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1994

PROCEEDINGS
OF THE SEVENTEENTH

Graduate Research Center
Dept. of Urban & Regional Planning
The University of Wisconsin
Music Hall, 925 Bascom Mall
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REGIONAL PLANNING CONFERENCE

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PROCEEDINGS

17TH REGIONAL PLANNING CONFERENCE

A NEW TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN

The Grand Milwaukee Hotel
Milwaukee, Wisconsin
June 27, 1994

Southeastern Wisconsin Regional Planning Commission
P. O. Box 1607
Old Courthouse
916 N. East Avenue
Waukesha, Wisconsin 53187-1607

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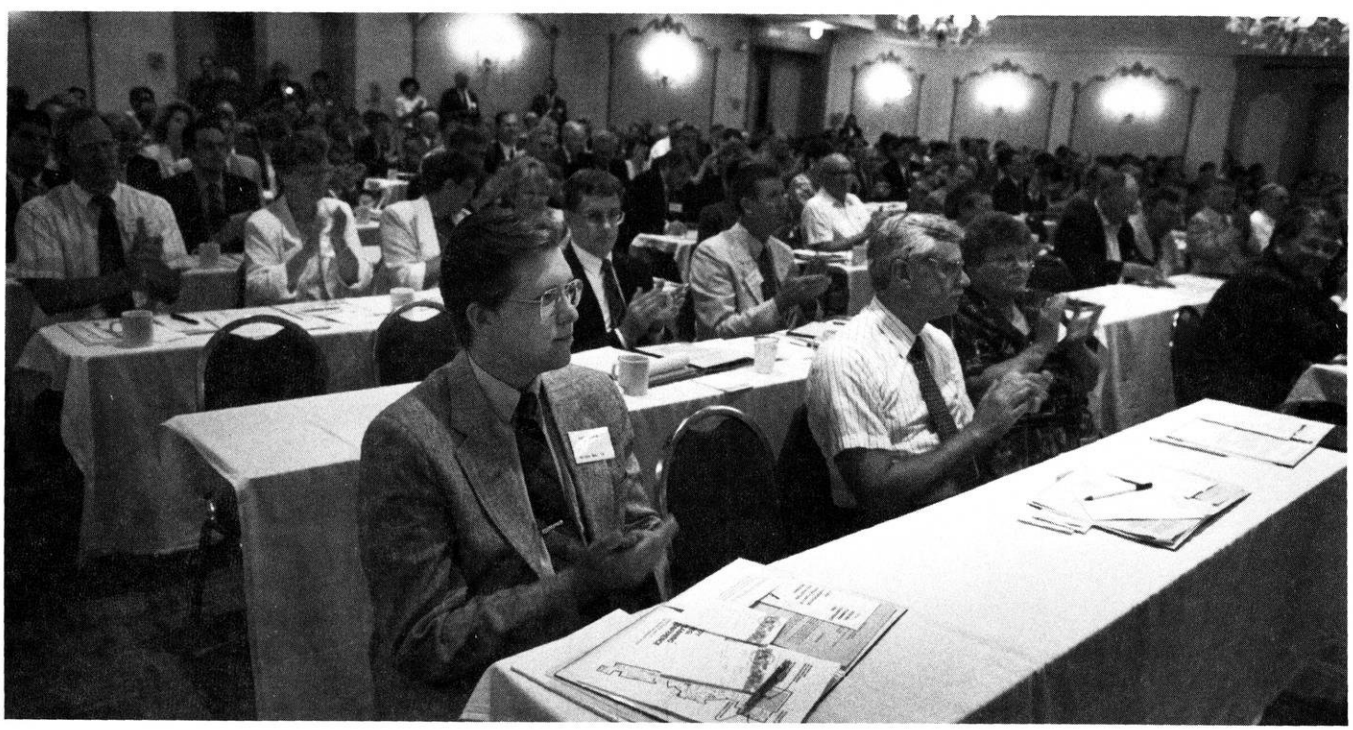
INTRODUCTION

A daylong Regional Planning Conference, sponsored jointly by the Southeastern Wisconsin Regional Planning Commission and the University of Wisconsin-Extension, was held at The Grand Milwaukee Hotel in Milwaukee, Wisconsin, on June 27, 1994. The theme of the Conference, "A New Transportation System Plan for Southeastern Wisconsin," was timely because of the growing interest of public officials and citizens in a number of controversial issues related to highway and transit system development within the Region, particularly as those issues were addressed in the preliminary draft of the Commission's new, design year 2010 regional transportation system plan. The public review process relative to the new plan was initiated at the Conference.

A total of 409 persons attended the Conference, including county and local elected officials; municipal engineers; planning professionals; consulting engineers; attorneys; interest-group representatives; and others with an interest in highway, transit, and other transportation-related issues. The Conference included a key-note luncheon address by Mr. James R. Klauser, Secretary of the Wisconsin Department of Administration.

In addition to a presentation of the then-proposed new, third-generation regional transportation system plan, Conference plenary sessions included presentations on transportation planning and programming issues from a national viewpoint; on the Commission's transportation system planning process; and on the alternatives considered under that process. Other specific topics were addressed in "breakout" sessions. These topics included: the potential role of land use site design in influencing travel demand; the details of the public transit recommendations contained in the proposed new regional transportation system plan; issues regarding the financing of plan implementation; air quality concerns; the costs, benefits, and practicalities of transportation demand management measures; the details of the highway recommendations contained in the proposed new regional transportation system plan; the implications of the new State transportation plan for the State and the Southeastern Wisconsin Region; and the prospects for implementing the adopted regional land use plan with regard to urban sprawl.

The transcripts of the Conference presentations follow.



OPENING REMARKS

Gary K. Korb, Regional Planning Educator
University of Wisconsin-Extension, on assignment with
the Southeastern Wisconsin Regional Planning Commission

Good morning, ladies and gentlemen. Welcome to this 17th Regional Planning Conference. My name is Gary Korb. I am a UW-Extension Regional Planning Educator working with SEWRPC. It is my privilege to jointly serve an educational institution and a planning agency that share a historic commitment, not only to excellence, but to working together.

In looking out over this audience today, it is, first of all, heartening to see so many of you in attendance. We may all see a combination of old professional friends, new acquaintances, and strangers gathered to learn more about this common thread of interest known as transportation system planning. Yet the interconnections go deeper than that. As some of you know, for example, my specialty does not lie with either transportation systems or planning, particularly. This is also true of others in attendance, including some key speakers.

What draws us together in a fabric of interdependence is the way that such conflicts as access constraints versus development opportunities, economic vitality versus community decline, environmental protection versus societal consequences, and even recreational trips versus commodities movement are all linked to transportation systems and what we do with them. The ability—in fact, the necessity—to get around touches all of our daily lives in ways which we may not have considered or sometimes even care to admit. But before we address such issues, please bear with me, as I must relay some important details regarding the Conference.

You may have noticed in registering that a number of persons, including myself, have a colored ribbon attached to their name tag. The purple ribbons designate SEWRPC Commissioners—who are your hosts for the day's events. The yellow ribbons indicate presenters and panelists who are part of the program. Finally, the green ribbons are worn by Commission staff members who are helping with the Conference in some way. These are the individuals to whom you can turn for clarification and/or assistance. I must gratefully acknowledge, up front, the tremendous contributions which these groups have made, and will make, toward the success of the Conference.

If you will refer for a moment to your registration folders, there are a few items I wish to highlight. First, you will find an issue of the SEWRPC Newsletter and a stapled handout on white 8½-inch-by-11-inch paper. These items respectively summarize the preliminary recommended regional transportation system plan for the year 2010 and the preliminary companion bicycle and pedestrian facilities plan. They constitute important informational references for the Conference.

Second, there are two colored handouts pertaining to a relatively long and thorough public comment process for the preliminary recommended plan. As the Conference brochure and other materials have noted, today begins an important period of interaction—of public comment.

The yellow sheet lists a series of public meetings/hearings which will be conducted during the summer. One is scheduled for each of the seven counties in the Region. At each county meeting/hearing, there will be some county-specific localization of the information presented. Nevertheless, any meeting/hearing may be attended should a conflict arise for some of you locally. You may have noticed that the more formal presentation and hearing on each of the scheduled dates will be preceded by an open house. We hope that this both accommodates those for whom afternoon hours are preferable and those who wish to ask questions or offer comments informally.

That brings us to the blue half-sheet of paper and a reminder of our afternoon open-house session today. Most of you have seen the impressive display of plan maps in the Mardi Gras Room, where they will remain through our morning coffee break. Afterward, the maps will be moved to an open house on the plan, with attending SEWRPC staff, held in Directors Room 1. Please feel free to visit this room with your questions and comments. You may also just complete the blue half-sheet and drop it off.

If you need more time to digest matters, do not worry. These comment sheets, your telephone calls, or any other means of input can be offered at any time through August 13, 1994. In this respect, I would refer you to the Commission's address, phone number, and fax number at the bottom of the sheet.

Finally, you will notice a blue evaluation form in your Conference folder. Please take the time to complete it so that we can continue to improve upon our conferences and other outreach activities.

One thing that we have learned from prior evaluations is that Conference attendees sometimes feel torn, knowing that they would benefit from the content of each of two sessions that are being offered simultaneously. That is one of the reasons for the publication of Conference proceedings. Please note that each of the eight concurrent sessions will be tape-recorded—along with plenary addresses—and incorporated into the proceedings. When the proceedings are printed, a copy will be furnished to you as a result of having participated in this Conference. That feature may not be as attractive as actually attending each and every session, but it offers the additional advantage of a reference document.

Thank you for your attention and patience, as I am now ready to introduce today's moderator.

At its December 1993 quarterly meeting, the Commission elected its officers for the 1994 calendar year. Mr. David B. Falstad, of Racine County, was elected to a second term as the Commission's Chairman.

Mr. Falstad, an attorney, was first appointed to the Commission by Governor Tommy G. Thompson in 1987, and is currently Vice President of Client Services at the Milwaukee office of Right Associates, an international career management and human resources consulting firm headquartered in Philadelphia. He is a former Senior Vice President and General Counsel of the Case Corporation in Racine. In addition to serving as a member of the Greater Racine Area Utility Planning Committee, Mr. Falstad has served on the Racine Development Zone Advisory Board, on the Board of Directors of the Racine County Economic Development Corporation, and as Chairman of both the Downtown Racine Development Corporation and the Racine Lakefront Steering Committee. He is also a former President of the Wisconsin Chapter of the American Corporate Counsel Association.

WELCOME AND INTRODUCTION

David B. Falstad, Chairman
Southeastern Wisconsin Regional Planning Commission

Mr. David B. Falstad

Good morning, ladies and gentlemen. Welcome to this, the 17th Regional Planning Conference conducted by the Southeastern Wisconsin Regional Planning Commission. This year we are again pleased to have been able to work with the University of Wisconsin-Extension as a co-sponsor of the Conference.

I have the pleasure of getting today's program under way. Allow me to begin by discussing the Conference topic and agenda.

The Southeastern Wisconsin Region has witnessed many changes since the currently adopted regional transportation system plan was completed in 1978. Among these changes are significant increases in employment and households, despite little population growth; more two-job households, despite declining household size; declining costs of automobile use, with greater car ownership both per capita and per household; and, finally, more decentralization of urban development, including jobs as well as residences—all fostering auto dependency.

These and other socio-economic trends have resulted in longer trips, declining ridesharing and transit use, increasing highway traffic and congestion, and greater pollutant emissions and fuel consumption.

Transportation system planning and development issues are always highly visible and newsworthy. And this perennially important subject has recently again become highly controversial. For example, there are concerns about light rail and busway facility development in the East-West Transportation Corridor. There are concerns regarding the land use development trends which have run counter to sound land use planning and to the development of a balanced transportation system within the Region—namely, urban sprawl. Divided camps are beginning to argue for either dramatic, modest, or no increases in the direct cost of automobile operation, with greater or lesser increases in mass transit services. And there is confusion about the important related transportation planning programs being simultaneously conducted within the Region, notably TRANSLINKS 21, currently under preparation by the Wisconsin Department of Transportation; the East-West Corridor transit study; and the regional transportation system planning effort.

We will be addressing each of these issues—and more—in the various sessions offered. However, let me caution you strongly that the Conference is not about selecting light rail versus busway transit facilities, let alone debating specific alignments for such facilities. The preliminary recommended regional transportation system plan—which is the topic of this Conference—is about the development of a balanced transportation system for the entire Region, a system which provides arterial street and highway, transit, and bicycle and pedestrian facilities as required to serve the developing land use pattern of this Region in a cost-effective manner. The commitment in the proposed plan to both viable mode alternatives and additional financing will be clear by day's end. Finally, this Conference and the planning process is distinct from the statewide transportation planning process—the so-called TRANSLINKS 21—though important coordination is occurring. In fact, it is our hope, following committee deliberation and public review, that the new long-range regional transportation system plan will be fully integrated into the State plan.

Let me again emphasize that the preliminary recommended plan proposes a balanced system to meet the transportation needs of the seven-county Region. The plan is thereby intended to help achieve the efficient, vital movement of people and goods and the delivery of services within the Region well into the 21st century. And in so doing, the proposed plan provides for sound land use development and environmental protection while furthering the orderly physical development of the Region.

That is the very heart and purpose of regional planning as set forth in State law. At SEWRPC, we're proud of our track record—now dating back a third of a century—and we're equally proud of the work we put before you today for your consideration and comment. That work is accompanied by grateful acknowledgement of

the contributions by county and local elected and appointed officials; State and Federal agencies; representatives of business and industry; and interested and concerned citizens—in short, all of us here assembled, and others, working together for the common good of the Region.

Now for a word about the Conference proper. While the plan being put before you here today for review and reaction may be new, as the Conference theme indicates, most of the concepts embodied in it are not. I am not suggesting that discussions of innovations or new applications in planning and policy will be lacking. But the most basic and most important planning concepts involved have been put forth by the Commission for many years—indeed, since its inception: a more compact urban growth pattern; the protection of environmental corridors; the preservation of prime farmlands; the proper servicing of new urban development with sanitary sewer and water supply infrastructure; and the increased reliance upon transit to meet travel needs and help achieve air quality objectives. The integrated nature of these concepts will become apparent as we proceed through the agenda. Before I get too far into the subject matter of that agenda, I'll briefly discuss the day's format so that you can hear for yourselves from the experts.

The Conference program has been divided into three parts. The first is a series of plenary sessions discussing the critical importance of transportation system planning, the associated trends, and the Commission's response. Included will be an overview of transportation planning and programming issues from a national viewpoint; a presentation of the proposed new regional transportation system plan; and a presentation of the alternatives thereto.

The luncheon address will be by Mr. James Klauser, Secretary of the Wisconsin Department of Administration. We will learn from the perspective of his position in State government and from his years of experience in government what he thinks the problems and prospects are for vital transportation improvements in Southeastern Wisconsin.

The third part of the program is a series of concurrent afternoon sessions in which you, as Conference participants, will be able to examine a number of issues entailed in the plan in greater depth and detail with the help of a distinguished set of issue presenters and reactor panels.

Without further ado, I will introduce our first speaker—a role that gives me great pleasure.

INTRODUCTION OF LOWELL B. JACKSON

Mr. Lowell Jackson's professional career spans nearly four decades of military service, university teaching and administration, government agency management, and private practice. A native of Wisconsin, he earned bachelor's and master's degrees in civil engineering from Purdue University.

After military duty as a Corps of Engineers officer, he served for more than 20 years on the faculties of the School of Civil Engineering at Purdue and the Department of Engineering and Applied Science at the University of Wisconsin-Extension.

Mr. Jackson left academia in 1979 to accept appointment as Secretary of the Wisconsin Department of Transportation, beginning a decade of government leadership. He served twice as Transportation Secretary; as Secretary of Wisconsin's Department of Industry, Labor and Human Relations; as Executive Director of the Colorado Department of Highways; and as Deputy Administrator of the Federal Highway Administration.

Mr. Jackson is a past Chairman of the National Academy of Sciences, Transportation Research Board Executive Committee and served for many years on the Board of Directors of the American Association of State Highway and Transportation Officials, as well as on its Executive Committee.

In 1987, the American Society of Civil Engineers presented Mr. Jackson with its Civil Government Award, and in 1988 with its President's Medal in recognition of his important service to the profession as a presidential appointee to the National Council on Public Works Improvement. In 1984, Purdue University presented him its Distinguished Engineering Alumnus Award, and, in 1991, the University of Wisconsin awarded him its Distinguished Service Citation.

A registered professional engineer, Lowell currently serves as a Vice President and Principal-in-Charge of Transportation and Structures Disciplines for Greenhorne & O'Mara, Inc., a large national consulting engineering firm headquartered in Maryland. He has served as Chairman of the firm's total quality steering committee since its inception in 1990. He is co-author of the Federal Highway Administration publication entitled Quality Improvement Resource Guide, as well as a number of other publications on transportation management, engineering education, and design.

Ladies and gentlemen, please join me in welcoming back to the State of Wisconsin, and to this Conference, Mr. Lowell B. Jackson.

EARLY MORNING PLENARY SESSION

TRANSPORTATION PLANNING AND PROGRAMMING ISSUES—A NATIONAL VIEWPOINT

Lowell B. Jackson, Vice President,
Transportation/Structures, Greenhorne & O'Mara, Inc.

Mr. Lowell B. Jackson

Thank you so very much, David, for that generous introduction. I was in fact born in this City. I think that from time to time, Milwaukee may have thought of that as a negative, but I certainly never have. I've noticed that once public officials are out of the public fishbowl that people are somewhat kinder and gentler in remembering the past. Your complimentary introduction, David, was in stark contrast to one that I recall receiving in Green Bay in 1986. I was to attend a meeting there to explain why yet another delay had occurred in the opening of the new Walnut Street bridge.

I am sure that most of you in this room probably have heard that Green Bay is a community which is substantially dedicated to concrete pavement. Indeed, they became so very adept at highway development under the crafty legislative leadership of Assemblyman "Concrete Clete" Vanderperren that other communities lusted after just the concrete that spilled over the forms in Green Bay. Critics, on the other hand, observed that the very next yard of concrete that was poured in that City would probably sink it beneath the waves of Lake Michigan.

Anyhow, the Mayor, who was to do the introductions, contacted my office a few days beforehand to get some biographical information. My secretary informed him of my standing desire for brevity in such matters and suggested that he simply give my job title and the subject of my remarks. Well, His Honor followed that advice to a fault. He introduced me by saying, and I quote: "Now here's the head apologist for WisDOT to tell us about further delays in building this damn bridge; but according to his own secretary, the less said about him, the better."

I'm extremely honored to be included in your Conference, kicking off the public consideration of your work, and particularly proud to have been invited by my esteemed friend and your outstanding public servant, Kurt Bauer. In addition to that, I am pleased to see a large number of people—who made my career here in Wisconsin a very rich one—from WisDOT and from a number of the communities represented.

Your convocation sponsor today, the Southeastern Wisconsin Regional Planning Commission, is widely regarded, including in Washington, as one of the most technically competent and intellectually honest planning bodies in the Nation. Indeed, when the new role for metropolitan planning organizations was first considered in Washington while I served in the Federal Highway Administration, SEWRPC was among the top-ranked of those organizations serving as role-model proofs that the new concepts about MPOs embodied in ISTEA, the Intermodal Surface Transportation Efficiency Act of 1991, could in fact work. Kurt's request, made several months ago, was that I address myself to current transportation planning and programming issues from a national, or Federal, perspective—an "inside-the-Beltway" view, if you will—with particular focus on how such landmark statutes as the Intermodal Surface Transportation Efficiency Act of 1991 and the Clean Air Act Amendments of 1990 might impact on communities such as yours.

Before agreeing to accept Kurt's invitation, I considered my current qualifications and limitations. I do indeed live and work in the Washington, D. C., metropolitan area. I live in Virginia and work in Maryland, both destinations being inside the Beltway. But I served inside the Federal government more than five years ago. Moreover, although I was born in this City, earlier in this century, I have not lived and worked in Wisconsin for the past seven years. On the other hand, I'm able to read the "Dr. Gridlock" newspaper column in The Washington Post regularly; suffer the all-day rush-hour congestion of Washington, D. C.—by which Milwaukee's pales into insignificance—and ride the outstanding Washington Metro whenever it's going where I am. I pay my dollar and 10 cents, and silently thank all the rest of you for the other eight dollars it costs to subsidize the trip. From time to time, I'm able to engage in professional consulting to state and local

governments coping with some of the requirements of ISTEA. Moreover, thanks to old friends in Wisconsin who are inveterate newspaper clippers and senders, I'm able to keep reasonable track of the goings-on here—even trivia such as the adventure of Jim Klauser's dog, or Chuck Thompson's speech to the Wisconsin Road Builders.

On top of that, I'm able to share my breakfast table each morning with a full-time legislative assistant to a Wisconsin Congressman (who also happens to be my bride of 40 years), whose everyday duties require close acquaintance with those transportation, energy, and environmental matters in the process of being made, remade, reviled, or revoked by Congress.

So here I am, an expert from your Nation's capital, the center of all knowledge and power—which you will believe at your peril! A Wisconsin has-been who didn't solve all the problems when he was here full-time and whose retrospective advice today probably won't solve those problems in the future. It is hard to be humble, but an experience I had this morning helps. In order to fill a small information gap in my remarks today, I made a phone call early this morning to a friend in Madison. When I finished, I inquired of the operator what the cost of that call was, because I wanted to make an immediate expense record of it. She said, "That'll be six dollars and eighty-two cents." "Golly!" I said—actually, I said something else—"That's preposterous! That's outrageous! Why, you know, that's just for a few minutes, six dollars and eighty-two cents! Why, if I was back in Washington, D. C., I could call to hell and back for a fraction of that." She said, "Yes, but there that's a local call."

Now that I have thoroughly stomped on my qualifications for participating in this Conference today, if you'll indulge me, I'd like to take as a metaphor for my remarks this morning the promising technology commonly used in modern aircraft operations and perhaps coming in "smart car" applications, the so-called "heads-up" display. As you probably know, the "heads-up" display is a method of projecting essential information normally provided by the dashboard instrumentation onto the inside of a windshield where it's directly in the field of vision of the operator, so that a distracting look down at a critical instrument is unnecessary. One can keep one's eye on the scene in front of the windshield.

The application of this technology in the emerging intelligent vehicle highway system regime was explained to me by a Peugeot executive in Paris in 1988. One of the problems in safe driving is poor visibility—fog, as it were, and sometimes thick fog. Drivers tend to press on anyway, often with disastrous results. The "smart car" idea is this—using radar, acquire an electronic view, or a sense of the road ahead, regardless of the snow, or fog, or heavy rain, project it on the windshield, and allow the driver to proceed based on the "heads-up" virtual image appearing on his or her windshield. The Peugeot executive predicted that their "smart car" would be so equipped within a decade or so.

Now that thought makes me a bit nervous, and perhaps it does you too. For that "smart car" to operate on a road network also used by the rest of us, everything must work perfectly. Among other things, it is essential that conditions on the road ahead be exactly as the "heads-up" display says they are, and it's got to operate satisfactorily in an environment of potential electronic interference, such as random police or aircraft radar, which may distort the virtual image. This system must also be marketable. Even the affection of the "Nintendo generation" for electronic gizmos will not overcome completely out-of-reach acquisition and operation costs.

Now I would posit an analogy of the "heads-up" display to the complex regional transportation system plan that will be described to you today. The fog in my metaphor represents the complex and often conflicting authorizing environments into which your "heads-up display" will be cast. Some of the public will be driving through the fog looking at your heads-up display, distorted by a remembered image that capacity increase simply equals more pavement. Some, remembering long-past journeys, will see, if dimly, the outlines of light-rail service or commuter trains. Many will see the fog itself as the atmospheric result of car and truck exhaust and expect a heads-up display to show a way to eliminate the fog, not simply penetrate it through technology.

In order to cope with the related provisions of the Intermodal Surface Transportation Efficiency Act, or ISTEA, it may be instructive to review some of its roots. By the end of the 1980s, many States and their transportation agencies felt frustrated by the number of restraints then in effect for the use of Federal highway aids. Among other things, a large number of separate categorical aid items frustrated the most

effective allocation of Federal highway funds to meet state-recognized problems. The preference for most States was for more flexibility in the use of the total Federal funds allocated. The ISTEA in its final form did not eliminate separate funding categories, but it did, through provisions such as the surface transportation policy program, create the ability to move funds between, for instance, highways and transit.

The States, through their organization, the American Association of State Highway and Transportation Officials—AASHTO—also expressed concern, as did the Congress, that the completion of the existing Interstate highway program kept dragging on, to the detriment of other pressing highway rehabilitation needs. It was recognized by virtually all within AASHTO that a highway system of national significance should be an important element of any new authorization to achieve continuity, uniform standards, and protection of existing Interstate and other major primary highway investments. As it was finally passed, ISTEA provided for the designation of such a system by the Federal Highway Administration to be subsequently approved by Congress next year. Such a system of national significance has been defined and the House of Representatives has passed an approval resolution. There is concern at this time, however, about the fate of the national highway system in the United States Senate. Senator Daniel Patrick Moynihan, a gentleman of not inconsiderable influence, the powerful head of the Senate Finance Committee, is currently not favorably disposed to it. Rather than a national highway system, he would prefer a national transportation system to enable the considerable funding anticipated for the national highway system to be used more broadly across other modes, a topic that you will probably hear discussed over and over in your own deliberations on the new regional plan. By and large, the States favor the national highway system approach, as does the Clinton administration, including the Federal Highway Administrator. But it will probably take some strong arm-twisting to assure passage.

Another important provision in the ISTEA was the mandate that a number of management systems be established by the States and the District of Columbia—an assortment which includes pavement and bridge management systems already familiar to the States, and some newer ones, such as congestion and safety management systems. It's anticipated that the six mandated management areas may be tied together with geographic information systems with which state DOTs are becoming more familiar and which enable much more user-friendly access to and display of information related to location. Another feature in ISTEA is the required designation of metropolitan planning organizations—MPOs—as the programming agencies for funds directly allocated to urban regions—funds that previously had been granted to States for distribution. In addition to the national-highway-system-versus-national-transportation-system debate, the MPO provisions and the related surface transportation program funds have created some controversy across the country. Some MPOs—fortunately, not one such as yours which has been around for a third of a century—have been slow to gear up to handle the expanded functions. Some MPOs are barely in existence. The surface transportation program, part of ISTEA, defined flexibility as the ability to spend highway trust fund money for nonhighway purposes—a considerable departure from past practice and still unconstitutional in many States with respect to their State matching dollars. With some funding assistance from the Federal Highway Administration, a number of groups—some of which are represented, I'm sure, here today—strongly interested in transit, bicycle and pedestrian facilities, and a number of other nonhighway purposes, have been very active in the planning and programming process. Although many in the larger cast of characters may regard the new legislation as an entitlement—whether it be highway contractors, transit interests, bicycle groups, or others—the planning processes required to program expenditures under ISTEA are intended to assure that the dollars are spent wisely in support of essential transportation elements. There is no doubt that more competition for highway dollars exists under the new legislation, and that the traditional highway interests are suspicious of the relative benefits of permitted nonhighway investments. Nothing in ISTEA requires States or localities to throw money at unworthy projects, but the nonhighway enthusiasts are quite vocal about getting their share, and often with justification.

There are a number of other interesting provisions in the ISTEA that may not apply here. One allows the mixing of private funds and Federal highway funds in the development of highway toll facilities. This provision has not as yet been used much, but is looked upon by some as an attractive funding alternative for certain major highway projects.

As all here today are aware, the regional transportation plan that you are to consider, like those in other areas of the country, must be in conformance with both the Intermodal Surface Transportation Efficiency Act

of 1991 and the Clean Air Act Amendments of 1990, because ISTEA was essentially formed to fit with the provisions and requirements of the Clean Air Act. A subsequent plan to the one you are to consider here today, and to the statewide so-called TRANSLINKS 21 plan that the State is to complete in November, is the State Air Quality Implementation Plan—the so-called SIP. There must be conformity between the regional plan, the State plan, and the SIP. As you know, the preparation of the SIP is the responsibility of the Wisconsin Department of Natural Resources. The Federal government has mandated that all of these plans reflect actions to reduce air-pollutant emissions from autos and trucks through transportation control measures, sometimes also referred to as demand management measures. A suite of transportation control measures has been identified which involves both improvements in technology and behavioral changes by users of transportation facilities.

Dr. Richard Mudge, a well-known public policy researcher—perhaps known to many of you—describes the suite of potential control measures as ranging between the "bait" and the "bite," to reflect the way that the management elements are likely to be perceived by those whose behaviors are expected to change to achieve clean-air objectives. On the "bait," or attraction, end are improved transit service, encouragement of carpools through preferential parking or high-occupancy-lane set-asides, and the provision of improved bicycle or pedestrian facilities. In the middle are fuel modifications or use of alternate fuels, and traffic flow improvement through such things as signal coordination or ramp metering. On the light "bite" end are enhanced emission inspections standards. Bigger "bites" are congestion pricing, time-of-day pricing, day-of-the-week or geographical auto and truck bans, and, as you will discuss today, very large fuel- or vehicle-tax increases—and, of course, Federal financial sanctions if goals and mandates are not met in a timely way. Mudge's studies, presented to AASHTO last October at their annual meeting, showed that the "bait end" control methodologies have, as a practical matter, relatively little potential to achieve additional air quality improvement over that already achieved and that the really effective pollution reductions come on the "bite" end. For instance, reducing travel by levying additional fuel taxes has been shown to be of little effectiveness in the two- or five- or 10-cent or maybe even 20-cent range. Such levels of increase are surely revenue generators, but not deterrents to automobile use. In fact, a substantial change in travel behavior, causing a switch to transit, would probably require more than a doubling of the total fuel price.

I'll give you my own example. I drive 35 minutes from Crystal City, Virginia, to Greenbelt, Maryland, each morning and then home in the evening. It's a 17-mile drive, and even though our firm designed and helped build the Greenbelt Metro station, the cost in both time and dollars, to me, of using transit as an alternative in a very congested environment is, in the margin, about twice what I actually pay to get to work. If gasoline were a dollar a gallon more, it would not materially change that balance, even though I have a highly subsidized Metro ride. So there is going to have to be a draconian increase in the price of motor fuel in order to change behavior. Now to do that with an added fuel tax of a dollar or more per gallon would make the legislative battles that fall within my recollection of the 1980s (before we achieved the indexed motor-fuel tax in Wisconsin) child's play. I'm inclined to apply the phrase to the draconian fuel-tax increase: "That dog won't hunt." And yet, that familiar source of revenue may be the most practical means of reflecting the full public, social, and environmental costs of mobility, whichever mode is involved.

