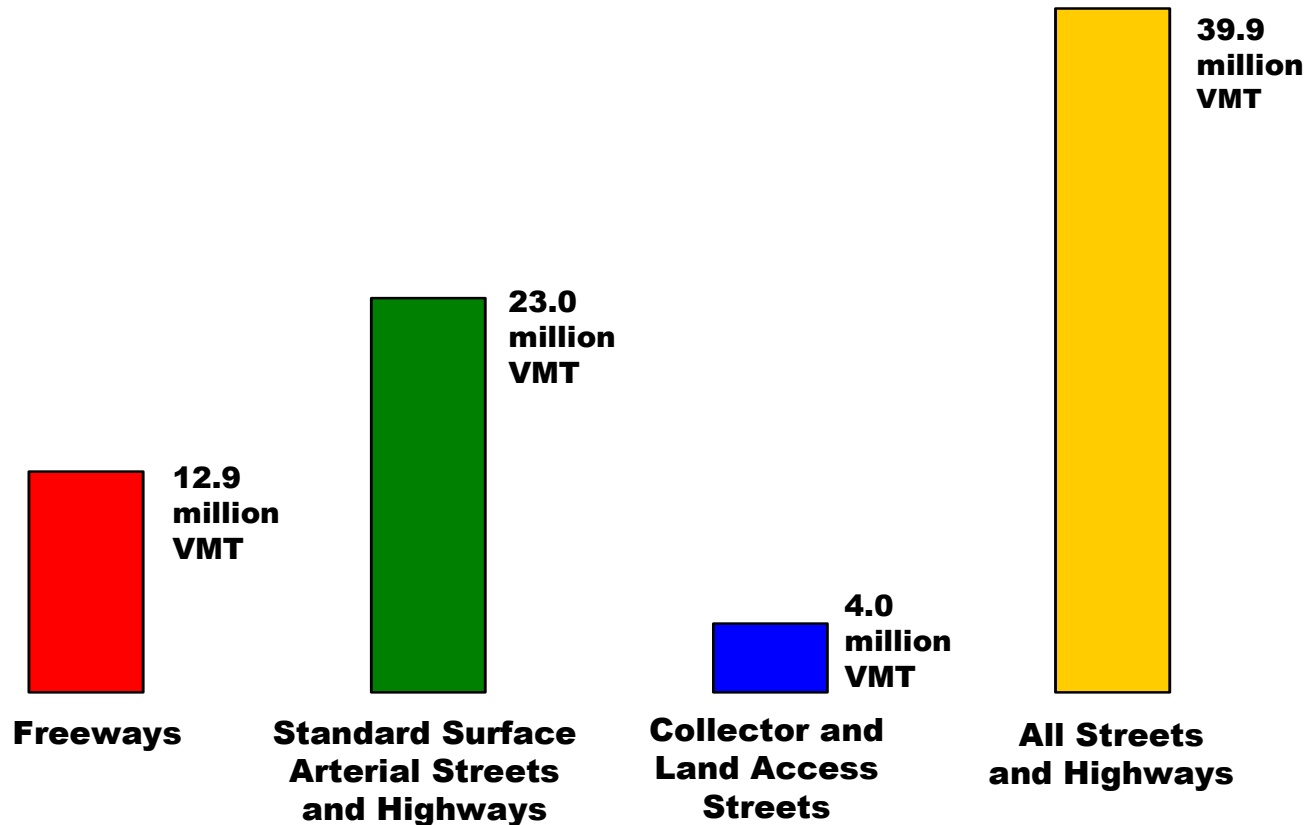


# Miles of Freeways and Other Streets and Highways



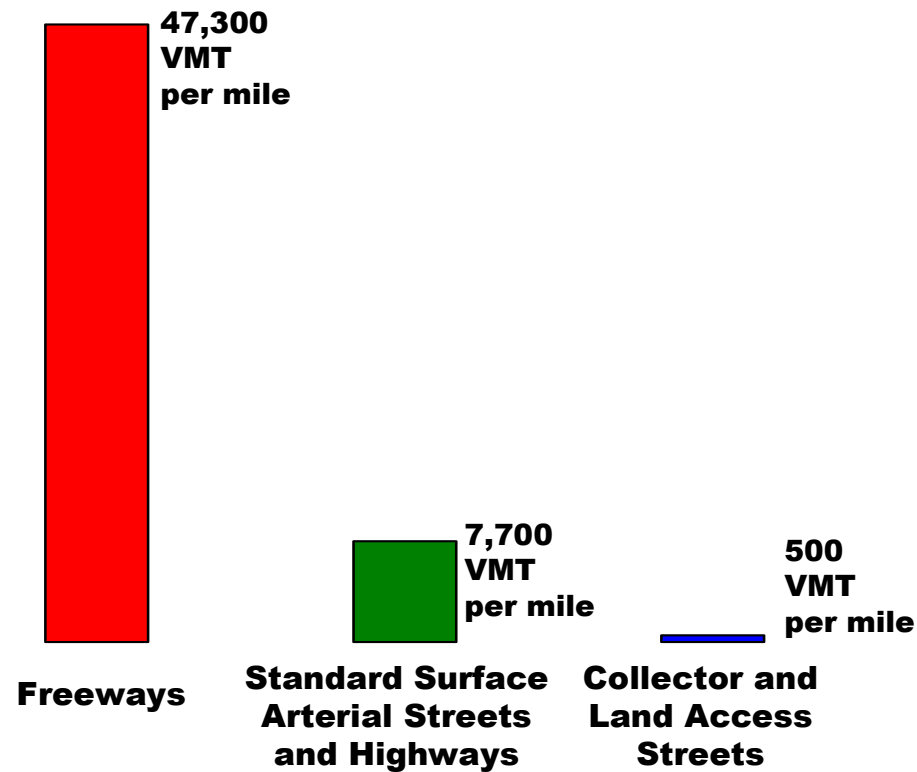
# Daily Travel on Freeways and Other Streets and Highways

## Vehicle-Miles of Travel (VMT) on Streets and Highways



# Daily Travel on Freeways and Other Streets and Highways—continued

## Vehicle-Miles of Travel (VMT) per Mile of Street and Highway





## ***Daily Travel on Freeways and Other Streets and Highways—continued***

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- **Vehicle travel within Southeastern Wisconsin has been growing over the past 40 years, but at a decreasing rate**
