

## SUMMARY

# Regional Transportation Plan 2030

Madison Metropolitan Area & Dane County

### Introduction

Behind the idea of planning is the belief that we have the ability to choose the kind of future we will have. While no one can precisely predict the future, it is possible to use our best knowledge and our most effective tools to lay out a plan to produce the kind of region we desire.

Transportation planning has been underway in the Madison Metropolitan Area and Dane County since 1961. The first transportation plan, called the *Madison Area Transportation Study*, was adopted in 1970 and focused on the Madison Urban Area. Subsequent updates to the plan were completed in 1978, 1988, and 1997 to address emerging issues and trends affecting the transportation system. The last full update of the plan, called the *Dane County Land Use and Transportation Plan (Vision 2020)*, represents an overall system-level plan that serves as a guide for needed improvements to all modes of transportation which includes auto, truck, transit, rail, air, bicycle, and pedestrian. This plan was reaffirmed in 2000 with no changes.

While the plan is reviewed on a continuing basis, it is important that a re-evaluation occur to determine if the underlying assumptions, objectives, and policies are valid today as an adequate plan for the future. In addition, the current update of this plan is also in response to the requirements of existing federal rules that mandate that regional transportation plans for air quality attainment areas like Dane County be updated every five years.

### Purpose

The purpose of this document is to summarize the major goals, key features and concepts, and major recommendations contained in the *Regional Transportation Plan 2030 for the Madison Metropolitan Area and Dane County*. A discussion of existing transportation trends, conditions, and issues affecting the region is contained in the full plan.

### Overall Goal

The development of the year 2030 regional transportation plan for the Madison Metropolitan Area and Dane County was guided by the plan's following overall goal:

*Develop an integrated and balanced land use and transportation system which provides for the efficient, effective, and safe movement of people and goods, promotes the regional economy, supports transportation-efficient development patterns and the regional land use plan, and provides mode choice wherever possible while enhancing and, where relevant, preserving the character and livability of the neighborhoods and residential areas where transportation facilities are located.*



This goal recognizes that the basic role of a transportation system is the safe movement of people and products necessary to keep a community functioning. These demands influence not only the internal structure of the transportation system but also how the Madison Metropolitan Area and Dane County are linked to the rest of Wisconsin and the rest of the nation. It is important, therefore, to maintain mobility on key routes like the Interstate system for through-traffic to places throughout Wisconsin and beyond.

The goal also recognizes that mode choice options need to be provided to meet existing and future mobility needs. In addition, the goal recognizes the inter-relationship between land use development and the transportation system. The region's land use development pattern plays a critical role in determining the viability of mode choice options and the safety and efficiency of the transportation system. At the same time, transportation strategies and investments can support the regional land use plan, the preservation of neighborhoods, and minimize undesirable impacts from the transportation system on the environment.

## Key Features/Recommendations

The key features of the regional transportation plan are:

- Provide mode choice options (transit, bicycle, pedestrian, and arterial street and roadway facilities) in meeting existing and future travel needs, and in modifying plans to meet changing conditions.
- Continue to make the most efficient use of the existing transportation system by utilizing:
  - *Travel Demand Management (TDM) Strategies* such as carpools; vanpools; transit; alternate work hours; telecommuting; bicycling support; financial incentives; and parking management.
  - *Transportation System Management (TSM) Strategies* such as access management; intersection improvements; peak period curb-lane parking restrictions; operational improvements (traffic signal coordination, freeway ramp meters, high-occupancy-vehicle (HOV) lanes) and incident management (crashes, construction, special events).
  - *Intelligent Transportation Systems (ITS)* such as traveler information systems; emergency vehicle signal pre-emption; incident detection and response; and public transportation system technology (automatic vehicle location, automatic passenger counters, real time passenger information, electronic fare collection, transit security, and on-board vehicle condition sensors).
- Continue a Madison Metropolitan Area transit expansion emphasis, with ridership expected to increase 30-40% by 2030 by establishing high capacity, fixed-guideway transit service with complementary express bus and connecting local service in an East-West Transit Corridor (e.g. Transport 2020 Study Area). The expansion also assumes commuter transit service (bus or rail) to selected villages and cities outside of the Madison Urban Area and the improvement of downtown/UW campus area circulator service (bus or street-running rail (e.g. streetcar)) for residents, students, employees, and visitors. The plan envisions the eventual expansion of the fixed-guideway transit system to other corridors (e.g., south) with sufficient ridership potential and opportunities to help shape community development and redevelopment patterns.
- Continue to improve and expand upon the regional system of park-and-ride facilities to support ride sharing and transit.
- Continue to plan and provide for a continuous, interconnected roadway system that efficiently collects and distributes traffic within and through the region. (See Future Planned Roadway Functional Classification map.)
- Continue to accept somewhat higher congestion levels (Level of Service D) during the peak hours on streets and roadways before giving consideration to building new or expanded facilities.<sup>1</sup> (See the Appendices volume of the plan for Level of Service examples.) Congestion growth is monitored and traffic management solutions (TDM, TSM, and ITS) will be tried prior to any consideration of expansion. If, following these efforts, congestion continues to grow and have negative impacts on surrounding neighborhoods, capacity enhancement options will be studied. Capacity enhancements may not be always possible or desirable due to negative impacts. (See map of Recommended Major Transportation Improvements and Studies.)
- Continue to seek preservation of future travel corridors for pedestrian and bicycle use, transit, and roadways. In some corridors, simultaneous uses may be possible.
- Continue to provide high quality paratransit service that meets or exceeds Americans with Disabilities Act standards for persons unable to utilize accessible fixed-route bus service.