Consider for a moment the ultimate "bite," sanctions for nonconformance. Such sanctions are clearly intended to be punitive, but, unlike the other "bites," are effective more as a threat than a direct pollution reducer. But, like the mandates and sanctions for speed enforcement, the 21-year-old drinking age, and highway maintenance requirements—although not the motorcycle helmet requirements—the State and local governments do act under the threats. We did establish at the last minute, one legislative midnight in Wisconsin, an emissions inspection program. It turned out to be not as big a "bite" as we were afraid it would be at the time, and it has allowed us to follow good public policy in the reduction of emissions. Believe me, it would not have passed at that time if there had not been the threat of EPA sanctions. It is my observation, however, as a former Federal highway official, that when the highway fund sanctions are actually applied to specific jurisdictions, represented by influential members of Congress, the sanctions are restudied, or else the sanctioning agencies, such as the Federal Highway Administration, are berated for their bureaucratic and insensitive behaviors as regulators and the sanctions are suspended or delayed.

Most States and urban regions are now striving mightily, as you are here in Southeastern Wisconsin, to meet volatile-organic-compound reduction goals during the early rounds, to pick the low-hanging fruit of the easy

"bait" control methods. In a few cases, that might work. It's the next round of compliance that has transportation facilities providers and urban community officials worried throughout the country as some unpleasant realities set in—the reality of the law of diminishing return, the reality of States like those around Lake Michigan trying to comply but overwhelmed by mass air flows containing pollutants generated farther south and east. It is my sense that agencies such as the Federal Highway Administration and the EPA understand and are wary that a legitimate national clean-air-attainment regime would be distracted by a substantial backlash from frustrated communities and citizens overburdened by government mandates to achieve the unachievable—not a new theme to this audience.

But Federal agency patience and understanding is limited by two factors: first, a strong commitment to environmental improvement by the Federal executive branch, including the Federal Highway Administration, and, second, the reality that in passing environmental laws, Congress has specifically given interested parties outside the agencies the right to bring suit against the agencies and their regulators for explicit compliance with statutory and regulatory schedules and actions. So if the folks in Southeastern Wisconsin and other jurisdictions are having difficulty getting to the next round, if they decide to relax and delay planned transportation control initiatives while the Federal agencies try to be flexible and the Congress reconsiders their intent, please understand that too much procrastinating is likely to make a lot of lawyers rich. The environmentally interested third parties in such instances would see a very disturbing view through their heads-up display on the windshield—one in which they see foot dragging, wetland filling, and a lot of grading and paving, leading to urban sprawl and more bad air.

I'm reminded of a penalty that I paid in college for trying an easy way out. When I was at Purdue, I enrolled in a course on religious history. I didn't do that because I expected to be a man of the cloth. I did it for many of the same reasons that most of the football team did, because for 14 or 15 prior years, the entire grade in this three-hour course—a nontechnical elective which engineers tolerated but didn't necessarily enjoy—the entire grade was related to the final exam. The question that the instructor asked was always the same every year. The question was, "Describe the journeys of the Apostle Paul." As you might imagine, there were very eloquent examples all over town of the answer to that question. People looked forward to that exam, if not the others. Imagine our surprise when we walked into the final exam and the instructor, instead of writing on the board, "Describe the journeys of the Apostle Paul," wrote, "Criticize the Sermon on the Mount." Well, we had heard of that, of course. Many of us spent some worry time scratching around trying to see what we could make out of it on our blue books, turned them in, and then went back in a couple of days to see our posted grades. I got the worst—the only time I got a D in college was in that course. But I noticed my roommate, over at the fraternity house, who was a center on the football team and had all of the mental equipment necessary for that post, had gotten a C! And I said, "Bill, I don't mean to be prying, but I'm surprised. That seems to be the highest grade anybody got on the exam. How did you do it?" He replied, "Well, when I saw that question, I wrote, 'Who am I to criticize the Sermon on the Mount?' But I do feel qualified to describe the journeys of the Apostle Paul, so I did."

Well, who am I to instruct this learned audience about the fine points of transportation planning? But I do feel qualified, in conclusion, to offer some unsolicited, perhaps gratuitous, advice, as the plan is presented and discussed today.

First, expect to perceive conflicting images in the heads-up display that this plan represents. But on the other hand, second, seek at least informed consent, however grudging, for the controversial policy elements. Consensus would be nice but difficult; wild enthusiasm and unanimity impossible. Third, remember that in politics and in policy debate, there are no permanent enemies or permanent friends, and the teams change weekly as they learn new things. Fourth, don't spend a lot of time breaking your pick arguing about the veracity of the predictive models that SEWRPC has used. It may be possible to add something to them, but they have been thoroughly calibrated and validated. SEWRPC, as I said, is very competent technically. Give them the benefit of the doubt that this proposal is one worthy of respect, one that deserves respect as a sound intellectual product, ready to inform policy debate. And, finally, fifth, remember that a balanced transportation system is not necessarily measured by fund allocations in equal doses to each mode. But it is still likely to move more dollars from highways to other transportation modes.

Thank you very much.

EARLY MORNING PLENARY SESSION QUESTION-AND-ANSWER SESSION

MR. FALSTAD:

Thank you very much, Mr. Jackson, for that fine presentation. Mr. Jackson has indicated that he would be willing to entertain questions from the floor. We would like to take advantage of that opportunity. If at all possible, please use the microphones that have been provided. We will begin with the first question.

QUESTION:

I know there are many people in this audience who are uncomfortable with concepts of social engineering, and I think that when I heard you talking about a draconian fuel tax, there was some element of social engineering in terms of change from the automobile mode of transportation to other forms of transportation. Could you expand on that?

MR. JACKSON:

Did everybody hear the question? The questioner was asking what I meant when I used the word "draconian" in terms of a fuel-tax increase—say, of a dollar or so per gallon—and asked if I would comment on the implied social engineering involved.

First of all, I am not sure what "social engineering" means. That term is not subject to Hooke's law, so I have a problem relating to that term. Significantly increasing the gas tax will raise issues of equity in terms of the people who have to pay it. It will change the argument from the one that I was familiar with and was using over and over again when I was working in Wisconsin—that we can't carry out whatever improvement program we may want, for whatever mode, with the resources that were available at least here in the 1980s. So we went back again and again and again until we got the indexed motor-fuel tax. And the argument we always used was: "We cannot do what you want in terms of closing the gaps in the Interstate highway system, or improving portions of the State trunk highway system, or buying abandoned railroad rights-of-way for preservation, or providing increased operating assistance to transit, unless we get more money." But a motor-fuel tax increase of a dollar a gallon changes the argument away from "We need this improvement to get the money" to "The reason we're doing this is in order to penalize those who use the automobile." And the latter is what is intended—discouraging people from using the automobile. The concern that I have about that is that any legislative body and any executive branch people that must approve and implement a policy to significantly increase the motor-fuel tax will have to deal with that issue, with regard to the public, from a different perspective. It's not "We need the money for a necessary improvement"; it's "We don't want you to use your car and we're going to penalize you heavily for doing it."

That means that there is an entirely different set of political considerations involved. So in the sense that that may constitute social engineering, I would suspect that many members of the driving public will find it very difficult to support a motor-fuel tax increase intended to discourage automobile use. Many States—not only Wisconsin—have an upstate-downstate, urban-rural dichotomy in their populations and in their legislatures. Outstate, the kind of imperatives favoring a motor-fuel tax increase would be far less pressing than they are in Southeastern Wisconsin, but the entire State would nonetheless have to go along with whatever was done to address the needs of an area like Southeastern Wisconsin. So although I do not like to use your term—"social engineering"—I think there would be a different response from the public today than the generally positive response received from the public in the early 1980s with regard to efforts to increase the motor-fuel tax.

QUESTION:

I want to compliment you on your speech. In your speech, you mentioned that as policy makers we should seek informed consent rather than consensus. Would you expand on that? I thought it was a very important point.

MR. JACKSON:

Those people here from WisDOT will recognize and remember the courses that we put everybody through entitled "Systematic Development of Informed Consent." In any controversial public discussion, you will find a number of groups of people involved: those who are strongly supportive of what you may be proposing; those who really are not informed and don't give a damn; and those who really don't want you to do what you are proposing, and who are willing to lie down in front of the bulldozers to keep you from doing it. One of the things that you discover in attempting to carry out controversial public policy is that your real audience is not the folks at the Chamber of Commerce or the folks who are getting together to cheer a project on. Your real audience is the people who don't want that project implemented for whatever reason. The process of developing informed consent involves working with those folks to get their informed consent—not their uninformed, or misinformed, consent—which sometimes seems to happen, but their informed consent to go along with what you want to do. Even though they may give their consent grudgingly—they still do not want you to do what you may be proposing—they will let you go ahead and do it. Consensus, where almost everybody, except a few crusty old mossbacks, supports a course of action, is not likely ever to be associated with transportation projects of any kind, although it would be nice to have from time to time. What perceptive public actors will do is attempt to get informed consent, and not sit around and expect consensus—and certainly not sit around and spend all their time with the people who already believe that what you are proposing should be done.

QUESTION:

In addition to direct transportation control measures, do you perceive a possible need to encourage employees and employers to use the "information superhighway" for telecommuting to alleviate congestion on our concrete and asphalt highways caused by ever-increasing commuting by car?

MR. JACKSON:

I think that is entirely possible, and I guess after we have finished implementing all the proposed transportation control mechanisms six or eight or 10 years from now and find out that we still have congestion in the urban areas, there will not be much of an alternative, by that time, to pursuing new working arrangements in the home. A number of firms are already going that way. When they first do it, they have a great deal of discomfort about how such arrangements may affect productivity, on the ground that supervision is difficult. I am unsure whether WisDOT still has a telecommuting program for the motor-vehicle computer folks or not, but that was an experiment that WisDOT tried, probably a decade ago, for those people who sat at a computer terminal most of the time and who also had home duties, including child rearing.

I think, however, that the makeup of the work force, rather than traffic congestion, may have more to do with homework and telecommuting than anything we will do with regard to transportation, because telecommuting does give a growing cohort of workers opportunities to "have it both ways" in terms of being at home while working. Unfortunately, telecommuting has not met its promise to date. There are psychologists who believe that there is some sort of a herd instinct requirement for people engaged in enterprise; they have to do work together somehow. The concept of teleconferencing has not really developed, either. Although it is used on occasion, it has not developed as proponents envisioned. There has been a good deal of study on this subject. I am not familiar with all the research on teleconferencing, but much of that research indicates that there is something about us that causes us to want to get together at The Grand Milwaukee Hotel on a Monday morning in groups of 300 or 400 rather than watch, via satellite, a speaker located somewhere else.

QUESTION:

I have a question about the effects of the mass flow of air pollutants to the Great Lakes area. Can you expand upon that a little bit more? Is the Federal government addressing this issue in any way?

MR. JACKSON:

Well, I do not think that the Federal government has officially recognized the problem as yet, except through some of the more perceptive people within the Environmental Protection Agency. This is disheartening for some of the counties in Michigan, as well as here. Unfortunately, one pristine rural county, where I plan to live when I retire, is one of those counties; they may fall under a potential "bump-up" situation in the future, under which they are going to have to undergo a more draconian "bite" in terms of actions needed to meet clean-air requirements. It is generally felt that this is going to happen because of the mass movement of air from the south and from the east. Certainly, when we were going through the emissions inspection debate in Wisconsin, there was always a question on the tips of our tongues: "How come we've got to do this in Southeastern Wisconsin when all that junk is coming up here from the steel mills and oil refineries in Indiana and Chicago, and we're having to bear the brunt of their problem in order to stay on good terms with EPA?" I think that issue is still abroad in terms of the mass airflow, and that it is ridiculous not to consider the issue. It may be something that ultimately will be resolved by evening out the air quality requirements over the whole country. If this is done, people who don't necessarily have an air quality problem themselves would still have to go through at least the minimum "bite" mechanisms in order to clean up the air that they are shipping somewhere else—in our case, unfortunately, here. The Lake Michigan area seems to be suffering from this problem more than some other areas of the country.

QUESTION:

I want to make a comment that the increase in gas prices should be looked at as a decrease in other taxes, for instance, a decrease in the property tax, and not just an increase in the gasoline tax. The question I have for you involves transportation control measures. How can those measures be used to change land use policy? Have metropolitan planning organizations experienced any increase in their ability to control land use as a result of these transportation control measures?

MR. JACKSON:

Yes. As a matter of fact, localities are required to consider land use. I did not dwell much on that issue this morning for two reasons. First, at the Federal level, you learn not to mention land use policies because doing so is not popular with the people upon whom you are going to impose mandates. Second, land use policies, as a strategic matter in the long run, will make the year 2010-year 2025 future conditions more acceptable and sustainable. As a short-run response to current clean-air requirements, land use policies are not all that helpful, but you are absolutely right when you wonder if transportation control measures interact with and affect land use and land use policies. Some of these interactions, I think, are well illustrated in the proposed regional transportation system plan. Such interactions are an important part of the long-range relationship between transportation demand and clean air and a sustainable environment.

MR. FALSTAD:

Once again, I would like to thank Mr. Jackson and members of the audience for your questions. It is time that we moved on. We will now take our midmorning break in the Mardi Gras Room.

LATE MORNING PLENARY SESSION

INTRODUCTION

David B. Falstad, Chairman
Southeastern Wisconsin Regional Planning Commission

Welcome back, ladies and gentlemen, to the second plenary session of the 17th Regional Planning Conference. Lowell Jackson has challenged us with a national viewpoint on transportation planning and programming issues. We will now hear from Commission staff as attention is focused on our Region and particularly on the proposed new regional transportation system plan which we are here to learn about and to discuss.

Our first speaker in this segment will be Mr. Philip C. Evenson. Phil is an Assistant Director for the Southeastern Wisconsin Regional Planning Commission. He has been with the Commission for over 25 years, and many of you have personally worked with him over that time. The title of his presentation is "Overview of the Transportation System Planning Process and Alternatives Considered."

Our second speaker for this plenary session will be Mr. Kenneth R. Yunker. Like Phil Evenson, Ken has had a long and productive tenure with the Commission, totaling 17 years. He serves as an Assistant Director and is known by many of you for his work in transportation circles. The title of his presentation is "Overview of the New Regional Transportation System Plan: Preliminary Demand Management, Transit, and Highway Recommendations."

Our final presenter in this morning's plenary sessions will be Ms. Nancy A. Holguin. Nancy is a transportation planner who has been on the Commission staff for the past five years. The title of her presentation is "Overview of the New Regional Transportation System Plan: Preliminary Bicycle and Pedestrian Recommendations."

LATE MORNING PLENARY SESSION

OVERVIEW OF THE TRANSPORTATION SYSTEM PLANNING PROCESS AND ALTERNATIVES CONSIDERED

Philip C. Evenson, Assistant Director
Southeastern Wisconsin Regional Planning Commission

Mr. Philip C. Evenson

INTRODUCTION

Thank you, Chairman Falstad, and good morning, everyone. For the past two years the Commission has been working to meet the transportation planning requirements of the Federal Intermodal Surface Transportation Efficiency Act of 1991. It has been a very challenging time for all of us, and to those of you who have helped by serving on advisory committees we extend our thanks. Our assignment here this morning is to provide you with context and perspective. From a wealth of information developed as we have gone about preparing a new regional transportation system plan, we hope to convey to you a framework within which to view and react to the proposed new regional highway and transit system plans which will be presented by Mr. Yunker, and the proposed new regional bicycle and pedestrian facilities system plan which will be presented by Ms. Holguin.

Our remarks are divided into three parts. The first deals with planning relationships. From questions we repeatedly are asked, there appears to be a lack of a clear understanding of the relationships between the Commission's proposed new regional plan, the TRANSLINKS 21 plan being prepared by the Wisconsin Department of Transportation, and the East-West Transit Corridor plan also being prepared by that Department. We will try to explain how these three planning efforts interrelate. The second part of our remarks will review changes in the Region over the past two decades, and in particular changes in travel behavior. The last part of our remarks deals with the regional transportation system planning process. Just how did we go about getting to where we are today with a preliminary recommended plan, and what alternatives were considered?

PLANNING RELATIONSHIPS

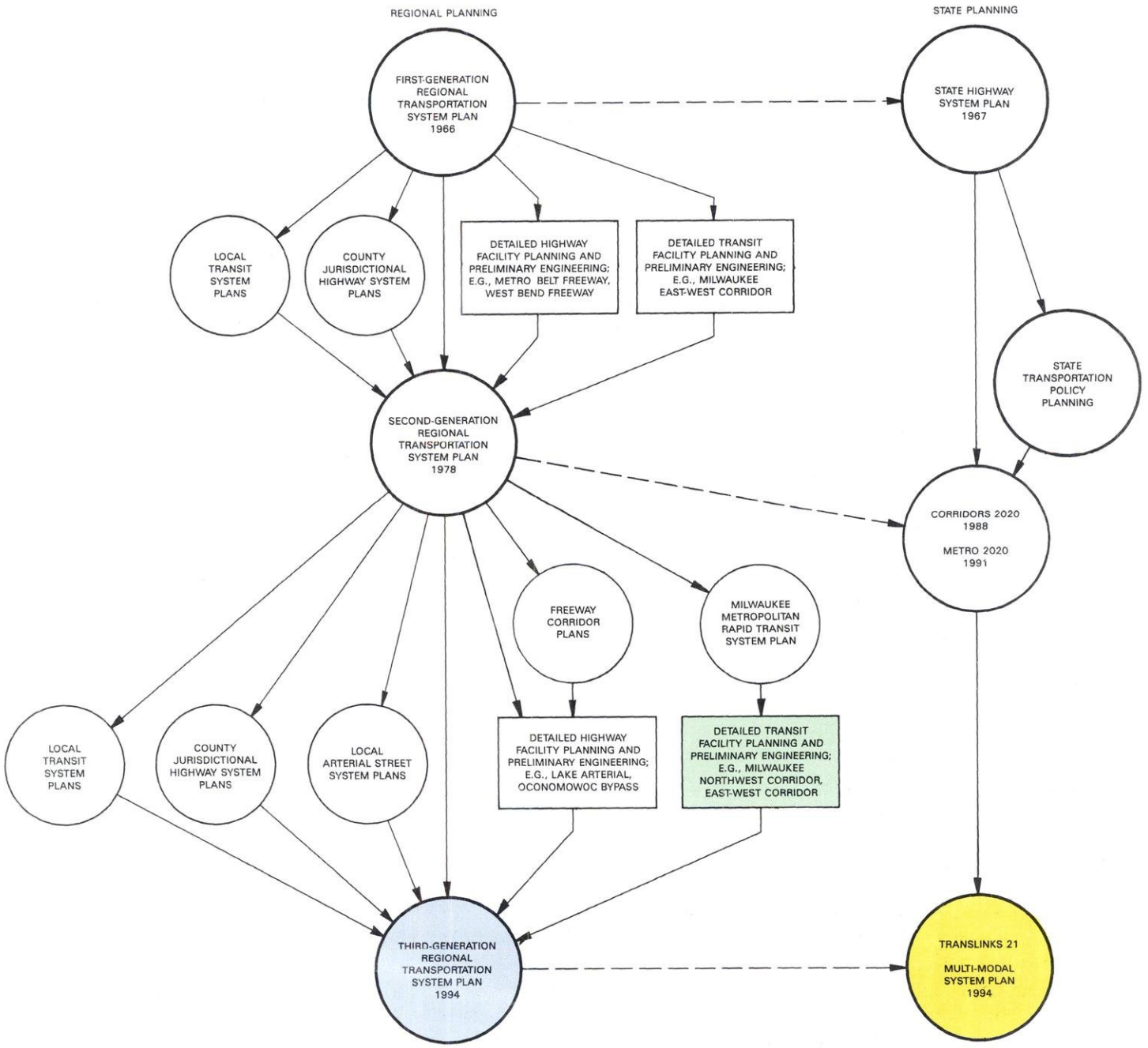
Let's turn first to the relationships between the Commission's current regional transportation system planning effort and the two planning efforts being sponsored by the Department of Transportation—TRANSLINKS 21 and the East-West Corridor transit study. The best way to understand these relationships is to view the broader relationship between the Commission and the Department in its historical context. That broad relationship is diagrammed on this slide [see Figure 1], as is the cyclical nature of the transportation planning process.

The Commission has always worked closely with the Wisconsin Department of Transportation and its predecessor agency, the State Highway Commission of Wisconsin. In 1966 the Commission completed what we now call the first-generation regional transportation system plan. That plan was unusual for its time in that it had both highway and transit elements, and in that it was based upon a land use plan. At that time, the State Highway Commission was preparing a State highway system plan. The two Commissions had an understanding that the regional and State highway planning efforts were to be fully coordinated and no work would be duplicated, with the regional arterial street and highway system plan to be directly incorporated into the State highway system plan. The latter plan was completed in 1967, and it did directly incorporate the regional plan as reflected on the top of the diagram.

Focus now at the bottom of the diagram on the third-generation regional transportation system plan, the preliminary version of which will be described to you later. While the State Highway Commission has now become a multimodal Department of Transportation, it remains the intent of both the Commission and the Department that the arterial street and highway, transit, bicycle, and pedestrian elements of the new

Figure 1

HISTORIC RELATIONSHIP BETWEEN MAJOR TRANSPORTATION PLANNING EFFORTS AFFECTING SOUTHEASTERN WISCONSIN



Source: SEWRPC.

regional transportation system plan—shown in blue—be directly incorporated into the forthcoming multimodal system plan that the Department is preparing under a process they call TRANSLINKS 21—shown in yellow. In a breakout session this afternoon, Randy Wade from the Department will describe the TRANSLINKS 21 planning effort. Basically, however, the State plan is intended to focus on the movement of passengers and freight between this Region and other regions in the State, and between the State and other areas of the Nation. As far as this Region is concerned, then, the TRANSLINKS 21 plan will incorporate the key elements of the new regional plan. The plans will thereby be fully consistent.

To understand how the Department's East-West Corridor transit study fits into the picture, it is first necessary to understand that the public works planning process is cyclical in nature, alternating between system planning, accomplished on an areawide or regional basis, and project planning, conducted for corridors and local areas. Transportation facilities are first proposed at the systems planning level, and then studied in greater detail in corridor or local-area facilities planning and preliminary engineering efforts. Depending upon the results of those more detailed efforts, the project is either advanced to implementation and it becomes a reality, or eliminated from further consideration.

The rectangular entries on this diagram identify, by way of example, the detailed highway and transit facilities planning and preliminary engineering efforts that were undertaken after the first- and second-generation regional transportation system plans were completed. Following the first system plan, there were detailed corridor studies for many proposed freeways. Some, like the West Bend Freeway, survived that process and have been constructed. Others, like the Metropolitan Belt Freeway, did not survive and have been eliminated from subsequent system plans. Some of you will remember that after the first regional system plan was completed, there was a detailed corridor study of a proposed busway in the East-West Freeway Corridor. The results of that study led to a decision in 1973 not to construct that busway paralleling the East-West Freeway. Interestingly, however, it was that early busway proposal that created the situation today where Wisconsin may receive up to $289 million in Federal Interstate Conversion Estimate funds—the so-called ICE monies.

The present Wisconsin Department of Transportation East-West Corridor transit study—shown in the green rectangular box—like a prior study for the Northwest Corridor conducted by the Commission for Milwaukee County, flows out of the second-generation regional transportation system plan and a subsequent refinement study—the Commission's Milwaukee-area rapid transit system plan. Ideally, that corridor study would have been completed by now, and firm decisions made as to whether or not such capital-intensive transit facilities as busways or light-rail lines should move forward to design and construction. But that corridor study has not yet been completed, and because we cannot wait for that completion, we must finish a third-generation regional transportation system plan without the benefit of knowing the results of the corridor study. All we can do at this time is reflect the present status of that study in the regional plan. It is the corridor study, however, and not the new regional system plan, that will be the vehicle for determining whether or not to proceed with an East-West Corridor busway or with light rail.

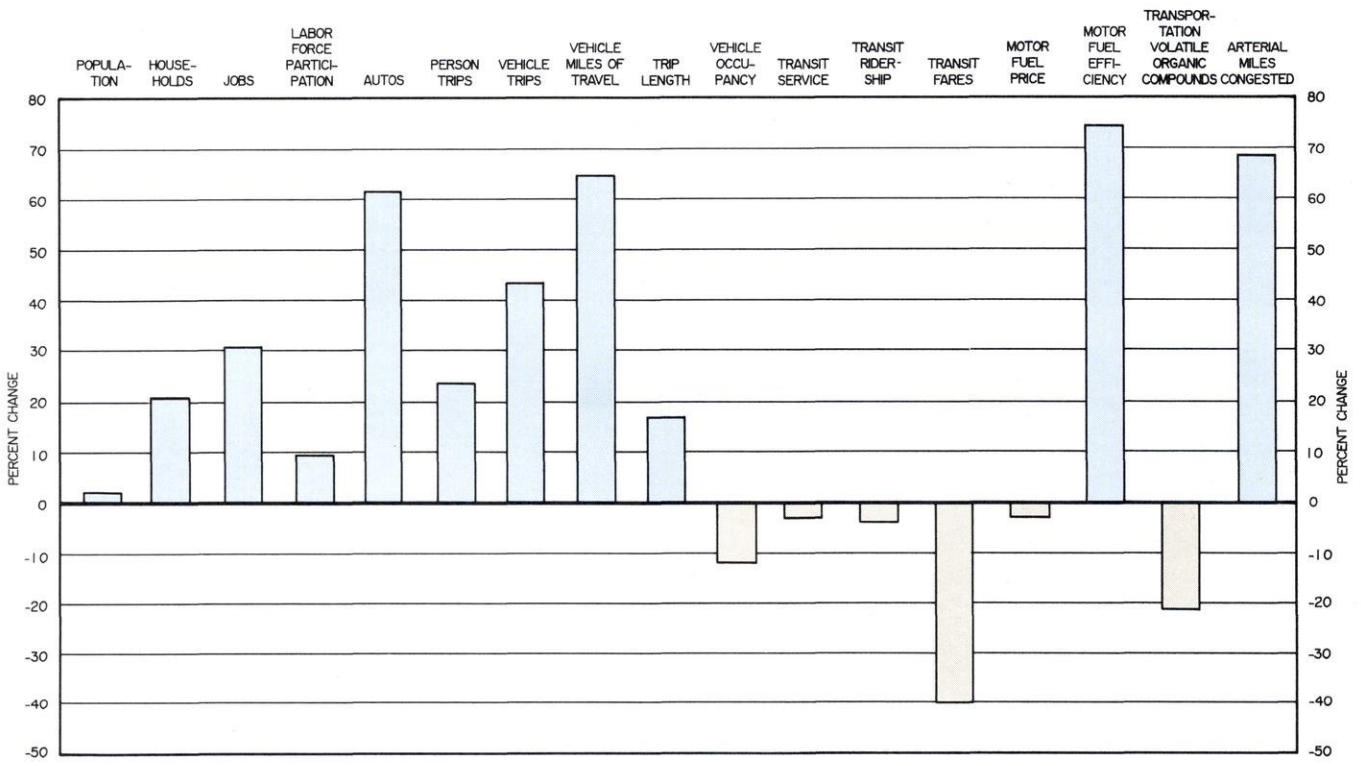
CHANGES IN SOUTHEASTERN WISCONSIN OVER THE PAST TWO DECADES

Now that you have—we hope—an understanding as to how the three current planning studies interrelate, let's move on to gaining a collective perspective as to the changes that have taken place in Southeastern Wisconsin over the past two decades. Knowledge of those changes will help you understand later why the Commission's advisory committees did what they did in guiding the preparation of the highway, transit, bicycle, and pedestrian elements of the proposed new regional transportation plan. Our focus in gaining this perspective will be on changing travel behavior in the Region.

One of our most important jobs as regional planners is to monitor growth and change in the Region. To do that, we rely both on primary data collection efforts, including regional origin and destination travel surveys conducted by the Commission from time to time, and secondary data collection efforts, including data collected by the U. S. Bureau of the Census. From all of that large body of data, we have extracted some in an attempt to characterize how, insofar as transportation is concerned, the Region has changed in the past 20 to 25 years. This slide [see Figure 2] shows in relative terms the measurements of those changes for 17 individual characteristics.

Figure 2

RELATIVE CHANGES IN SELECTED CHARACTERISTICS FOR SOUTHEASTERN WISCONSIN OVER THE PAST TWO DECADES



Source: SEWRPC.

There is a tendency to focus primarily on population size as the most important measure of growth and change. This can be misleading. From 1970 to 1990, the population of our Region was virtually stable, growing by less than 2 percent. Yet the number of households grew by 21 percent and the number of jobs by 31 percent. Household sizes were getting smaller and a greater proportion of the population was holding down jobs.

Turning to travel, there have been major increases in key areas. The number of automobiles available in the Region increased by 62 percent over the 20-year period. The number of person-trips made daily within the Region increased by 24 percent, while the number of vehicle-trips increased by 44 percent. The difference between the former and the latter increases may be explained by changes in two other areas: a decline of 12 percent in vehicle occupancy and a decline of 4 percent in transit ridership. Trip lengths increased on the average by 17 percent. These changes have combined to create a significant increase in the number of vehicle-miles traveled on the arterial street and highway system of the Region. Over the past two decades, that measure has increased by 65 percent.

Other changes of note relate to costs. Over the past two decades, the price of motor fuel, adjusted for inflation, has declined by about 3 percent. Transit fares, also adjusted for inflation, have been reduced by 40 percent.

The motor-vehicle fleet in the Region has become more fuel-efficient—up by 75 percent—and quite a bit cleaner, with harmful volatile-organic-compound emissions being reduced by about 21 percent despite the significant increase in travel.

The final measure shown on this slide is the number of miles of arterial streets and highways in the Region that operate at congestion levels during peak travel periods. Over the past two decades, that number has increased by 69 percent, reflecting in particular overcrowded freeways and arterial streets and highways in suburban areas.

The pie chart on this next slide [see Figure 3] illustrates the principal causes of the dramatic increase in travel. About 44 percent of the increase in travel may be accounted for simply by the fact that the residents of the Region are making more trips. While the population has not significantly increased, the fact that we have created more households and filled more jobs and have more automobiles available for use has resulted in increased travel. About 31 percent of the increase in travel may be attributed to significant increases in average trip lengths. We are not only traveling more; we are traveling longer distances. Work trips alone have stretched from an average of 7.5 to 9.1 miles per day, and that is each way. The last factor accounting for the increase in travel is the significant decline in vehicle occupancy. In 1972, nearly every other car on the road carried two or more persons. By 1991, only one in five cars carried two or more people. For the work trip, the decline has been even more significant, with only six out of every 100 cars going to work containing two or more persons.

