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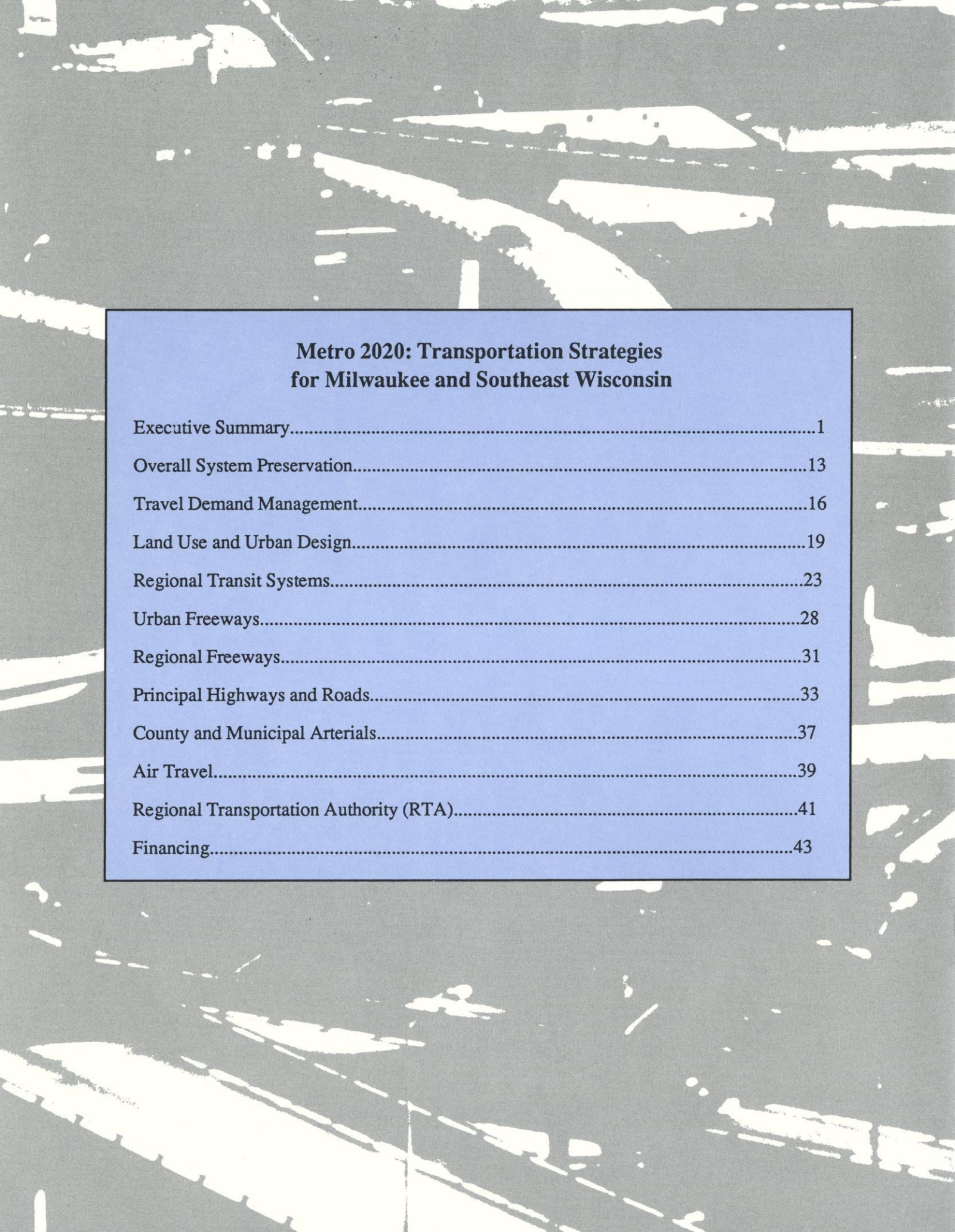
**METRO**

**2020**

Graduate Research Center  
Dept. of Urban & Regional Planning  
The University of Wisconsin-Madison

**Metro 2020 Final Report:  
Transportation Strategies for  
Milwaukee and Southeast Wisconsin**

June 1991



**Metro 2020: Transportation Strategies  
for Milwaukee and Southeast Wisconsin**

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## Executive Summary

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### The History of Metro 2020

Metro 2020 began in early 1989, when Governor Tommy G. Thompson appointed the 17-member Policy Board as its primary working body.

In his initial address to the Policy Board, Governor Thompson challenged Metro 2020 to identify a set of comprehensive, long-term transportation strategies that would support the economic development and quality of life needs in southeastern Wisconsin during the next 30 years. This region consists of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha Counties.

Metro 2020 has proven unique among similar initiatives nationwide. During its two years of deliberations, the Policy Board concentrated on the challenges of mobility — moving people and goods efficiently — in Wisconsin's largest cities and suburban centers. The Policy Board considered the widest range of transportation modes and transportation-related issues essential to successful mobility and economic growth in the region.

The Metro 2020 approach to urban mobility in southeastern Wisconsin is a comprehensive, integrated regional transportation strategy. This includes a balanced mix of highway and transit improvements; along with an appropriate combination of increased transportation supply (such as expanded highways and new transit routes) and aggressive efforts to slow the growth of travel demand that stresses the existing system.

Metro 2020 was originally developed as a complement to Corridors 2020 — the state's long-term strategic inter-city highway plan. Corridors 2020, announced by Governor Thompson in 1988, focuses on the expansion, improvement and rehabilitation of inter-city highways throughout the entire state. This provides a network that links Wisconsin's largest economic centers to each other and the national transportation network.

Many of the needs addressed in Corridors 2020 are located in southeastern Wisconsin. While this system benefits urban businesses and residents statewide by providing access to inter-regional transportation, it does not address specific issues *within* urban areas. For this reason, Corridors 2020 pledged in its final report that a study of the unique transportation and economic development needs of the urban and suburban areas within southeastern Wisconsin would be undertaken.

That pledge was fulfilled with the appointment of the Metro 2020 Policy Board.

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*The broad-based, 17-member Metro 2020 Policy Board spent two years studying ways to move people and goods more efficiently in southeastern Wisconsin. The strategies it developed call for a balanced mix of highway and transit improvements and expansions, along with aggressive efforts to slow the growth in travel that stresses the existing transportation system.*

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## **Metro 2020 Policy Board Members**

*Richard A. Abdo*, President, Wisconsin Electric Power Company, Milwaukee

*F. Thomas Ament*, Chairman, Milwaukee County Board of Supervisors

*Deborah A. Beck*, Vice President of New Business, Northwestern Mutual Life Insurance Company, Milwaukee

*Carroll D. "Buzz" Besadny*, Secretary, Wisconsin Department of Natural Resources

*John R. Collins*, County Executive, Kenosha County

*Ronald R. Fiedler*, Secretary, Wisconsin Department of Transportation

*Daniel M. Finley*, Chairman, Waukesha County Board of Supervisors

*Carl A. Gee*, Executive Director, Opportunities Industrialization Center of Greater Milwaukee, Inc.

*A. William Huelsman*, Chief Executive Officer, Intelligraphics, Inc, Waukesha

*Dennis Kornwolf*, County Executive, Racine County

*Bruno J. Mauer*, Former Secretary, Wisconsin Department of Development

*Nico J. Meiland*, Vice President of U.S. Manufacturing, S.C. Johnson and Son, Inc, Racine

*John O. Norquist*, Mayor, City of Milwaukee

*Frank J. Pelisek (Policy Board Chair)*, Partner, Michael, Best and Friedrich, Milwaukee

*Constance A. Pukaite*, Mayor, City of Mequon

*David F. Schulz*, County Executive, Milwaukee County

*John B. Torinus*, Chief Executive Officer, Serigraph, Inc., West Bend

## **The Metro 2020 Policy Board**

The 17-member Metro 2020 Policy Board appointed by Governor Thompson includes a cross-section of leadership from state and local governments, businesses, and community interests throughout southeastern Wisconsin. Due to the complex nature of transportation in the region, a broad consensus would be necessary among the public and private sectors in order to move the Metro 2020 recommendations forward.

The Policy Board members are listed alphabetically on this page.

Frank J. Pelisek, Partner in the Milwaukee law firm of Michael, Best and Friedrich, chaired the Metro 2020 Policy Board.

Harvey K. Hammond, Partner in the consulting firm of Howard Needles Tammen and Bergendoff (HNTB), was the Metro 2020 Executive Director. Mr. Hammond served as facilitator for the Policy Board.

As Executive Director, Mr. Hammond also coordinated the preparation of the staff background materials, by a consortium of agencies, which were critical to the Policy Board's deliberations. The agencies involved included HNTB; the State Department of Transportation; the Southeastern Wisconsin Regional Planning Commission (SEWRPC); the City and County of Milwaukee Departments of Public Works; and other staffs representing public, business and community constituencies on the Policy Board.

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## The Metro 2020 Process

The Metro 2020 Policy Board held its first meeting on March 3, 1989 at the Milwaukee County War Memorial.

At this first meeting, Governor Thompson formally challenged the Policy Board to develop transportation strategies that would maintain the economic competitiveness and healthy business climate of southeastern Wisconsin. To meet this challenge, the Policy Board was to develop an integrated set of transportation policies, projects and programs — in all modes — for recommendation to the Governor.

From the outset, the Policy Board stated that it did not consider itself a comprehensive land use or transportation planning body. It recognized the adopted plans of the Southeastern Wisconsin Regional Planning Commission (SEWRPC), complemented by the work of the Wisconsin Department of Transportation and state and local agencies (some represented by the Metro 2020 staff), throughout its deliberations.

The Policy Board undertook a three-step process which included preparation for the development of its final recommendations.

### Step One: Goals

The first several monthly meetings of the Policy Board were dedicated to specific topics of importance to the region. These meetings included participation — at the invitation of the Policy Board — by approximately two dozen national and regional experts from a variety of fields related to transportation and economic development.

*The Policy Board was challenged to develop transportation strategies to maintain the economic competitiveness and healthy business climate of southeastern Wisconsin.*

Metro 2020 formed an Economic Development Professionals group to advise and inform the Policy Board on issues critical to its task. This body consisted of one member from each of the region's seven counties, the City of Milwaukee, the Southeastern Wisconsin Regional Planning Commission (SEWRPC), Wisconsin Electric Power Corporation, and others. This group was welcomed to address the Policy Board when appropriate.

In August 1989, the Policy Board began to translate the extensive data and background information it had received into several areas of interest which would guide its future efforts.

At its October 1989 meeting, the Policy Board adopted a set of general goals to guide its deliberations. These goals are at the broadest level of decision-making, and are directly tied to more global issues such as jobs creation and cooperation between units of government. They were all developed in the context of perceived regional economic development needs.

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The following is the list of goals adopted by Metro 2020.

**Promote the Development and Retention of Jobs in the Region.**

**Foster Better Public/Private Sector Relations.**

**Strengthen Links to Midwest, U.S., and Global Economies.**

**Promote the Region's High Quality of Life.**

**Promote Job Opportunities for Minorities and the Disadvantaged.**

**Increase Tourism and Recreational Opportunities.**

**Promote the Region's Role in Relationship to Chicago.**

**Encourage the Revitalization of Major Urban Centers.**

### **Step Two: Objectives**

Following the adoption of its broad goal statements, the Policy Board continued its series of monthly meetings — each addressing a specific transportation or economic development issue — in order to develop targeted objectives for future actions.

Metro 2020 also formed a Funding Options Committee in the spring of 1990. The purpose of this group was to inform the Policy Board about current and prospective revenue options available to fund its recommendations. This committee was chaired by Wisconsin Electric

Power Corporation President Richard A. Abdo, and consisted of a combination of Policy Board members and experts in transportation and public finance. The activities and findings of the Funding Options Committee explored revenue options at the federal, state and local level, and were advisory to the Policy Board and helped frame its recommendations.

*The Policy Board explored revenue options, from all levels of government, that might be used to fund its recommendations.*

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Based on its continued study of transportation and economic development needs in the region, the Policy Board developed these objectives in the following areas:

*Travel to Jobs*

- > Pursue innovative transit systems, and encourage complementary land use policies, so that workers can travel from urban residences to jobs sites and vice versa.
- > Improve the urban transportation infrastructure and support urban re-development plans to encourage business relocation near existing labor pools.
- > Encourage the removal of barriers to affordable housing near areas of growing employment.