<sup>1</sup> It is recognized that different standards of deficiency are used on certain arterial roadways like the Interstate and WisDOT's backbone system.

- Continue to provide and improve specialized transportation services (particularly outside the Metro service area) that provide basic mobility and allow persons to access essential services, and strive for increased funding and improved coordination of such services with Metro paratransit service.
- Maintain and reconstruct existing roadways and bridges in a manner that promotes safety, increases efficiency, and minimizes lifetime costs.
- Develop a continuous, interconnected bicycle way network providing reasonably direct, enjoyable, and safe routes between neighborhoods and communities throughout the region. (See map of Bicycle Way System Plan.)
- Develop a continuous, interconnected pedestrian facility network providing reasonable direct and safe routes within and between neighborhoods to destination points in all directions.
- Provide pedestrian and bicycle accommodations along and across all streets as part of new construction and reconstruction where feasible and appropriate in accordance with the U.S. DOT Policy on Integrating Bicycling and Walking into Transportation Infrastructure.
- Recognize limited financial resources available for use on the transportation system and continue to investigate alternative means to finance local, county, and regional transportation improvements and maintenance.
- Provide for the safe, efficient, and reliable movement of goods within and through the region by developing and expanding transportation facilities to accommodate freight movement and to meet the changing needs of the regional economy.
- Provide for the maintenance and construction of structured parking facilities as part of an integrated and balanced land use and transportation system. This includes promoting parking management strategies that encourage the use of alternative modes of transportation, while at the same time meeting user needs.

These features, which represent major policy areas in the transportation system, can be combined in ways to produce certain effects within the region that can also be described in a conceptual context.

## Key Concepts

### ***Growth Area and Activity Center Linkage***

The plan seeks to maintain mobility and accessibility options throughout the region. Figure 1 illustrates how the major employment/activity centers and cities/villages in the Madison Metro Area are interconnected by the present system of arterial and collector roadways, and how these centers and communities can be served with a potential rail and express bus system with park-and-ride lots. As the outlying cities and villages grow, rail service could be extended in the future.

### ***Balanced Transportation Concept***

The plan strives to increase use of travel alternatives to driving alone and minimize demand on the transportation system during peak travel periods. This is especially the case for work trips to central Madison and for school trips. This makes more efficient use of roadway capacity and provides mobility choices for those who wish to use other modes rather than an automobile or who do not have access to an automobile. This plan also recognizes that the majority of trips made within the region will still be made by automobile for shopping and business, and that modifications to the roadway system will be needed.