Part of the reason for longer trips, and thereby increased travel, in the Region relates to the decentralization of homes and jobs. On this next slide [see Figure 4], the pie represents the 22 percent increase in nonschool trip-making that occurred over the past 20 years. The slices of the pie relate to the three geographic areas of the Region shown on the accompanying map: urban, or the central areas of Milwaukee, Racine, and Kenosha; suburban, or the remainder of Milwaukee County and adjacent areas in Ozaukee, Washington, and Waukesha Counties; and exurban, or the remainder of the Region. While trips internal to the urban areas declined over the past two decades, trips within the suburban area accounted for 39 percent of the increase in trips, and trips within the exurban area accounted for 24 percent of the increase in trips. The remainder of the increase is accounted for by travel between the three geographic areas. Given continued land use decentralization in the Region—with one out of every five new homes being placed in an area not recommended for such use in the regional land use plan—it should not be surprising that the great majority of the increase in trip-making and travel in the Region has occurred outside of the older established urban areas.

For added perspective, the pie charts on this next slide [see Figure 5] show the changes in what planners call the "modal split" in the Region over the past two decades. The number of trips made as auto-driver trips in 1972 approximated 64 percent of all trips. By 1991, that proportion had increased to 73 percent. Trips made as auto-passenger trips declined over the same period, from 27 percent to 19 percent. Trips made as transit-rider trips decreased from 4 percent to 3 percent, while trips made as riders on school buses increased slightly. Trips made by bicycle or walking approximated one-tenth of 1 percent in both years.

Finally, this next slide [see Figure 6] identifies arterial highway and transit expenditures in the Region. In 1972, there was only one public transit system in the Region—the Kenosha system, which became public in 1971. Accordingly, nearly all of the money spent in 1972—which approximated $97 million—was used for the arterial street and highway system, with about two-thirds being spent for capital projects and one-third for operation and maintenance. Only about two-tenths of 1 percent was spent on transit. By 1991, we collectively spent about $340 million per year on transportation. The public transit systems accounted for nearly 22 percent of that total, including about $53 million in operating subsidies. The arterial street and highway system accounted for the remaining 78 percent of the expenditures.

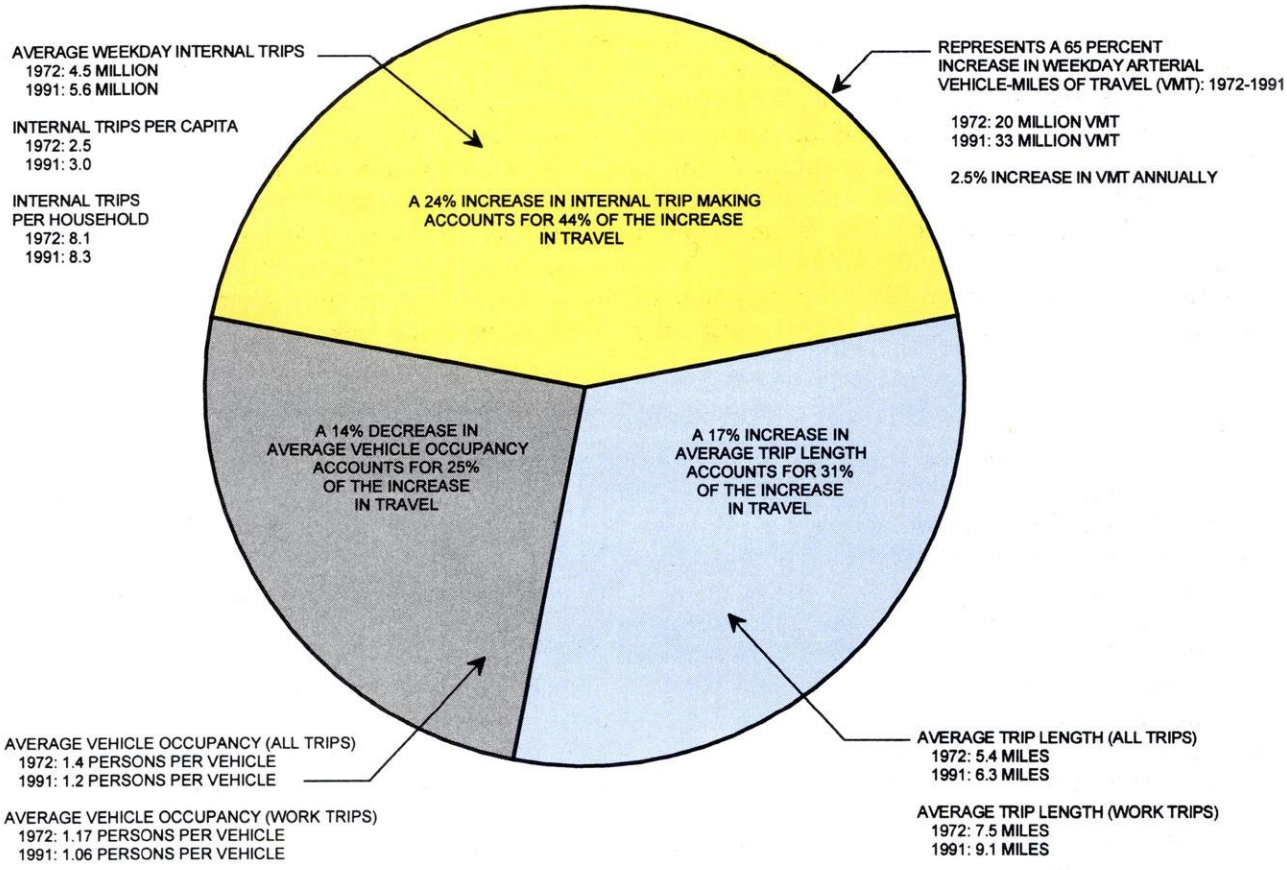
From the foregoing information, the following observations and conclusions may be drawn:

1. Despite a virtually stable population, changing lifestyles and a changing economy have resulted in significant increases in households and jobs. This alone has contributed significantly to increased travel in the Region.

2. With more automobiles available on a per person basis, with the significantly improved fuel efficiency of the vehicle fleet, and with a reduction in the real cost of motor fuel, both trip lengths and single-occupancy-vehicle trips have increased.

Figure 3

CAUSES OF INCREASE IN VEHICLE-MILES OF TRAVEL IN SOUTHEASTERN WISCONSIN OVER THE PAST TWO DECADES



Source: SEWRPC.

3. Even though transit fares have declined in real dollar terms, relatively cheap fuel, more fuel-efficient autos, and more autos available have contributed to a decline in transit ridership. This decline, together with such factors as a declining travel market in the central urban areas and political pressures to reduce the property-tax subsidy for transit, have led to a decrease in the amount of transit service provided.

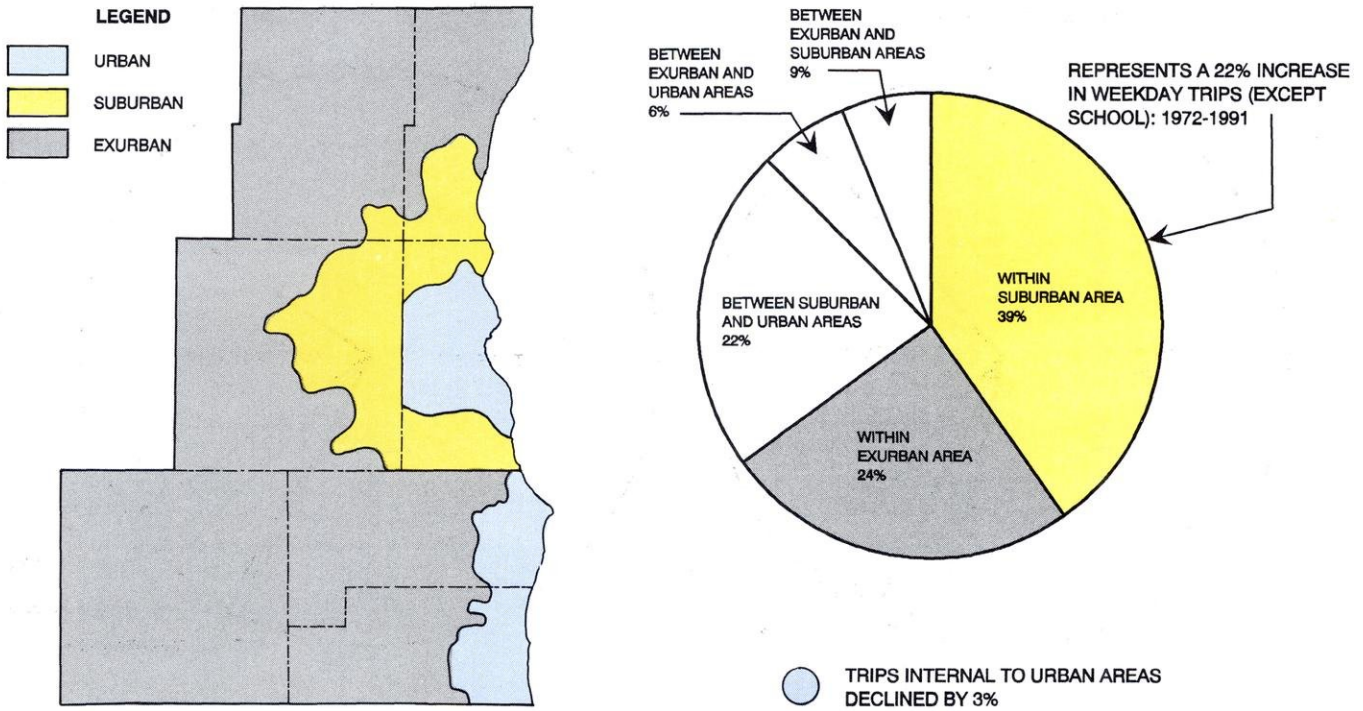
4. The continued decentralization of homes and jobs in the Region is a contributing factor to significant increases in automobile travel. This decentralization has also contributed to increases in traffic congestion, particularly on the freeways and in the outlying, newly developed portions of the Region.

REGIONAL TRANSPORTATION PLANNING PROCESS

The remainder of our remarks will focus on the process used to prepare the new regional transportation system plan and the alternative plans that were explored as that process moved along [see Figure 7]. The process began by estimating future travel demand. In Southeastern Wisconsin, every regional transportation system plan prepared has used as the basis for estimating future travel demand the recommended land use development pattern identified in a companion regional land use plan. The plan we are presenting to you today is no exception. The travel demand in the year 2010 is derived from the development patterns identified in the regional land use plan for 2010 that has been adopted by all seven County Boards. In this way, the new transportation system plan is intended to serve and promote a desirable regional land use pattern.

Figure 4

LOCATION OF INCREASE IN TRIP MAKING IN SOUTHEASTERN WISCONSIN OVER THE PAST TWO DECADES



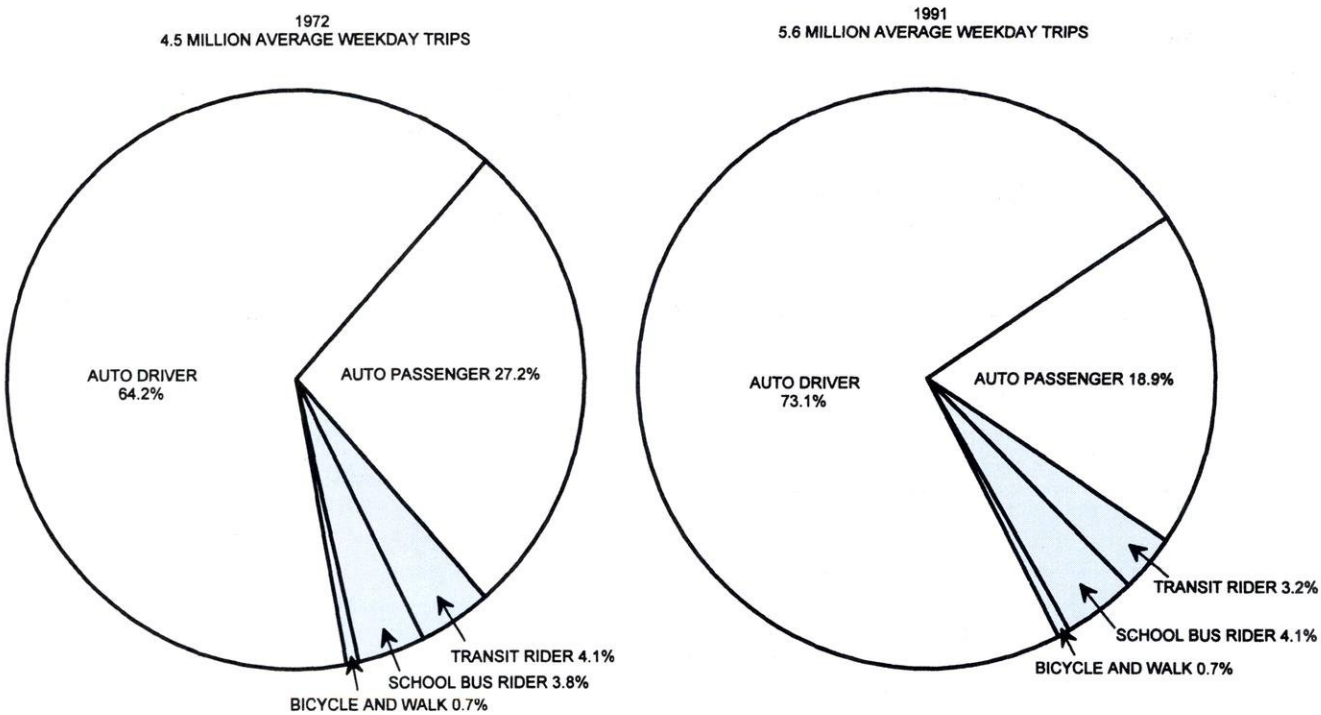
Source: SEWRPC.

The second step in the process essentially involves defining the future transportation problems to be addressed in the design of a new plan. This is accomplished by first defining what is termed a "no-build" plan. The Advisory Committee determined that the "no-build" highway and transit systems would be those that existed on January 1, 1994, plus any arterial street and highway and transit improvements committed for construction in calendar years 1994 and 1995. The forecast future travel demand was then assigned, using simulation models, to that "no-build" system. From those assignments a determination was made of the location and severity of anticipated traffic congestion in 2010. That congestion represented one of the problems to be resolved. Other analyses of the "no-build" plan related to identifying deficiencies in transit services, including the ability of the urban population to reach job locations within a desirable travel time.

The next step in the process was to identify the extent to which transportation system management actions could be used to resolve the problems in lieu of providing more highway capacity. Many different types of management actions are available for consideration and were explored as the process proceeded. They included traffic management measures, ranging from the major freeway traffic management system now being put in place in the greater Milwaukee area by the Wisconsin Department of Transportation, to the removal of curb parking during peak travel periods, to the coordinated timing of traffic signals. Other such management actions include measures where aggressive efforts are made to promote carpooling, vanpooling, transit use, bicycle use, telecommuting, and work-time rescheduling, all with a view toward either reducing automobile travel or shifting travel times in efforts to avoid additional capital investment in highway capacity. Also considered were detailed land use measures that would seek to promote travel by transit and to facilitate bicycle and pedestrian travel. This particular topic will be explored in detail during a breakout session this afternoon. Other actions include extended and improved transit service, with a particular emphasis on making transit service more competitive with the automobile and thereby encouraging use of transit by those who normally would use an automobile.

Figure 5

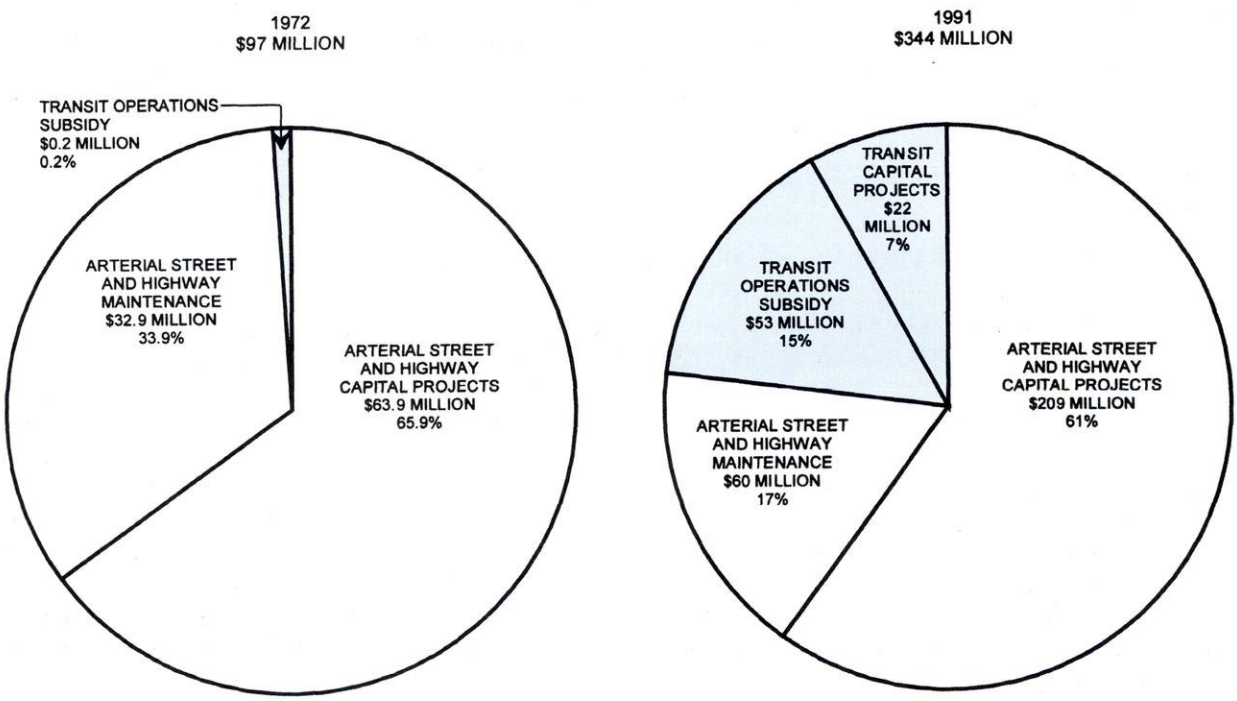
MODAL SPLIT IN SOUTHEASTERN WISCONSIN: 1972 AND 1991



Source: SEWRPC.

Figure 6

ARTERIAL STREET AND HIGHWAY AND TRANSIT EXPENDITURES IN SOUTHEASTERN WISCONSIN: 1972 AND 1991



Source: SEWRPC.

Finally—and this represents the only departure from past Commission planning practice—the potential to use pricing measures to dampen travel demand was fully explored as required by Federal law. This was accomplished by assuming that a way would be found to substantially increase the perceived cost of trip-making by automobile. Presently, that perceived cost approximates five and one-half cents per mile, and reflects only out-of-pocket motor-fuel and parking costs. In theory, if that perceived cost could be significantly increased, travel behavior would be affected by shifting trips now made by single-occupant automobile to auto-passenger, transit-rider, and bicycle-rider trips. This is the aspect of our work that recently received a great deal of attention from the print and electronic media in the Region.

Once all of the potential transportation system management and public transit actions were identified, specific combinations of actions were used to define alternative transportation system management plans. At that point, the simulation models were again applied to determine the extent to which each combination of management measures and transit improvements might resolve the future traffic congestion and transit service accessibility deficiency problems that were identified from the analysis of the "no-build" alternative.

With the results of that analytical step in hand, it was then possible to formulate final alternative regional transportation system plans by reviewing the traffic congestion that remained and by proposing specific arterial street and highway improvements that would add capacity and thereby relieve—or avoid creating—the congestion.

By following this process, full and adequate consideration was given to resolving existing and probable future transportation problems through demand management, traffic management, and public transit measures before any proposal to widen existing highways or build new highways was considered and placed into the plan. This approach made the regional planning process, in effect, the "congestion management system" envisioned under the Federal ISTEA law for metropolitan areas. It also ensures that capital investment in highway facilities would be minimized.

Time does not permit us to fully describe the alternative plans considered as the planning process moved forward. In addition to the "no-build" alternative, which, while always a possible policy option, primarily helped define the problems, the Advisory Committee formulated and evaluated three alternative plans [see Figure 8]. These plans were not assigned labels, but rather were simply called Plans 1, 2, and 3. The significant differences between Alternative Plans 1 and 3 are shown on this slide; Alternative Plan 2 falls about midway between Plans 1 and 3.

With respect to transportation system management measures, Plans 1 and 3 differed primarily in one major respect, and that is that under Plan 1 it was assumed that the perceived cost of driving would be doubled from five and one-half cents per mile to 11 cents per mile. It was recognized that this could be done in a number of ways, including the elimination of subsidized parking costs, supplemental vehicle-registration fees, travel-sensitive insurance payments at the gasoline pump, and motor-fuel taxes, among many possibilities. In order to truly affect travel behavior, however, individuals would have to perceive that their out-of-pocket costs to drive were significantly increased. Accordingly, for analysis purposes, it was assumed that the price of motor fuel would be increased by $1.10 per gallon. It wouldn't matter whether that increase came about through the operation of the market to increase the product cost of gasoline, or because of an additional motor-fuel tax, or some combination thereof. What is important is that the cost would truly double, and that the motorist would perceive that doubling and thereby possibly change his or her travel behavior. In Plan 3, there was no assumption of an increase in the perceived cost of driving in an effort to dampen our enthusiasm for traveling alone so often.

The other significant difference between Plan 1 and Plan 3 is the level of transit service provided. As compared to the current situation, Plan 1 would increase transit service, as measured by the number of vehicle-miles of transit provided, by 124 percent. By contrast, under Plan 3 that service increase would be 53 percent. Obviously, under Plan 1 transit service would be better, serving more people and job locations and doing so with more frequency.

The assumed doubling of the perceived cost of driving, together with the assumed greater increase in transit service under Plan 1, would have an impact. Under Plan 1, to resolve the residual congestion problems, it

Figure 7

REGIONAL TRANSPORTATION SYSTEM PLANNING PROCESS

- TRAVEL DEMAND DERIVED FROM REGIONAL LAND USE PLAN
- DEFINITION AND EVALUATION OF A "NO BUILD" PLAN
- IDENTIFICATION OF POTENTIAL TRANSPORTATION SYSTEM MANAGEMENT ACTIONS
  - TRAFFIC MANAGEMENT MEASURES
  - PROMOTIONAL MEASURES (E.G., RIDESHARING, MANAGEMENT ASSOCIATIONS)
  - DETAILED LAND USE MEASURES
  - EXTENDED AND IMPROVED TRANSIT SERVICE
  - PRICING MEASURES
- TEST AND EVALUATION OF ALTERNATIVE PLANS TO DETERMINE EXTENT TO WHICH MANAGEMENT MEASURES MEET NEEDS AND RESOLVE TRAFFIC CONGESTION PROBLEMS
- ADDITION TO ALTERNATIVE PLANS OF STREET AND HIGHWAY IMPROVEMENTS TO ADDRESS RESIDUAL CONGESTION
- PROCESS ENSURES THE MINIMIZATION OF CAPITAL INVESTMENT IN HIGHWAY FACILITIES

Figure 8

ALTERNATIVE PLANS CONSIDERED

- "NO BUILD" ALTERNATIVE
- SIGNIFICANT DIFFERENCES BETWEEN ALTERNATIVES

	PLAN 1	PLAN 3
— PRICING MEASURES TO DAMPEN TRAVEL DEMAND	DOUBLE THE PERCEIVED COST OF DRIVING; EQUAL TO $1.10 PER GALLON MOTOR FUEL TAX	NONE
— TRANSIT SERVICE	124% INCREASE	53% INCREASE
— NEW ARTERIAL HIGHWAYS	112 MILES	124 MILES
— WIDENED ARTERIAL HIGHWAYS	382 MILES	410 MILES

- BASIC CONCLUSION OF ALTERNATIVES ANALYSIS: DOUBLING THE PERCEIVED COST OF DRIVING WOULD LIKELY ACCOMPLISH THE FOLLOWING:
  - REDUCE VEHICLE-MILES OF TRAVEL BY 10%
  - REDUCE MOTOR FUEL CONSUMPTION BY 10%
  - REDUCE AIR POLLUTANT EMISSIONS BY 10%
  - INCREASE TRANSIT RIDERSHIP BY 45%
  - RESOLVE ABOUT 16% OF THE TRAFFIC CONGESTION PROBLEM

would be necessary to construct 112 miles of new highways and to widen 382 miles of existing highways. Under Plan 3, it would be necessary to construct 124 miles of new highways and to widen 410 miles of existing highways.

Based upon the analysis of these two quite different alternative plans, it may be concluded that if the perceived cost of travel were to be truly doubled, some change in travel behavior could be anticipated. Indeed, the analysis showed that total vehicle-miles of travel could be reduced by about 10 percent from that anticipated without an increase in the perceived cost of driving. This carries over to similar 10 percent reductions in motor-fuel consumption and air-pollutant emissions. Doubling the perceived cost of driving, combined with providing a significantly better level of transit service, could also be expected to increase transit ridership by about 45 percent. Finally, the alternatives analysis demonstrated that the assumed pricing measures and transit service levels under Plan 1 could be expected to resolve about 16 percent of the existing and probable future traffic congestion problems. Consequently, the remaining 84 percent of those problems can only be effectively addressed through the provision of additional capacity on the arterial street and highway system.

CONCLUDING REMARKS

When we began, we said that it was our assignment to provide you with context and perspective. We hope that we have done so. Thank you for your attention. We should now be ready to move on to the presentations of the preliminary recommended plans.

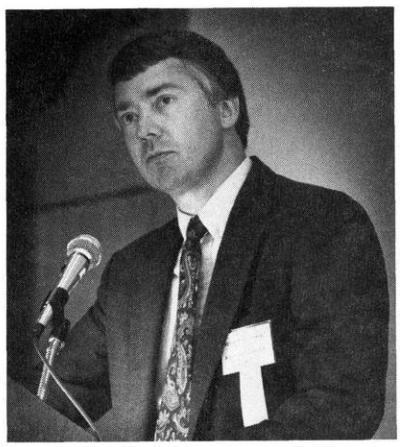
MR. FALSTAD:

Thank you, Phil, for sharing that information on behalf of the Commission. We will have to defer any questions until we can determine if there is adequate time for questions after the next two speakers have been heard. There should be ample opportunity for questions and answers during the concurrent focus sessions and open-house session this afternoon.

LATE MORNING PLENARY SESSION

OVERVIEW OF THE NEW REGIONAL TRANSPORTATION SYSTEM PLAN PRELIMINARY DEMAND MANAGEMENT, TRANSIT, AND HIGHWAY RECOMMENDATIONS

Kenneth R. Yunker, Assistant Director
Southeastern Wisconsin Regional Planning Commission



Mr. Kenneth R. Yunker

INTRODUCTION

Thank you, Chairman Falstad.

Our next task is to describe the new regional transportation system plan as it relates to public transit, transportation system management, and arterial streets and highways. Mr. Evenson noted some of the transportation system and travel characteristics which were considered in the preparation of the plan, as well as some of the alternative plans considered and evaluated by the Advisory Committee. The Advisory Committee did select as the basis for the development of the preliminary recommended plan the alternative plan which was described as "Alternative Plan 3" [see Figure 9]. The preliminary plan, at the direction of the Advisory Committee, does include about 12 percent more transit service than does Alternative Plan 3. It should also be noted that the preliminary recommended plan does not include any specific increase in the perceived cost of automobile use.

In this presentation, we will attempt to provide descriptions of the public transit, transportation systems management, and arterial street and highway recommendations of this preliminary new regional transportation system plan [see Figure 10]. This will be followed by a brief description of the key performance characteristics of the preliminary plan, and of its capital and operating costs, including a comparison of those costs to available revenues. The presentation will then close with some concluding remarks and observations concerning the preliminary plan.

TRANSIT SYSTEM ELEMENT OF PRELIMINARY PLAN

The preliminary recommended public transit system element of the plan proposes development of a true rapid transit system, development of a true express transit system, and significant improvement of the existing local bus transit systems [see Figure 11]. Map 1 displays the preliminary transit system recommendations and these three transit system service components.

Rapid Transit System Component

The proposed rapid transit system element would consist of buses operating over freeways, or in the alternative, railway passenger trains operating in commuter service, between the Milwaukee central business district and outlying portions of Milwaukee County, the Milwaukee urbanized area, and Southeastern Wisconsin [see Figure 12]. The proposed rapid transit bus routes are shown on the map with solid red lines, and the transit stations which they would serve are shown with black triangles.

- The proposed bus rapid transit service would operate in both directions providing both traditional commute and reverse-commute service.

- The proposed service would operate with some intermediate stops to increase accessibility to job centers, and to increase accessibility for reverse-commute travel from central residential areas within Milwaukee County.

- The proposed service would operate during peak traffic periods and on selected routes during the midday.

Figure 9

PRELIMINARY REGIONAL TRANSPORTATION SYSTEM PLAN

REFINEMENT OF ALTERNATIVE PLAN 3

- 12 PERCENT MORE TRANSIT SERVICE
- NO SPECIFIC INCREASE IN THE PERCEIVED COST OF THE AUTOMOBILE

Figure 10

RECOMMENDATIONS OF PRELIMINARY REGIONAL TRANSPORTATION SYSTEM PLAN

- PUBLIC TRANSIT
- SYSTEMS MANAGEMENT
- ARTERIAL STREETS AND HIGHWAYS

Figure 11

PRELIMINARY RECOMMENDED PUBLIC TRANSIT SYSTEM ELEMENT

KEY RECOMMENDATIONS:

- DEVELOPMENT OF A BUS RAPID TRANSIT SYSTEM COMPONENT
- DEVELOPMENT OF A BUS EXPRESS TRANSIT SYSTEM COMPONENT
- IMPROVEMENT OF THE EXISTING BUS LOCAL TRANSIT SYSTEM COMPONENT

Figure 12

BUS RAPID TRANSIT SYSTEM COMPONENT

- BUSES OPERATING OVER FREEWAYS BETWEEN THE MILWAUKEE CENTRAL BUSINESS DISTRICT AND OUTLYING PORTIONS OF MILWAUKEE COUNTY, MILWAUKEE URBANIZED AREA, AND SOUTHEASTERN WISCONSIN
  - "TRADITIONAL" COMMUTE AND "REVERSE" COMMUTE SERVICE
  - SELECTED INTERMEDIATE STOPS (SPACING OF 3 TO 5 MILES)
  - OPERATION DURING PEAK TRAFFIC AND MIDDAY PERIODS
  - PEAK PERIOD SERVICE FREQUENCY EVERY 5 TO 30 MINUTES, AND MIDDAY 30 TO 60 MINUTES
  - HIGH OVERALL TRIP AVERAGE SPEEDS OF ABOUT 25 MILES PER HOUR

- The proposed frequency of service provided would be every five to 30 minutes during peak periods and every 30 to 60 minutes during the midday.