*To alleviate congestion, the Policy Board looked at developing an integrated transportation system of highways and roads, public transit, and a variety of alternatives to driving alone.*

*Congestion*

- > Provide a structurally sound, safe and reliable system of roads and highways, expanded as needed and feasible to accommodate growing traffic volumes.
- > Expand and maintain an integrated public transit system that connects workers with job sites and offers attractive alternatives to driving.

*Business Travel Beyond the Region*

- > Encourage increased and timely non-stop airline service to domestic and international markets.
- > Encourage increased air travel capacity, to meet increasing demands for air freight and passenger service.
- > Improve highway links between major urban communities and the national Interstate system.

*Job Opportunities for Minorities and the Disadvantaged*

- > Provide affordable, convenient transportation to urban and suburban job sites for central city residents.
- > Explore the use of public transit systems in linking central city residents with suburban jobs and vice versa.
- > Promote the redevelopment of central city areas for creation of jobs in proximity to labor pools.



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### *Tourism and Recreation*

- > Promote multi-modal transportation to maintain and improve access to the region's tourist attractions.

In developing its objectives, the Policy Board also sought broader discussion of the issues it was considering through an Urban Mobility Conference held in Milwaukee in November 1990. Approximately 150 interested members of local government, the business community, area universities, and the general public attended this day-long event. Presentations were made by a number of experts in various fields of transportation, as well as by members of the Policy Board. The proceedings were distributed to the Policy Board after the event and were made part of its formal deliberations.

### **Step Three: Strategies and Recommendations**

During the last few months of its deliberations, the Policy Board consolidated its background information and studies, and concentrated its attention on developing specific strategies, policies and programs to implement its goals and objectives.

This process was completed on February 11, 1991, when the Policy Board adopted its consensus package of long-term transportation recommendations. The contents of this balanced, integrated, comprehensive package — including all modes of travel — are included in the remaining sections of this report.

In addition to recommending programs and policies, the Policy Board also developed a detailed implementation strategy for its consensus package. This strategy recommends some programs for implementation during the next six years, with the remainder to be developed through 2020.

### **Issues**

Throughout the entire Metro 2020 process, the Policy Board was aware of several complex and interrelated factors affecting the economic development and transportation needs in southeastern Wisconsin. In-depth study and consideration of these issues were a central component in the Policy Board's process of developing its recommendations.

#### *The Importance of Mobility*

The first priority of the Policy Board was to determine how overall mobility — the ability to move people and goods efficiently — could be preserved and improved throughout the region. This would require attention to all modes of travel.

Through presentations by a variety of economic development experts, mobility was demonstrated to be a key factor in locating and retaining businesses in the region. Thomas Ticknor of the Fantus Corporation, for example, cited studies which indicate that access to good transportation is a top reason why both manufacturing and service industries choose to locate their businesses in a particular area.

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The Policy Board determined that the current transportation situation in southeastern Wisconsin is fairly good. The region benefits from an effective network of highways and roads that enables fast and efficient travel within and between its major urban centers. Public transit, air and rail services also play a key role in providing mobility for businesses and residents.

This overall transportation success provides southeastern Wisconsin with a competitive advantage over locations such as the Chicago metropolitan area, where urban and suburban gridlock seriously threatens mobility. However, changes in southeastern Wisconsin demand that the overall transportation system be improved and expanded in order to maintain the region's critical advantage and provide for its continued economic success.

### *A Changing Southeastern Wisconsin — Business and Population*

Throughout the 1980's, rapid changes occurred in the character of the region's economics and population. The Policy Board's recommendations addressed these changes in responding to the need for improved mobility and economic success.

*Shifts in regional economic activity and changing households have led to increased demands on the transportation system.*

One significant change identified by the Policy Board relates to the nature of employment and industry in southeastern Wisconsin. During the 1980's, there was a shift in business activity from heavy manufacturing (concentrated in central cities) to service industries (concentrated in more suburban locations). It should be noted, however, that Milwaukee still retains the largest heavy industrial base of any city in the nation.

Along with this shift in economic activity, changes were also seen in the number and composition of households throughout the region. While the overall population of southeastern Wisconsin remained relatively constant during the 1980's, the number of households increased by nearly 10%. This fact, along with a growing number of two-income households, increased the number of persons who need to travel to jobs from the same home each day.

Changes are also occurring in the way companies are now doing business. In an increasingly fast-paced and competitive world economy, more companies are relying on "Just-In-Time" delivery and shipment methods. This requires an efficient transportation system that can guarantee the timely transfer of large volumes of goods and services.

Additionally, while employment remained fairly constant in southeastern Wisconsin during the 1980's, the region's economic composition is changing and benefitting as a result of economic growth moving northward from Chicago. This results in an increased demand for transportation from new industries and employees locating in the region — primarily in the Kenosha area.

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The result: Businesses and residents in the region now have different transportation needs than they did twenty years ago. A top priority for the Policy Board was to determine why these different needs are present, and how to address them in order to promote future economic growth and success.

### *Transportation and Land Use*

One key factor relating to changing transportation needs involves land use and development occurring beyond central cities. Land use and transportation decisions are clearly related. Coordinating these decisions to improve mobility in the region, however, is often complicated due to local government jurisdiction over land use. As a result, addressing issues that affect more than one community with region-wide transportation solutions can become more difficult.

*“Low-density”  
development has caused  
increased transportation  
challenges.*

In suburban and outlying areas, development often occurs in a more widespread fashion than in central cities. This “low-density development” has fewer office or residential units per acre than older developed areas.

In many areas, local zoning codes do not allow “mixed-use” development, which places employment centers and housing closer together. This encourages situations in which people do not live and work in the same area or community. It also means that central city workers — often least able to afford high commuting costs — are forced to travel longer distances to suburban job sites.

In low-density commercial and residential development, public transit is often not an efficient option due to the relatively low ridership generated. Other transportation alternatives, such as carpooling, also become difficult when people in the same neighborhood work in different communities. This causes more people who live and/or work in the suburbs to rely on single-passenger automobiles.

### *An Increase in Travel*

The region has experienced changing travel patterns, along with dramatic increases in travel and business commuting trips between suburbs. This occurred on roadway systems designed primarily to carry traffic from suburbs to central city areas, causing congestion on an arterial highway system which may no longer have the capacity to handle these increased traffic volumes.

Since 1971, total vehicle miles of travel have increased by 3.7% on the freeway system, and 2.7% on the non-freeway system, each year. Nearly 900,000 vehicles now enter the freeway system in Milwaukee County each working day, carrying an average of just over one person each. If these trends continue, 40% of the freeway system in Milwaukee County could experience congestion for 5 - 8 hours each day by the year 2000, with other routes also facing congestion as freeway travelers seek alternate routes.

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### *The Challenge of Congestion*

Congestion poses more than just mobility concerns. Transportation contributes almost 60% of the emissions that threaten air quality on warm days — a problem worsened by vehicles standing still in congested areas. Air quality will become an increasingly important issue for the region in light of the stricter federal standards contained in the recent Clean Air Act Amendments of 1990.

Meanwhile, as mentioned above, many suburban commuters face a lack of transportation alternatives due to land use patterns that make these alternatives largely unfeasible. Urban bus ridership in the region, for example, declined by nearly 9 million trips during the 1980's. Use of park-and-ride commuter lots also declined.

### **Metro 2020 Recommendations**

As mentioned above, the *relative* lack of congestion until recently has offered southeastern Wisconsin a significant competitive advantage over other urban areas. Metro 2020's recommendations, based on its primary charge to meet economic development needs, address these challenges with positive solutions for the region.

This does not involve a radical change in the region's transportation focus, or policies that will unduly restrict development and individual choice. Metro 2020 recognized instead that an integrated, cooperative, regional approach to transportation is the best approach for the future.

In its consensus package, the Policy Board adopted a balanced package of highway and transit programs, along with a balanced mix of policies that expand the supply of transportation while also making the existing system more efficient. The Metro 2020 recommendations also work to aggressively reduce travel demand at a time when the region can no longer afford to accommodate unlimited travel.

### *Highways*

The Policy Board endorsed ways of making the entire highway and street system more efficient, and of expanding its capacity in suburban and rural areas where automobiles will continue to be the main carriers of travel.

Specific policies include implementing a high-tech computer system called Freeway Traffic Management in the Milwaukee Urbanized Area. This system controls the rate at which vehicles enter the freeway, identifies congestion and disabled vehicles, and provides informational message boards to warn motorists of delays and directs them to alternate routes.

Also included are redesign and reconstruction of freeway interchanges that cause traffic "bottlenecks," and the promotion of convenient alternatives to cars that carry just one person.

In suburban and smaller urban areas, the Policy Board endorsed the selective expansion of arterial roads designed to carry traffic and provide an alternative to freeway travel for shorter trips. This action seeks to create a network of roadways that are regional in focus to accommodate changing suburb-to-suburb commuting patterns. The Policy Board also recommended adding lanes to freeways outside of larger urban areas when and where this is needed, and where right-of-way is available.

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### *Public Transit*

The Policy Board endorsed the creation of an integrated regional transit system — including bus and rail components — that would coordinate service across local jurisdictional boundaries where needed.

A significant element of this recommendation focuses on preservation of existing levels of local bus service, as well as continuation of Amtrak passenger service between Milwaukee and Chicago at its current level of six round trips daily. Also endorsed were long-term expansions of current local bus service and increased express bus service across jurisdictional lines.

A more innovative transit approach was explored in the area of passenger rail options. Rail has a unique potential to revitalize urban economies, reducing traffic congestion, and improving air quality. The Policy Board endorsed construction of a central light rail transit system — a modern, high-tech version of the old trolley car — in Milwaukee County, with long-term expansions where they are feasible.

In other parts of the region — particularly between Milwaukee-Racine-Kenosha-Chicago — intensive studies of other passenger rail options were also endorsed in order to develop a comprehensive passenger rail strategy for implementation in the longer term. These options include commuter rail and enhanced Amtrak service operating at current or high speed standards.

### *Regional Transportation Authority*

Southeastern Wisconsin currently enjoys a strong tradition of regional transportation planning under the guidance of the Southeastern Wisconsin Regional Planning Commission (SEWRPC). In the future, this cooperation will become even more important. Increases in travel demand and changing travel patterns throughout the region will heighten the need to coordinate transportation decisions among many local units of government, since the impacts of many projects will likely be felt beyond just one community. Exclusive local jurisdiction over transportation programming and the need for local governments to provide matching revenues, however, often makes coordinated regional efforts difficult.

***A Regional Transportation Authority could coordinate programming and funding for transportation projects across jurisdictional boundaries.***

Therefore, Metro 2020 recommended that the Legislature create a Regional Transportation Authority (RTA) in 1991. This body, appointed by the Governor and representing the entire seven-county southeastern Wisconsin region, would coordinate the implementation, and assist with the financing, of regional highway and transit system development across jurisdictional boundaries.

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### *Land Use*

The Policy Board recognized and studied the close link between land use and transportation. When widespread, low density development occurs, transportation alternatives are often severely restricted. Transit cannot serve areas in which the number of riders per mile would be extremely low, and carpooling is also difficult in low density developments. As a result, low density development often results in the exclusive reliance on drive-alone auto travel.

The Policy Board recommended that communities guide land use in ways that can be efficiently served by a range of transportation services; without limiting economic growth, individual choice or local jurisdiction over land use decisions.

Specifically, Metro 2020 endorsed five land use strategies which encourage greater cooperation between the state and local government and the private sector. This would result in studying a wide range of land use alternatives, initiating outreach efforts to inform decision makers of the relationship between land use and transportation, and analyzing the transportation impacts of development before it occurs to encourage easier transit and pedestrian access.

### *Travel Demand Management*

Travel demand management involves promoting the use of alternatives to driving extensively in a car carrying just one person. These alternatives include taking shorter trips, using public transit, carpooling, and walking when possible. The potential benefits of travel demand management efforts include fewer cars on the freeways, reduced congestion, improved mobility, and improved air quality.

Of course, making travel demand management efforts successful is not always easy. Automobiles have become the transportation mode of choice for most people, despite available alternatives. And in many parts of the region, low density development makes transit or carpooling virtually impossible.

For this reason, Metro 2020 endorsed the creation of an Office of Travel Demand Management. Coordinated through the new Regional Transportation Authority, this office would develop and implement programs with the public and private sectors that promote demand management goals and the use of travel alternatives.

### *Financing*

Metro 2020 recognized that the current level of investment for strategic transportation systems in southeastern Wisconsin is below what is needed to meet current and future needs, and to implement the Policy Board's recommendations.