  - **1960s — 4.8% annually**
  - **1970s — 2.6% annually**
  - **1980s — 2.6% annually**
  - **1990s — 2.0% annually**





## ***Freeways—Importance to the Region***

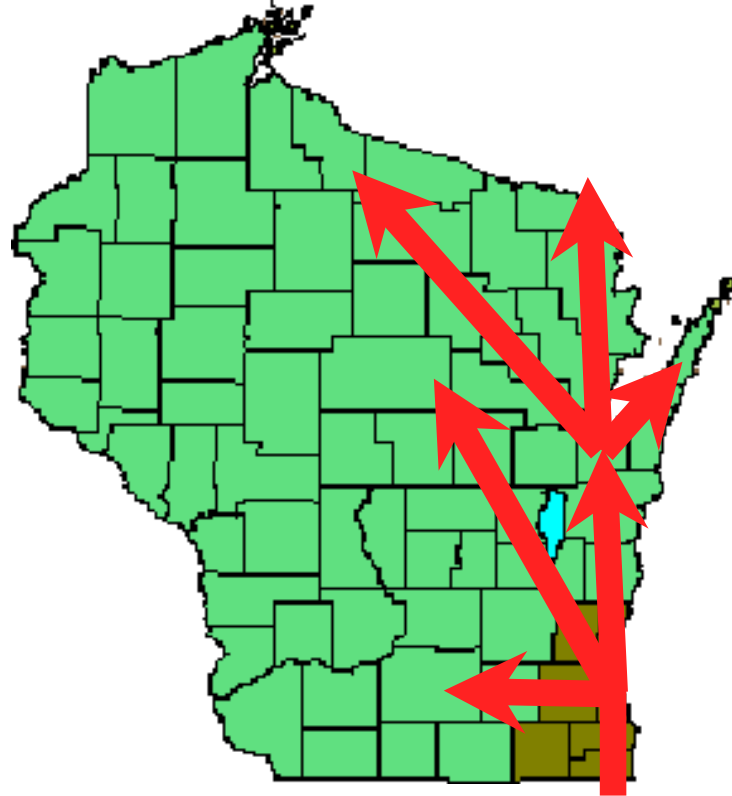
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- **Amount of traffic carried by freeways**
  - **About one-third of daily travel within Region**
- **High level of travel service and speed provided by freeways**
  - **Defines the level of travel accessibility and mobility within the Region**