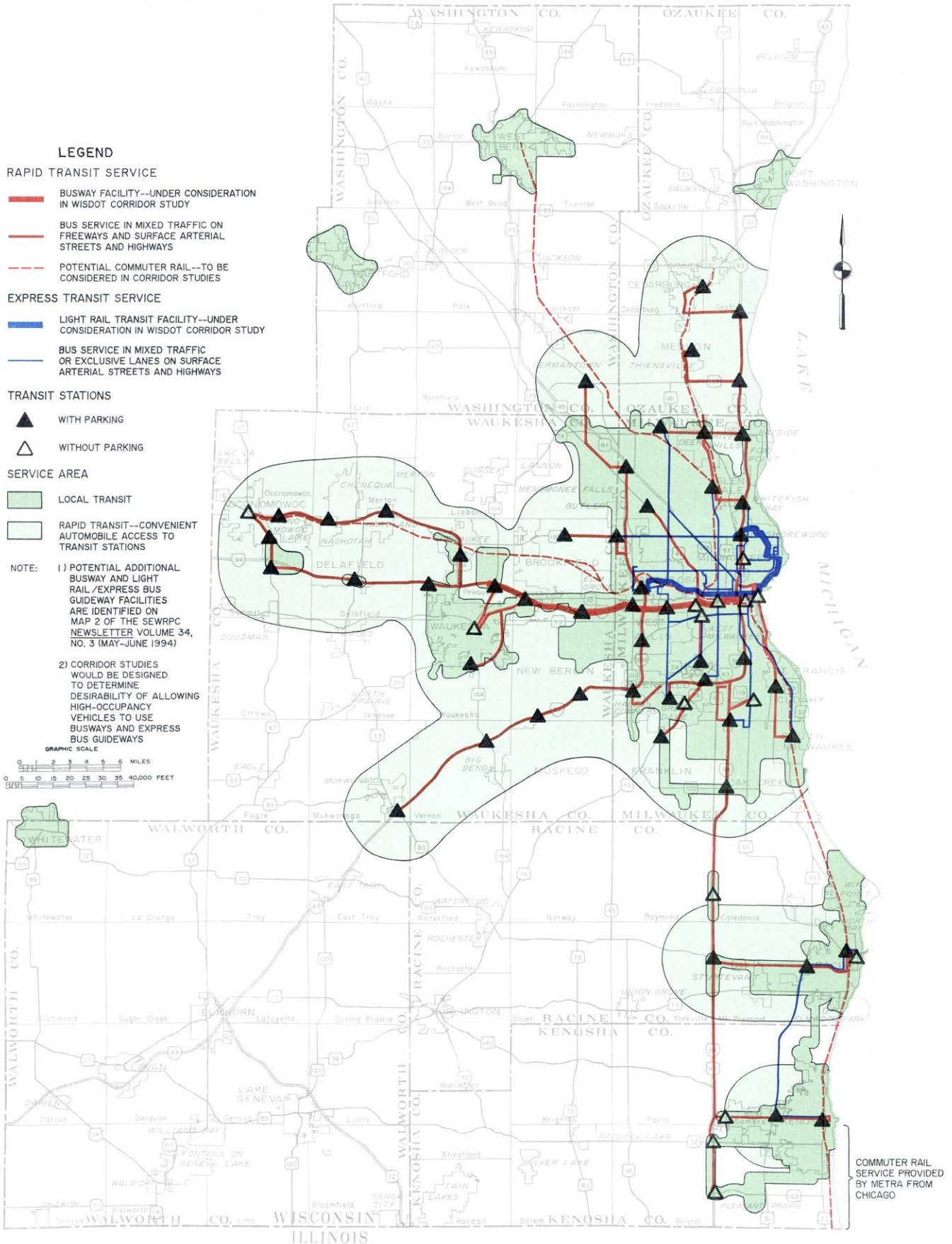
- The proposed service would provide transit service at relatively high overall travel speeds averaging 25 miles per hour, compared to typical local bus transit trips, which average 12 miles per hour.

The proposed rapid transit service would at least initially operate as buses over freeways in mixed traffic except in the East-West Corridor, where it would operate on the busway/high-occupancy-vehicle facility along the East-West Freeway now being recommended in a corridor study being completed by the Wisconsin Department of Transportation [see Figure 13]. Should the recommendations of that corridor study change, then the preliminary and final regional plan would have to be amended appropriately.

Pursuant to Federal regulations, the plan calls for supplemental corridor studies to be conducted to determine the feasibility of, and financing for, a number of additional busway/high-occupancy-vehicle rapid transit facilities. The plan envisions that these corridor studies would also consider as an alternative potential commuter-rail facilities in these corridors as options to the busways, as well as to the recommended bus-on-

Map 1

RECOMMENDED REGIONAL TRANSIT SYSTEM FOR SOUTHEASTERN WISCONSIN: 2010



Source: SEWRPC.

freeway service. The four potential commuter-rail facilities are shown with dashed red lines on Map 1. The potential commuter-rail lines extend in four corridors from downtown Milwaukee to Racine and Kenosha and on to Chicago; to Brookfield, Waukesha, and Oconomowoc; to Germantown and West Bend; and to Mequon, Cedarburg, and Grafton.

The recommended rapid transit service component of the plan represents a substantial improvement over existing "freeway flyer" bus service [see Figure 14]. The plan proposes more than a fourfold expansion of service, from 3,400 to 15,900 vehicle-miles of rapid transit service on an average weekday. This expansion of service is a result of new routes, including extensions of service across county boundaries and the provision of more frequent service. The recommended rapid transit service would strengthen service to the Milwaukee central business district, provide new rapid transit service to other job centers in Southeastern Wisconsin, and institute service for true "reverse-commute" travel.

Express Transit System Component

The second component of the public transit element of the plan is an express transit system component. This element is to consist principally of buses operating over a complete grid of limited-stop, high-speed routes in all major travel corridors of Milwaukee County [see Figure 15]. The express transit routes are shown as blue lines on Map 1. The plan envisions that this system of limited-stop routes would initially consist of buses operating in mixed traffic, then be upgraded to buses operating on reserved street lanes, and ultimately, based on corridor studies like the East-West Corridor study now under way, be considered for upgrading to light rail. As previously noted, the plan incorporates, as one of the recommended express transit routes, the light-rail facility in the East-West Corridor being recommended in the corridor study soon to be completed by the Wisconsin Department of Transportation. As envisioned under the preliminary plan:

- The express service would operate in both directions during peak periods as well as during the midday, evenings, and on weekends.
- The service would operate with stop spacing of about one-half to one mile.
- The frequency of service provided would be every 10 to 15 minutes during peak periods and 20 to 30 minutes during off-peak periods.
- The overall travel speed of transit trips on the express service would average 18 to 20 miles an hour, a significant improvement over the average 12-miles-per-hour speed typical of existing local transit service.

The recommended express transit service represents a substantial improvement over existing express transit service in Southeastern Wisconsin [see Figure 16]. The preliminary plan proposes more than a sixfold expansion of service, from 3,300 to 20,400 vehicle-miles of express service on an average weekday. This increase in express service is a result of new routes and as well of more frequent service and longer hours of service operation. The preliminary plan envisions a grid of higher-speed express transit routes in the Milwaukee area. This potential future system includes the East-West Corridor study-recommended light-rail facility from downtown Milwaukee to the northeast to the University of Wisconsin-Milwaukee and as well to the west to the Milwaukee Regional Medical Center, and also potential additional facilities to the southeast, to the southwest, and to the northwest.

Local Transit System Component

The third component of the transit system element of the plan consists of local transit service [see Figure 17]. Local transit service would continue to be provided by buses operating over a grid of arterial streets with stops every one-eighth to one-quarter mile. This is the predominant form of existing transit service in operation today, indeed, representing over 90 percent of existing transit service. The preliminary plan envisions a significant expansion of this local transit service—nearly a 30 percent increase over the present level of 56,000 to 72,000 vehicle-miles of service on an average weekday. The expansion of service would be a result of new and extended routes within developing areas located at the fringe of the existing transit service area, and also a result of more frequent service and extended hours and days of operation. Map 1 identifies in the dark green shade the proposed areas which are to receive local transit service.

Summary—Transit Service Element Preliminary Recommendations

In summary, the preliminary plan envisions a substantially expanded and improved public transit system within the Region [see Figure 18]. It envisions the development of both rapid and express transit systems. Indeed, the rapid and express transit facilities would represent nearly 35 percent of the total transit service in the plan design year, as opposed to under 10 percent today. The plan directly incorporates the preliminary recommendations of the Wisconsin Department of Transportation East-West Corridor study concerning light-rail and busway facilities, and it provides for potential expanded light-rail, busway, and commuter-rail facilities. The plan also recommends improvement of existing local transit service. In total, transit service, measured in terms of vehicle-miles of service on an average weekday, would be increased from an existing 63,300 vehicle-miles of service to a planned 108,600 vehicle-miles of service.

TRANSPORTATION SYSTEMS MANAGEMENT ELEMENT OF PRELIMINARY PLAN

The preliminary plan includes a transportation systems management element [see Figure 19]. Transportation systems management is intended to encourage more efficient use of transportation facilities. It includes so-called travel demand management measures to encourage carpooling and transit travel and reduce vehicular travel, and so-called traffic management measures, which seek to obtain the maximum vehicular capacity possible from existing highway facilities. The transportation systems management recommendations of the preliminary plan include the following:

- An areawide program to aggressively promote carpooling, vanpooling, transit ridership, telecommuting, and work-time rescheduling as alternatives to vehicular travel.

- An areawide freeway traffic management system which would provide for more efficient use of freeway traffic-carrying capacity through incident management, advisory information, and expanded centrally controlled ramp-metering systems, and would promote carpool and transit use through provision of bypasses at ramp meters for carpool and transit vehicles.

- Continued and expanded peak period-peak direction curb parking restrictions on a total of 464 miles of streets to provide additional traffic-carrying capacity.

- Application of good traffic engineering practices throughout the Region, including intersection treatments with turn lanes as needed and efficient traffic signalization, including signal progression.

- The facilitation of transit, bicycle, and pedestrian travel through implementation of the adopted regional land use plan, including preparation and implementation of detailed neighborhood and site plans for developing and redeveloping areas with appropriate land use mixtures and densities, and convenient pedestrian and bicycle pathways.

ARTERIAL STREET AND HIGHWAY SYSTEM ELEMENT OF PRELIMINARY PLAN

Finally, the new preliminary regional transportation system plan includes an arterial street and highway system element [see Figure 20]. There are presently about 3,274 miles of existing arterial streets and highways in the seven-county Region. The existing arterial street and highway system accounts for about 29 percent of the total existing 11,200 miles of streets and highways in Southeastern Wisconsin. The arterial street and highway system is that component of the total street and highway system that has as its principal function the movement of traffic. This contrasts with nonarterial streets, also known as land access and collector streets, which have as their principal function the provision of access to abutting property, and the connection of the land access streets to the arterials.

Currently, in the seven-county Southeastern Wisconsin Region, the arterial street and highway system carries about 97 percent of the total average weekday travel, with the public transit system carrying only about 3 percent of the total weekday travel. Even with the greatly expanded transit system envisioned in the plan, a desirable future land use pattern, and the travel demand management measures incorporated in the preliminary plan, the arterial street and highway system will be required to carry over 96 percent of total travel and, as a result, will need to accommodate by the year 2010 a 30 percent increase in highway traffic.

Figure 13

- RAPID TRANSIT SERVICE WOULD OPERATE OVER FREEWAYS IN MIXED TRAFFIC, EXCEPT IN THE EAST-WEST CORRIDOR WHERE THEY WOULD OPERATE ON THE BUSWAY/HIGH-OCCUPANCY-VEHICLE FACILITY ALONG THE IH 94 FREEWAY NOW BEING RECOMMENDED IN A CORRIDOR STUDY BEING COMPLETED BY WISDOT
  - POTENTIAL ADDITIONAL BUSWAY FACILITIES FORMING A BUSWAY SYSTEM IDENTIFIED. SUCH FACILITIES WOULD REQUIRE SIMILAR CORRIDOR STUDIES
  - POTENTIAL ALTERNATIVE COMMUTER RAIL FACILITIES TO BE CONSIDERED IN THESE CORRIDOR STUDIES AS OPTIONS TO THE BUSWAYS, AS WELL AS TO THE BUS-ON-FREEWAY SERVICE

Figure 14

- RECOMMENDED RAPID TRANSIT SERVICE WOULD REPRESENT A SUBSTANTIAL INCREASE OVER EXISTING "FREEWAY FLYER" SERVICE
  - MORE THAN A FOURFOLD EXPANSION OF SERVICE FROM 3,400 TO 15,900 VEHICLE-MILES OF SERVICE ON AN AVERAGE WEEKDAY

Figure 15

EXPRESS BUS TRANSIT SYSTEM COMPONENT

- BUSES OPERATING OVER A GRID OF LIMITED STOP ROUTES, PROVIDING ACCESSIBILITY IN ALL MAJOR TRAVEL CORRIDORS OF MILWAUKEE COUNTY
  - INITIALLY TO CONSIST OF BUSES IN MIXED TRAFFIC, THEN BE UPGRADED TO BUSES IN RESERVED STREET LANES, AND ULTIMATELY, BASED ON CORRIDOR STUDIES POTENTIAL TO BE UPGRADED TO LIGHT RAIL
  - THE PLAN INCORPORATES THE LIGHT RAIL FACILITY IN THE EAST-WEST CORRIDOR BEING RECOMMENDED IN A CORRIDOR STUDY SOON TO BE COMPLETED BY WISDOT
  - SERVICE WOULD OPERATE IN BOTH DIRECTIONS
  - SERVICE WOULD OPERATE DURING PEAK PERIODS, MIDDAY, EVENINGS, AND WEEKENDS
  - STOP SPACING OF 1/2 TO 1 MILE
  - SERVICE FREQUENCY EVERY 10 TO 15 MINUTES DURING PEAK PERIODS AND 20 TO 30 MINUTES DURING OFF-PEAK PERIODS
  - OVERALL TRIP AVERAGE SPEEDS OF 18 TO 20 MILES PER HOUR

Figure 16

- RECOMMENDED EXPRESS TRANSIT SERVICE WOULD REPRESENT A SUBSTANTIAL INCREASE OVER EXISTING "EXPRESS" SERVICE
  - MORE THAN A SIX-FOLD EXPANSION OF SERVICE FROM 3,300 TO 20,400 VEHICLE-MILES OF SERVICE ON AN AVERAGE WEEKDAY

Figure 17

LOCAL TRANSIT SYSTEM COMPONENT

- BUSES OPERATING OVER ARTERIAL STREETS WITH FREQUENT STOPS (PREDOMINANT FORM OF EXISTING TRANSIT SERVICE—90% OF EXISTING SERVICE)
  - PLAN ENVISIONS A SIGNIFICANT EXPANSION—30 PERCENT—OVER EXISTING SERVICE FROM 56,000 TO 72,000 VEHICLE-MILES OF SERVICE ON AN AVERAGE WEEKDAY

Figure 18

SUMMARY—TRANSIT SERVICE ELEMENT RECOMMENDATIONS

- DEVELOPMENT OF TRUE RAPID AND EXPRESS TRANSIT SYSTEM ELEMENTS
- IMPROVEMENT OF LOCAL TRANSIT SYSTEM ELEMENT
- OVERALL 72 PERCENT EXPANSION OF SERVICE MEASURED IN TERMS OF VEHICLE-MILES OF SERVICE

Figure 19

PRELIMINARY RECOMMENDED TRANSPORTATION SYSTEMS MANAGEMENT ELEMENT

- AREAWIDE PROGRAM TO PROMOTE CARPOOLING, VANPOOLING, TRANSIT RIDERSHIP, TELECOMMUTING, AND WORK TIME RESCHEDULING
- AREAWIDE FREEWAY TRAFFIC MANAGEMENT SYSTEM
- CONTINUED AND EXPANDED PEAK PERIOD-PEAK DIRECTION CURB PARKING RESTRICTIONS ON A TOTAL OF 464 MILES OF STREETS
- APPLICATION OF GOOD TRAFFIC ENGINEERING PRACTICES
- FACILITATION OF TRANSIT, BICYCLE, AND PEDESTRIAN TRAVEL THROUGH IMPLEMENTATION OF THE ADOPTED REGIONAL LAND USE PLAN

Figure 20

PRELIMINARY RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM ELEMENT

- 3,274 MILES OF EXISTING ARTERIAL STREETS AND HIGHWAYS IN THE SEVEN-COUNTY REGION
  - ACCOUNT FOR 29 PERCENT OF THE TOTAL 11,200 MILES OF STREETS AND HIGHWAYS IN SOUTHEASTERN WISCONSIN
  - CURRENTLY CARRY 97 PERCENT OF TOTAL WEEKDAY TRAVEL, AND EVEN WITH EXPANDED TRANSIT, DESIRABLE FUTURE LAND USE, AND TRAVEL DEMAND MANAGEMENT WILL BE REQUIRED TO CARRY 96 PERCENT OF TOTAL TRAVEL
  - AS A RESULT WILL NEED TO ACCOMMODATE A 30 PERCENT INCREASE IN TRAVEL
- RECOMMENDED YEAR 2010 ARTERIAL STREET AND HIGHWAY SYSTEM IS A SYSTEM OF 3,614 MILES, AN INCREASE OF 340 MILES, INCLUDING 212 MILES OF EXISTING FACILITIES WHICH WILL SERVE AN ARTERIAL FUNCTION AND 128 MILES OF NEW FACILITIES

Figure 21

PLAN RECOMMENDATIONS

- SYSTEM EXPANSION
- SYSTEM IMPROVEMENT
- SYSTEM PRESERVATION

Figure 22

- SYSTEM EXPANSION
  - RECOMMENDED 128 MILES OF NEW FACILITIES (INCLUDES 11 MILES UNDER CONSTRUCTION OR PROGRAMMED FOR SUCH IN 1995)
  - 3 PERCENT OF TOTAL SYSTEM

Figure 23

- SYSTEM IMPROVEMENT
  - RECOMMENDED 418 MILES OF FACILITIES TO BE WIDENED OR OTHERWISE SIGNIFICANTLY IMPROVED (INCLUDES 47 MILES UNDER CONSTRUCTION OR PROGRAMMED FOR SUCH IN 1995)
  - 12 PERCENT OF TOTAL SYSTEM

The preliminary recommended year 2010 arterial street and highway system consists of 3,614 miles of facilities. This represents an increase of 340 miles over the existing arterial system, including 212 miles of existing facilities which may be expected to begin to serve an arterial function by the year 2010 and 128 miles of new facilities proposed for construction.

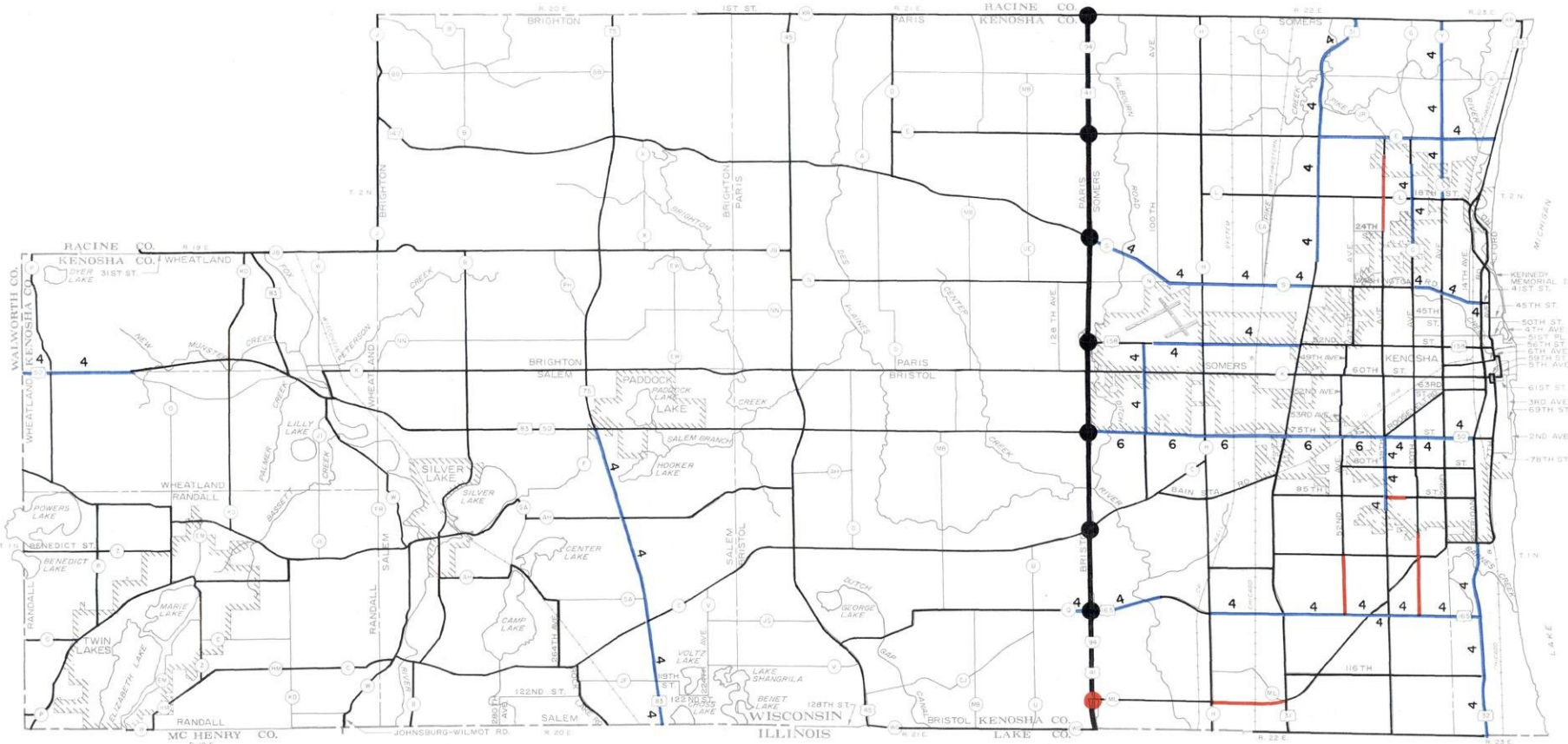
The plan recommendations for the arterial street and highway system can be divided into three categories: system expansion recommendations; that is, the proposed construction of arterial facilities; system improvement recommendations; that is, existing arterial facilities proposed to be widened to carry additional traffic lanes or otherwise significantly improved, for example, improved from expressway to freeway design standards; and system preservation, or existing arterial facilities proposed for resurfacing and reconstruction as needed to the same capacity as exists today [see Figure 21]. The recommendations by county are shown on Maps 2 through 8.

The system expansion recommendations of the preliminary plan include 128 miles of new arterial facilities [see Figure 22]. These 128 miles include 11 miles of facilities already under construction or programmed for such construction in 1995. This system expansion component represents about 3 percent of the total planned arterial street and highway system in Southeastern Wisconsin. The arterial system expansion component of the plan largely reaffirms the need for long-planned new arterial facilities, including the Burlington bypass in Racine County, the Waukesha bypass and segments of extensions of Barker Road in Waukesha County, and the Clover Road and Arthur Road extensions in Washington County.

The system improvement recommendations of the preliminary plan include a recommended 418 miles of existing arterial facilities proposed to be widened to carry additional traffic lanes or otherwise significantly improved [see Figure 23]. These 418 miles include 47 miles of such improvements now under construction or programmed for construction in 1995. The 418 miles represent 12 percent of the total planned arterial street and highway system. The system improvement component of the arterial street and highway element represents in part a reaffirmation of the need for long-planned arterial street and highway system improvements, including improvements to STH 31 in northern Kenosha and southern Racine Counties; STH 50 in Kenosha and Walworth Counties; Greenfield Avenue and Racine Avenue in Waukesha County;

Map 2

PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR KENOSHA COUNTY: 2010



LEGEND

ARTERIAL STREET OR HIGHWAY

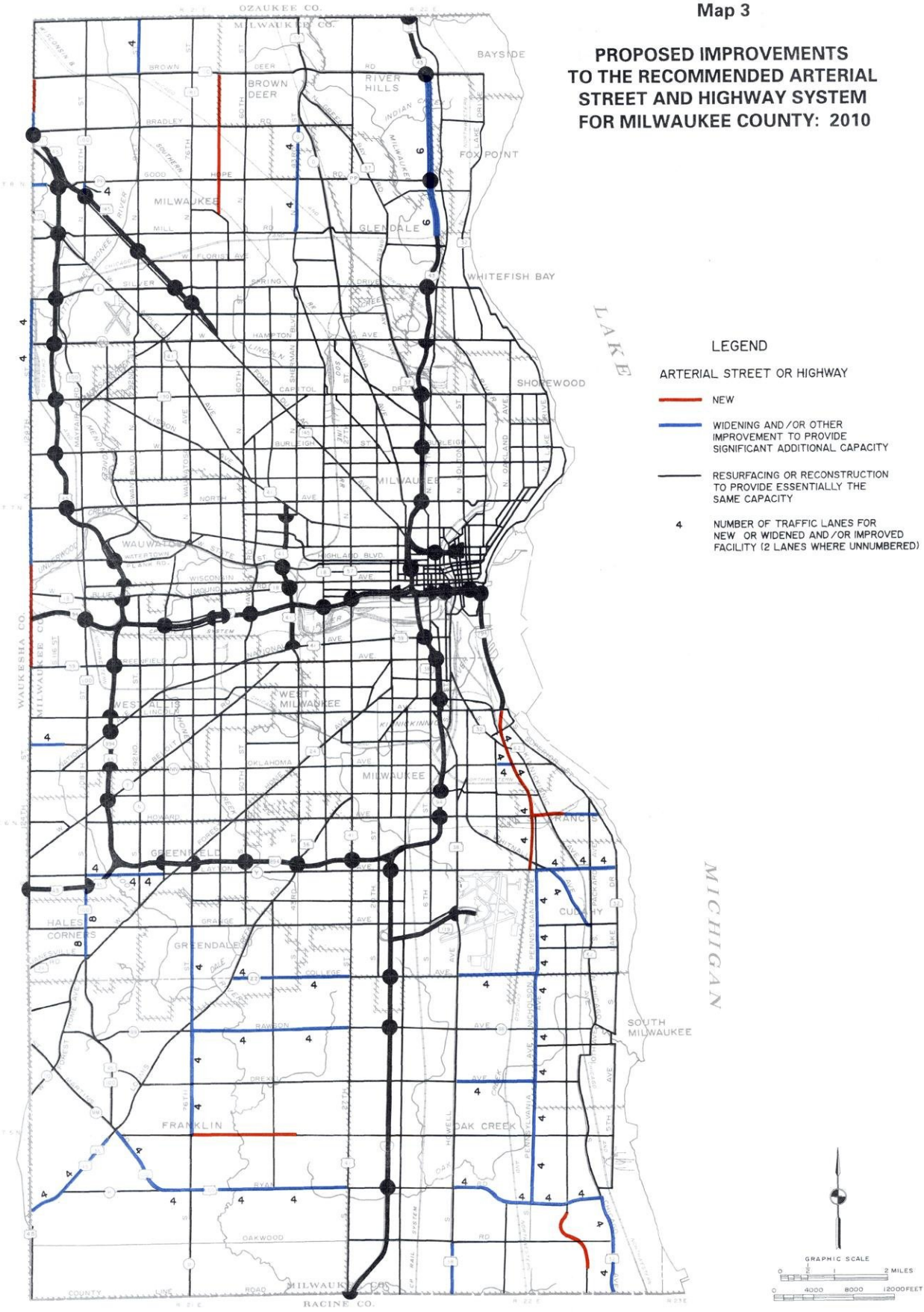
- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 LANES WHERE UNNUMBERED)

GRAPHIC SCALE
0 1/2 1 2 MILES
0 4000 8000 12000 FEET

Source: SEWRPC.

Map 3

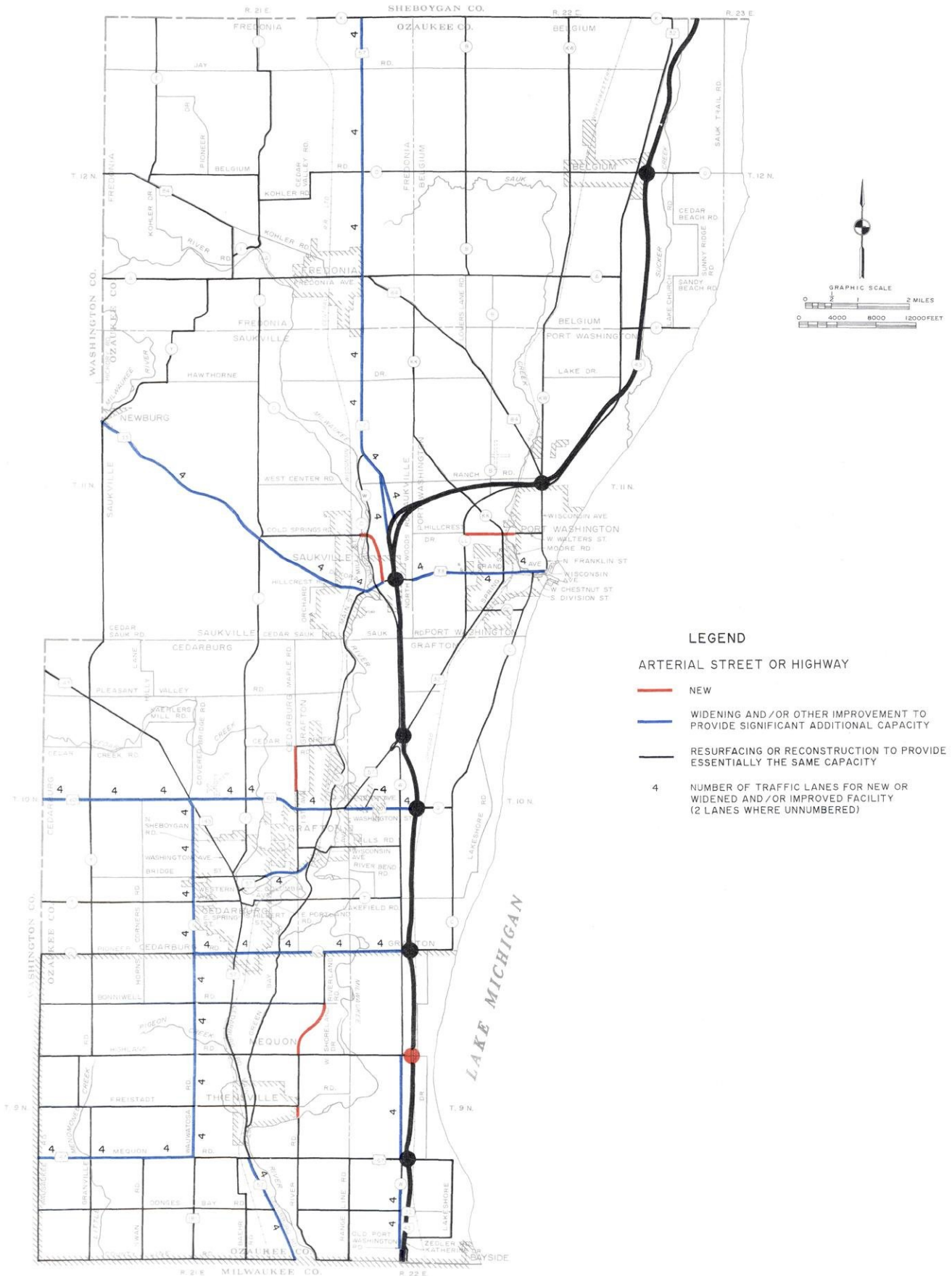
PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR MILWAUKEE COUNTY: 2010



Source: SEWRPC.