As a result, the Policy Board endorsed a funding strategy that focuses on three elements. The first priority is to pursue the maximization of all available federal funding for highway and transit programs. Also included in this overall strategy is an emphasis on identifying possible new sources of state transportation revenues, along with new sources of local non-property tax revenues for regional transportation priorities.

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## **Metro 2020 Policy and Program Recommendations**

The remainder of this document presents a detailed look at the policies and programs recommended by Metro 2020 in its consensus package. The Policy Board's specific implementation recommendations are discussed in the following order:

**Overall System Preservation**

**Travel Demand Management**

**Land Use and Urban Design**

**Regional Transit Systems**

**Urban Freeways (Milwaukee Urbanized Area)**

**Regional Freeways**

**Principal Highways and Roads**

**County and Municipal Arterials**

**Air Travel**

**Regional Transportation Authority**

**Financing**

Within each category, the Metro 2020 policies and programs are presented as a series of implementation strategies adopted in the Policy Board's consensus package. Those programs recommended for implementation during the next six years will be listed in **bold print**, while those to be developed through 2020 will appear in normal typestyle.

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## Overall System Preservation

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### Overview

Overall system preservation involves improvements needed to keep the existing highway and road network, and its bridges, in good working condition; along with efforts to maintain current levels of transit service and replace the existing fleet as needed.

Overall system preservation is identified by the Policy Board as a top transportation priority for Milwaukee and Southeast Wisconsin. Preservation policies and programs — for both highways and transit — are a substantial and critical component of the Policy Board's overall recommendations, accounting for approximately half the costs of implementing its consensus package.

### Highways

For highways and roads, resurfacing, reconditioning and pavement reconstruction projects — but not the addition of new lanes — are included in system preservation. The Policy Board identified a strategic regional highway system of 3,600 miles of principal routes in the region. This system can be categorized as follows:



**Intra-regional corridors (110 miles).** These are freeways in the Milwaukee Urbanized Area.

Note: The Milwaukee Urbanized Area includes Milwaukee County, as well as much of eastern Waukesha County and southern Ozaukee County.

**Inter-regional corridors (141 miles).** These are freeways between major urban centers in the region, not including US 45 from US 41 to West Bend, and State Highway 16 from I-94 to County "P".

**Urban/suburban principal routes (476 miles).** These are non-freeway state and local principal routes in the Milwaukee, Racine and Kenosha Urbanized Areas.

**Rural/small urban principal routes (290 miles).** These are the rural principal arterials and their extensions through small urban areas, including the exceptions listed above.

**County and municipal arterials (2,600 miles).** These are the remaining arterial streets and highways.



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## *Transit*

Transit system preservation includes maintaining existing levels of service in terms of the number and frequency of routes, the geographic area served, and vehicle replacement.

The overall public transit system now consists primarily of local urban bus service, which operates in the Cities of Kenosha, Racine and Waukesha, and in the Counties of Milwaukee and Waukesha. Local urban bus service carries 52.8 million passenger trips per year, or between 3 and 15% of all travel in specific urbanized areas of the region. Privately-operated Greyhound Bus service is also available in the region.

Public transit also includes Amtrak passenger service which operates six daily round trips between Milwaukee and Chicago, with a stop near Racine. This marks an increase from four to six round trips daily in 1989, and has generated additional ridership levels of 50%.

## **Preservation Needs and Challenges**

Federal, state and local governments have invested billions of dollars in building the current system of highways and arterial streets, and in establishing transit systems, in Milwaukee and Southeast Wisconsin.

Currently, these highway and transit systems play a critical role in meeting the overall travel needs of businesses and residents in the region, though they are being stressed by ever-increasing travel demand.



No one thinks about the region's highway and transit systems until they become congested or in disrepair. But these systems, like all goods, are subject to wear from use, time and the weather. In order to remain effective, they must be continually maintained.

## **Summary**

*Without ongoing system preservation efforts, the significant investments already made in our infrastructure — and the foundation upon which future improvements are planned — will be seriously jeopardized by decay, disrepair, and stagnation.*



## **Metro 2020 Recommendations**

### *System Preservation Policies and Programs*

- > **Invest in regular rehabilitation and maintenance of the highway and road system, including bridges, in Milwaukee and Southeast Wisconsin as needed.**
- > **Continue existing levels of public transit routes, in terms of area and needed frequency, currently operating in three cities and two counties.**
- > **Preserve existing levels of Amtrak passenger service, at six round trips daily between Milwaukee and Chicago.**
- > **Address substantial rehabilitation needs on the freeway and bridge system in Milwaukee County. These are complex projects which will increase the cost of overall system preservation in the long term.**

### **Intended Result**

Ongoing system preservation is essential to keep the region's transportation system in good working condition. Continued preservation programs will provide a solid base to make possible any future efforts to expand the current system or make it more efficient.

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# Travel Demand Management

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## Overview

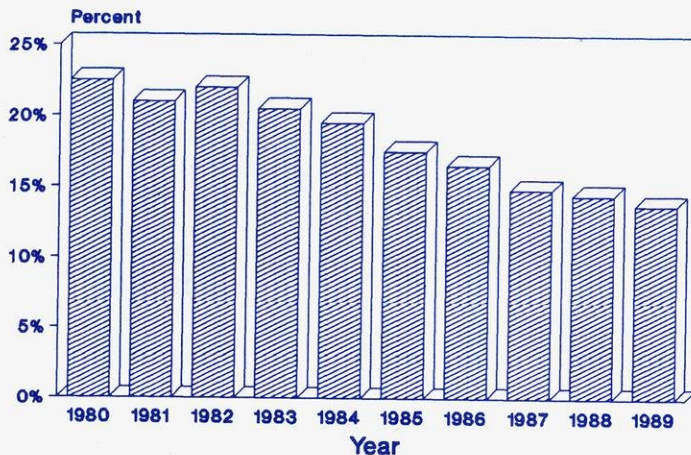
Travel demand management programs encourage individuals, companies and communities to consider alternatives to the exclusive use of automobiles that carry just one person. These programs emphasize taking shorter trips, sharing rides, using transit when available, and walking.

## Travel Demand Management Needs and Challenges

The potential benefits of travel demand management programs in Milwaukee and Southeast Wisconsin are clear. As mentioned above, *travel volumes — largely via automobiles carrying just one person — have increased dramatically*. Efforts in this area could greatly assist in meeting the Policy Board's goals of making all highway and road systems more efficient by enabling them to carry more people in fewer vehicles (thereby slowing the growth of vehicle travel), while also addressing the goal of promoting the balanced use of several transportation modes throughout the region.

Therefore, travel demand management efforts could reduce vehicle use as people turn to the above transportation alternatives, alleviate traffic congestion, and promote improvements in air quality as a result of reduced auto emissions.

**Fewer vehicles on the East-West Freeway carry 2 or more persons**



The primary challenge facing all travel demand management efforts involves convenience and attractiveness. With a variety of development and travel patterns throughout the region, these efforts must be diverse and comprehensive enough to meet the transportation needs of many different businesses and residents. Additionally, they must provide benefits and incentives that are significant enough to be competitive with travel by one's personal automobile.



Mark Duerr photo

Travel demand management efforts — generating promising results — are already in place in many areas of the nation. At the Nuclear Regulatory Commission in Montgomery County, Maryland, for example, preferential parking offered to car- and vanpools resulted in 27% of all employees using these transportation methods. This compares to only 7% at surrounding businesses without preferential parking. In Minneapolis, free parking is available on the edge of downtown for carpool users. Of those who take advantage of this incentive, 35% previously drove to work alone.

An additional challenge involves actual planning and implementation of travel demand management programs. Since the needs of each community, business or individual are unique, effective efforts may require closer coordination between several units of government and the private sector — all of whom would be affected.

Travel demand management will become increasingly important in the future. The federal Clean Air Act Amendments of 1990 require all Wisconsin companies with more than 100 employees to implement carpooling programs by 1994, with a 25% increase in carpool use among employees demonstrated by 1996.

## Summary

*Metro 2020 has endorsed a number of initiatives to make travel demand management strategies — alternatives to the exclusive use of cars — a greater component of the overall transportation system.*

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## **Metro 2020 Recommendations**

### *Travel Demand Management Policies and Programs*

- > **Create an Office of Travel Demand Management.**
- > **The Office of Travel Demand Management would do the following:**
  - 1) **Assist in setting up transportation management associations. These private organizations would work to improve carpooling and parking programs in specific locations throughout the region.**

This may involve providing the “know-how” to implement effective transit use or carpooling efforts, or assistance in setting up effective parking management programs.
  - 2) **Coordinate travel demand management strategies and programs between public agencies. An example would include providing more transit service to park-and-ride lots.**
  - 3) **Provide technical assistance to communities and companies interested in beginning travel demand management programs.**
  - 4) **Administer grants to local agencies for specific travel demand management efforts. These efforts might include improving parking management, or targeting transit services to more potential users.**
  - 5) **Administer informational programs that match potential riders with available carpools.**

### **Intended Result**

Through aggressive program promotion and improved cooperation between state and local agencies and the private sector, travel demand management initiatives can be implemented, and their congestion-relief, efficiency, and air quality benefits achieved.

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## Land Use And Urban Design

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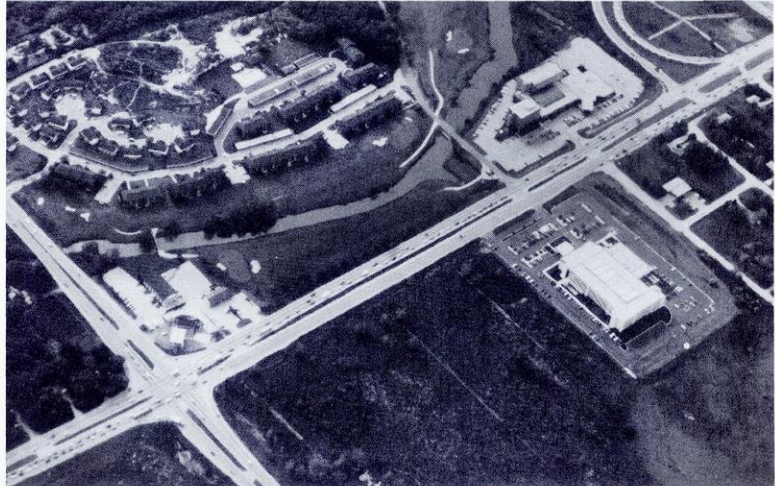
### Overview

Many of the recommendations made by Metro 2020 are designed to meet the increasing demand for travel in Milwaukee and Southeast Wisconsin. But transportation planning must also consider why travel is increasing, and how the region's travel patterns are changing.

Land use and urban design decisions are major factors that influence the demand for transportation, and that determine whether a development will be served exclusively by auto or will offer transportation choices.

When land is used — when an office park, subdivision or shopping mall is built — transportation is immediately affected. People cannot take shorter trips or carpool if residents in a neighborhood all work in different cities 30 miles from their homes. Similarly,

public transit cannot be effective transportation alternatives when housing, jobs, shopping and recreation are scattered across a wide area (low density development).



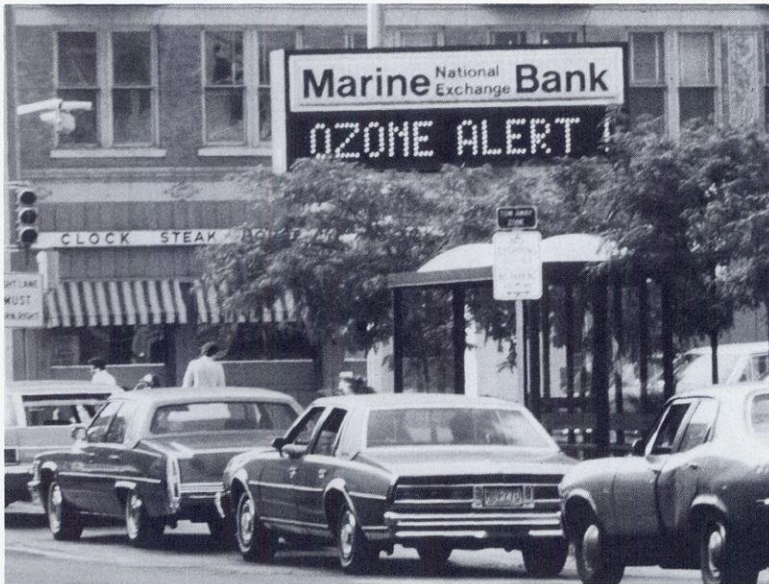
The impacts of *the way in which a development is designed*, along with its location relative to other development, must also be considered in terms of the transportation alternatives it provides. For example, low density development often lacks sidewalks, and utilizes larger lots that place buildings farther back from adjacent streets than in central city areas. This makes pedestrian access — a potentially important travel alternative — largely impractical.