# ***Southeastern Wisconsin Freeway System—Importance to State of Wisconsin***

- **Freeway system is important to the entire State of Wisconsin, and particularly eastern, central, and northern Wisconsin**





## ***Southeastern Wisconsin Freeway System—Importance to State of Wisconsin—continued***

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- **Two million annual truck trips and four million annual automobile trips travel through Southeastern Wisconsin on freeway system**
- **Another 20 million annual truck trips and 40 million automobile trips travel between Southeastern Wisconsin and remainder of State**
- **Two-thirds of all goods shipped from Fox Valley travel on the Southeastern Wisconsin freeway system**



# ***Urban and Rural Public Transit within Southeastern Wisconsin***

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## **Urban Fixed-Route Systems**

**Milwaukee County  
Waukesha County  
Waukesha City  
Kenosha City  
Racine City  
Ozaukee County  
Washington County  
Kenosha-Racine-Milwaukee  
Commuter Bus**

**138 routes  
76,200 weekday bus-miles  
172,000 weekday passengers**

## **Rural Demand-Responsive Systems**

**Ozaukee County  
Washington County  
Hartford City  
Port Washington City  
Whitewater City  
West Bend City**

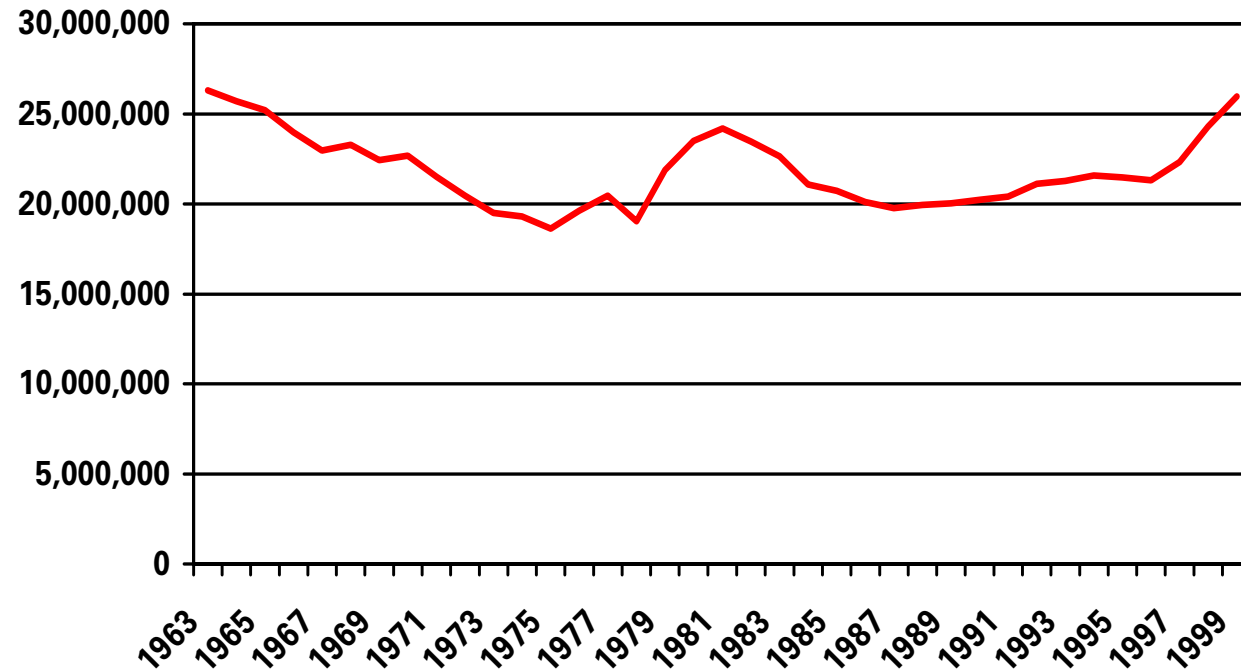
**5,900 weekday van-miles  
1,000 weekday passengers**