Map 4

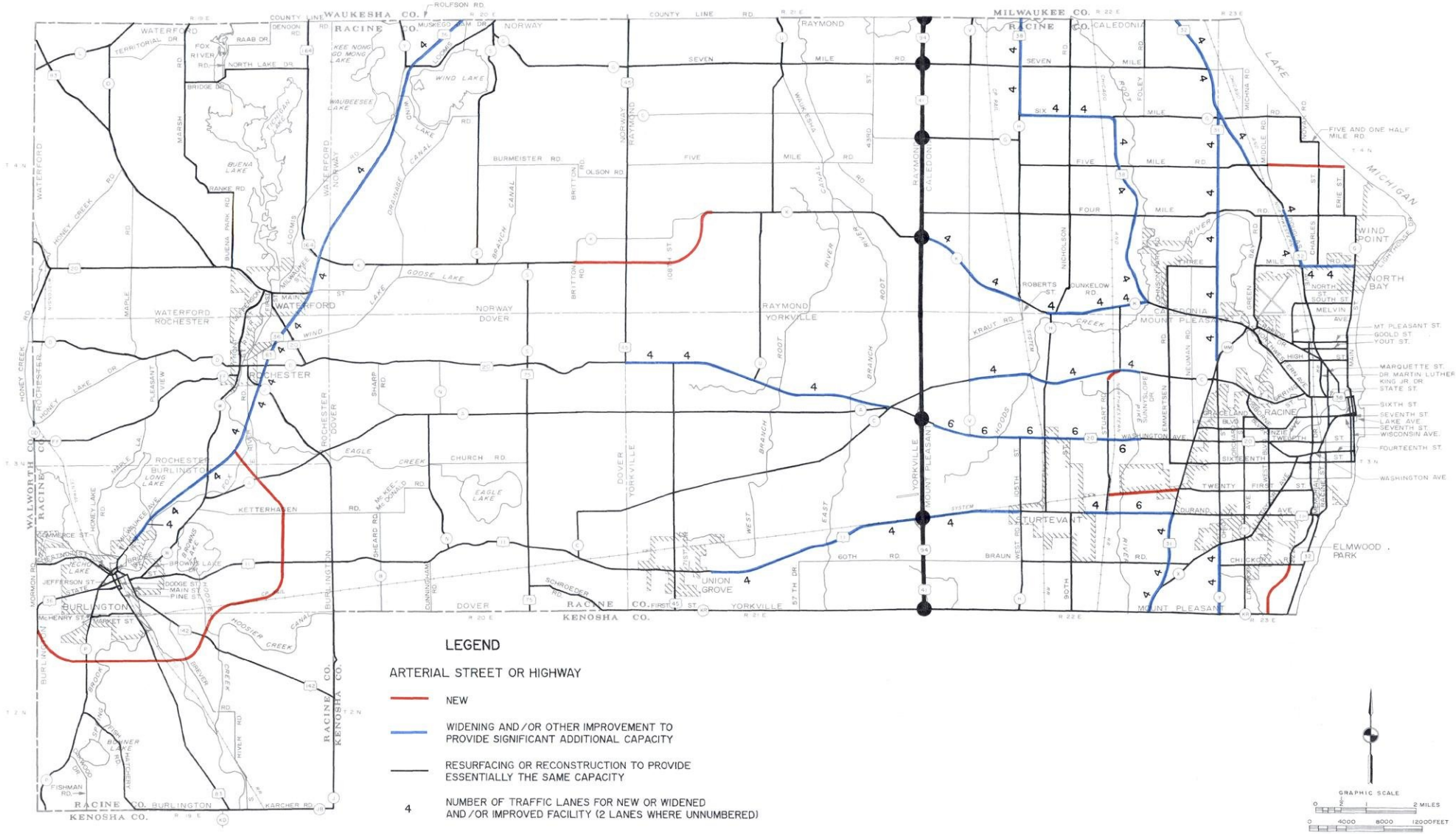
PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR OZAUKEE COUNTY: 2010



Source: SEWRPC.

Map 5

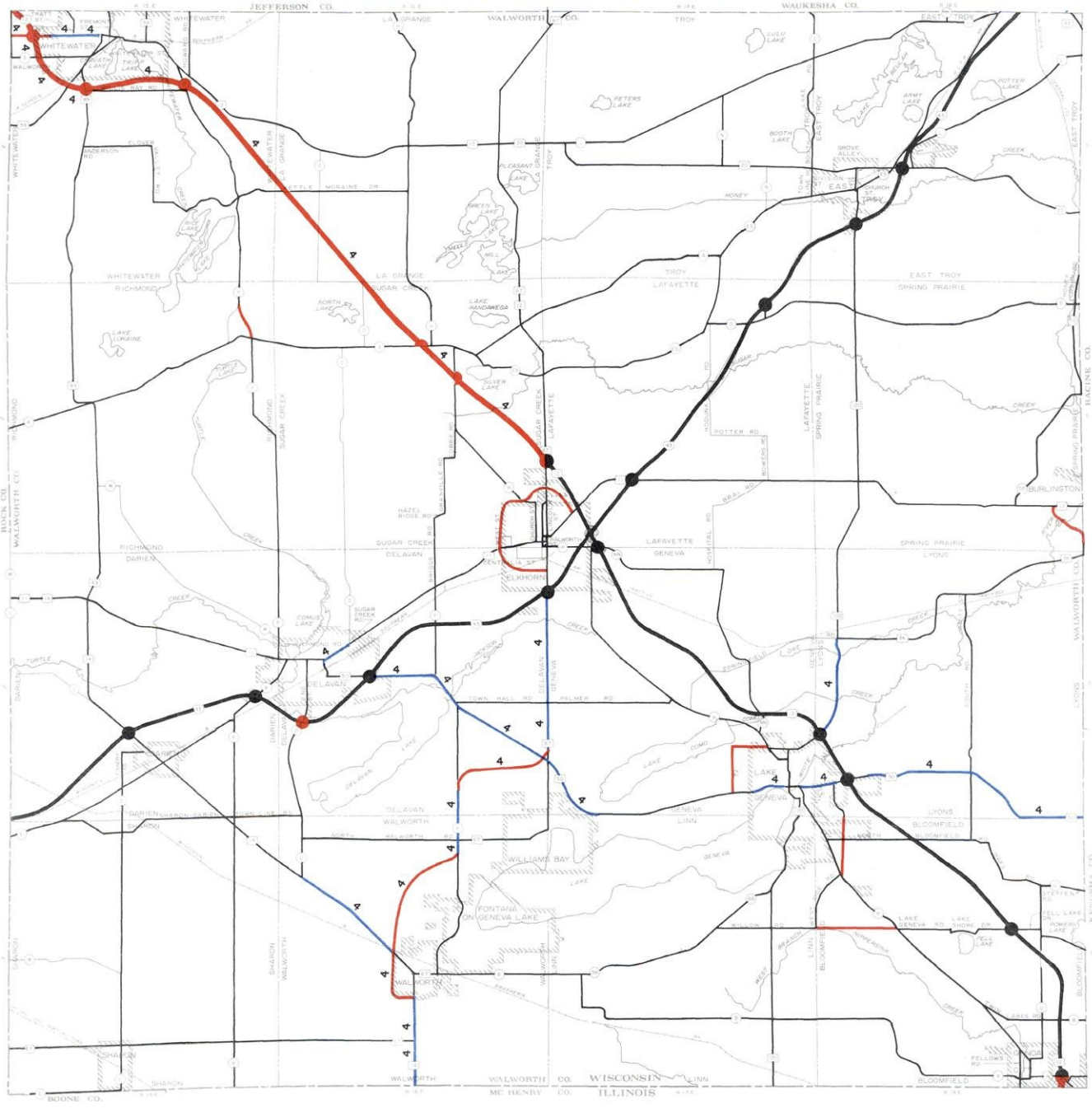
PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR RACINE COUNTY: 2010



Source: SEWRPC.

Map 6

PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR WALWORTH COUNTY: 2010



LEGEND

ARTERIAL STREET OR HIGHWAY

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

GRAPHIC SCALE

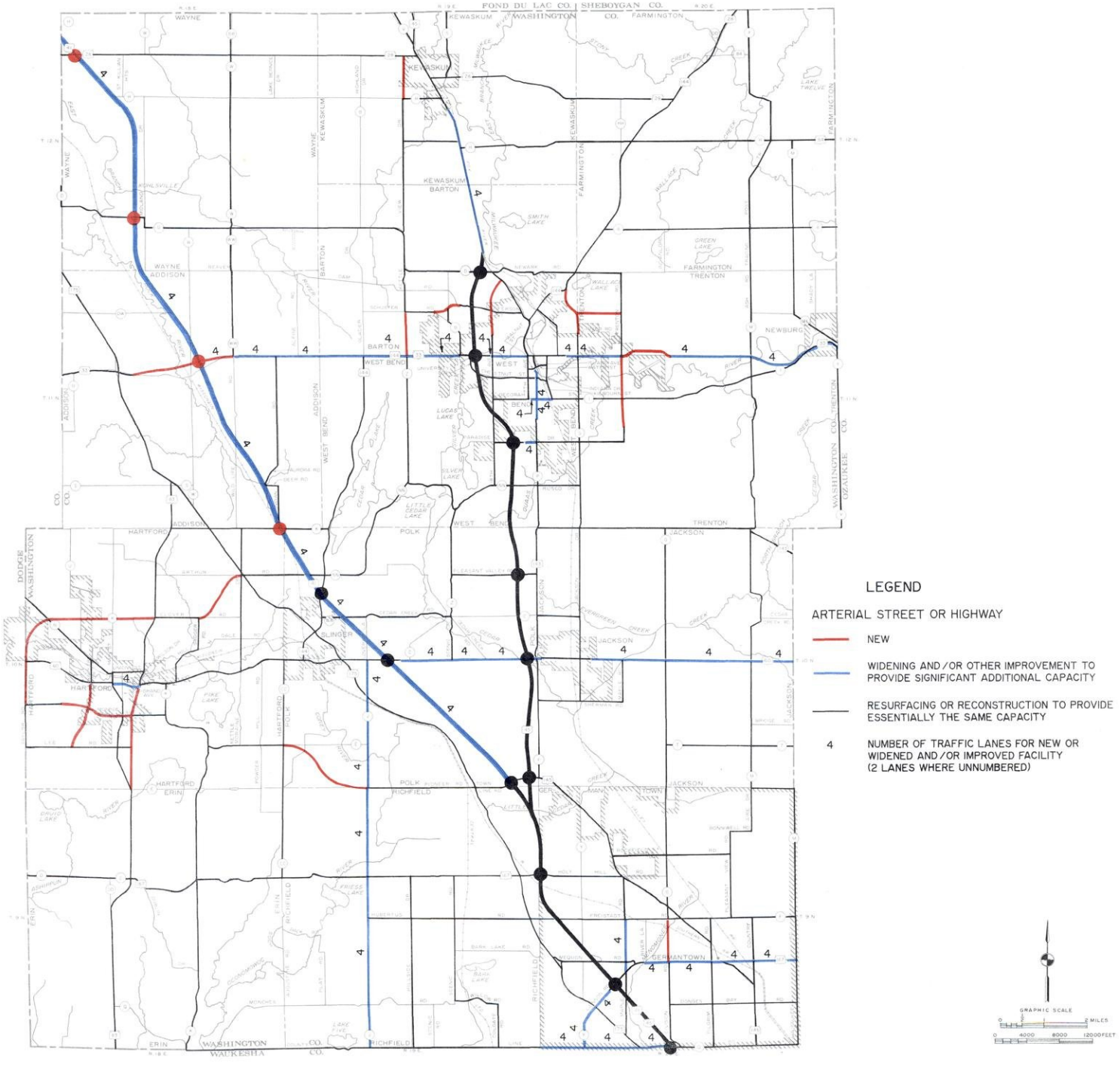
0 1 2 MILES

0 4000 8000 12000 FEET

Source: SEWRPC.

Map 7

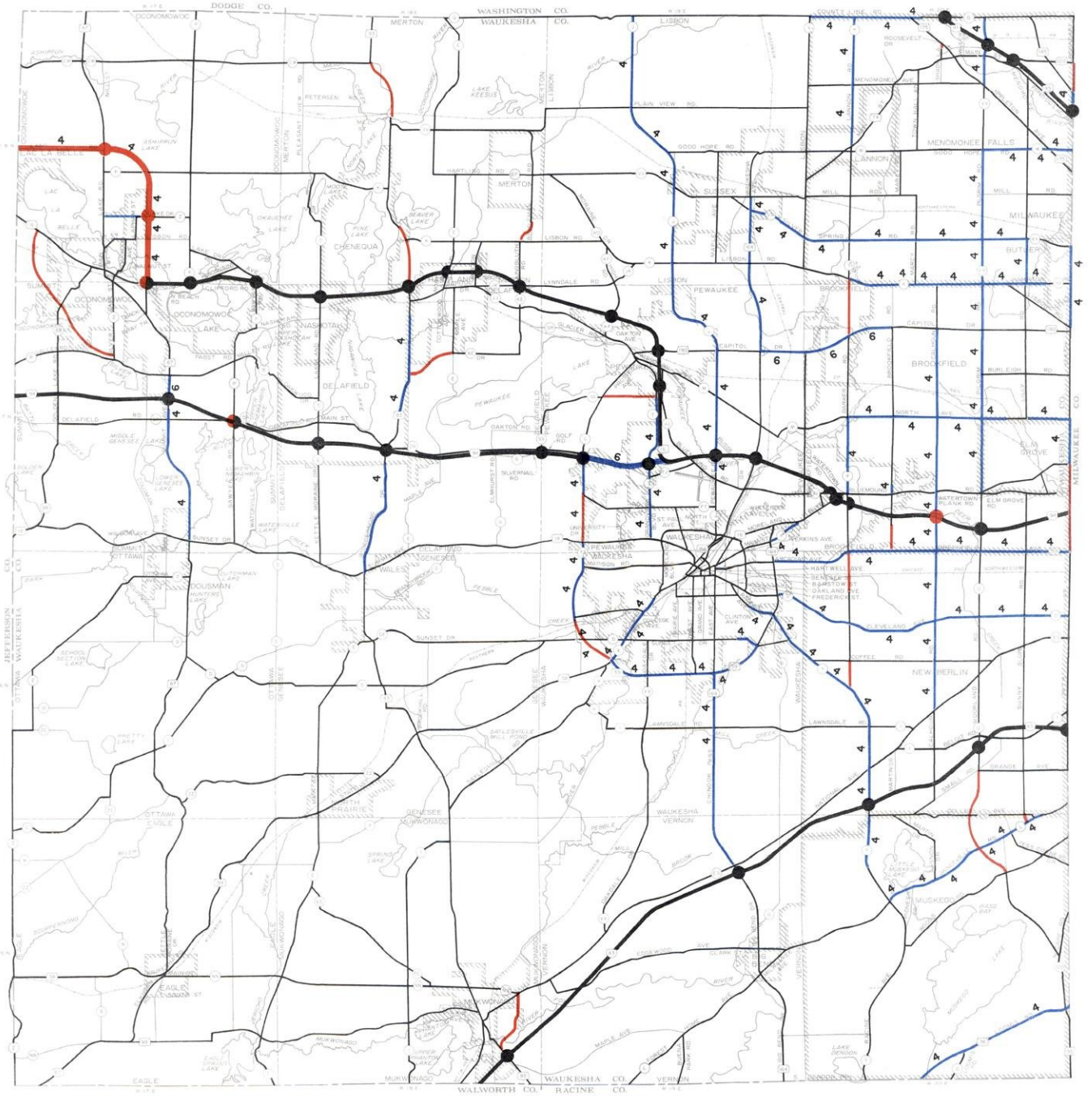
PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR WASHINGTON COUNTY: 2010



Source: SEWRPC.

Map 8

PROPOSED IMPROVEMENTS TO THE RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM FOR WAUKESHA COUNTY: 2010



LEGEND

ARTERIAL STREET OR HIGHWAY

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

Source: SEWRPC.

STH 33 in Washington County; and Wauwatosa Road in Ozaukee County. The system improvement recommendations include some new proposals, such as the proposed widening of segments of Pennsylvania Avenue in Milwaukee County and STH 38 in Milwaukee and Racine Counties as a result of the deletion from the plan of the long-planned extension of the Lake Arterial from Layton Avenue south to Kenosha County.

The third component of the arterial street and highway system recommendations of the plan is system preservation [see Figure 24]. Approximately 3,068 miles of arterial facilities, representing 85 percent of the total planned arterial street and highway system, are recommended merely to be preserved at their same capacity to the year 2010 through resurfacing and reconstruction as needed.

Summary—Arterial Street and Highway System Element Preliminary Recommendations

The arterial street and highway system plan proposes only about a 15 percent expansion and improvement of the arterial street and highway system [see Figure 25]. Freeway system improvements are limited, as shown on Map 9, to construction of the STH 16 bypass; the construction of the USH 12 Freeway extension from Elkhorn to Whitewater; the improvement of USH 41 from an expressway to a freeway in Washington County; and to widening projects, including the widening of IH 94 from STH 16 to CTH G in Waukesha County, and the widening of IH 43 from Bender Road to Brown Deer Road in Milwaukee County.

The plan thus does not recommend a major new freeway initiative, such as a system of eight-lane freeways or a new circumferential freeway. The preliminary plan only incorporates the aforementioned relatively minor improvements and, importantly, the needed rehabilitation and reconstruction of the Milwaukee-area freeway system, and reconstruction of freeway interchanges in Waukesha, Racine, and Kenosha Counties from rural to urban designs. The plan does include some new interchanges on the freeway system, including a new interchange at Highland Road on IH 43 in Ozaukee County.

The preliminary plan arterial improvement and expansion projects are recommended to serve travel which may be expected in and between the areas planned for conversion from rural to urban development under the adopted regional land use plan. Many of these facilities are necessary to accommodate the planned development, and some are needed to provide direct and timely alternative routes for traffic which would otherwise use the area freeway system. It is important to note that highway improvements were the last element added to this plan. The first elements developed were the transit and travel demand management elements. Their potential to eliminate congestion was explicitly identified. Highway improvement and expansion was then recommended only to resolve the residual highway congestion problems.

PERFORMANCE CHARACTERISTICS OF PRELIMINARY PLAN

In the remainder of our presentation we will briefly describe selected performance characteristics of the preliminary plan and the estimated costs of the plan and available revenues, closing with some concluding remarks [see Figure 26].

With respect to transit ridership, the plan may be expected to result in an increase of about 25,000 transit trips per average weekday in Southeastern Wisconsin, an increase of 15 percent compared to current levels and to anticipated future year 2010 levels of transit ridership under a "no-build" alternative.

With respect to the level of transit service provided, and particularly the accessibility or timeliness of transit service, the proposed transit service would provide a substantial increase in accessibility particularly focused on central Milwaukee County with respect to access to jobs, medical facilities, and higher-education facilities.

With respect to highway traffic, the preliminary plan will need to accommodate an increase in average weekday vehicle-miles of travel from the current level of about 33 million vehicle-miles of travel on an average weekday to about 43 million vehicle-miles on an average weekday in the year 2010, an increase of 30 percent. Importantly, the preliminary plan, through its transit and travel demand management measures, may be expected to result in a reduction in the vehicle-miles of travel within the Region on an average weekday from those anticipated under a "no-build" alternative of about 1.6 million vehicle-miles of travel, a decrease of 4 percent, compared to the "no-build" alternative.

Figure 24

- SYSTEM PRESERVATION
  - RECOMMENDED 3,068 MILES OF FACILITIES TO BE PRESERVED AT SAME CAPACITY THROUGH RESURFACING AND RECONSTRUCTION
  - 85 PERCENT OF TOTAL SYSTEM

Figure 25

SUMMARY—ARTERIAL STREET AND HIGHWAY SYSTEM

- PROPOSES ONLY A 15 PERCENT EXPANSION/ IMPROVEMENT IN SYSTEM CAPACITY
- LIMITED FREEWAY SYSTEM IMPROVEMENT
- PLAN RECOMMENDS ARTERIAL IMPROVEMENTS NEEDED TO ACCOMMODATE PLANNED URBAN DEVELOPMENT UNDER THE ADOPTED REGIONAL LAND USE PLAN

Figure 26

PRELIMINARY PLAN PERFORMANCE

- TRANSIT RIDERSHIP
  - INCREASE OF 25,000 TRIPS PER AVERAGE WEEKDAY OR 15 PERCENT
- TRANSIT SERVICE ACCESSIBILITY
  - INCREASE IN ACCESSIBILITY, PARTICULARLY WITHIN CENTRAL MILWAUKEE COUNTY
- HIGHWAY TRAFFIC
  - REDUCTION IN AVERAGE WEEKDAY VEHICLE-MILES FROM "NO-BUILD" ALTERNATIVE OF 1.6 MILLION, OR 4 PERCENT
- TRAFFIC CONGESTION
  - REDUCTION IN CONGESTED HIGHWAY FACILITIES FROM 385 CURRENT MILES AND 712 FUTURE MILES UNDER "NO-BUILD" ALTERNATIVE TO 167 MILES
- AIR QUALITY
  - REDUCTION IN VOLATILE ORGANIC COMPOUND EMISSIONS FROM POTENTIAL FUTURE 29.8 TONS PER SUMMER AVERAGE WEEKDAY UNDER A "NO-BUILD" ALTERNATIVE TO 28.6 TONS
- DISRUPTION
  - LOSS OF WETLANDS, PRIMARY ENVIRONMENTAL CORRIDOR LANDS, AND PRIME AGRICULTURAL LANDS OF LESS THAN 0.3 PERCENT OF TOTAL OF SUCH LANDS

With respect to traffic congestion, the preliminary plan may be expected to provide a significant reduction in congestion compared to existing levels and to levels under a "no-build" alternative. Under the preliminary plan, there would be a reduction in congested highway facilities from the present 385 miles and a potential 712 future miles in the year 2010 under a "no-build" alternative, to only 167 miles of congested facilities. This represents a reduction of over 50 percent from the current level of congestion, and 80 percent from otherwise anticipated future levels of congestion.

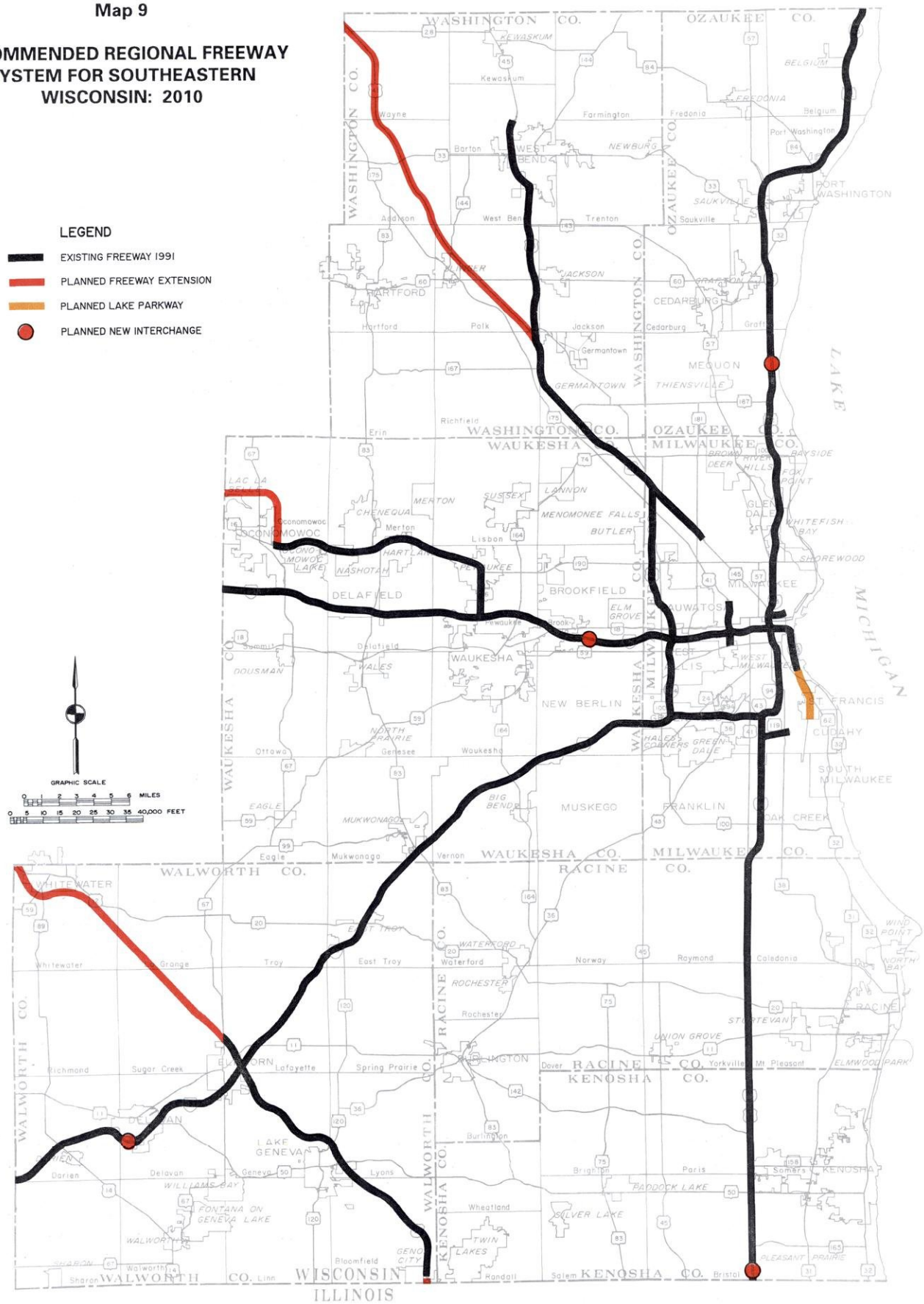
With respect to air quality impacts, the preliminary plan may be expected to provide a reduction in transportation-related volatile-organic-compound emissions from a current 119.2 tons per summer average weekday and a potential future 29.8 tons per summer average weekday under a "no-build" alternative to 28.6 tons per summer average weekday. This reduction of about 4 percent compared to a "no-build" alternative is significant for air quality. To put this in perspective, the mandated Employee Commute Options program may be expected to result in a less-than-3-percent reduction in such transportation-related volatile-organic-compound emissions.

PUBLIC COSTS OF PRELIMINARY PLAN

The estimated total annual public cost of the preliminary plan, including both capital and operating costs for highways and transit, is $473 million annually to the year 2010, including $296 million annually for the highway system component and $177 million annually for the transit system component [see Figure 27]. Revenues under existing sources may be expected to total $381 million per year, including $161 million of Federal revenue, $166 million of State revenue, and $54 million of local revenue. Thus, the plan cannot be

Map 9

RECOMMENDED REGIONAL FREEWAY SYSTEM FOR SOUTHEASTERN WISCONSIN: 2010



Source: SEWRPC.

Figure 27

PLAN COST

ANNUAL COST (CAPITAL AND OPERATING)

HIGHWAYS	$296 MILLION
TRANSIT	$177 MILLION
TOTAL	$473 MILLION

ANNUAL AVAILABLE EXISTING REVENUES

FEDERAL	$161 MILLION
STATE	$166 MILLION
LOCAL	$ 54 MILLION
TOTAL	$381 MILLION

ANNUAL FUNDING SHORTFALL

$ 92 MILLION

Figure 28

CONCLUDING REMARKS

- PLAN SERVES AND PROMOTES DESIRABLE REGIONAL LAND USE PATTERN
- PLAN MINIMIZES HIGHWAY CAPITAL INVESTMENT
- PLAN PROVIDES FACILITIES TO MEET TRAVEL DEMAND
- PLAN PROVIDES FOR BALANCED TRANSPORTATION SYSTEM
- PLAN IS ENVIRONMENTALLY SOUND
- PLAN EMPHASIZES SYSTEM MAINTENANCE
- PLAN PROVIDES FOR SYSTEM IMPROVEMENT
- PLAN IS VISIONARY

fully funded from existing revenues and has a funding shortfall of approximately $92 million annually. The additional motor-fuel tax which would be necessary to fully fund this plan and eliminate this shortfall would be approximately 11 cents per gallon. An additional six cents per gallon would be necessary to remove existing local funding of public transit and arterial streets and highways from the property tax.

CONCLUDING REMARKS

In conclusion, it is appropriate to note the following characteristics of the preliminary plan [see Figure 28]:

- The plan is designed to serve and promote a desirable regional land use pattern as defined in the adopted regional land use plan. This is because the preliminary plan was explicitly designed to serve the future travel demands of the regional land use plan and not those of a land use pattern resulting from a continuation of existing trends. Therefore, if transportation does indeed influence development and redevelopment, the plan should serve to promote a desirable regional land use pattern.