Urban design decisions related to the location and nature of parking facilities also affect transportation choices. If parking is relatively inexpensive and readily available, the incentive to drive alone remains. And if no preferential parking treatment is provided for carpools, in the form of lower prices or reserved spaces closer to offices and stores, sharing rides becomes a much less competitive transportation alternative.

### Land Use Needs and Challenges

Many areas of the country are experiencing traffic problems that stem from low density development. Milwaukee and Southeast Wisconsin have also experienced this type of development and its undesired affects on traffic:

- > One-third or more of the housing units added between 1970 and 1989 in three of the seven counties in the region (Walworth, Washington and Waukesha) were served by septic systems. This type of development is always very low density. Therefore, it cannot be served efficiently by transit and carpooling — resulting in increased automobile travel.



Dean Tredt, WisDNR, photo

- > Large-scale retail and office development is occurring in areas slated for residential or industrial development in land use plans. Retail and office uses generate much more traffic than residential and industrial uses. As a result, they create congestion and contribute to the demand for an expanded highway system.
- > Milwaukee and Southeast Wisconsin will face stricter requirements to reduce emissions under the

federal Clean Air Act Amendments of 1990. Transportation contributes almost 60% of the emissions that cause ozone pollution on hot days. Finding ways to reduce auto emissions without reducing people's ability to travel will be a challenge. Part of the solution may lie in changing development patterns to accommodate a wider and more efficient range of transportation options.

- > Typical suburban development occurs at low densities — with buildings set far back from the street, and often without sidewalks. Such development cannot be served by transit and is not easily reached on foot. This results in more and longer trips exclusively by car.
- > Most local zoning codes now prohibit using the same area for both commercial and residential purposes. This prevents mixed use development that could bring jobs, housing and shopping closer together.

## Summary

*Milwaukee and Southeast Wisconsin can minimize the need for costly highway expansions, and can improve the ability of its businesses and residents to travel, through aggressive implementation of higher density land use plans. The result: Development that can be served by transit or on foot, as well as by auto. Improved land use planning and development will more closely coordinate and identify the impacts of transportation and land use decisions, without compromising individual choice, economic growth, or local government jurisdiction.*

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## **Metro 2020 Recommendations**

Metro 2020 endorsed a series of five strategies for improving land use and development guidance in Milwaukee and Southeast Wisconsin. These strategies will be initiated during the next six years, and continued through 2020.

### *Land Use Policies and Programs*

- > **1) For development served by septic systems (common to newer communities in formerly rural areas), the state should create oversight rules similar to those governing more established areas. This would help control “sprawling development.”**
  
- > **2) A statewide task force should be developed to study land use policies. This would identify development patterns that bring jobs, housing, shopping and recreation closer together; and that can be served by transit, carpooling and walking.**

**The Policy Board endorsed a proposed study by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) that identifies ways in which the adopted regional land use plan can be better implemented. This could be a component of a similar study of statewide land use issues, or could serve as a resource for the statewide land use task force as it focuses its attentions on Milwaukee and Southeast Wisconsin.**





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- > **3) The state should adopt legislation that requires a standardized and thorough analysis of the transportation impacts of major development before it occurs.**
  - > **4) Land use strategies that reduce traffic congestion and improve air quality should be studied. Any such strategies should be included in the statewide air quality plan if they are promising.**
  - > **5) Resources and materials should be devoted to region-wide educational efforts that explain the relationship between land use and transportation. These materials include:**
    - \*Printed information and instructional videos;**
    - \*Outreach efforts by state and local agencies to help areas review the impacts of development;**
    - \*Development and design guidelines that demonstrate how new development can be served by a wider range of transportation alternatives; and**
    - \*Technical assistance provided to local governments as they re-draft zoning laws to more closely coordinate transportation and development decisions.**

### **Intended Result**

The effects of changes in land use are proportional to the rate at which development occurs. As a newly developed or redeveloped area increases in size, so does its effect on congestion and air quality.

Higher density and “mixed use” development (bringing jobs and housing closer together) will reduce the need to travel exclusively by auto. This in turn will relieve congestion, reduce the need for highway expansions, and improve air quality. A wider range of transportation alternatives, such as transit, carpooling and walking, will also become possible.

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## Regional Transit System

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### Overview

Many people think of transit as 40-foot buses in cities. In the future, however, the definition of transit must be expanded to include a variety of ways of moving large numbers of people efficiently. This includes urban buses, rail transit, car- and vanpooling, and van-ride or mini-bus shuttle services operated through the private sector.

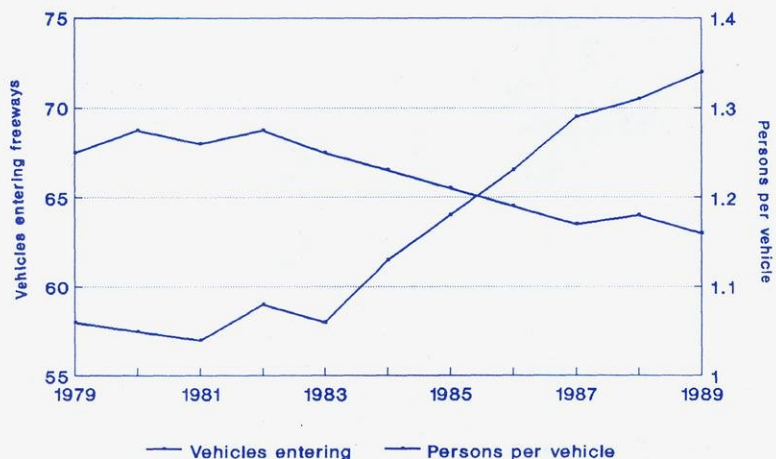
Metro 2020 endorsed the creation of a new regional public transit system that includes both bus and rail components, and that coordinates service across local jurisdictional boundaries. The Policy Board also endorsed preservation and expansion of the existing local transit systems.

### Regional Transit Needs and Challenges

Public transit can play a valuable role in contributing to the efficiency of the overall transportation system in southeastern Wisconsin.

The benefits of public transit are particularly evident in urban areas. By moving more people from their cars to bus or rail systems, there is an opportunity to reduce the number of cars on the region's highways and roads by increasing the number of passengers per vehicle. An additional opportunity exists to improve air quality by relieving the traffic congestion that is a major source of air pollution.

Peak hour travel on Milwaukee freeways rapidly increases while vehicle occupancy goes down



According to the Southeastern Wisconsin Regional Planning Commission (SEWRPC), bus ridership on the freeway system in Milwaukee County during peak hours, for example, is equivalent to automobile ridership filling an entire lane of traffic. Through an improved and expanded regional public transit system, vehicle miles of travel on freeways in the region could be reduced by 11 percent (compared to forecasted increases) over 10 years — a significant improvement.

Improved and expanded transit service in urban areas can also reduce the need for land acquisitions needed for highway or parking expansions. This can be particularly important in central business districts of downtown areas, where land is costly.

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Use of transit also presents potential financial benefits for riders. According to the American Public Transit Association (APTA), the average person can save \$2,000 in commuting costs per year simply by carpooling.

Public transit is critical to providing mobility for many people in the region without consistent or convenient access to automobiles. For the elderly and disabled, and for those who are either unable or choose not to drive their own cars, transit provides an essential transportation alternative.

Still, transit ridership today is well below its historic levels throughout the region. In 1989, urban bus miles traveled totaled 20 million — 2% lower than in 1972. While the cost of operating an automobile has risen by 40% since 1980, transit fares have increased by 100%. On a typical day, park and ride lots served by public transit in the region were used at just less than half their capacity.

Clearly, there is a need to provide transit services that will bring people from their cars into more efficient modes of travel, especially during “rush hour” periods. One problem, as noted in the Executive Summary of this report, is that traditional transit services are often very difficult to provide in growing suburban areas where development occurs in a scattered low density fashion, generating a lower number of riders per mile.

As a result, Metro 2020 endorsed ways to provide convenient transit service, at increased levels, that would be available to more areas of the region and provide an attractive alternative to driving alone.

### Summary

*To realize the potential congestion-relief and air quality benefits of public transit, more attractive and convenient services will need to be developed and supported through the creation of a new regional transit system that extends services across local jurisdictional lines. Additionally, transit must encourage increased ridership through improved land use and development decisions that make service feasible in more parts of the region.*



# METRO 2020 POTENTIAL REGIONAL TRANSIT SYSTEM



## LEGEND

- CENTRAL LRT SYSTEM ALTERNATIVE
- POTENTIAL TRANSIT EXPANSION (EXPRESS BUS OR LRT)
- EXISTING COMMUTER RAIL
- POTENTIAL COMMUTER RAIL
- EXISTING AMTRAK

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## Metro 2020 Recommendations

### *Light Rail Transit*

Light rail transit (LRT) is a high-tech urban rail system. Light rail is an attractive, modern transit system that could generate increased overall ridership and reduce traffic congestion on the freeway system.

In November 1990, BRW consultants presented a study to Metro 2020 on the feasibility of light rail transit in Milwaukee and Southeast Wisconsin. BRW concluded that, based on cost and ridership estimates, light rail is feasible in certain travel corridors of the region.

### LIGHT RAIL TRANSIT SYSTEM



### *Policies and Programs*

- > **Build a central light rail transit system from UW - Milwaukee, to downtown Milwaukee and the Amtrak Station, to the Milwaukee County Grounds, with a line to the North Avenue area.**
- > **Continue intensive studies to determine appropriate extensions of the central LRT system, particularly a western terminus which could extend into Waukesha County.**
- > **Study the feasibility of light rail lines in other areas, including the south line to the Mitchell Airport/MATC area, based on cost and ridership estimates.**
- > **Perform planning, engineering and construction of additional light rail lines where determined feasible by cost and ridership estimates.**

### *Passenger Rail*

Several forms of passenger rail service could be feasible throughout the region. An advantage of passenger rail is that it provides fast service with limited stops for commuters making longer trips.

Included are commuter rail (passenger rail service with limited stops), upgraded Amtrak service, and Amtrak service operating at high speed rail standards (125 m.p.h. or more).

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Commuter rail could prove to be an attractive option in several corridors throughout the region, particularly between Milwaukee and Chicago, and between Milwaukee and Oconomowoc. Studies will be performed to determine what form of passenger rail service — if any — would be feasible in several corridors.

#### *Policies and Programs*

- > **Conduct a series of intensive studies on passenger rail service in the Milwaukee-Racine-Kenosha-Chicago corridor. Studies will consider the relationship between available alternatives.**
- > Develop and implement a specific passenger rail service strategy for the above corridor, based on study results.



#### *Urban Bus Systems*

Local bus systems account for 52.8 million passenger trips — or 3 to 15% of total travel volumes depending on the area served — each year. Metro 2020 considered ways to improve service and ridership through expanded local service and the addition of “express” routes with limited stops.

#### *Policies and Programs*

- > **Continue current levels of urban bus service.**
- > **Develop an additional express bus route, to be determined by Milwaukee County Transit, the Southeastern Wisconsin Regional Planning Commission, and a future Regional Transportation Authority.**
- > Identify future additional express bus routes in travel corridors where light rail is not feasible. Express bus service could then be linked to future LRT lines in order to provide coordinated rapid transit service to more areas.
- > Eventually expand local bus service by 50% (or as determined by need) over current levels, and increase bus-on-freeway service, to provide more frequent and convenient services to more communities throughout the region.

### **Intended Result**

An expanded and improved transit system, combined with improved land use strategies that make transit feasible, could provide a range of transportation alternatives to more areas of the region. This could encourage higher levels of transit ridership, slow the growth in vehicle travel, reduce congestion, and improve air quality, without compromising mobility.

# Urban Freeways

## Overview

This policy area addresses freeways — such as I-43 and I-94 — in the Milwaukee Urbanized Area. In general, freeways are all major routes with “controlled access,” requiring motorists to enter them via ramps. Urban freeways are the major carrier of travel in Milwaukee.