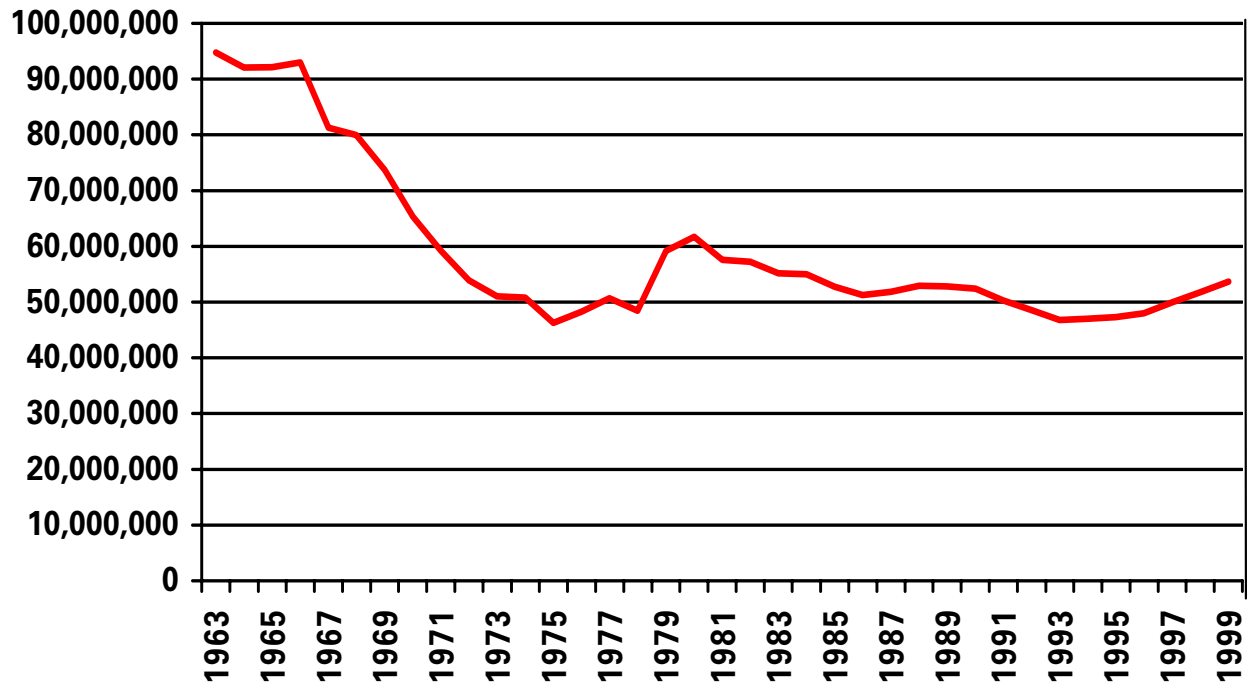
# Urban and Rural Public Transit within Southeastern Wisconsin—continued