- The preliminary plan minimizes investment in highway capacity expansion. The plan explicitly considered highway capacity improvement and expansion as a measure of last resort in addressing traffic congestion problems. The potentials for land use, public transit, travel demand management, and traffic management measures to address traffic congestion were first quantified, and only the residual congestion problems were designated for resolution through highway improvements and expansion.

- The plan provides adequate facilities to meet travel demand. The plan proposes a significant reduction in traffic congestion from the estimated 700 miles of congested highway facilities expected to exist under a "no-build" alternative, and from the 400 miles of congested facilities which exist today, to a level of under 200 miles under the preliminary plan.

- The plan provides for a balanced transportation system with appropriate types of highway and transit facilities provided throughout the Region. As indication of this balance, it may be noted that transit currently carries, and even under the most optimistic scenario may be anticipated to carry, less than 5 percent of the total travel within Southeastern Wisconsin. Nevertheless, under the preliminary plan, approximately 37 percent of the total costs of the plan and, therefore, of the financial resources devoted to transportation under the plan, would be allocated to public transit. Moreover, public transit service would be expanded by approximately 72 percent, while highway system capacity would be expanded by only about 17 percent.

- The preliminary plan is environmentally sound, providing for a reduction in air-pollutant emissions of 4 percent compared to the "no-build" alternative.

- The plan emphasizes system maintenance, providing for the stabilization of transit service and the rehabilitation of the existing freeway system. Over the past 10 years, transit service in Southeastern Wisconsin has been reduced by 10 percent and transit fares have increased nearly twice as fast as the rate of inflation. The plan also provides for the necessary reconstruction of the deteriorating Milwaukee-area freeway system and for the needed resurfacing and reconstruction of many neglected county and local arterials.

- The plan provides for needed system improvements. Along with system maintenance, the plan also recommends some desirable system improvements. Significant transit system expansion is proposed, including development of true rapid and express transit system components. With respect to arterial streets, the plan proposes widening to provide additional traffic lanes along 418 miles of existing arterial streets and the construction of 128 new miles of arterial streets, in total representing a 17 percent expansion of the existing arterial street and highway system.

- Lastly, the plan is indeed visionary, while being honest in terms of the fiscal impacts of its recommendations. The plan is visionary in that it recommends a significant departure from the trends of the past 10 years, including particularly the deterioration of the transit system. It recommends a reversal of the historic 1 percent annual decline in transit service over the past 10 years, as it proposes a 3.5 percent annual increase in transit service. It recommends the development of true rapid transit and express transit systems, and provides for their potential to evolve into bus-on-reserved-lanes, light-rail, and commuter-rail facilities. The plan is honest as it specifically recognizes that these transit improvements, combined with travel demand management improvements, while important to provide choice and improved transit accessibility within Southeastern Wisconsin, can only meet a small portion of the area's transportation needs. A soundly maintained highway system, and the improvement and expansion of the highway system, will be necessary to address the overwhelming majority of existing and potential future traffic congestion problems. Moreover, the plan explicitly notes that existing revenues may be expected to be inadequate to implement the plan. The equivalent of an additional 11-cents-per-gallon fuel tax would be required to fully implement the plan over the next 16 years.

As many of you came in today, members of the New Transportation Alliance distributed to you their analysis of the preliminary regional transportation plan. We would like to address and comment on their criticisms. One criticism is that the plan accommodates a 30 percent increase in regional vehicle-miles of travel for only a 6 percent increase in regional population. As Phil Evenson's presentation indicated, the level of regional population growth has little to do with the growth in travel and highway traffic. Over the past 20 years, Southeastern Wisconsin experienced less than a 2 percent increase in population and more than a 65 percent increase in vehicle-miles of travel. The level of increase in travel is related directly to the increase in job and household levels, and not to overall population levels.

Another of their criticisms is that the preliminary plan proposes highway widenings throughout the suburban landscape of Southeastern Wisconsin. This is incorrect, as the highway improvements are limited to areas proposed for urban development under the adopted regional land use plan. The planned highway improvements within Waukesha County—which they specifically point out as bad planning—are limited to the eastern portion of Waukesha County, which is recommended for urban development under the adopted regional land use plan. As this area—committed to sewer service—continues to convert from rural to urban development, it is unreasonable to expect existing two-lane rural roads to be adequate. Indeed, the type of widened roadways that are envisioned in eastern Waukesha County are similar to the improvements made by the City of Milwaukee in the old Town of Granville as that area has converted from rural to urban land uses.

Another criticism is that the preliminary plan has only an expected 3 percent share of future total travel anticipated to be carried by its transit system element. Even with the planned 72 percent expansion of transit service, including a light-rail line, transit would be expected to continue to carry 3 percent of the total travel in Southeastern Wisconsin. Moreover, even with a more substantial expansion of transit of well over 100 per-

cent and a doubling of the perceived cost of motor fuel, public transit would still be expected to carry only about 5 to 6 percent of the total travel in Southeastern Wisconsin. The share of travel carried by transit should not be a source of criticism of the plan, but should be seen as a recognition of the truly limited role that transit realistically may be expected to perform in the regional transportation system.

Another criticism is that the plan favors busways over rail transit. This is not accurate. While there is a system of busways identified for potential development, there is also a potential system of light-rail lines and commuter-rail lines proposed. Each is to be addressed equally in subsequent corridor studies.

Another criticism is that the plan proposes that light rail would only operate on reserved lanes in streets. However, potential alignments within both streets and exclusive rights-of-way are shown as part of the plan, and it is anticipated that in corridor studies street, railway, and former electric interurban railway rights-of-way would be considered. All of these have been inventoried by the Commission and analyzed in the previous rapid transit system and corridor studies conducted in this Region.

Another criticism is that most bus service under the plan would be provided in suburban areas rather than in urban areas. This also is incorrect. The recommended express transit system component is located entirely within Milwaukee County, and largely within the central city of Milwaukee, with the exception of one route which connects the central cities of Kenosha and Racine. The proposed expansion of the express transit system—about 17,000 additional vehicle-miles of express transit service on an average weekday—represents nearly 40 percent of the total expansion of the transit system proposed under the preliminary plan.

Lastly, the critique indicates that the preliminary plan proposes no change in transportation priorities. Again, this is incorrect. The Southeastern Wisconsin Region has experienced a 10 percent decline in transit service provided over the last 10 years. Nevertheless, the preliminary plan proposes a 72 percent increase in such service over the next 16 years—clearly a dramatic change. Furthermore, the plan proposes that 37 percent of the total financial resources devoted to transportation in Southeastern Wisconsin be allocated to transit, clearly a significant increase over the 22 percent of total transportation resources that transit receives currently. In addition, the critique states that the preliminary plan does not propose to improve mobility for central-city residents. Again, this is incorrect. The new express transit service proposed under the plan is specifically focused on the central city of Milwaukee, and this express service together with the proposed rapid transit service provide much-improved accessibility for central-city residents.

We hope that through this presentation you will have been provided with a good understanding of the elements of the preliminary plan, its performance, its costs, and as well a perspective on the value of the preliminary plan. Thank you for your attention. We also hope that our comments have helped to set the record straight with respect to the misinformation being disseminated here today by the New Transportation Alliance.

MR. FALSTAD:

Thank you, Ken, for that fine profile of a very complex plan. We need to move on to our next speaker.

LATE MORNING PLENARY SESSION

OVERVIEW OF THE NEW REGIONAL TRANSPORTATION SYSTEM PLAN PRELIMINARY BICYCLE AND PEDESTRIAN RECOMMENDATIONS

Nancy A. Holguin, Transportation Planner
Southeastern Wisconsin Regional Planning Commission

Ms. Nancy A. Holguin

INTRODUCTION

In response to the concerns and requirements set forth in the Federal Clean Air Act Amendments of 1990 and the Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the year 2010 regional transportation system plan for Southeastern Wisconsin will, for the first time, contain a bicycle and pedestrian facilities element. Over the years, the Commission has prepared a number of plans which encourage the provision of facilities for bicycle and pedestrian travel, including the park and open space plans for the Region and for each of the seven counties, and a number of neighborhood plans and park plans prepared for local governments within the Region. This current planning effort is, however, the first time that bicycle and pedestrian travel for primarily nonrecreational purposes has been addressed on a comprehensive basis as part of the regional transportation system plan.

ADVISORY COMMITTEE/PUBLIC REVIEW

The preliminary recommended plan has been prepared under the guidance of a Technical and Citizen Advisory Committee on Regional Bicycle and Pedestrian Facilities System Planning established by the Regional Planning Commission. The Advisory Committee consists of a broad spectrum of many agencies and organizations with an interest in bicycle and pedestrian planning, including representatives of governmental agencies responsible for transportation planning and engineering, public safety, and recreation; and bicycle advocacy and environmental groups.

Following today's Conference, the preliminary recommended plan will be reviewed at a series of public informational meetings and hearings. Those meetings and hearings, whose times and locations will be announced by the Regional Planning Commission, are intended to provide the public with an opportunity to become familiar with the preliminary recommended plan and to allow interested individuals and groups to affect the decision-making process through their comments.

After the public informational meetings and hearings, the Advisory Committee and the Regional Planning Commission will consider the public comments and concerns raised at those meetings and hearings. After any resulting modifications are considered and approved, it is envisioned that the full Commission will adopt a final version of the plan, thus making that final plan an official guide to the making of decisions by the various units and agencies of government in the Region with regard to bicycle and pedestrian system development. The final plan will be set forth in a Commission planning report, which is expected to be published before the end of 1994.

BASIC CONCEPTS

Bicycle riding and walking can serve as modes of transportation and as forms of recreation. Recreational bicycle and walking trips are taken for the primary purpose of enjoying the trip itself, or for the purpose of improving physical fitness. Bicycle and pedestrian trips for transportation purposes include commuting trips to work or school, shopping trips, and trips to social or recreational events.

Transportation-oriented bicycle and walking trips tend to follow more predictable patterns than do recreational trips, with origins and destinations similar to trips taken by motorized vehicles. As such, the

existing street system often provides the most direct and desirable travel route for nonrecreational bicycle and pedestrian travel. The bicycle and pedestrian plan elements therefore seek to provide safe facilities for bicyclists and pedestrians as part of the street and highway system, with consideration given to locating bicycle and pedestrian ways in off-street corridors where suitable alternatives to on-street locations exist.

A "bicycle way" is defined for regional planning purposes as any roadway, pathway, or other way that is specifically designated for bicycle travel, including facilities that are designated for exclusive or preferential bicycle travel and facilities that are shared with other modes. Facilities intended for exclusive or preferential use by bicycles include bicycle paths and bicycle lanes. Bicycle paths are physically separated from motorized vehicular traffic by open space or barriers, and are typically located within the right-of-way of a street or highway or in an independent right-of-way or easement, such as one along a river or utility corridor. Bicycle lanes are portions of roadways that are designated by striping, signing, and pavement markings for bicycle use. A "bicycle route" is generally defined as a bicycle way designated with directional and informational markers, and may consist of a combination of bicycle paths, bicycle lanes, and shared roadways. However, in this planning effort, the term "bicycle route" is used to describe a shared roadway signed for bicycle use.

PLAN STRUCTURE

The regional bicycle and pedestrian plans recommend locations and design standards for bicycle and pedestrian facilities in order to remove or minimize existing impediments to bicycle and pedestrian travel related to the lack of facilities such as bicycle ways, walkways, and certain support facilities, such as bicycle parking racks and storage lockers.

The bicycle facilities plan recommends that improvements such as wide curb lanes or paved shoulders be considered whenever an arterial street or highway is constructed, reconstructed, or resurfaced. Such improvements, while not necessarily signed or marked as bicycle ways, would facilitate shared roadway use by bicycles and motor vehicles. In addition to such improvements, the bicycle plan recommends that a network of bicycle ways be developed. A bicycle-way system plan was developed for the Region as a whole, and more detailed plans were prepared for the Kenosha, Milwaukee, and Racine urbanized areas.

REGIONAL BICYCLE PLAN

Map 10 shows the preliminary recommended regional bicycle-way system for Southeastern Wisconsin. The regional component of the bicycle facilities plan is designed to provide connections between the three urbanized areas of the Region, small urban areas, and transit stations and major activity centers located outside urbanized or small urban areas. Existing bicycle ways and such ways proposed under adopted park and open space plans to be located in natural resource and utility corridors served as the basis for the design of the preliminary regional plan and its recommendations. Supplemental on-street bicycle ways are recommended where necessary to provide direct connections to small urban areas or activity centers not served by off-street bicycle facilities.

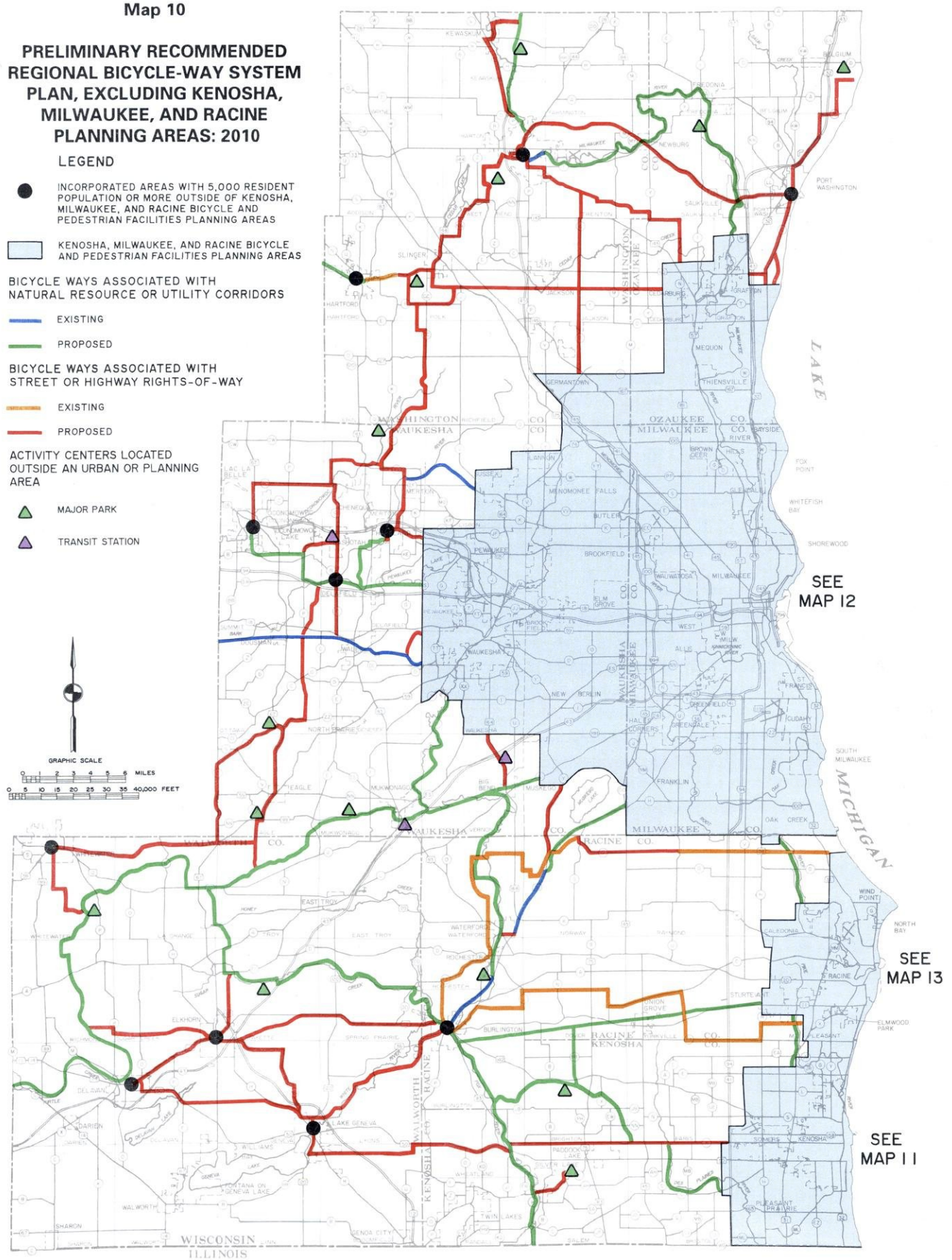
The preliminary recommended plan proposes a total of about 600 miles of bicycle ways, exclusive of those recommended within the Kenosha, Milwaukee, and Racine urbanized areas. Of that total, about 40 percent are proposed to be located off-street in natural resource or utility corridors and about 60 percent are proposed to be located within street rights-of-way.

BICYCLE-WAY SYSTEMS FOR THE URBANIZED AREAS

In addition to a regional network of bicycle ways, the preliminary recommended plan envisions a network of bicycle ways for each of the Region's three urbanized areas designed to serve major activity centers and transit stations within those areas. The recommended network of bicycle ways for the three urbanized areas is more dense than the recommended regional network of bicycle ways because of the greater concentrations of population, activity centers, and potential for bicycle travel within those areas. A "bicycle and pedestrian facilities planning area" was delineated for each urbanized area. The planning areas differ from the boundaries of the 1990 urbanized areas in that they include areas that are proposed under the adopted regional land use plan to be developed for urban use by the year 2010, but exclude areas within the existing

Map 10

PRELIMINARY RECOMMENDED REGIONAL BICYCLE-WAY SYSTEM PLAN, EXCLUDING KENOSHA, MILWAUKEE, AND RACINE PLANNING AREAS: 2010



Source: SEWRPC.

urbanized areas which are developed with low-density residential uses and which are located more than five miles from a major activity center.

Kenosha Area

The recommended bicycle-way system plan for the Kenosha urbanized area is shown on Map 11. The recommended plan proposes a total of about 100 miles of bicycle ways. Of this total, about 32 percent are proposed to be located off-street in natural resource or utility corridors, and about 68 percent are proposed to be located on-street or on a separate bicycle path within the street right-of-way. About 16 percent of the bicycle ways recommended by the preliminary plan have been developed to date.

The recommended plan provides for bicycle access to the major activity centers located within the Kenosha planning area, and also incorporates the development of bicycle paths within the Pike River corridor and the Des Plaines River corridor. Development of a trail along the Des Plaines River would serve to connect the Des Plaines River Trail in Illinois, the Bong Recreation Area in Kenosha County, and the proposed Fox River Trail in western Kenosha County.

Milwaukee Area

The recommended bicycle-way system plan for the Milwaukee urbanized area is shown on Map 12. The preliminary recommended plan proposes a total of about 720 miles of bicycle ways within that area. About 24 percent of those 720 miles are proposed as off-street bicycle ways to be located in natural resource or utility corridors, and about 76 percent are proposed to be located on-street or on a separate bicycle path within a street right-of-way. About 19 percent of the bicycle ways recommended by the preliminary plan have been developed to date.

The bicycle-way system plan for the Milwaukee urbanized area generally proposes a network of bicycle ways at a spacing of no more than two miles. Denser networks are envisioned in areas of concentrated development, such as the Milwaukee central business district, and where needed to provide access to major activity centers or transit stations. The plan, with some limited exceptions and additions, also incorporates the recommendations for bicycle facilities contained in the adopted park and open space plans for Milwaukee, Ozaukee, and Waukesha Counties and in the bicycle plans adopted by the Cities of Brookfield and Milwaukee.

Racine Area

The recommended bicycle-way system plan for the Racine urbanized area is shown on Map 13. The recommended plan proposes a total of about 80 miles of bicycle ways. About 34 percent of those 80 miles are proposed to be located off-street in natural resource or utility corridors, and about 66 percent are proposed to be located on-street or on a separate bicycle path within the street right-of-way. About 14 percent of the bicycle-way system has been developed to date.

The recommended plan provides for bicycle access to the major activity centers located within the Racine planning area and incorporates the recommendations for bicycle ways along the Pike and Root Rivers contained in the adopted park and open space plans for Racine County and the Towns of Caledonia and Mt. Pleasant. The proposed Pike and Root River bicycle ways would connect to proposed bicycle ways in Milwaukee and Kenosha Counties, forming part of the regional bicycle-way system.

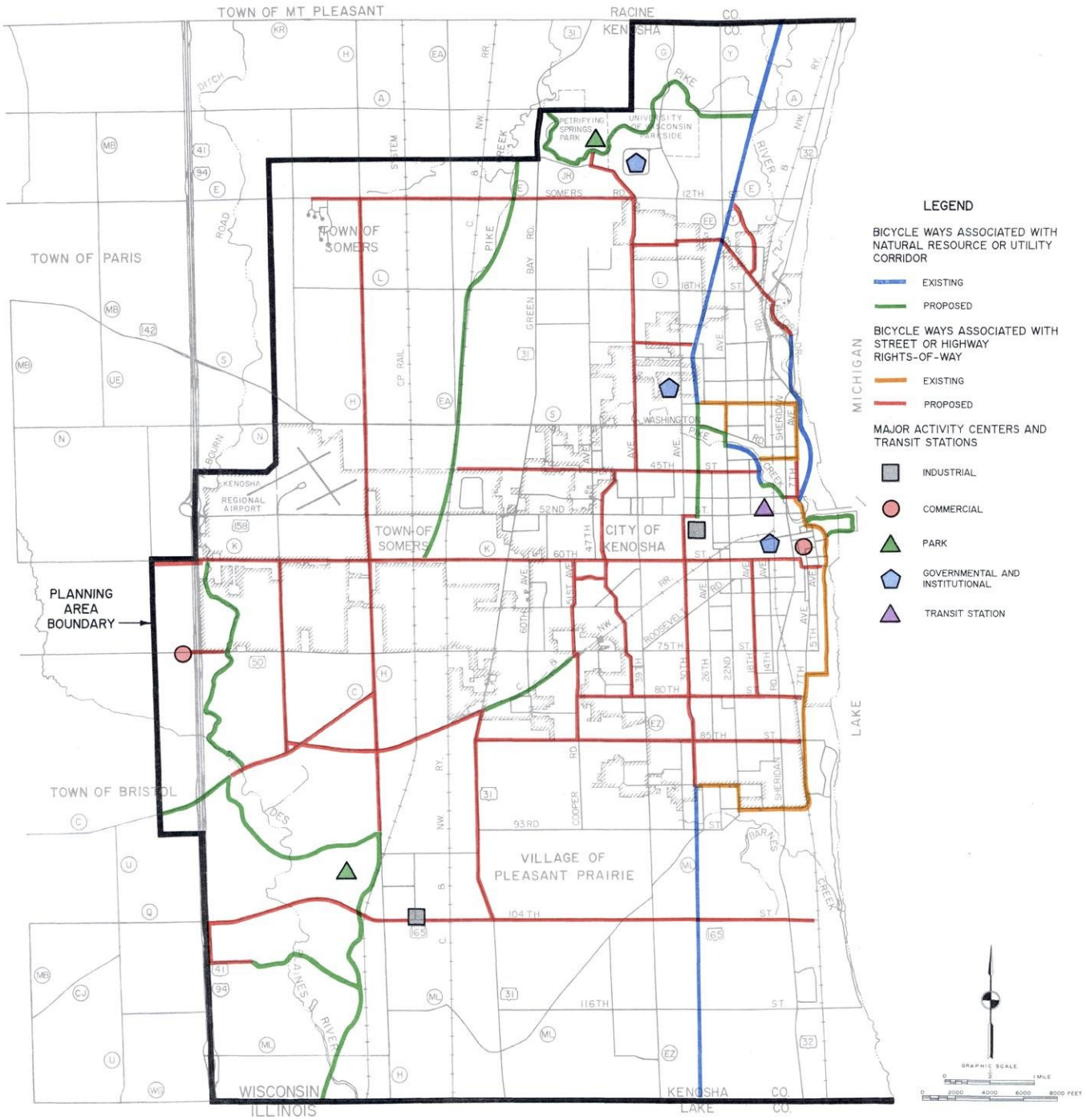
PEDESTRIAN FACILITIES

Unlike the bicycle facilities element, the pedestrian facilities element of the bicycle and pedestrian facilities system plan for Southeastern Wisconsin is a policy, rather than a system, plan. It is recommended that the various units and agencies of government having responsibility for the construction and maintenance of pedestrian facilities in areas of urban development adopt and follow the standards and guidelines set forth in the plan report. The standards and guidelines are designed to facilitate safe and efficient pedestrian travel within areas of urban development.

Perhaps most importantly, the standards recommend that sidewalks be provided along streets and highways in areas of existing or planned urban industrial, commercial, and residential development in accordance with

Map 11

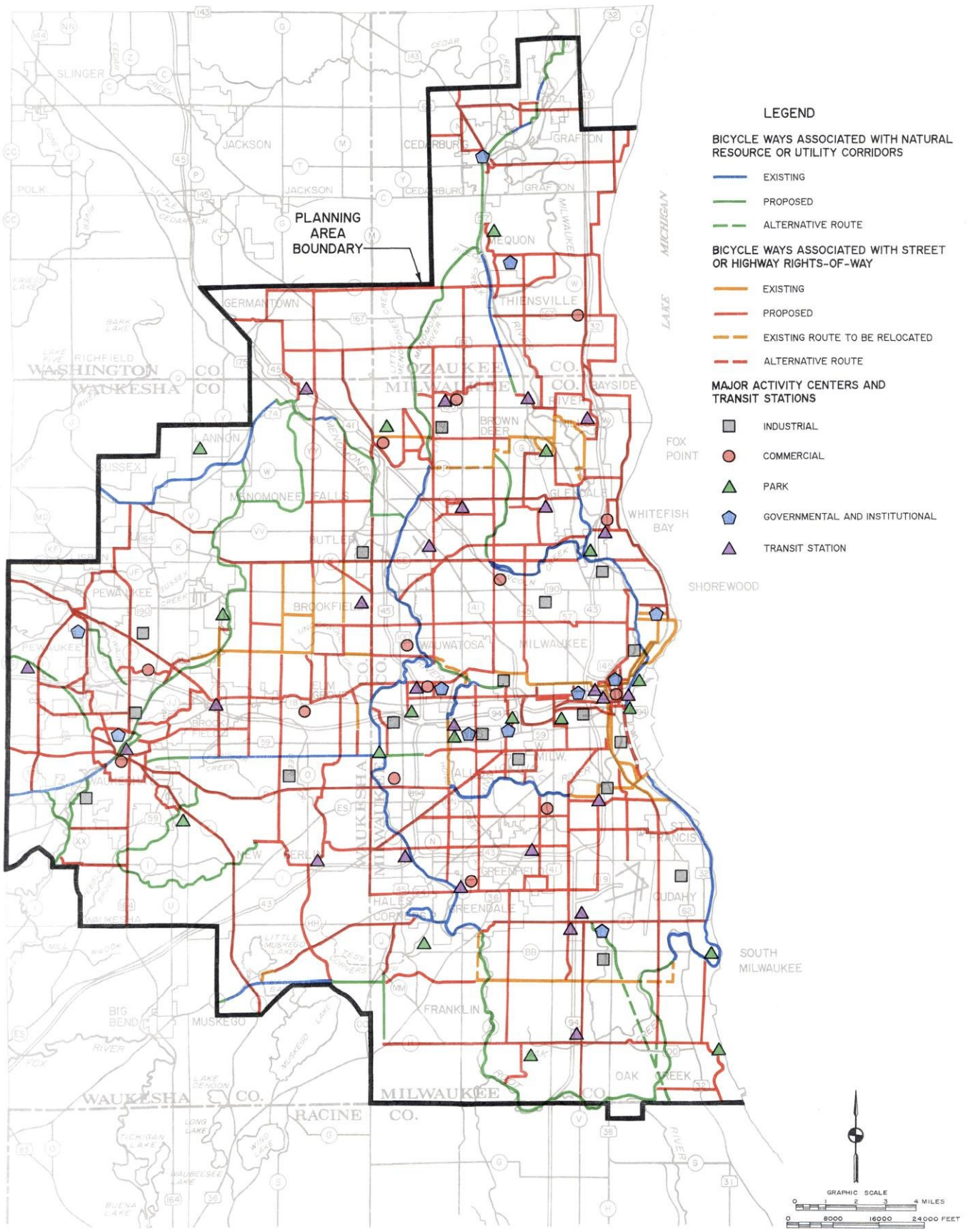
PRELIMINARY RECOMMENDED BICYCLE-WAY SYSTEM PLAN FOR THE KENOSHA BICYCLE AND PEDESTRIAN FACILITIES PLANNING AREA: 2010



Source: SEWRPC.

Map 12

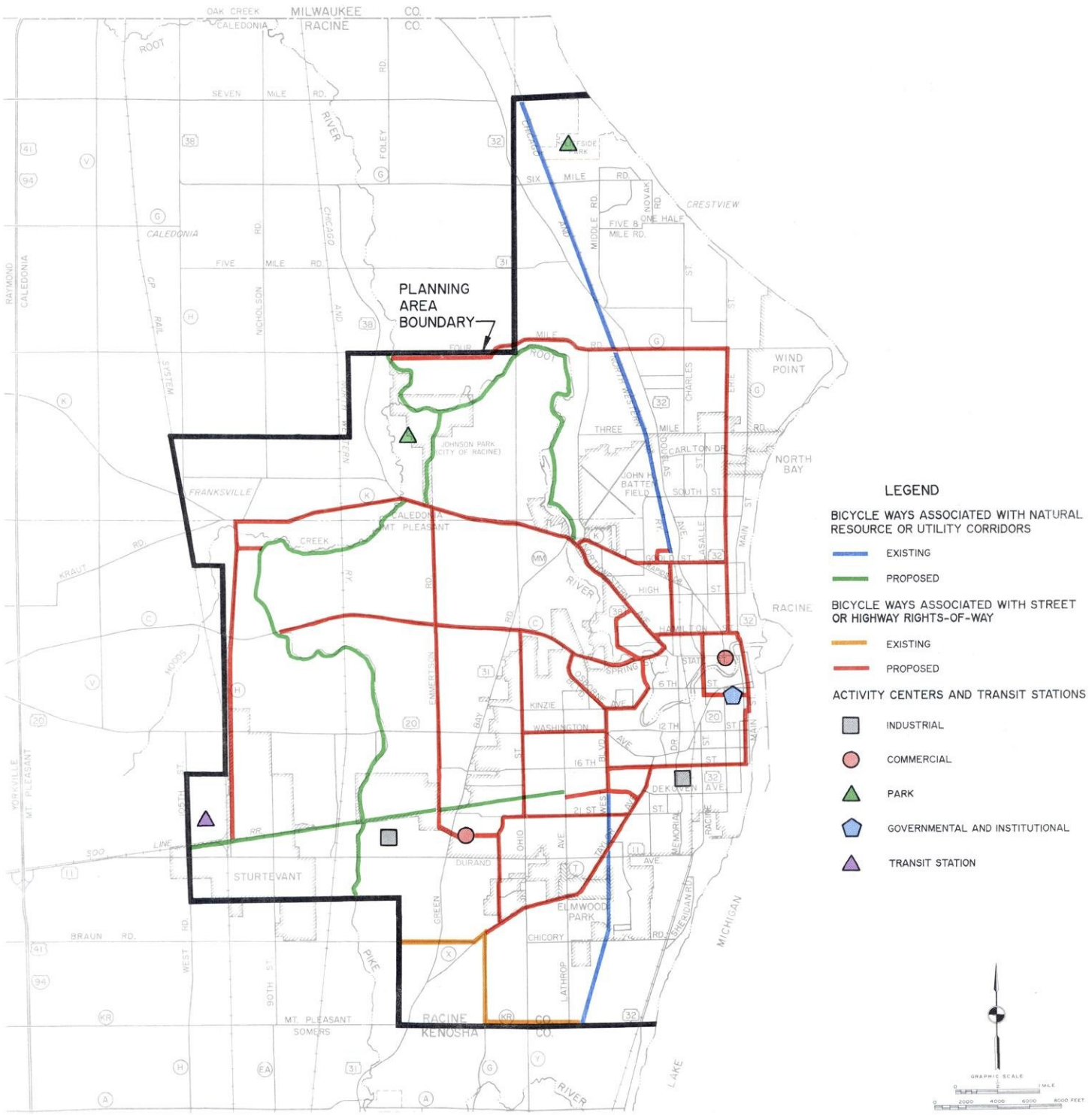
PRELIMINARY RECOMMENDED BICYCLE-WAY SYSTEM PLAN FOR THE MILWAUKEE BICYCLE AND PEDESTRIAN FACILITIES PLANNING AREA: 2010



Source: SEWRPC.