### ***Traffic Accommodation Concept***

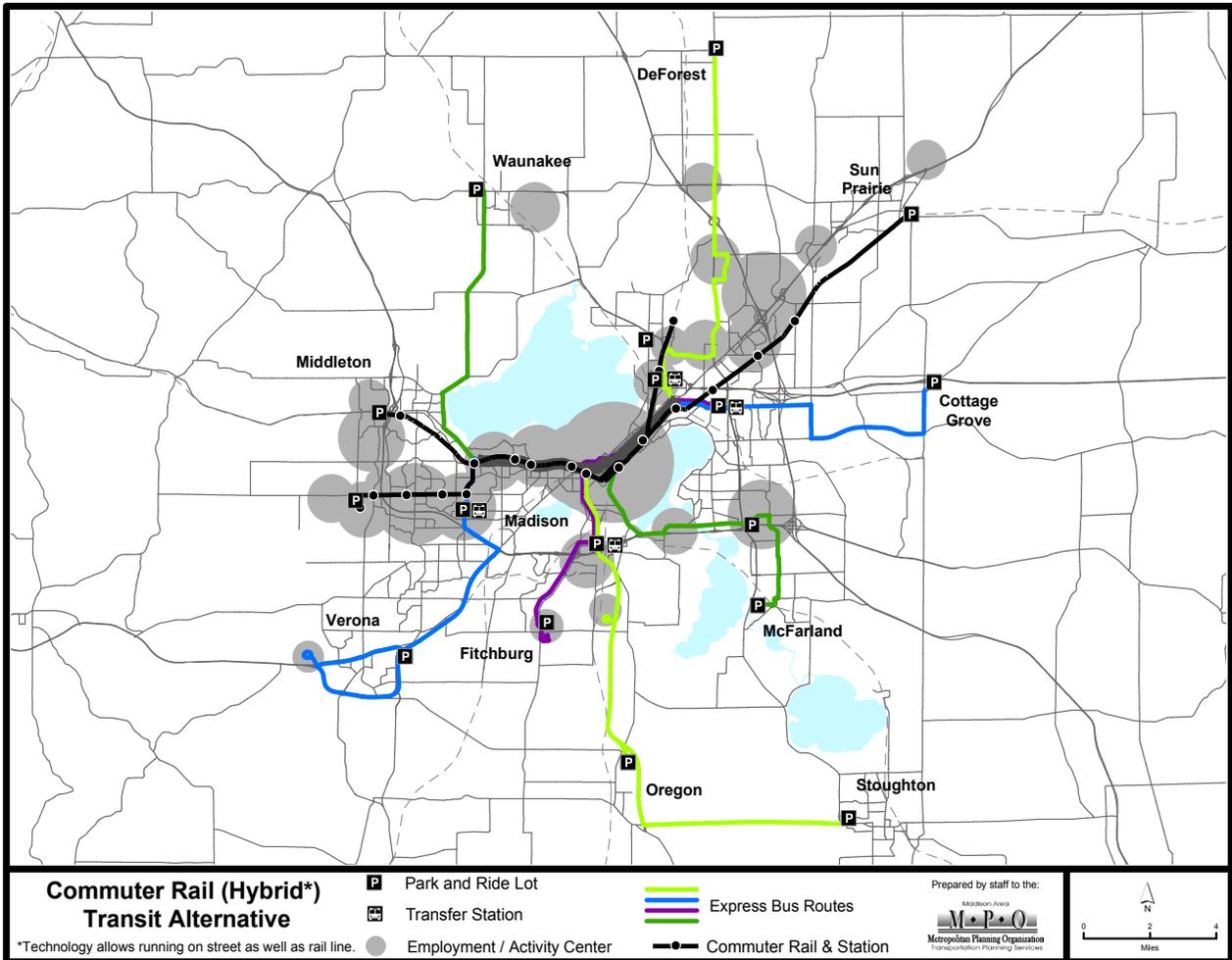
The plan continues to accept somewhat higher traffic congestion levels (Level of Service D), particularly during peak hours. This is intended as a means of encouraging travel during off-peak periods, greater use of transit and carpooling, and lessening the need for expanding streets and roadways. Travel on circumferential routes (such as the South Beltline) is accommodated as a means to draw travel to these corridors wherever possible. Techniques of traffic engineering and safety improvements are made to make existing streets and roadways more efficient in moving traffic. Higher mobility levels are also maintained on the Interstate system and other key circumferential routes to ensure efficient movement of people and goods throughout the region.