**Annual  
Vehicle-Miles  
of Transit  
Service**



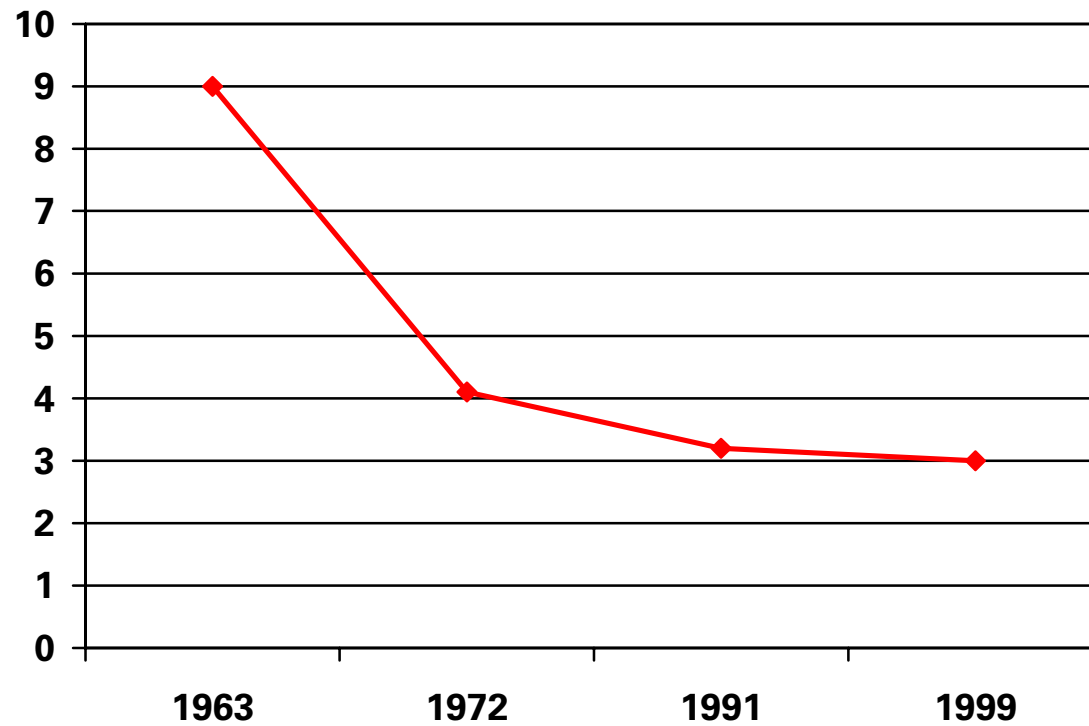
# Urban and Rural Public Transit within Southeastern Wisconsin—continued

**Annual  
Transit  
Ridership**



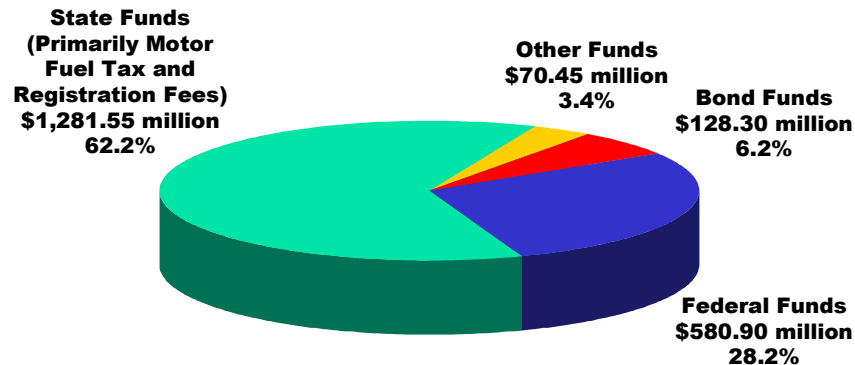
# Urban and Rural Public Transit within Southeastern Wisconsin—continued