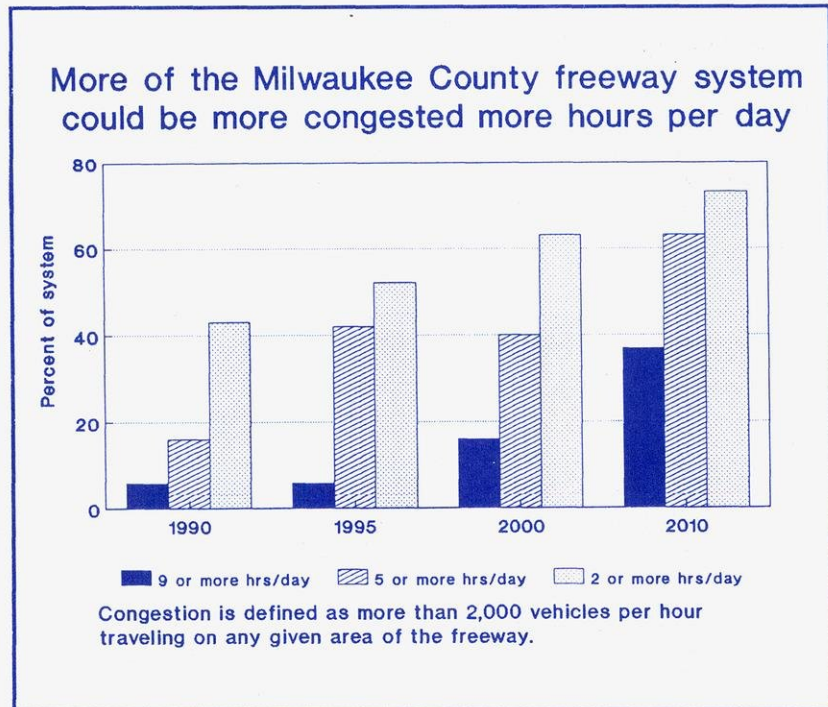
## Urban Freeway Needs and Challenges

Since 1971, overall roadway travel throughout the region has increased by 53%, from just over 20 million vehicle miles per day to nearly 31 million vehicle miles per day in 1990. This places tremendous pressure on urban systems, with 900,000 vehicles entering the freeway system in Milwaukee County alone on an average workday.

While these freeways still provide businesses and residents with relatively easy movement compared to other major metropolitan areas around the nation, congestion is becoming more of a challenge throughout the region. The typical rush “minute” now lasts significantly longer. Within just ten years, 40% of the freeway system in Milwaukee County could experience congestion for more than five hours per day — a significant threat to the region’s competitiveness, air quality, and quality of life.

One solution involves ways of making the existing system more efficient — or capable of moving more people and goods without adding additional lanes. Currently, the average vehicle on the freeway system in Milwaukee County carries 1.1 persons. Simply, if more people traveled in each vehicle — via transit or carpooling alternatives — congestion would be significantly reduced. Additionally, congestion often worsens when motorists are unaware of accidents or stalled vehicles and could have been directed to other routes.

A variety of policies were explored by the Policy Board to both increase the number of people riding in each vehicle and improve the flow of traffic. This includes a computerized Freeway Traffic Management (FTM) system, which identifies stalled cars and crashes, controls the rate of vehicles entering the freeway, and routes motorists away from congestion.



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An additional solution to urban freeway challenges, without adding new lanes, is to improve certain "trouble spots." One example involves freeway interchanges, particularly along I-94 west. These interchanges have older designs that create "bottlenecks" with exit-only lanes and left-hand entrance and exit ramps that impede the flow of traffic. Improved design and reconstruction would enable much easier movement of traffic through these interchanges, alleviating a major source of congestion.



In one location, however, no feasible ways exist to make the freeway system more efficient without adding capacity before congestion becomes a serious problem: Interstate 43 north of the Silver Spring Interchange and Bender Road in Milwaukee County. This four-lane route is currently carrying traffic volumes that are already 60% above its intended capacity, and could become the most congested route in Milwaukee in the next five years. Adding a lane in each direction would increase the capacity of this route by 33%, and greatly help reduce congestion, without requiring significant new right-of-way.

## Summary

*During the next six years, Metro 2020 has not recommended the general expansion of urban freeways, with the exception of I-43 north of the Silver Spring Interchange. Instead, the immediate emphasis is turned toward making the existing system more efficient, relieving traffic congestion during rush hour periods, and improving traffic flow without adding new lanes.*



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## Metro 2020 Recommendations

### *Urban Freeway Policies and Programs*

- > **Implement Freeway Traffic Management (FTM) in the Milwaukee Urbanized Area.** This could encourage transit and carpooling use, and increase peak hour travel speeds by 10 miles per hour due to reduced congestion and improved traffic flow.
- > **Modernize selected interchanges along I-94 in Milwaukee through redesign and reconstruction.** Included are the Zoo, Stadium and Marquette interchanges, with others modernized as needed in the future.
- > **Expand I-43 from four to six lanes between Bender Road and Brown Deer Road in Milwaukee County.**
- > **Develop and promote transportation alternatives other than driving alone.** This includes sharing rides, using transit, or walking or biking when possible.



- > **Encourage developers and local governments to design and construct development that makes a wider range of transportation alternatives, beyond car and freeway use, more convenient and attractive.**
- > **Expand I-43 north of Brown Deer Road to Mequon Road, after the year 2000, if traffic levels warrant.**

### **Intended Result**

By making the urban freeway system more efficient, and by constructing additional new freeway lanes only where needed, these routes will experience reduced congestion and maintain their role as effective carriers of a majority of travel in the Milwaukee Urbanized Area, without encouraging major travel growth. This is essential to the competitive ability of Milwaukee area businesses and the quality of life of area residents.

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## Regional Freeways

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### Overview

Regional freeways are Interstates and other major routes with controlled (or ramp) access between large cities in the region, including I-94 south to Racine and Kenosha and west to Waukesha; and I-43 north and US 41/45 northwest of Milwaukee. These routes are critical for commercial traffic, commuters, and other persons travelling through the region for business or recreational reasons.

### Regional Freeways Needs and Challenges

These regional freeways, in locations near the edge of urbanized areas, have become popular development sites. Local traffic generated by this development, combined with traffic associated with longer trips through the region, is creating increased automobile and truck traffic levels. As a result, these routes, though still providing a highly-efficient form of travel through the region, are now experiencing increased congestion and lower traveling speeds.

These routes play a critical role for interstate commerce, business travelers, and tourism for the region. For this reason, they must continue to operate with a relative lack of congestion, in order to provide timely and competitive travel. This is especially important in the corridor from Milwaukee-Racine-Kenosha-Chicago, which is now one of the busiest in the nation and is attracting increased economic development from Chicago.

As with all surface transportation networks throughout the region, Metro 2020 emphasized a policy that encourages the use of transportation alternatives to the single-occupant automobile, such as transit and carpooling. This enables the freeway system to carry more people in fewer vehicles, thereby increasing its efficiency.

For some regional freeway users, however, these transportation alternatives are not currently feasible. These routes are primarily designed to carry trips between major urban centers in the region. While rail and bus service exists in some areas for this purpose, business shippers and commuters often find that car or truck travel provides the most accessible and direct link to their destination. And low density development and changing travel patterns often make transit and carpooling difficult.

This results in greater reliance on auto and freeway travel for trips throughout the region. In response, Metro 2020 endorsed ways to slow the growth of vehicle travel through policies that encourage the use of transportation alternatives to the single-occupant automobile (and complementary land use policies), and the use of non-freeway routes for shorter trips when possible.

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A major emphasis of Metro 2020 has focused on making the regional freeway system more efficient, without necessarily increasing its size. But expansion may be essential for certain segments of regional freeways if transit and more focused land use and development policies prove less effective. Adding lanes on I-94 in Kenosha and Racine Counties, for example, could improve the freeway's ability to carry traffic by as much as one-third, helping to reduce congestion.

## Summary

*Metro 2020 endorsed the possible future addition of new lanes to regional freeways. However, efforts to reduce congestion and make the existing freeways more efficient are given first priority.*

## Metro 2020 Recommendations

### *Regional Freeway Policies and Programs*

- > **Emphasize policies to promote development patterns that result in shorter trips, and that can be served by transit and carpooling.**
- > **Promote commuter rail, light rail, express bus and carpooling where it is planned or available as an option to driving alone.**
- > **Continue increased Amtrak service at six round trips daily between Milwaukee and Chicago, and study further increases in service.**
- > **Design improved interchanges and frontage roads to accommodate future new lanes along I-94 south to Racine and Kenosha and along I-94 west between State Highways 16 and 67.**
- > **Expand I-94 south in Racine and Kenosha Counties to eight lanes when traffic warrants.**
- > **Expand I-94 west between State Highways 16 and 67 to six lanes when traffic warrants.**
- > **Encourage freight to move by rail, taking more trucks off the Interstate.**

## Intended Result

Efforts to make regional freeways more efficient, and expanded where necessary, will allow businesses to move goods and services through the region more efficiently, will accommodate increased economic growth from Chicago, and will enable efficient travel between major urban centers.

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## Principal Highways and Roads

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### Overview

These primary urban and suburban routes, such as Bluemound Road in Milwaukee and Waukesha Counties, are among the most heavily-traveled, and provide high-quality arterial service, throughout the region.

### Principal Highways/Roads Needs and Challenges

These routes play a critical role in attracting commercial and office park development, and in providing a fast and efficient alternative to freeway travel for shorter trips and suburb-to-suburb commutes. Unlike freeways, they do not have fully controlled or ramp access, and therefore will have signalized intersections and provide direct access to development.

Currently, principal highways and roads are becoming the most congested in the region outside of the freeway system, and are experiencing slower travel speeds. This is due to changing travel patterns which have resulted in more commuting between suburbs, and increasing traffic volumes generated by widespread development not easily served by public transit.

As communities continue to grow and travel patterns shift, motorists seek the most direct path from their origin to their destination. Sometimes, these new travel patterns can result in unanticipated demand and traffic volumes that can only be accommodated by improving highway and road facilities in affected corridors. One example of this kind of improved highway corridor is seen along a route from Washington County to Waukesha to Racine County.



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In smaller urban areas, traffic traveling through downtown areas to link with nearby Interstate and state highways is also experiencing significant congestion on principal highways and roads. This can affect the attractiveness of businesses in urban areas, along with the quality of life for both area residents and through travelers. In some cases, highway bypasses that carry regional traffic around smaller urban areas could provide a solution.

Overall principal highway and road needs were identified through the Wisconsin Department of Transportation's Urban Mobility Study in 1989. This effort, performed jointly with the participation of local government officials, planners and business leaders, focused on all communities larger than 5,000 people throughout the entire state. This study, which included communities in southeastern Wisconsin, attempted to incorporate local and regional plans into a single evaluation of arterial rehabilitation and expansion needs to support future economic growth in each area.

### **Summary**

*Metro 2020 endorsed a comprehensive program of improving and expanding the most important principal urban and suburban highways and roads in the region. This would occur through preservation and reconstruction, the addition of new lanes to existing routes, and the construction of some selected new routes when and where the need has been identified.*

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## Metro 2020 Recommendations

### *Principal Highways/Roads Policies and Programs*

- > **Promote land use and development policies that encourage increased availability and use of transportation alternatives to the extensive use of single-occupant cars, and that make the existing system more efficient. These alternatives include using transit, taking shorter trips, sharing rides, and walking when possible.**
- > **Selectively expand and improve 144 miles of principal routes by 1997. Project selection of these routes is based on state, local and regional studies.**
- > **Begin planning and design work, and initial construction, to improve a corridor from US 41 in Washington County, south to Waukesha, then south and east toward I-94 in Racine County along County "J", State Highway 164, County "K" and State Highway 20.**
- > **Continue planning and design work for, and construct, a West Waukesha highway bypass, to extend from I-94 to Highway 59.**
- > **Build the Lake Arterial from the Hoan Bridge to Layton Avenue in Milwaukee County, and in Racine County.**
- > **Replace the Sixth Street viaduct in Milwaukee.**
- > Continue advanced planning for other highway bypasses in the region, including Oconomowoc and Burlington.
- > Selectively improve and expand an estimated additional 183 miles of the region's most important urban and suburban highways and roads by 2010.
- > Identify and provide other urban bypasses as needed throughout the region.
- > Complete improvements on the western corridor from Washington County to Waukesha to Racine.
- > Complete construction of the Lake Arterial.

### **Intended Result**

Efforts to expand and improve principal urban and suburban highways and roads in the region will be undertaken on a selective and limited basis. Additionally, such efforts will be combined with aggressive land use and development policies to encourage the availability and use of transportation alternatives such as public transit, and to slow the rate of travel growth.