### ***Traffic Direction Concept***

The plan seeks to draw local auto through-traffic to local arterial major travel corridors as a way to reduce the amount of through-traffic penetrating central Madison neighborhoods and other neighborhoods in the region. Maintaining mobility on key regional routes like the Interstate System and the Beltline is also important in order to direct inter-regional through-traffic to these corridors to reduce the potential of inter-regional travel on the local arterial system. Traffic calming and other transportation system management techniques are encouraged to reduce and/or redirect traffic from local neighborhood streets and other sensitive areas. Bypasses around outlying villages and cities are also considered, while at the same time making sure that such facilities do not have negative land use impacts.



**FIGURE 1  
POTENTIAL COMMUTER RAIL CORRIDOR  
AND MAJOR EMPLOYMENT/ACTIVITY CENTERS**



**Other Plan Concepts**

The plan seeks to broaden the understanding of the other modes of transportation and to recognize and encourage: pedestrian and bicycle travel, specialized travel needs of elderly and persons with disabilities, taxi and paratransit services, and integration of travel into multi-modal corridors. In addition, the plan seeks to highlight the importance of preserving corridor lands, particularly rail corridors, for possible future travel uses.

**Growth Forecasts**

An underlying assumption of the plan is that the population and employment of Dane County and the City of Madison will increase in the future. Dane County’s population is expected to grow at a moderate rate. Forecasts indicate a net population increase of 153,450 or an increase of 36% over 30 years. The City of Madison’s population forecasts indicate a net population increase of 55,350 or an increase of 26.6% over 30 years. The city’s population is expected to grow slower than the county during this entire period and contain 45.4% of the county population in 2030 (see Table 1).

Population forecasts are important because they influence the size of the labor force, which in turn indicate the potential number of work trips which an area could generate. Future projections indicate that from 2000 to 2030, Dane County’s labor force is expected to increase 69,374 to a total of 325,125 reflecting an annual growth rate of 0.9%. The City of Madison’s labor force is expected to increase 22% but at a slightly slower annual rate (0.7%) compared to the county (see Table 2).

Employment trends and forecasts are important to the transportation system because they indicate the number of work trips that an area will attract. Large shifts in employment concentrations can alter overall travel patterns that can challenge the ability of a transportation system to adjust to the shift.

**TABLE 1  
POPULATION PROJECTIONS: 2000-2030**

	Total Population				Annual Percent Change		
	2000	2010	2020	2030	2000-2010	2010-2020	2020-2030
Dane County	426,526	480,100	527,500	580,000	1.3	1.0	1.0
City of Madison	208,054	227,600	244,100	263,400*	1.0	0.8	0.8
City as % of County	48.8	47.4	46.3	45.4			

*\*Does not include the population of the Town of Madison that will be brought into the City during this time period.*

By 2030, the county's employment is forecasted to increase to 382,600 or an average of 1.14% per year. Similarly, the City of Madison's employment is forecasted to increase to 244,600 or an average of 1.04 % per year. Comparing the place of work employment trends and forecasts in Table 2 with the trends and forecasts of the labor force, the amount of growth in employment continues to outpace the growth in the labor force in Dane County and the City of Madison.

To fill these jobs, more people from the communities outside of the City of Madison are commuting to Madison for work. Similarly at a county level, work trip commuting from adjacent counties into Dane County are forecasted to nearly double from approximately 31,000 per day in the year 2000 to around 60,000 per day by the year 2030.<sup>2</sup> This increase in work trip commuting will significantly increase the amount of congestion on the arterial roadway system without future improvements to the transportation system involving all modes (transit, roadway, bicycle, and pedestrian).

**TABLE 2  
LABOR FORCE & EMPLOYMENT PROJECTIONS: 2000-2030**

	Year			Forecast	Change		
	1980	1990	2000	2030	2000-2030 Amount	2000-2030 Percent	2000-2030 Annual %
<b>Labor Force</b>							
Dane County	178,136	214,857	255,751	325,125	69,374	27	0.9
City of Madison	95,363	112,239	127,932	156,262	28,330	22	0.7
<b>Employment*</b>							
Dane County	170,000	231,000	285,000	382,600	97,600	34.3	1.14
City of Madison	N.A.	166,340	186,550	244,600	58,050	31.1	1.04

*\*Place of Work Employment*

<sup>2</sup> Increased telecommuting, continued increases in fuel prices, changes in local housing cost and availability, and reductions in home to work travel distances are among factors that could affect the forecast which is based on a continuation of past trends.

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