**Trips as  
Percent of  
Total Travel  
in Region**



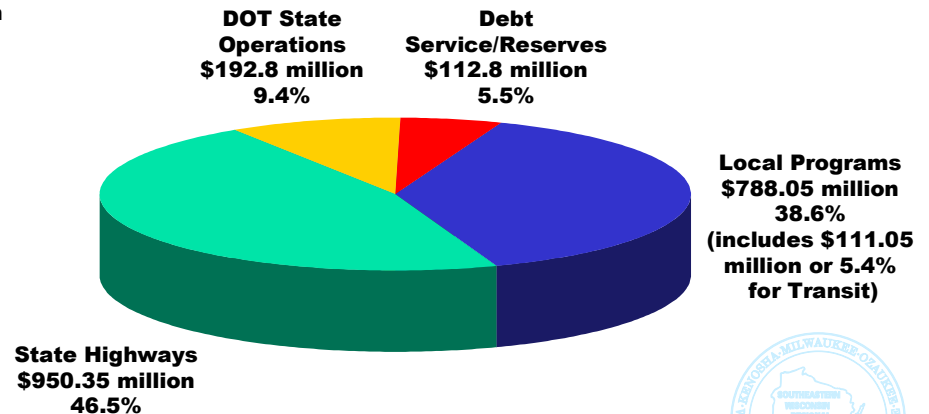
# State of Wisconsin Department of Transportation Annual Revenues and Expenditures for 1999-2001 Biennial Budget

## Annual Revenues \$2.06 Billion



Revenues allocated to:	
WisDOT	\$2,061.20 million
Other Agencies	<u>17.15 million</u>
	<b>\$2,044.05 million</b>

## Annual Expenditures \$2.044 Billion



# *Estimated Annual Expenditures on the Regional Transportation System*

## County and Municipal Arterials

\$ 65 million	Construction
<u>50 million</u>	Operations/ Maintenance
<b>\$115 million</b>	<b>Total</b>
<b>33%</b>	



## State Highways

\$100 million	Construction
<u>25 million</u>	Operations/ Maintenance
<b>\$125 million</b>	<b>Total</b>
<b>36%</b>	

## Public Transit

\$ 16 million	Capital
<u>93 million</u>	Net Operating
<b>\$109 million</b>	<b>Total</b>
<b>31%</b>	



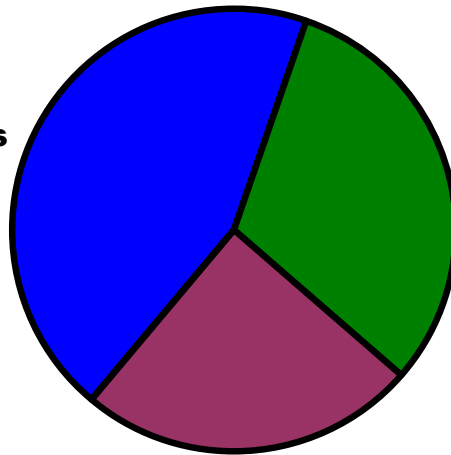
# *Estimated Source of Annual Revenues for Regional Transportation System Expenditures*

## State Funds

\$ 70 million	State Highways
24 million	County and Municipal Arterials
<u>60 million</u>	Public Transit
<b>\$154 million</b>	<b>Total</b>
<b>44%</b>	

## Federal Funds

\$ 55 million	State Highways
28 million	County and Municipal Arterials
<u>26 million</u>	Public Transit
<b>\$109 million</b>	<b>Total</b>
<b>31%</b>	



## Local Funds

\$63 million	County and Municipal Arterials
<u>23 million</u>	Public Transit
<b>\$86 million</b>	<b>Total</b>
<b>25%</b>	