Together, this mix of solutions will respond to increasing travel demand, and changing travel patterns, throughout the region. This will enable the efficient movement of businesses and residents, without choking urban business districts with congestion or creating added stress on the freeway for shorter trips.

# METRO 2020 POTENTIAL ARTERIAL EXPANSION

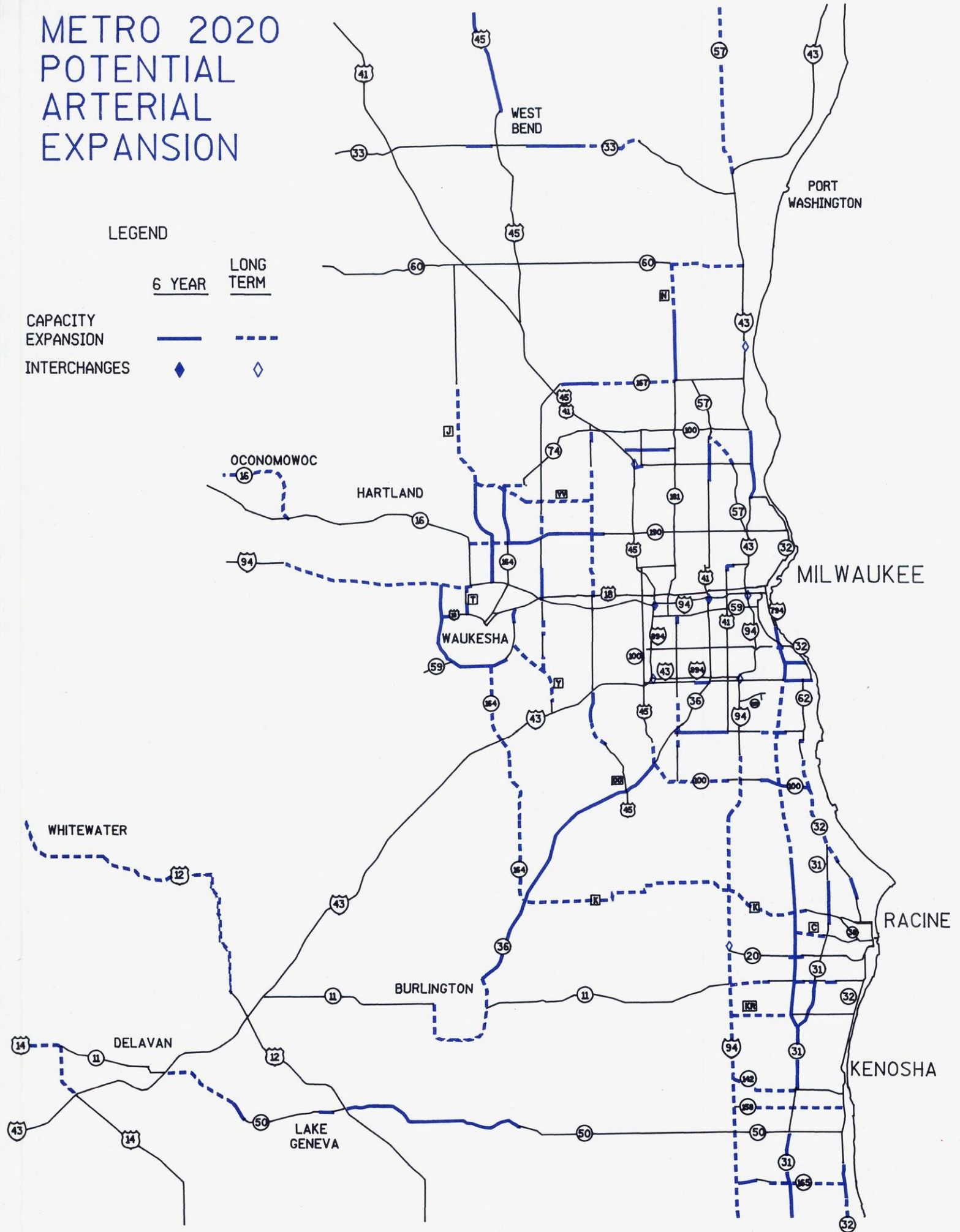
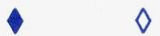
## LEGEND

6 YEAR      LONG TERM

CAPACITY EXPANSION



INTERCHANGES



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## County and Municipal Arterials

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### Overview

This policy area addresses the next level of arterials beyond principal urban and suburban routes. Included are nearly 2,600 miles of major county trunk highways and primary municipal streets designed to carry non-local travel throughout the region. Examples include National and Cleveland Avenues in Waukesha County, Hampton Avenue in Milwaukee County, Port Washington Road in Ozaukee County, and 22nd Avenue in Kenosha County.

### County and Municipal Arterial Needs and Challenges

County and municipal arterials, together with the principal routes, provide the arterial system required to move traffic within and through the region. If these local routes become neglected or inefficient, however, more traffic will use major freeways and other routes, resulting in widespread congestion. As with principal urban and suburban highways and roads, county and municipal arterials also provide development with access to the regional transportation network.

In their role of carrying non-local travel through the region, county and municipal arterials are experiencing increasing traffic volumes, and the threat of increasing congestion, similar to the overall surface

transportation system. Particularly with county highways, these routes often serve developments currently with limited or often no transit service where automobile travel is the only feasible transportation alternative. Efforts to encourage carpooling or development policies that make future transit service possible are important, and expansion and improvement efforts are also essential if county and municipal arterials are to remain effective. In undertaking expansion and

improvement, however, project design and future development patterns must encourage increased use of transit and other travel alternatives, in order to minimize the need for additional future expansions.





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County and local governments maintain exclusive jurisdiction over these routes, which must be taken into consideration in undertaking any coordinated improvement efforts. Expanding a street in one community may improve traffic flow on a major highway connecting various parts of the region, for example. But local revenue concerns, or the lack of coordinated programming between state, regional and local agencies, may present a challenge to initiating and completing corridor projects.

## Summary

*An effective system of county and municipal arterials must be maintained through coordinated activities among state and regional agencies and local governments with jurisdiction over these routes. Without these efforts, congestion could become more widespread on all routes throughout the region as businesses and residents rely increasingly on major freeways.*

## Metro 2020 Recommendations

### *County and Municipal Arterial Policies and Programs*

- > **Promote land use/development policies and travel demand management efforts that provide feasible travel alternatives to the extensive use of single-passenger autos on these routes. Such alternatives include using transit, taking shorter trips, sharing rides, and walking when possible.**  
  
**This will minimize travel growth, reduce congestion (and therefore the need for expansion), and increase the efficiency of the existing system.**
- > **Encourage an active program of improving the system of county and municipal arterial routes as needed throughout the region. Projects would be selected based on traffic volumes, congestion levels, and public support.**
- > **Work on a regional basis to develop a wider range of funding sources for county and municipal arterial improvement projects. This includes maximization of available federal aids, new state funding for improvements to these systems, and identification of dedicated non-property tax resources at the local level.**
- > **Encourage close cooperation between state government, a new Regional Transportation Authority, and local governments in planning and funding needed improvements on county and municipal routes.**

## Intended Result

- > **Comprehensive efforts to selectively expand and improve county and municipal routes, and to make them more efficient through land use and travel demand management policies, will preserve their role in providing essential alternatives to freeway travel for shorter trips and enhancing economic development throughout the region.**

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## Air Travel

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### Overview

In its deliberations, the Policy Board focused on General Mitchell International Airport (GMIA) in Milwaukee as the primary air travel facility in the region. Mitchell currently offers non-stop service to 41 cities in the U.S. and Canada, and in 1989 was designated as an official supplemental airport to Chicago's O'Hare Field.

### Air Travel Needs and Challenges

The Policy Board also studied the important general aviation system in the region, and found both the system components and ongoing funding levels to be adequate. Airports in addition to GMIA, including but not limited to Kenosha, Racine, Waukesha and West Bend, play a critical role in providing increased accessibility for business and recreational activity in the region.

Metro 2020 expressed significant support for the investment levels required to ensure that all airports in the region are maintained as modern, competitive facilities.

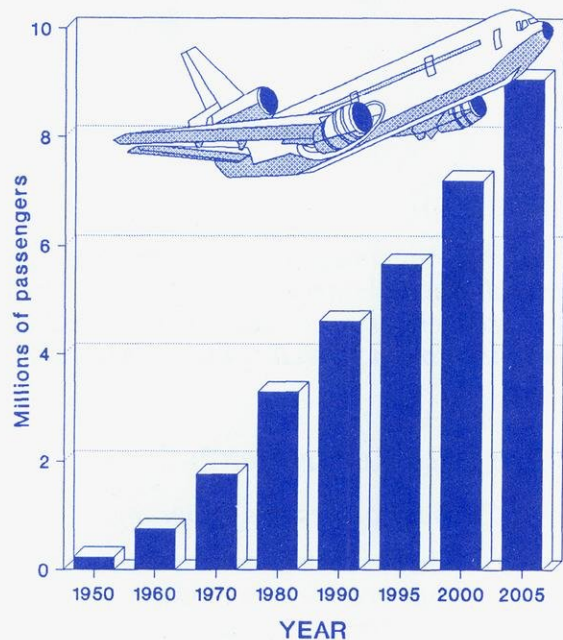
In order to retain existing businesses, and to attract new businesses to the region, frequent non-stop airline service to national and worldwide destinations is essential. Business is dependent on getting sales, technical, and administrative employees quickly to customers and other plants and offices in a variety of locations. And in a competitive economy, shippers require "Just-in-Time" and overnight air service that the region's airports must consistently provide.

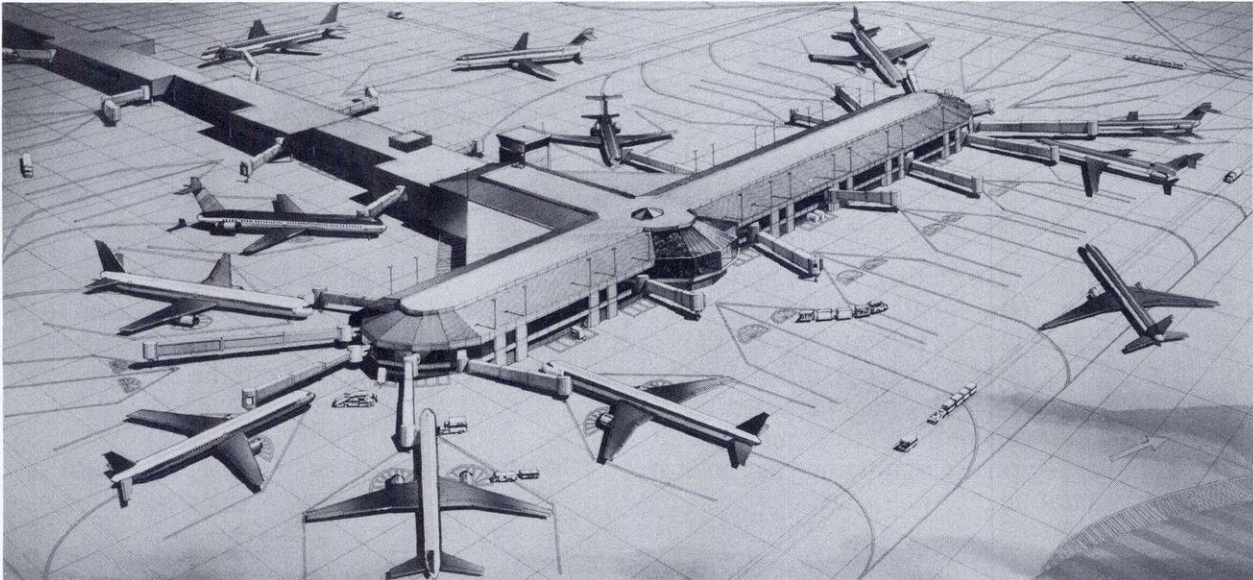
Airline service also plays an important role in attracting tourists to Milwaukee and Southeast Wisconsin — a significant source of revenue for the region.

The most promising strategy for increasing the number and frequency of non-stop flights is to promote increased hubbing operations at Mitchell. Hubbing is common at Chicago O'Hare and Detroit Metro airports in the Midwest, where airlines' planes take-off and land in a timed window to transfer passengers from many diverse key cities. This type of operation requires a large capacity at the airport as measured by take-offs and landings per hour.