Map 13

PRELIMINARY RECOMMENDED BICYCLE-WAY SYSTEM PLAN FOR THE RACINE BICYCLE AND PEDESTRIAN FACILITIES PLANNING AREA: 2010



Source: SEWRPC.

Table 1

RECOMMENDATIONS FOR PROVISION OF SIDEWALKS IN AREAS OF EXISTING OR PLANNED URBAN DEVELOPMENT BY ROADWAY FUNCTIONAL CLASSIFICATION AND LAND USE CLASSIFICATION

Roadway Functional Classification	Land Use	New Streets[a]	Existing Streets[a]
Arterial Streets[b]	Industrial	Both sides	Both sides
	Commercial	Both sides	Both sides
	Residential	Both sides	Both sides
Collector Streets	Industrial	Both sides	Both sides
	Commercial	Both sides	Both sides
	Residential	Both sides	At least one side
Land Access Streets[c]	Industrial	Both sides	Both sides
	Commercial	Both sides	Both sides
	Residential (medium- and high-density)	Both sides	At least one side
	Residential (low-density)	At least one side	At least one side

[a] *Sidewalks may be omitted on one side of streets where there are no existing or anticipated uses that would generate pedestrian trips on that side.*

[b] *Where there are marginal access control or service roads, the sidewalk along the main road may be eliminated and replaced by a sidewalk along the service road on the side away from the main road.*

[c] *Sidewalks need not be provided along courts and cul-de-sac streets less than 600 feet in length, unless such streets serve multi-family development; or along streets served by parallel off-street walkways.*

Source: SEWRPC.

the criteria set forth in Table 1, and that all bridges and underpasses, except those carrying freeway and expressway facilities, be designed to safely accommodate pedestrian travel.

COMMUNITY AND NEIGHBORHOOD PLANS

The regional bicycle and pedestrian facilities system plan element addresses bicycle and pedestrian travel in relation to the transit system and the arterial street and highway system; and down to, but not including, the neighborhood units and major activity centers designated by the adopted year 2010 land use plan for the Southeastern Wisconsin Region.

The provision of neighborhood-level bicycle and pedestrian facilities is properly addressed by local units of government through the preparation of community bicycle and pedestrian plans to supplement the regional plan, or through the preparation of neighborhood unit development plans with a bicycle and pedestrian element. Such local plans should provide for facilities to accommodate bicycle and pedestrian travel within neighborhoods, providing for convenient travel between residential areas and shopping centers, schools, parks, and transit stops within or adjacent to the neighborhood; and should also include provisions for bicycle and pedestrian facilities within activity centers. The standards, guidelines, and system plans set forth in the regional plan should be used as the basis for the preparation of community and neighborhood plans.

OTHER RECOMMENDATIONS

Thus far, this description of the bicycle and pedestrian facilities system plan has focused on the provision of bicycle ways, sidewalks, and other facilities as a means of encouraging increased bicycle and pedestrian travel. While such facilities are important, the pattern of land use and the design of land subdivisions and

other land development projects also has an effect on bicycle and pedestrian travel. Travel distance may be expected to be a major consideration for nonrecreational bicycle and pedestrian trips because of the physical effort and the travel time associated with relatively long trips. The potential for bicycle and pedestrian travel is limited by dispersed, low-density land use development patterns which increase the distance between origins and destinations. Compact land use development patterns serve to increase the potential for bicycle and pedestrian travel, in addition to many other benefits, such as the preservation of agricultural land and the reduced cost of providing urban services such as public water and sanitary sewer systems.

The preliminary plan recommends that activity and employment centers, neighborhood areas, and public transit facilities and routes be designed to accommodate and encourage bicycle and pedestrian access and circulation. For example, typical routes in residential neighborhoods often require a bicyclist or pedestrian to travel along the arterial street system or to follow a circuitous route to reach a desired destination. Bicycle and pedestrian access through residential blocks and across subdivision boundaries can provide more direct connections between homes and activity centers, and may encourage more people to bicycle or walk.

The importance of providing safe and convenient pedestrian access to transit facilities has long been recognized. The bicycle and pedestrian facilities system plan recommends that greater efforts be made to provide bicycle access to transit as well, including the provision of bicycle parking and storage facilities at transit stations and racks or other methods of transporting bicycles on transit vehicles.

CONCLUSION

The preliminary recommended bicycle and pedestrian facilities system plan for Southeastern Wisconsin is intended to provide the various units and agencies of government in the Region with a design for encouraging increased bicycle and pedestrian travel as viable alternatives to single-occupancy-vehicle travel in the Region, thus helping the Region meet Federal and State transportation and air quality objectives.

Thank you.

MR. FALSTAD:

Thank you, Nancy, for that important information. Unfortunately, we are not going to have time for any questions. Once again, however, I would like to remind you that there will be opportunities for questions and comments in the sessions this afternoon. At this time, I would like to turn the microphone over to Mr. Gary Korb of the University of Wisconsin-Extension.

MR. KORB:

Thank you, Mr. Chairman. You have all been a very attentive and patient audience. I think you have all benefited from the presentations as much as I have. Have a good luncheon.

LUNCHEON PROGRAM

INTRODUCTION

David B. Falstad, Chairman
Southeastern Wisconsin Regional Planning Commission

Good afternoon, ladies and gentlemen. Once again, my name is David Falstad, Chairman of the Southeastern Wisconsin Regional Planning Commission. We would like to begin our luncheon program.

It is my pleasure to introduce to you the persons seated at the head table. We would ask that you hold your applause until the introductions are completed.

Seated immediately to my right, your left, is our luncheon speaker, whom I'll formally introduce to you in a few moments.

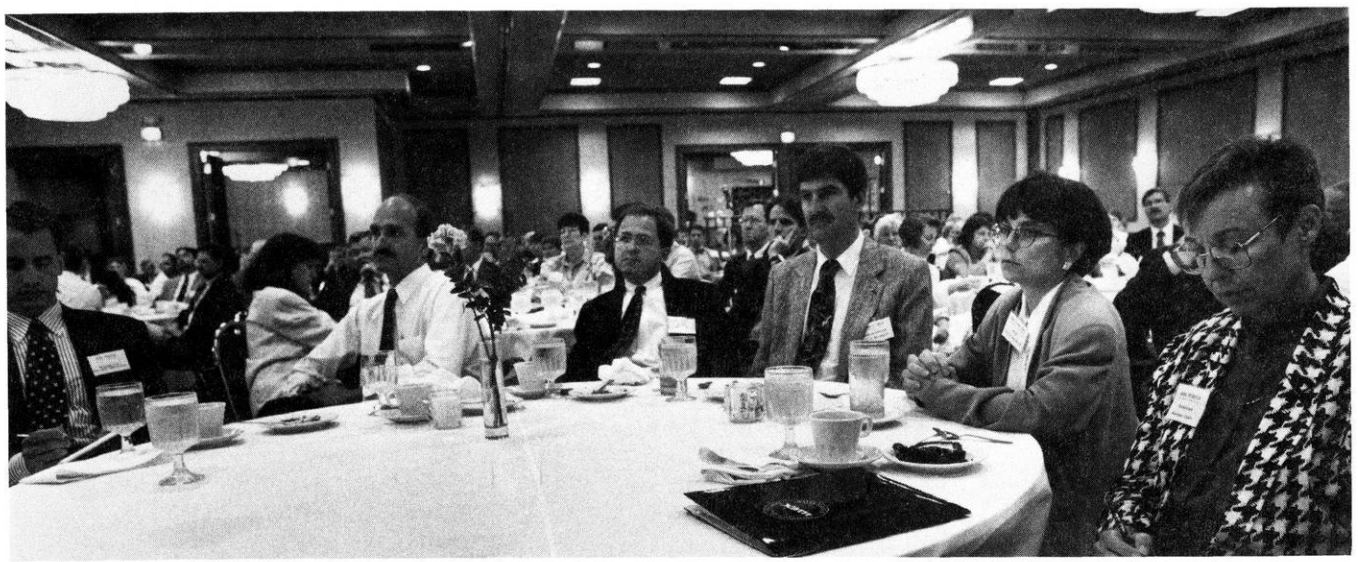
Continuing down the table, to your left, is Mr. Thomas Buestrin, a SEWRPC Commissioner representing Ozaukee County. Mr. Buestrin serves as Commission Treasurer.

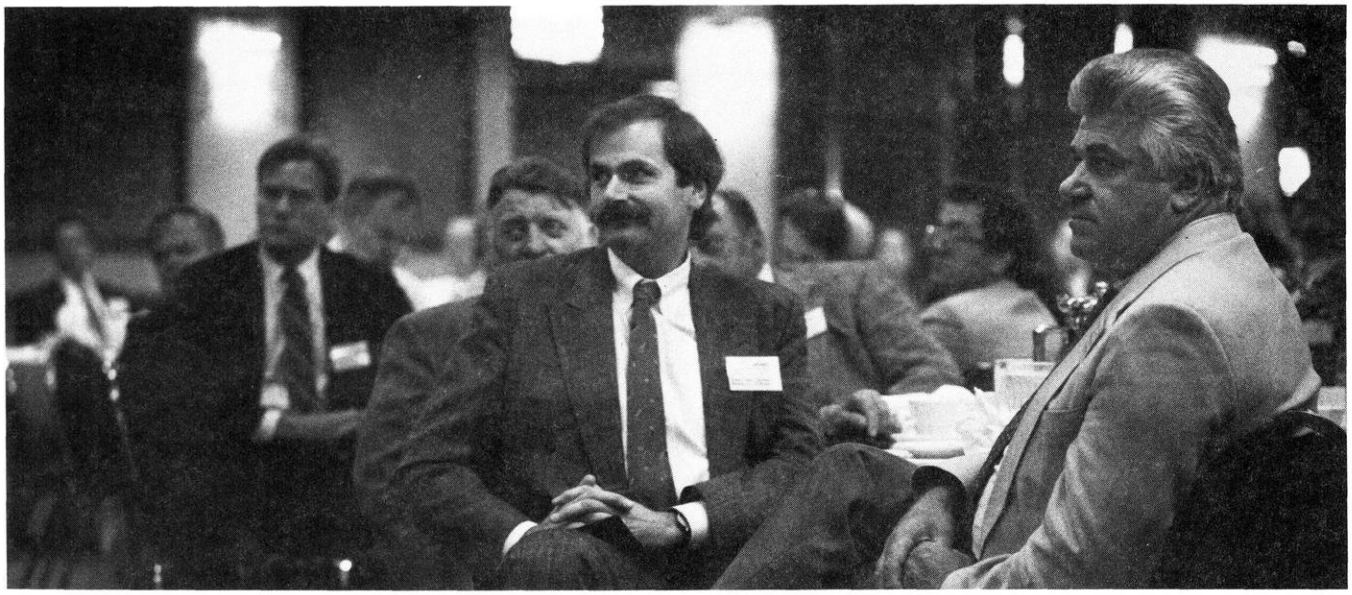
Seated next to Mr. Buestrin, at the end of the table, is Mr. Gary Korb, of the University of Wisconsin-Extension, who works cooperatively with this Commission. Mr. Korb helped to plan and has coordinated the program for today's Conference.

Moving to the other side of the podium, seated immediately to my left, your right, is Mr. Allen Morrison, a SEWRPC Commissioner representing Walworth County. Mr. Morrison serves as Commission Vice-Chairman.

Seated next to Mr. Morrison is Mrs. Jean Jacobson, a SEWRPC Commissioner representing Racine County. Mrs. Jacobson is past Chairman of the Racine County Board of Supervisors and serves as Commission Secretary. This afternoon she will preside over the concurrent session addressing highways.

Next to Mrs. Jacobson is Mr. Lowell Jackson, Vice President of Transportation/Structures for the large engineering and consulting firm of Greenhorne & O'Mara, Inc., headquartered in Maryland. Mr. Jackson delivered this morning's opening address, getting the Conference off to such a fine start.





Beyond Mr. Jackson, at the end of the table, is Dr. Kurt W. Bauer, Executive Director of the Southeastern Wisconsin Regional Planning Commission. Dr. Bauer has held this position for almost 33 years, during which the agency has gained and maintained national distinction.

Ladies and gentlemen, would you please join me in saluting these individuals.

INTRODUCTION OF MR. JAMES R. KLAUSER

It is now my pleasure to introduce our keynote luncheon speaker.

Mr. James Klauser is a well-recognized figure in Wisconsin State government. He currently serves as Secretary of the Wisconsin Department of Administration. Mr. Klauser was appointed by Governor Tommy G. Thompson in January 1987 and is the Governor's close aide and adviser. In addition to managing the Department, the Secretary serves as a member of the Wisconsin Investment Board; Depository Selection Board; Wisconsin Housing and Economic Development Authority; and other boards and commissions.

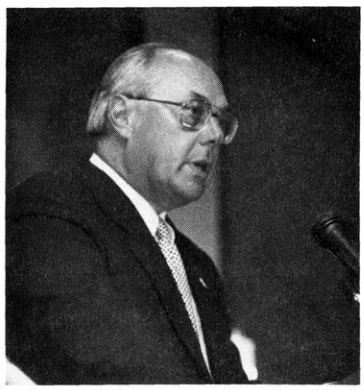
Formerly a member of the Madison law firm of DeWitt, Porter, Hugget, Schumacher & Morgan, he received his bachelor of science and doctor of jurisprudence degrees in 1961 and 1964, respectively, and a master's degree in public law in 1969, all from the University of Wisconsin-Madison.

Ladies and gentlemen, please join me in welcoming to our Conference podium Mr. James R. Klauser, Secretary of the Wisconsin Department of Administration.

LUNCHEON PROGRAM

KEYNOTE ADDRESS

James R. Klauser, Secretary
Wisconsin Department of Administration



Mr. James R. Klauser

I am glad to be with you this midday to talk about some of the important issues that are facing this Region. I think, though, as a supplement to David's fine introduction, I should point out—normally it wouldn't be relevant but I think that it is in this case—my roots in the Region, which may be more extensive than those of many of you present here today. My grandparents originally were farmers in Ozaukee County—near Cedarburg and Grafton—and it's too bad we do not still own the land. I was born in an area that, at that time, was known as North Milwaukee, which had just previously been consolidated with the City of Milwaukee, and I lived in Whitefish Bay and the Town of Milwaukee. Father went into business—he had that opportunity shortly after World War II—in Cudahy and South Milwaukee. So my family lived here on the South Side and I went to high school on this side of town, and then my father retired and we lived in Waukesha County, in the Pewaukee Lake area. I also believe I have a good perspective of growth-related problems, for I served on the Town Board of the Town of Delafield—and understand some of the growth dynamics, though that was 15 years ago, that are occurring in the Region. So I have, I think, some perspective of this Region since my roots are here, even though currently, my family lives in the Town of Westport, near Madison. And I also see the growth problems arising there and the need for regional planning.

When David sent me the letter to confirm my appearance, he said, in something of an understatement, as David is wont to do, that I should be aware that the perennially important topic of transportation system development in this Region has recently become one of controversy—a fascinating understatement, I think.

Also, I noted that in the Newsletter describing the alternative plans considered, the Quotable Quote is from General Karl Otto von Clausewitz and his Principles of War. That may be a subtle notice. Clausewitz was, of course, born, I'm sure you know, in Magdeburg, in Germany, near Berlin and on the Elbe River, which is an important transportation corridor, if any of you are familiar with the German rivers. However, perhaps there is a double meaning with the Clausewitzian quotation. I would not say that I'm a student of Clausewitz, but I have read some of his works. He thought that war should be an extension of diplomatic policy; it should have an objective which was well defined. I sometimes think, as I have had the occasion to review what's happening with transportation planning in Wisconsin, and particularly within this Region, that maybe some of the controversy, the confrontation, at this point in time is premature, until we define and agree upon specific objectives. And so I would suggest that if Clausewitz had reviewed the situation here, he might have said that maybe it is time for white flags to go up and to step back and figure out what we are supposed to be doing.

Yesterday, as I concluded the review of the volumes of material concerning the issue that had come to me from a variety of directions, some thoughts came to mind which for some reason, repeatedly, involved an experience that I went through with my two sons—of course, at different times on Sundays—as they took their two years of catechism classes and were required in church on Sunday for two years to write summaries of the sermons. Sometimes in church I would look over and see what notes they were taking on the bulletin. Sometimes their notes looked like hieroglyphics, and I didn't know if that was what was coming through. My wife was very helpful in getting them through this process. As I thought about it, one of the things our pastor did, though, was to help the young confirmands. He would sometimes outline what he was talking about so that it would be easier for them to write down what the point was. I thought maybe I would do that today. I well know that it's possible that 16- and 17-year-olds aren't the only ones who come away with hieroglyphic concepts of what has been talked about, and so I thought maybe I would use my pastor's approach in expanding my remarks.

Regional planning is clearly of critical importance. As our society expands and grows, regional planning is very, very important to what we do with our major transportation corridors—cooperative regional planning. But, as we address, as you are addressing in this Conference, alternative and recommended plans, I think there must first be a clearer definition and communication of the problem that is being addressed. I think there we may be ahead of the public. I think we have to define what problem we are solving so that there can be public support generated. Clearly it should go without saying, but it sometimes must be said: for government in a democracy to solve problems, there must be public support. It's important, then, also that we develop recommended plans, and proposals in the alternative, to confront these problems, then professionally analyze them through preliminary engineering, cost-benefit analyses, value engineering, and, importantly, through public involvement, so that public acceptance is generated. Then, in a rational environment, we can come to conclusions as to what is the best thing to do. So, while this may seem simple, sometimes what is simple escapes us. I am particularly concerned by what I regard and see as a lack of understanding among the public about the problem we're trying to address with any of these solutions. I also have another perspective. As my pastor gave his administration's perspective to our congregation, I am here to give to you our administration's—a little more earthly administration—positions on the topic of concern.

At the State level, no decisions have been made relative to the best approach or even preferred approach to take—whether this involves the area of mass transit, light rail, bus lanes; or whether this involves the third option you are being asked to consider—which option, today, I would have to say, would probably have the most public support—basically the "no-build" option; that is, maintaining what we have. Additionally, decisions as to location of possible routes concerning individual facilities are still open, particularly as to bus lanes, and as to the nature of those bus lanes—whether they should include high-occupancy vehicles or not. All of these questions, I think, are still open. There is a good deal of discussion concerning them and there should be. And I think the government planning agencies, whether on a State level, or regional level, or local level, should be presenting alternatives. But you should not construe these alternatives which are being presented—even though an individual in the agencies concerned may sometimes, with enthusiasm, sound more like an advocate—as decisions that have been made. No decisions can be made without professional analysis, including preliminary engineering, and without public involvement and support—and, importantly now, without the assurance of Federal funds. Federal mass transit funds are critical to whatever we do because without them we will probably not be able to do anything. They should be available without any further restriction other than that they should be used for mass transit. If it is found, going through a rational, deliberate policy, that these funds should be used this way or that way, that is the time to make the decision as to whether they should be used for one of the alternatives available or for a combination of alternatives.

Transportation systems are essential, in the broadest sense, not only to our economic well-being but to our quality of life. The development of the world is very much a function of transportation routes, and particularly the intersection of transportation routes and modes. Small and great cities throughout the world have grown and withered because of transportation system changes—whether 2,000 years ago, when the confluence of two rivers caused the emperor Augustus to declare that a city should be built, so Augsburg, Germany, was built and still exists; or when, at the end of the salt trade, several monks came together and built the city that became known as "Little Monk"—München, or Munich; or when, in the 19th century, Chicago, Milwaukee, Racine, and Kenosha grew at harbors, and other cities later at railroad-line intersections. Then, as technology proceeded with highway and air-route intersections, some cities have grown, but some have withered and the names of cities that have withered have been forgotten. That's what this Conference is about. Transportation does not just affect one community in this Region, but all of them. That is why a cooperative regional approach between and among communities is critical and essential.

Having said how important a cooperative regional approach is, I should also say that at least in part of this Region you do not get very high grades as far as communities cooperating on a regional basis is concerned. The last time the State and Federal government were involved in spending hundreds of millions of dollars on infrastructure improvements, we wound up—maybe this is why Clausewitz was quoted—with the "sewer wars" that have been going on ever since. I think we cannot afford transportation wars. The failure to resolve the "sewer wars" has compounded the problem, which you are attempting to address, of land utilization and transportation corridor development. It has undoubtedly cost us hundreds of millions of dollars in taxpayers' monies. We should be aware of our failure in this regard and guard against it in the future.

The Region's population is growing. The economic interdependence of these seven counties will increase. Counties and municipal boundaries make little difference to the people—they will live here and work there and sleep there and will expect to be able to do so. Almost as many people as live in Waukesha County commute to Milwaukee County and vice versa. A recent study of demographics and commuter trends done by the Department of Administration confirms the increasing flows of people in all directions from home to work. At the same time, as we work to provide jobs to lower-income, inner-city Milwaukee residents, these jobs are often in outlying areas. Our Job-Ride Program is an effort to provide the required linkage. We must provide jobs where the people are as well. For jobs, and for fundamental economic development, a State-local partnership is critical. ISTEA and the Clean Air Act require it, but even if they didn't, we should be doing that.

The Department of Administration, aside from our budget oversight of our sister agencies, including the Department of Transportation, has critical roles in transportation directly. We, the State of Wisconsin, have 6,300 employees in this Region. We may well be the largest single employer. We, in this—in my Department—are working to carry out the Employee Commute Option program, vanpool and carpool programs, and other remedial actions. We also are developing and working with alternate fuels to have a positive impact on the environment because we have the largest car fleet in the State and in the area—and we are introducing ethanol- and compressed-natural-gas-fueled vehicles in our fleet. We are involved with the Department of Transportation in the development of the vehicle emission testing program in this area. Through our oversight of the transportation fund, we've generated about $50 million over the last two years through good financial management. This is money available for transportation projects above and beyond what the taxpayers directly made available. We will review and make independent recommendations regarding whatever comes out of the regional transportation planning process to the Governor concerning the plans and projects for his consideration as he develops his recommendation for the Legislature.

The State does not operate a mass transit system, and will not operate a mass transit system. So it seems that it's appropriate, then, as we talk about the various types of systems and what may be done—as to location and design—that the decisions required be made substantially by the transit system owners and operators, with substantial input from the regional planning process, and we look forward to receiving that input. Over $100 million in Federal funding is available for mass transit in this Region each year. The highest priority, for all of us today, must be to maximize the effective use of these dollars and to make sure we receive them. As I said, they should not be restricted as to type of mass transit on which they are to be used. How they should be used should be determined on the basis of sound studies as to the best solutions available. Let us be deliberate, diligent, and professionally objective as alternatives are developed and analyzed. What is probably the most correct statement that can be made at this time is: the final plan to be implemented does not now exist. We should all be willing at this time to be appropriately flexible. You have shown your commitment to the regional transportation planning process by attending and participating in this Conference. I hope you will also come forward as participants later this summer in the statewide planning process being conducted by the Department of Transportation.

But, as I indicated, one problem is leaving the public behind. We today seem to be focusing more on plans than on communication. The new regional plan will represent the most substantial infrastructure development project since the development of the Milwaukee metropolitan sewerage system. The cost will be substantial, and without public support, nothing will happen. Economic impact is a key as to why this planning and then implementation is critical to each of the nearly two million people who will reside in this area in the next 16 years. The year 2010 sounds very far off—15 years sounds a lot closer. And you know it will take most of that time to get in place whatever system may be decided upon, which will be the transportation system for this Region into the first half of the 21st century.

We know our existing freeway system is aging and becoming inadequate. I've been told the cost of transporting goods today averages, on a freeway, about $100 per truck per hour. Now a delay of just five minutes at the intersection of, say, IH 94 and 26th Street—five minutes—can result in an added $26,000 to trucking costs within the Region today. I've seen estimates that if nothing is done, delays in both directions, the worst-case scenario during this planning horizon, could amount to two hours. What will that do to our economy?

Everyone is dependent on products moving efficiently—everyone. What cost will doing nothing have? How can we locate industry, for instance, in Milwaukee, or in any of our other cities, if we can't get the product out or the materials in? What will be the impact of doing nothing on the Port of Milwaukee? What about on the new Wisconsin Center? On the new MECCA project? On the proposed new Brewers stadium? On the Menomonee Valley development? Without being able to efficiently get product in or out—if there are shipping delays and uncertainties—who wants to locate a plant in West Allis or West Milwaukee, for instance? This affects everyone, truly everyone, whether they use the freeway, or buses or light rail, or whatever, because it affects the economy. But if we can get passenger vehicles off the freeway, we will increase its commercial capacity. And so there's great wisdom in attempting to do that, I think. It is not my intent here to fully develop the economic argument and the interrelationship of highways and mass transit. I think this must be done, but you can surely see its thrust, and the public must be made aware of it.

Apart from the economics, the environment and land use are critical concerns. One of the most serious problems appears to be transported air pollutants from hundreds of miles away. Air quality is a broad problem, and will require more than the one-size-fits-all approach prescribed by the Federal act. The fruits of our efforts in Wisconsin are reflected in the recent sultry weather that has covered the State and Region. We don't want to complain too much because I prefer that to the alternative, at least this time of year. Several years ago we would have had a rash of ozone alerts, and we came very close this time, but we haven't had the severe problems of the past during this recent hot spell. A good deal has been done to improve air quality because our transportation and industrial sectors have been successful in reducing emissions. We estimate that we will reduce total emissions from 409 tons per day in 1990 to 234 tons per day in 2007 with current commitments. The effects of the mass transit systems on air quality, as proposed, will be marginal compared to the "no-build" scenario, because so much is already being done.

The emissions problem is being solved. However, there remains the problem of land utilization. Taking land for transportation purposes is something the planning process should minimize. Considering the need because of the physical conditions and the economics, what can we do? Clearly, expanded mass transit will be important, but, as I said, the State should not and will not operate a mass transit system. While there are in this Region a number of smaller and some special-purpose mass transit systems operated by different jurisdictions, by far the major operator is Milwaukee County. Who will operate an expanded system? Who the operator is to be is fundamental to the successful operation of the system. A couple of years ago, I visited some operating mass transit systems, among them those in San Diego, Portland, and some in Germany. Some have been very successful; some have not been successful. Why? Because some are integral parts of a system, while some are just forced add-ons. Let me repeat: how will the planned transit system be operated? Who will manage it and who will run it? Before you can finalize design, this must be decided. I'm not suggesting that there should be any change in relationships, but we should define those relationships. I said recently to a hotel operator—I won't mention his name, but I said, "What if we took your money, designed a hotel, and then gave it to you to run without consulting you? Do you think it would be very successful?" He said, "No."

So the operator of the system must be involved in the design of the system. The State may be remiss in the way we are approaching this project or these projects. Too much emphasis may be on highway design projects. But transit clearly presents a different problem. The successful operation of the physical system is very much dependent on the institutional system. More than at any time and in any other circumstance, then, the State-Federal-local partnership is critical. What do you want? What do you think will work? And how can we help?

This regional planning process is critical because of the Federal Intermodal Surface Transportation Efficiency Act—ISTEA. The transportation projects identified in the new regional transportation system plan must conform to emission reduction efforts required under the Federal Clean Air Act Amendments of 1990. We can get the acronym ISTEA out of one, but CAAA, I don't know what we can say—"That is the result of 'iced tea' and 'Caaah.'" Regional system plans, in conjunction with DOT statewide transportation plans—TRANSLINKS 21—will increasingly guide the development of transportation infrastructure. Projects that are not clearly delineated in regional transportation system plans and integrated with regional land use goals will be almost impossible to develop. Therefore, plans must be carefully crafted to strategically balance the development and maintenance of various transportation modes to meet environmental goals, address public demand to preserve, in our Region and in our State, economic competitiveness, and ensure continued economic growth.

This work is very, very important. "Fifteen years from now," I thought as I sat here, both about myself and then surveying the audience, "what will we be doing in 15 years, when, hopefully and presumably, whatever is the result of this planning effort is operating?" And, again, it may well take that long to be fully operational. I hope maybe to have a ride on something proposed in the new plan but I don't know how active I will be in 15 years, and that may well be the case for a good number of you in the room. I think, as those who planned 40 or 50 years ago who were prudent and made good judgments and developed a good transportation system did, that we have this responsibility to the future. A little bit of it is our future, but clearly most of it is the Region's and the State's future.

I commend you for your involvement. I commend Kurt Bauer for all of his contributions and his efforts these many years, the results of which are being presented today. But much work remains to be done. The public must be involved. The public will have to pay for it. They should understand, wherever they live, whether they will be utilizing it personally, that they can be a beneficiary. It is critical to our community, to the future. Together, we can get it done—and I thank you.