# ***Southeastern Wisconsin Regional Planning Commission Regional Land Use and Transportation Plans***

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- **Principal responsibility of Commission is to prepare a comprehensive plan for physical development of Region**
  - **Most basic comprehensive plan element is land use plan, upon which all other elements—including transportation and sanitary sewerage—are based**





# ***Regional Land Use Plan Design Year 2020 Recommendations***

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- **Attainment of a more centralized future regional settlement pattern**
  - **Moderation of current decentralized development trend**
  - **Stabilization and revitalization of existing urban centers—Milwaukee, Racine, and Kenosha**







# ***Regional Land Use Plan Design Year 2020 Recommendations— continued***

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- **New development should occur as:**
  - **Infill in existing urban centers and in defined urban growth areas adjacent to existing urban centers**
    - **New development should occur in areas**
      - **with suitable soils for development, and not subject to hazards such as flooding or shoreland erosion**
      - **capable of being readily served by essential urban facilities and services, and at densities—five units or more per acre—which can efficiently support such facilities and services**
      - **not located in the Region’s primary environmental corridors or on remaining prime agricultural lands**





# ***Regional Transportation System Plan Design Year 2020***

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- **A plan of recommended transportation actions to address existing and anticipated future transportation problems**
  - **Designed to serve the regional land use plan**
  - **Three plan elements:**
    - **Systems management**
    - **Public transit**
    - **Arterial street and highway**
  - **Highway capacity additions are measure of last resort, addressing congestion not resolved by land use, systems management, or public transit measures**





# ***Regional Transportation Plan***

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- **Systems Management Element**
  - **Freeway traffic management system**
  - **Curb parking restrictions**
  - **State-of-the-art traffic engineering**
  - **Intelligent transportation systems technology**
  - **Promotion of alternatives to the automobile**
  - **Detailed land use and neighborhood planning**
  - **Enhancement of the quality of transit service**





## ***Regional Transportation Plan— continued***

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### **■ Public Transit Element**

- Substantial expansion and improvement of transit service**
  - Expansion of vehicle-miles of service from 66,100 in 1995 to 111,500 in 2020, a 70 percent increase**
  - Develop true system of rapid transit bus routes connecting all major travel corridors to Milwaukee CBD**
  - Develop true system of express bus routes with grid pattern serving Milwaukee CBD and connecting to rapid transit routes**
  - Expand service area and frequency of local bus service**
  - Consider rail alternatives to bus-based transit in corridor studies, with decision on implementation to be made by local governments concerned—particularly the local transit operator—and the Wisconsin Department of Transportation.**





## ***Regional Transportation Plan— continued***

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- **Arterial Street and Highway Element**
  - **3,613 total miles of arterial streets and highways**
    - **124 miles, or 3 percent, of proposed new facilities**
    - **405 miles, or 11 percent, of facilities widened to carry additional traffic lanes**
    - **3,083 miles, or 86 percent, of facilities to be maintained at existing capacity**





## ***Regional Transportation Plan— continued***

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- **Inadequate Funding to Implement Each Plan Element:**
  - **Systems management**
  - **Public transit**
  - **Arterial street and highways, including state trunk, arterial highways, and county and municipal arterials**





# ***Transportation and Freeway System Overview Summary and Conclusions— Freeway System***

---

- **The dominant form of travel (almost 95 percent) of all travel in Southeastern Wisconsin is over streets and highways by automobile for personal travel and by truck for freight travel**
- **Freeways are a special type—the highest type—of street and highway with the highest speeds and highest traffic carrying capacities**





## ***Transportation and Freeway System Overview Summary and Conclusions— Freeway System—continued***

---

- **Freeways represent by mileage 3 percent of all streets and highways but carry nearly 33 percent of all vehicle-miles of travel, and over 30 percent of all travel**
- **The amount of daily travel carried on the freeway system indicates the superior level of travel service and speed provided by the freeway system, and its contribution to the level of travel mobility and accessibility within Southeastern Wisconsin**