Because hubbing concentrates so much activity into short periods of time, airport capacity becomes a key consideration in airlines' decisions concerning the expansion and location of their hubs. Mitchell currently operates at 75-85% of capacity every weekday morning peak period, and is now the central hub of Midwest Express Airlines.

Mitchell International passenger activity expected to take off





Concourse D expansion at GMIA -- heike/design assoc., inc.

## Summary

*In order to remain competitive with other large metropolitan areas in the midwest and nation, General Mitchell International Airport must have sufficient capacity to offer frequent air service for passengers and freight to an increased number of destinations. This complements surface transportation in providing businesses with valuable links to regional, national and world markets.*

## Metro 2020 Recommendations

### *Air Travel Policies and Programs*

- > **Support the current master planning process that lays out a number of options for expanding capacity at Mitchell. This process involves city, county, business and community leaders who represent constituencies affected by any airport improvements that may occur.**
- > **Support Milwaukee County's continuing efforts to provide adequate airport capacity and the best airline service possible.**

## Intended Result

With improved and expanded airline service — and especially with increased hubbing operations — businesses and residents would have faster, more efficient, and more direct connections to destinations throughout the world. This would promote both the business climate and quality of life in Milwaukee and Southeast Wisconsin.

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## Regional Transportation Authority

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### Overview

A Regional Transportation Authority (RTA) would serve as a public sector organization with responsibility for coordinating and implementing highway and transit programs and policies, and funding solutions, that address regional priorities.

### RTA Needs and Challenges

Milwaukee and Southeast Wisconsin enjoy a long tradition of cooperative transportation planning under the guidance of the Southeastern Wisconsin Regional Planning Commission (SEWRPC). This agency has conducted analyses of regional trends in terms of population, employment and travel volumes; and has engaged in detailed planning processes to identify regional transportation and land use needs by working with local governments.

In the future, cooperative transportation and land use planning will become even more essential. Today more than ever, transportation is becoming regional as opposed to local in scope, as travel factors such as increases in both suburb-to-suburb commuting and the numbers of two-income households change the ways in which people travel. Businesses and residents in all communities will need to utilize all modes of travel more effectively to prevent congestion and improve air quality.



Creating a more integrated, balanced transportation system is a major challenge. Initiating a process of programming transportation improvements which result in positive regional impacts can be difficult, requiring coordination between state, local and regional agencies. Several local units of government have jurisdiction over highways or transit systems with influence that extends well beyond their city or county limits. This coordination becomes even more important in providing revenues and focusing investments to fund transportation improvements, particularly at a time when increases in local property taxes are no longer realistic, and state and federal budgets are tight.

### Metro 2020 Recommendations

Building on the productive tradition of regional transportation planning already in place, Metro 2020 recommended that the Legislature create a Regional Transportation Authority (RTA) by statutory action in 1991.

An RTA would serve to coordinate and guide investments in the regional transportation system by effectively focusing financial resources on identified highway and transit priorities. This would involve coordinating federal and state transportation assistance with existing and new non-property tax sources of local revenues.

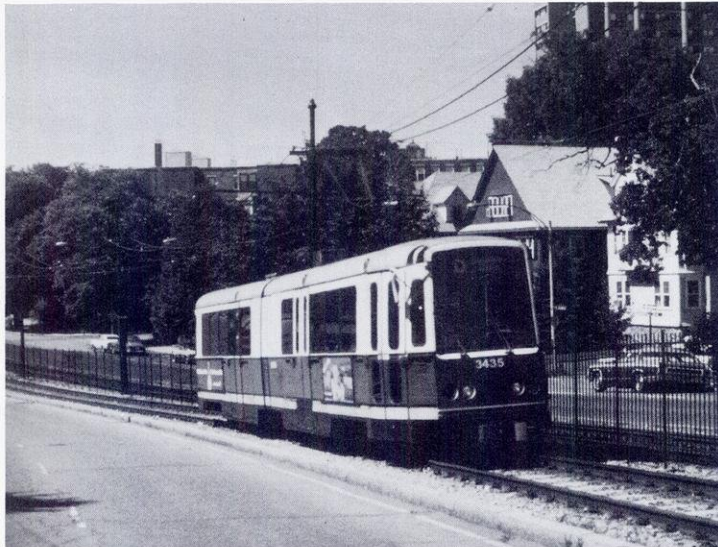
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An RTA Board would be broadly representative of the region, with at least one member appointed by the Governor from each of the seven counties in Southeast Wisconsin. The RTA would have specific highway and transit responsibilities, to be defined by the Legislature and phased-in as appropriate.

*Potential RTA Responsibilities*

- > **Manage the implementation studies for the central light rail system and other components of the regional transit system.**



- > **Study and recommend an appropriate role for the RTA in funding, building and operating regional transit systems, as well as in operating local transit.**

- > **Recommend a system that equitably provides new financial resources to local governments for highway improvements, and coordinates their programming.**

- > **Promote and coordinate travel demand management programs.**

- > Work with local governments to analyze revenue needs for regional transportation priorities, and identify sources through which they can be generated. At the local level, revenue sources other than the property tax would be identified.
- > Assume responsibility for management of the regional transit system, based on the outcome of studies for transit expansion and improvement.
- > Assume responsibility for coordination of phased-in improvements to highways and roads throughout the region.

### **Intended Result**

Creation of a Regional Transportation Authority would promote the identification of regional highway and transit priorities, as well as improve the ability of all units of government to work together in programming and funding a range of transportation projects to address those priorities.

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## Financing

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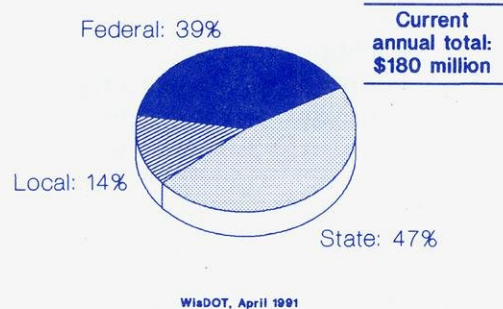
### Overview

In addressing financing issues, the Policy Board identified total investments now being made to rehabilitate, improve and expand the regional strategic highway system, and to preserve existing transit systems, in the region.

Currently, the combined public investment in funding for these strategic highway and public transit systems totals \$180 million each year. Of this, 39% is from federal sources, 47% from state revenues, and 14% from local sources.

The Policy Board recommended significant increases in total annual highway and transit investments to implement its overall recommendations.

### Overall transportation investments in southeastern Wisconsin



### Financing Needs and Challenges

Metro 2020 recognized that the current \$180 million annual funding level for highway and transit programs in southeastern Wisconsin is not sufficient to meet current and future needs.

In its consensus package, the Policy Board endorsed a comprehensive set of transportation strategies that responds to identified regional needs and calls for balanced increases in highway and transit program spending. This increase is to be pursued through a combination of federal, state and local revenues to finance transportation initiatives in southeastern Wisconsin. Successfully achieving the financing levels needed to implement the Policy Board's recommendations, however, will constitute a significant challenge, due to public budgetary constraints and certain recent trends in transportation funding.

The primary focus of attention will be at the federal level, where overall commitments to transportation funding declined dramatically during the 1980's. Today, the federal share of costs for highway programs nationwide has dropped to 22%, while its share of transit operating costs statewide is down to 10%. Meanwhile, federal aid to local governments in the form of secondary and urban highway apportionments is 33% below 1979 levels in terms of purchasing power.

In addition to the declining federal commitment to transportation funding, Wisconsin receives far less than its equitable share of federal dollars. During the past 35 years, Wisconsin has received back an average of 74 cents for each highway tax dollar sent to Washington. For transit, Wisconsin's return on its federal tax dollar has averaged 43 cents each year since 1983. A *top financing priority* should be to achieve a larger federal highway and transit program that includes funding equity for Wisconsin.

A major opportunity to achieve Wisconsin's federal funding goals will occur this year. By October 1, Congress must reauthorize the Surface Transportation Assistance Act of 1991, which will provide the basis for federal highway and transit funding for the next five years.

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At the state level, Wisconsin continues to be a strong partner with local governments in providing and financing transportation programs. Approximately 28% of Wisconsin's overall transportation budget is dedicated to programs in southeastern Wisconsin each year, while just over 29% of overall statewide transportation revenues are generated in the region. Included is a solid state commitment to transit programs, paying 38.5% of all operating costs for any transit system. Wisconsin now ranks 11th nationwide in its direct support for public transit on a per capita basis.

Identifying additional sources of transportation revenue at the state level, however, presents another significant challenge. Currently, Wisconsin is one of only two states in the nation that funds transportation programs almost entirely from "traditional" user fees — the motor fuel tax and vehicle registration fees. Many other states utilize a variety of other resources for transportation, and Wisconsin's narrow revenue base limits its range of options for financing programs statewide. Alternative solutions could include exploring new ways to finance transportation in Wisconsin, or increasing the current "traditional" user fee rates.

At the local level, transportation financing is facing a number of distinct challenges. The primary source of revenue used by local governments to fund transportation projects is usually the property tax. Currently, businesses and residents in many communities throughout southeastern Wisconsin are reluctant to accept further increases in local property tax levels for any purposes, despite the fact that dedicated revenue alternatives for transportation are often not in place at the local level.

Additionally, transportation improvements made in one community — with that community bearing the local share of costs — often provide critical benefits for a wider portion of the region. Despite this fact, there is currently no formal mechanism in place to raise revenues and target transportation investments toward local projects that address region-wide needs. As a result, the Policy Board recommended that the Legislature create a Regional Transportation Authority to identify new sources of local non-property tax revenues, and to develop a more coordinated investment strategy for the region in order to facilitate combined local participation in needed projects and programs.

## Summary

*As a result, Metro 2020 endorsed a three-part strategy for achieving the funding levels required to implement its transportation policy and program recommendations:*

- > Aggressively pursue the maximization of all available federal highway and transit funds;*
- > Support new sources of state revenues for transportation in the region; and*
- > Identify new sources of dedicated local non-property tax revenues.*

*Actual future policy decisions, to be made by chief executives and legislative bodies at the federal, state and local level, will determine how the total required funding needs for the Metro 2020 consensus package are provided, and from what combination of sources.*

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## **Metro 2020 Recommendations**

The Policy Board recommended an annual average increase of \$120 million over current funding levels for all highway and transit programs in the region. This program increase would be phased-in during the next six years, and would slightly favor transit programs overall.

The package outlined below represents the estimated revenues needed to fund the Policy Board's recommendations for implementation through 1997. Identifying specific project needs and revenue projections beyond the six-year period is both difficult and speculative.

### *Highway Policies and Programs Financing*

The Policy Board endorsed a highway and road financing package which totals \$984.6 million through 1997. The annual highway program average is \$50 million over current levels.

- > **System preservation — \$504 million**
- > **Principal highway and road expansions — \$326.8 million**
- > **County and municipal arterial expansions — \$72 million**
- > **I-43 north expansion — \$5 million**
- > **Freeway interchange modernization — \$51 million**
- > **Freeway traffic management — \$25.8 million**

### *Transit Policies and Programs Financing*

The Policy Board's endorsed transit financing package totals \$776.3 million through 1997. The annual transit program average is \$63.4 million over current levels, reflecting a balanced focus on priorities in several modes of transportation.

- > **System preservation — \$400.4 million**
- > **Central Light Rail Transit (LRT) system — \$332 million**
- > **Additional express bus service — \$33.9 million**
- > **Regional transit studies — \$5 million**
- > **Milwaukee-Racine-Kenosha-Chicago passenger rail studies — \$5 million**



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### *Additional Policies and Programs Financing*

This category includes \$40.3 million through 1997 for special policies and programs recommended for implementation by the Policy Board. No funding is currently allocated to these programs, as they are all new to the region. The yearly funding increase above current levels, therefore, is equal to the \$6.7 million annual program average for this category.

- > **Transportation improvements for the new Brewers Stadium — \$35 million**
- > **Creation of an Office of Travel Demand Management — \$3 million**
- > **Regional transportation studies — \$1.6 million**
- > **Land use and urban design initiatives — \$0.7 million**

### *Potential Sources of Additional Transportation Revenues*

The Policy Board's transportation recommendations will require an additional \$720 million over current funding levels for implementation during the next six years. Metro 2020 identified the following potential sources for achieving this revenue at the federal, state and local levels:

- > **Federal Funds — \$430 million**

- Expanded federal highway program; equitable Wisconsin share

- Expanded federal transit program; new formula capital program

- Discretionary transit capital grants

- Special Interstate Cost Estimate funding, for highway and transit projects

- > **State Funds — \$210 million**

- New state transportation revenue sources

- > **Local Matching Share — \$80 million**

- New local non-property tax resources

### **Intended Result**

Through the coordinated efforts of government and business leaders, needed additional revenues for transportation can be achieved at the federal, state and local level. This will enable the implementation of Metro 2020's regional transportation recommendations, and help to maintain Milwaukee and Southeast Wisconsin's competitive business climate and quality of life into the next century.

## Prospective Metro 2020 Financing Details

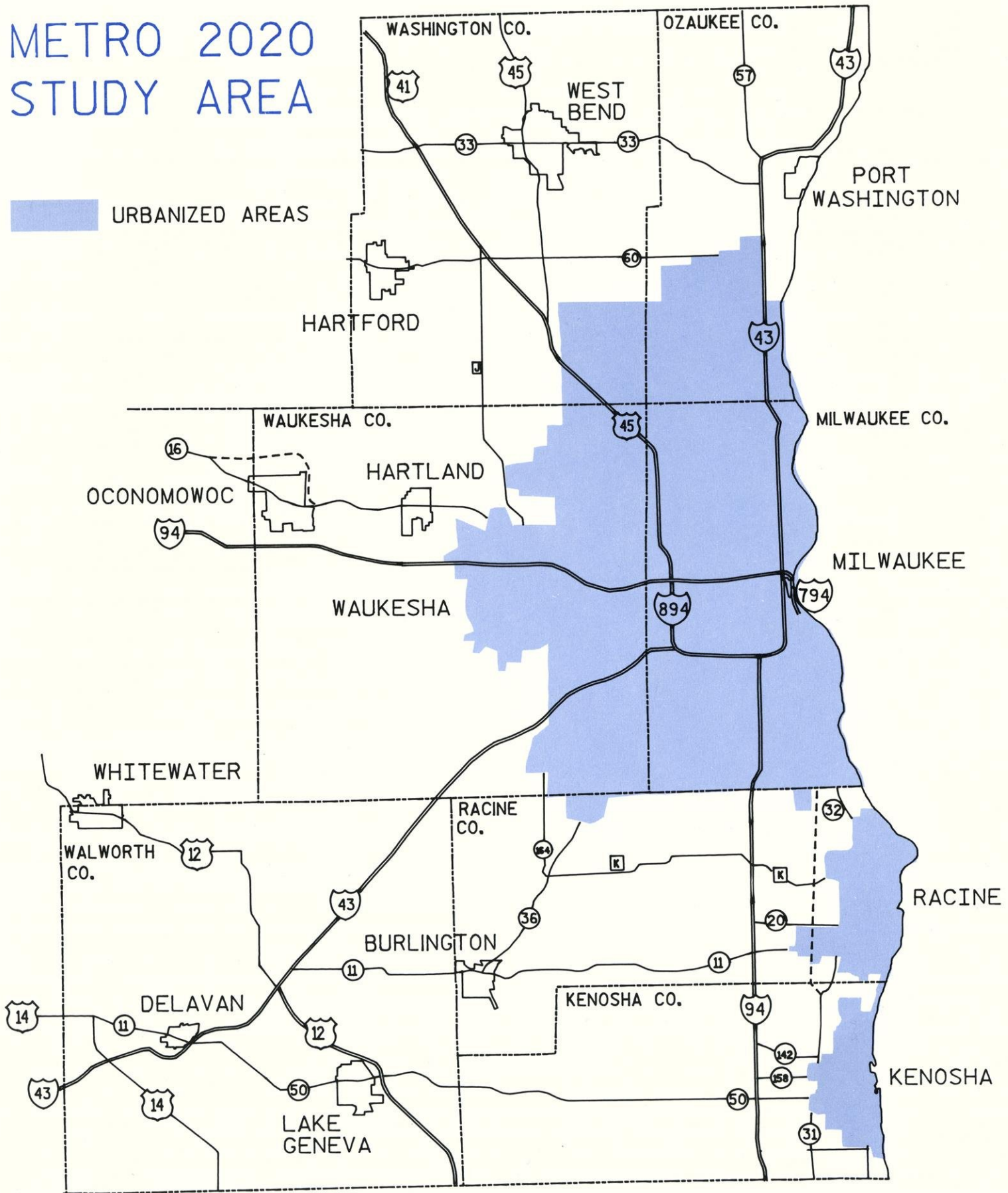
Preserve the Existing Transportation System	Two-Year: 1992-1993 (millions of 1990 dollars):	Four Years: 1994-1997 (millions of 1990 dollars):	Total Six Years (millions of 1990 dollars):
1. Preserve the Existing Public Transit System	\$132.0	\$264.0	\$396.0
2. Preserve the Existing Principal Arterial System	\$119.2	\$240.8	\$360.0
3. Preserve County and Municipal Arterials	\$40.0	\$104.0	\$144.0
4. Preserve Added Milwaukee-Chicago Amtrak Service	\$1.5	\$3.0	\$4.5
<b>TOTAL PRESERVATION</b>	<b>\$292.7</b>	<b>\$611.8</b>	<b>\$904.5</b>
Enhance Public Transportation	Two-Year: 1992-1993 (millions of 1990 dollars):	Four Years: 1994-1997 (millions of 1990 dollars):	Total Six Years (millions of 1990 dollars):
1. Light Rail Central System	\$8.0	\$324.0	\$332.0
2. Regional Transit Corridor Planning/Studies	\$2.0	\$3.0	\$5.0
3. Additional Express Bus Service	\$1.0	\$32.9	\$33.9
4. Milwaukee-Chicago Rail Systems	\$2.0	\$3.0	\$5.0
<b>TOTAL ENHANCE PUBLIC TRANSPORTATION</b>	<b>\$13.0</b>	<b>\$362.5</b>	<b>\$375.9</b>
Enhance the Highway System	Two-Year: 1992-1993 (millions of 1990 dollars):	Four Years: 1994-1997 (millions of 1990 dollars):	Total Six Years (millions of 1990 dollars):
1. Freeway Traffic Management	\$1.0	\$24.8	\$25.8
2. Modernize Interchanges	\$5.0	\$46.0	\$51.0
3. Add Lanes to I-43 North		\$5.0	\$5.0
4. Selectively Expand Congested Arterial Routes	\$70.6	\$256.2	\$326.8
5. Selectively Expand County and Municipal Arterials	\$8.0	\$64.0	\$72.0
<b>TOTAL ENHANCE HIGHWAY SYSTEM</b>	<b>\$84.6</b>	<b>\$396.0</b>	<b>\$480.6</b>

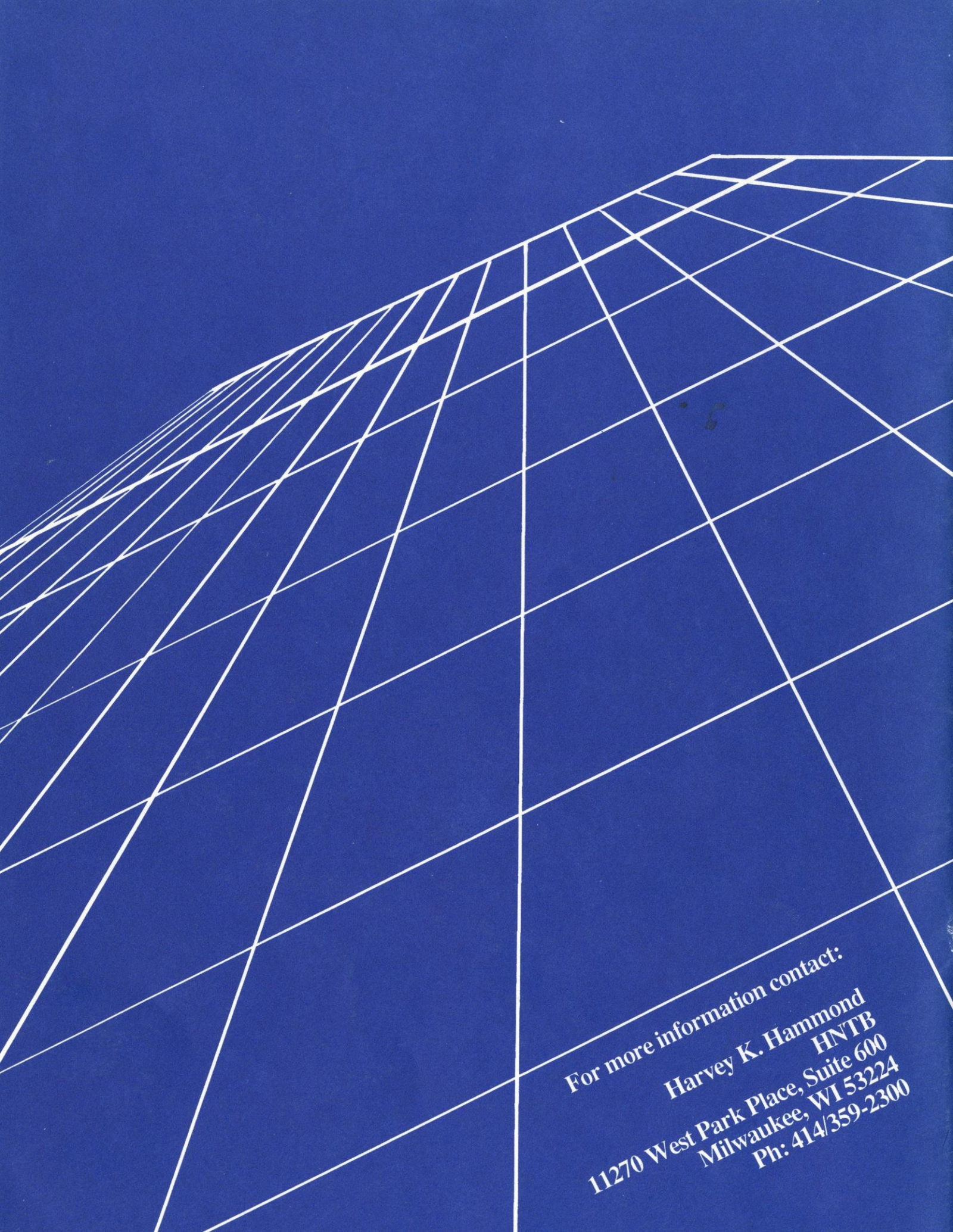
Special Metro 2020 Policy Concerns	Two-Year: 1992-1993 (millions of 1990 dollars):	Four Years: 1994-1997 (millions of 1990 dollars):	Total Six Years (millions of 1990 dollars):
1. Brewers Stadium	\$35.0		\$35.0
2. Land Use Guidance	\$0.3	\$0.4	\$0.7
3. Office of Demand Management	\$1.0	\$2.0	\$3.0
4. Studies and Surveys	\$1.6		\$1.6
<b>TOTAL SPECIAL POLICY CONCERNS</b>	<b>\$37.9</b>	<b>\$2.4</b>	<b>\$40.3</b>

	Two-Year: 1992-1993 (millions of 1990 dollars):	Four Years: 1994-1997 (millions of 1990 dollars):	Total Six Years (millions of 1990 dollars):
<b>TOTAL SIX-YEAR PROGRAM</b>	<b>\$428.2</b>	<b>\$1,371.1</b>	<b>\$1,799.3</b>
<b>Public Transportation Program</b>	<b>\$146.5</b>	<b>\$629.9</b>	<b>\$776.3</b>
• Annual Average	\$73.3	\$157.5	\$129.4
• Current Level	-\$66.0	-\$66.0	-\$66.0
• Program Increase	\$7.3	\$91.5	\$63.4
<b>Highways Program</b>	<b>\$243.8</b>	<b>\$740.8</b>	<b>\$984.6</b>
• Annual Average	\$121.9	\$185.2	\$164.1
• Current Level	-\$114.0	-\$114.0	-\$114.0
• Program Increase	\$7.9	\$71.2	\$50.1
<b>Other Metro 2020 Program</b>	<b>\$37.9</b>	<b>\$2.4</b>	<b>\$40.3</b>
• Annual Average	\$18.9	\$1.2	\$6.7
• Current Level	0	0	0
• Program Increase	\$18.9	\$1.2	\$6.7
<b>TOTAL ANNUAL PROGRAM INCREASE</b>	<b>\$34.1</b>	<b>\$163.9</b>	<b>\$120.2</b>

# METRO 2020 STUDY AREA

 URBANIZED AREAS





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