MR. FALSTAD:

Thank you very much, Mr. Klauser, for those thought-provoking comments. In the interest of time, we are again going to have to defer any questions. I apologize because I know that many of you probably have some interesting questions that you would like to ask. I am sure the answers would be interesting, too. As I relinquish the podium to fellow Commissioners for the balance of today's sessions, let me say how gratifying it has been to see the level of interest in transportation system planning. I thank each of you for coming. At this time, I am going to call Gary Korb, of the University of Wisconsin-Extension, back to the microphone.

Thank you very much.

MR. KORB:

Thank you, Chairman Falstad. I would like to remind you that there is an "open house" session going. Feel free to walk in and out and offer comments. Please be sure to register for this Conference after lunch if you have not yet done so. I am very thankful to be at the podium at this moment, but literally dozens of people needed to contribute and dozens of people did contribute well and earnestly to put this program together. I want to remind you of a couple of things in your Conference packet—including the yellow schedule of public hearings on the preliminary regional transportation system plan. Please review this schedule and consider attending the hearing in your county. Please also fill out your blue evaluation forms and the blue half-sheets, offering written comments if you choose to do so. That's all I have to say at this time, other than that we need to proceed as quickly as we can to the concurrent sessions. When you leave later this afternoon, have a safe journey home.

SESSION A

FOCUS ON LAND USE SITE DESIGN: THE POTENTIAL TO INFLUENCE TRAVEL DEMAND

Presiding: Anthony F. Balestrieri, SEWRPC Commissioner

From left to right: Mr. Dan A. Wilson, Mr. J. Michael Mooney, Mr. Patrick J. Meehan, Mr. Harlan E. Clinkenbeard, Mr. Edward A. Beimborn, and Mr. Anthony F. Balestrieri

Good afternoon, ladies and gentlemen. My name is Anthony F. Balestrieri. I am a SEWRPC Commissioner representing Walworth County, and have served on the Commission since 1972.

Welcome to Session A, "Focus on Land Use Site Design: The Potential to Influence Travel Demand."

Conventional approaches to land development within much of the United States, including Southeastern Wisconsin, have in the recent past generally promoted large, single-use activity centers—office parks, shopping centers, and residential areas. It has been generally recognized that conventional development practices lead to automobile dependence, and to increased air quality and traffic congestion problems.

Sound site design techniques and land use regulation are means to achieve more compact and integrated communities that promote the use of transit, bicycles, and walking as alternatives to automobile travel. This session will explore the potentials and practicalities of implementing such techniques and regulations within the Southeastern Wisconsin Region.

Participants in this session include: presenter Mr. Edward A. Beimborn, Professor of Civil Engineering, University of Wisconsin-Milwaukee; panelists Mr. Harlan E. Clinkenbeard, Administrator/Planner, Town of Pewaukee; Mr. Patrick J. Meehan, President, Meehan & Company, Inc., Franklin; and Mr. J. Michael Mooney, Mooney LeSage Group, Brookfield; and staff resource person Mr. Dan A. Wilson, Community Resource Development Agent, University of Wisconsin-Extension, Washington County.

SESSION A

FOCUS ON LAND USE SITE DESIGN: THE POTENTIAL TO INFLUENCE TRAVEL DEMAND

Presenter: Edward A. Beimborn, Professor of Civil Engineering
University of Wisconsin-Milwaukee

Over the last several years, we've been involved in a variety of research projects at the University of Wisconsin-Milwaukee that have looked at issues dealing with suburban growth and development with public transportation and with the benefits of transit. I am going to summarize some of that work, particularly the work that examined land use design as related to public transit, and to pedestrian and bicycle movement. Several reports have been produced on that topic, and are available if anyone wants copies [see Attachment A-1]. I also have a video on loan from the Federal Transit Administration that describes some of the same concepts I am talking about as they have been applied in the San Diego area. If anyone wants to borrow that and look at it, please let me know.

You also have a handout [see Attachment A-2] which summarizes the concepts I will be illustrating with slides. These concepts relate to the growth and development pattern in most American cities. Many people have the impression that this pattern is all low-density development. In fact, high-density development is occurring in our urban areas, but it's not necessarily occurring in any coordinated manner. This is a trend that I want to emphasize, and I want to talk about how it might be changed. In recent years, there has been major growth in the number of what we call nontraditional households. We think of a traditional household as having two parents and several children living at home. Such households probably constitute only a minority of our households today. There has been a significant growth in the number of one- and two-person households. These types of households are not being well served by our suburban development patterns and may provide an opportunity for new directions in land use design.

Let's look at some of the transportation problems that relate to recent growth and development patterns in suburban areas [see Figure A-1]. Right now, the new growth and development patterns in suburbs seem to be totally designed around the automobile. There is no consideration given to any other means of transportation in that process. The pedestrian, bicycle, and transit modes are not considered in terms of the relationship to land use design. This has resulted in a land use pattern where it is very difficult to bicycle or walk anywhere safely and almost impossible to make trips by transit.

I have a series of slides showing some of the resulting problems with regard to pedestrian and bicycle safety. Generally, our usual development patterns provide no pedestrian or bicycle pathways, and no connections between adjacent parcels of land. This slide [Figure A-2] shows a house with about 75 percent of its front used for garage doors. This view symbolizes how the automobile can dominate our land use in the suburbs.

Here are some examples. Please do not take these examples personally if you live in the communities shown in these slides, because there are many places from where we could have taken our examples. Here is a slide [Figure A-3] showing a major new hospital built in Ozaukee County. It was built in a cornfield, and it has a cornfield on one side and a hayfield on the other. It has no sewer or water service.[1] It is served by a holding tank. There are 10 truckloads a day of waste material going out of this facility. It is an example—an extreme case—of the kinds of land uses that we are developing.

This slide [Figure A-4] shows a suburban sidewalk that ends abruptly. The perception of the pedestrian is that the sidewalk goes to who knows where. Imagine this in the winter, because then the pedestrian will be walking in a snowbank. It should not be surprising that people do not use sidewalks like this. I am not sure what its intended use is.

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[1]*Editor's note: A sanitary sewer connection is available within about 300 feet of the hospital with adequate capacity to serve the hospital. The needed connection, however, cannot be made because of an intergovernmental dispute between the Milwaukee Metropolitan Sewerage District and the City of Mequon. The hospital is not, in fact, an example of urban sprawl, but is in accord with the City of Mequon master plan.*

Figure A-1

Problems

- Land use in suburbs is totally designed around the automobile
- No consideration is made of pedestrian/bicycles/transit or their relationship to land use
- Very difficult to walk anywhere safely
- No pathways, no connections between adjacent parcels of land

Figure A-2

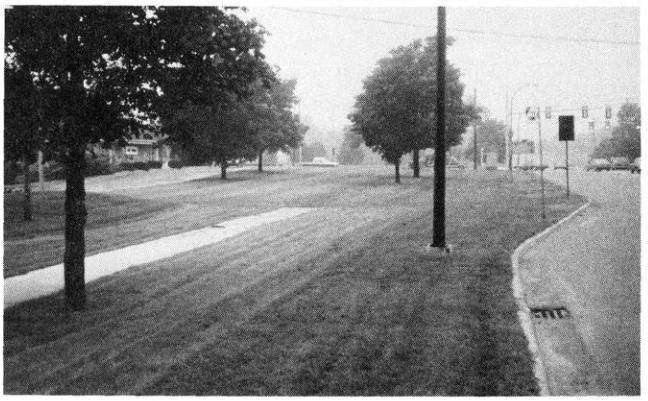
EXAMPLE OF PROBLEMATIC SUBURBAN DRIVEWAY-SIDEWALK INTERSECTION

Figure A-3

HOSPITAL DEVELOPMENT IN OZAUKEE COUNTY

Figure A-4

MEANDERING SUBURBAN SIDEWALK



Here is another situation showing a pedestrian walkway [Figure A-5]. I would guess that it was put in so that people can get around to the next corner, but all four corners are basically the same, so I am not sure how anyone would use such a facility.

Here's a slide [Figure A-6] showing a person in a wheelchair trying to get around in the suburbs. This is to remind you that not everybody has access to an automobile. This person was trying to get to a convenience store in a wheelchair. I am not sure how he got as far as he did, but there he is, negotiating his way through a parking lot to get to a store.

Our research work has looked at techniques which can be used to provide public transportation in suburban areas—and there have been some noble efforts—but the fundamental problem is that the design of the land use development and the design of individual sites are not suited to transit use. We have a transit system; we have a land use pattern; we have industrial development and commercial development, but they do not seem to be linked together. Here is a slide showing a bus stop on the northwest side of Milwaukee [Figure A-7]. Now, if you chose to take transit to that location, you would have to walk across a high berm past the loading dock of the company, and through the employee parking lot to the entrance to the building. It is a pretty difficult journey of, I think, about 800 or 900 feet, with no provision of any walkways. Imagine doing this in the winter.

Figure A-5

DISCONNECTED SIDEWALK

Figure A-6

MOBILITY PROBLEMS FACING
PERSONS WITH DISABILITIES

Figure A-7

BUS STOP EXCESSIVELY FAR
FROM DEVELOPMENT SERVED

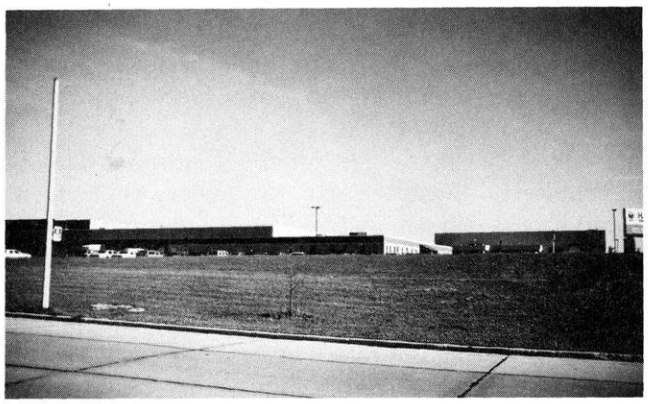


Figure A-8

BUS STOP AT SITE
POORLY SUITED TO TRANSIT USE

Figure A-9

WETLAND BETWEEN BUS STOP
AND INDUSTRIAL DEVELOPMENT

Here is another slide showing a bus stop [Figure A-8]. This is a very beautiful site, with some nice flowering trees at that time of year, and a nice grassy area. If you use this particular bus stop, you have to walk down the street in traffic to get to it, since there are no sidewalks. And, again, imagine what this area is like in the winter.

Figure A-10

GOERKE'S CORNERS PARK-AND-RIDE LOT

Figure A-11

HIGHWAY LACKING SIDEWALKS

Figure A-12

TRANSIT COMMUTER WALKING NEAR CURB

Here is another slide, showing a scene in Michigan [Figure A-9]. This was taken from a bus stop intended to serve a research facility, but between the bus stop and this building is a wetland. In order to take the bus to work, I guess you have to take along a pair of waders to negotiate through the wetland in order to get to the building. It could be an interesting experience, but there literally is no way to get to the building except by walking all the way down to the driveway entrance and then walking along the driveway to the building.

Let us look at a journey that a transit user in this Region may have to take to get to a place to work. This is a slide showing the Goerke's Corners park-and-ride lot in Waukesha [Figure A-10]. You arrive there from Milwaukee by bus at the bus stop in the park-and-ride lot, and as you can see, way off in the distance, there is an office building. In the morning hours, there are people who take the bus to go to work in that office building. The building is about 2,500 feet from the bus stop, so it's about a half-mile walk. The first part of the walk involves walking across this overpass along a highway on the shoulder with very busy traffic [see Figure A-11]. This is a terrifying experience because of the narrow area and fast traffic. After crossing the freeway bridge you then have another walk in the roadway [see Figure A-12]. This slide shows a commuter who has taken transit, walked along the arterial parallel to the freeway, and crossed over an entrance ramp. This slide [Figure A-13] shows some more transit commuters, walking along the roadway until they finally get to that office building in the distance. In order to provide access to such buildings, shuttle services may need to be added. Such services add to travelers' inconvenience and can be expensive to operate.

Figure A-13

TRANSIT COMMUTERS WALKING IN ROADWAY

Figure A-14

Consequences

- Need to use auto for all travel, short trips, serve passenger trips
- High VMT rates per household, leading to high costs, energy use and air pollution
- Suburban congestion — Saturday at noon is the new peak hour, traffic seems to be always turning left or waiting for someone else to
- Safety of pedestrians, bicyclists are major problems

This is the system we have. The Goerke's Corners area was not necessarily chosen to show you how bad it can be, but because it is typical. What are the consequences of all this? In suburban areas, there is a fundamental requirement to use the automobile for nearly all travel [see Figure A-14]. Parents who live in the suburbs must spend their time driving their kids around—to soccer practice, to music classes, to baseball practice, to visit friends, and so on. Children used to walk to those places. Now it has to be a shuttle trip in the family car. Our land use patterns have led to a lot of additional travel for such purposes. The fact that vehicle-miles of travel are increasing, particularly in the suburbs, is related to our land use patterns. These high rates of vehicle-miles of travel per household result in high costs, high usage rates, and air pollution. Here is a very simple example. If you drive 15,000 miles a year, and the full cost of that travel is 30 cents a mile, your driving costs are $4,500 a year. If a person in your household is working at $7.50 an hour, that person has to work 600 hours a year just to pay for the costs of driving to the job. That means that one must work almost four months each year just to pay for the transportation, and only after that does one generate any additional income for the household.

There are high costs, as well as energy use and air pollution problems, that go along with the excessive automobile use which is required in our suburban areas. Associated with this, quite importantly—especially for local governments and elected officials—is the public cost. Think of the costs we incur in providing school-bus transportation to get students in and out of all these areas, not to mention garbage pickup, snow plowing, and other services. All these services are affected by how our streets, highways, and other facilities are laid out. One of the messages of the regional transportation planning process, particularly if you look at the maps and alternative plans that have been developed as part of that process, is that we are on the verge of suburban gridlock and suburban congestion. Most of the new facilities proposed under the preliminary recommended plan are not in Milwaukee County, but in the suburban counties. The plan proposes major new improvements to deal with future congestion in suburban areas. That congestion is the result of how we permit our communities to be designed.

Saturday noon hour is a new peak hour. It seems that when you travel on Saturday, you are always trying to turn left someplace, or somebody in front of you is trying to turn left. Safety of pedestrians and bicyclists is a major problem. I cannot imagine how it is possible to regularly walk or use a bicycle in suburban areas to safely commute with our current patterns of streets.

So what can be done about it? Fundamentally, what we need to do is consider pedestrian, bicycle, and public transit use in the land use decision-making process [see Figure A-15]. We have forgotten about these modes over the last 50 years. We need to think about them in the future to provide and preserve choices. This is not an either-or thing. We do not need to choose solely between an automobile-based society or a transit-based

Figure A-15

New Directions for Land Use and Site Design

- Fundamentally we need to consider pedestrians, bicycles and transit in the land use process
- Provide and preserve choices for the future
- Need to ask how will people walk or bicycle safely before land use decisions are made
- Adopt a vision, a positive approach, how to make it work, rather than reasons why it won't
- Increase awareness of the market and design to serve new land use and travel markets

Figure A-16

Systems Level Actions — Transit

- Create transit corridor zoning overlay districts — areas that will have future transit service
- Separate transit oriented and auto oriented land uses. Land uses which are conducive to transit; compact residential, schools, health care, office buildings, should be located along transit corridors
- Predesignate a future system of transit corridors; areas that have higher densities, mixed use development, and are served by transit with quality pedestrian and bicycle facilities with control of through automobile movement

society; we can have a society that provides choices so that people, particularly in some of these new, emerging households, have some options and choices. We need to ask how people will walk or bicycle safely or get to public transit services before land use decisions are made. How are people going to get in and out of that proposed building if they are like the person in the wheelchair? How will we travel when we are not able to use an automobile?

What we need to do is to find ways to get these things to work. This is how we will overcome the problems. There is no perfect solution here, but we basically need to adopt a positive approach and an attitude that we can provide better transportation in our communities. If you feel that it can't be done, you eventually will be able to come up with reasons why nothing can be done. Attitude is important.

Solutions to these problems require an awareness of the market. This is important because the real-estate market is a privately driven process. We need to know how this process works. We have to be market-responsive. We have to have a system that in fact works—not something idealistic that is not going to work in reality—and we have to serve new land use and new travel markets in the process.

I have broken down some of the actions that can be taken into four categories.

First, there are systems-level actions which relate to transit [see Figure A-16]. You really cannot plan, on a site basis, for when or how to accommodate future transit without knowing where the service is going to be provided. It is therefore important to designate where future transit services are going to exist. Once this is known, the transit service can be reinforced by creating a transit corridor zoning overlay district. These districts would cover the areas that, someday in the future, will have public transportation service. With these districts, it is important to separate land uses that are oriented to transit use and land uses that are oriented to automobile use. Transit corridor districts should be the places where land uses that relate to transit use are placed. It is not rational to operate a transit route that serves land uses oriented to the automobile. For example, people will not go to a lumberyard by bus, get their lumber, and ride home in the bus with it. But there are land uses such as compact residential areas, schools, health-care facilities, office buildings, and so on, that should be located along a transit line. All of these are being built in suburban areas and should be located in those areas where there will someday be transit service. We need to predesignate those areas. These are areas which can then be served by transit and quality pedestrian and bicycle facilities. This slide [Figure A-17] shows a simple schematic drawing of a suburban area where some areas would be designated to have transit service in the future. This service, in almost all cases, would probably be bus service, but it should be designed in such a way that service could be upgraded to other modes if necessary. Second, there are systems-level actions for pedestrians and bicyclists [see Figure A-18]—and some actions of this type are being considered in the Regional Planning Commission's bicycle-pedestrian study. It is important to develop standards for pathways to be included parallel to, but separate from, arterial and

Figure A-17

SCHEMATIC OF SUBURBAN AREA WITH AREAS DESIGNATED FOR TRANSIT SERVICE

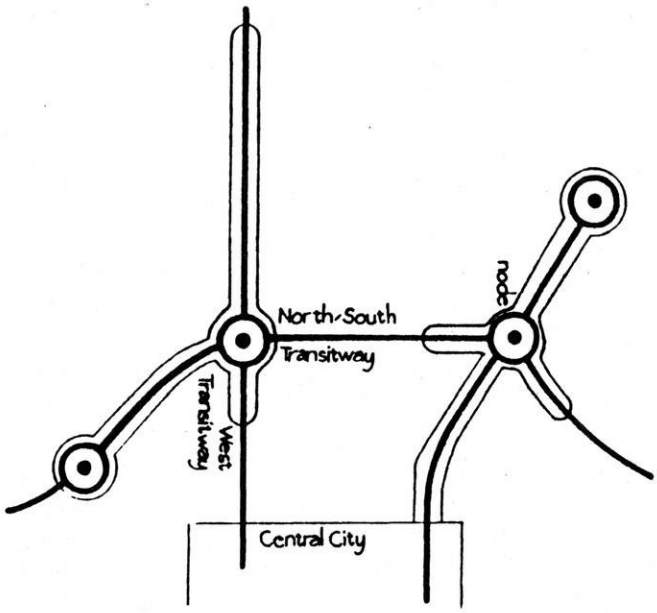
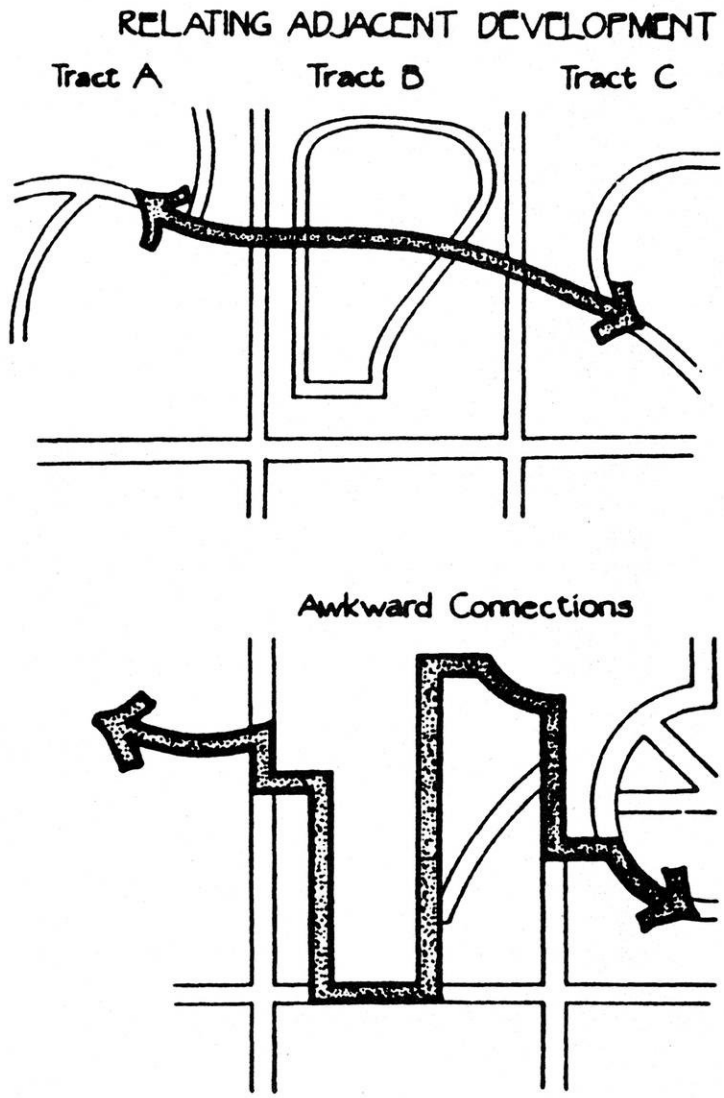


Figure A-18

System Level Actions — Pedestrian/Bicycle

- Develop standards for pathways to be included with arterial, and collector highway projects, parallel facilities which are separate from the roadway
- Institute a plat review process that includes consideration of pathway connections, safety of pedestrian and bicycle movement
- Have a process where there is input from transit agencies and pedestrian/bicycle users in development decisions

Figure A-19



collector street and highway projects. The people involved in the design and construction of such facilities need to have standards available to them that say, "This is what it's supposed to look like." Bicycle-path and pedestrian-way standards are not readily available now. The best ones I have ever seen come from the Netherlands. Subdivision plats have to go through a review process at a local, county, and State level. In that review, it is important that the questions be asked: "What kind of pathway connections are being provided here? How are we accommodating safe pedestrian and bicycle movement?" And, finally, we need to have a review process where there is input from the transit agencies and pedestrian and bicycle users in development decisions. If the issue is brought up at the right time, then things are easier to accomplish—as opposed to after the fact, which can be rather difficult.

This slide [Figure A-19] shows a simple schematic. The illustration at the top indicates how you can provide interconnection between various parcels of land for pedestrians and bicyclists. If you have the situation shown on the bottom, you end up having to leave an isolated subdivision, go to the nearest arterial street, go along the arterial street, go on to the next one, and so on to get from place to place. This involves a lot of circuitous routing. In the top example, connections are provided to avoid such routing. They do not necessarily have to

be highway connections, if people are concerned about through traffic, but they can be pedestrian-and-bicycle or transit-only connections. These connections have got to be designed into the land subdivisions at the beginning. You cannot put these in after the fact. There are many examples of the things that can be done. For instance, direct paths can be provided that people can use to walk or bicycle to nearby arterial streets. These paths will help people avoid having to travel extra distances and backtrack.

These are basic concepts, but they need to be considered at the right time. It's very hard to retrofit and implement these types of connections after the fact. Although some things can be done at the systems level, project-level actions must be centered on a specific development or a specific site. We have to provide for better connections between adjacent developments in projects [see Figure A-20]. If you attempt to locate a transit service in the Brookfield Square area to serve the commercial development in that area, you will find it is nearly impossible. There are no interconnections between projects and across the "seams." Providing logical connections between buildings for pedestrians, bicycles, and transit would have been simple at the plat review stage. Trips are made from the door of one building to the door of another building. That's what we did to get here today. We all left our houses this morning, and somehow, through the use of various means of transportation, we wound up inside this building. What is important is this: If we are to involve a transit vehicle in that process, the distance from the door of the vehicle to the door of the building should be minimized. In the slides I have shown you, the distances between the door of the transit vehicle and the door of the building were not minimized. There are ways in which this could be done [see Figure A-21]. One way involves locating buildings near streets, thus maximizing utilization of curb space to serve many users. Curb space, particularly along arterial streets, is a very valuable commodity. Yet we spread our buildings out parallel to the curb. In fact, they could be perpendicular. Parking does not always have to be in front of the building—maybe some does, but not all of it. We can also provide for mixed-use development—provide a mixture of residential, commercial, and industrial uses—on a site.

Next time you are shopping or doing business in an area with "strip" commercial development, try to walk from the bank to the hardware store to the grocery store, and try to get from building to building without using your car. You will find it is difficult, as even the most basic pedestrian facilities are missing. These land use patterns require people to drive their cars from the bank to the hardware store to the grocery store while making many left turns. That is causing chaos on our highway system. Here [Figure A-22] is an example of some of the things that can be done with, in this case, a cul-de-sac and an arterial street. Here a short pathway is provided from the end of the cul-de-sac, which connects residential areas to commercial developments as well as to a transit stop. We then have good building access for transit users, for people in the nearby neighborhood, and for auto users. Steps like these, when thought of at the right time, can be relatively easy to accomplish.

Again [Figure A-23], here is an arterial street located near a building. Parking is placed behind it for an office building. If you have an office building, you can require employees to park behind the building. If you have visitors, they can park in front of the building or to the side of the building—whatever can be worked out. But in this case the bus stop and the building entrance are relatively close to each other.

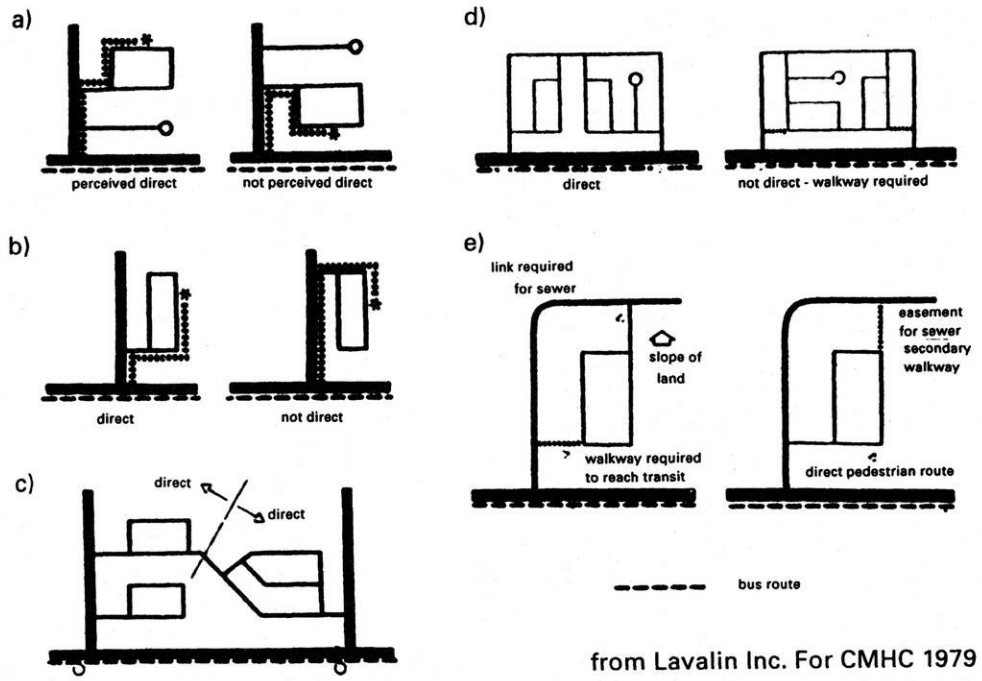
Figure A-20

Project Level Actions — Transit

- Provide for better connections between adjacent development projects — connect across "seams"
- Provide logical connections between buildings and pedestrians/bicycles/transit, minimize the distance between vehicle door and building door
- Locate buildings near streets, maximize utilization of curb space to serve many uses
- Provide for mixed use development to facilitate shorter trips and use of nonvehicle travel

Figure A-21

VARIATIONS ON CURRENT DESIGN PRACTICE TO PROMOTE DIRECT ACCESS TO TRANSIT



from Lavalin Inc. For CMHC 1979

Figure A-22

EXAMPLE OF PATH TO FACILITATE PEDESTRIAN AND BICYCLE MOVEMENT THROUGH DEVELOPMENT TO TRANSIT STOPS

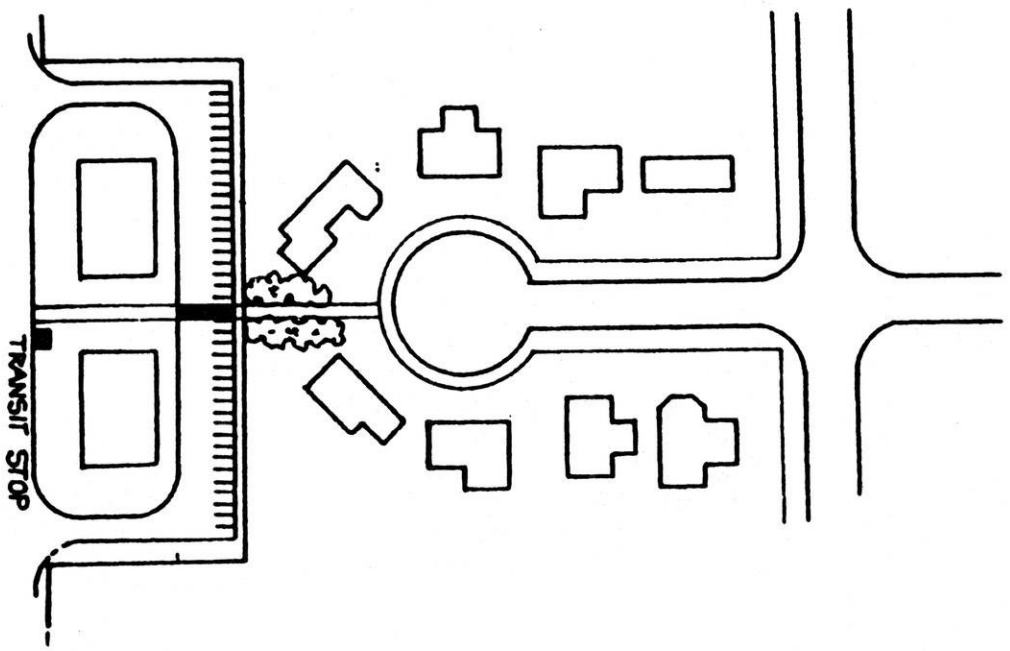


Figure A-23

TRANSIT SERVICEABLE DEVELOPMENT

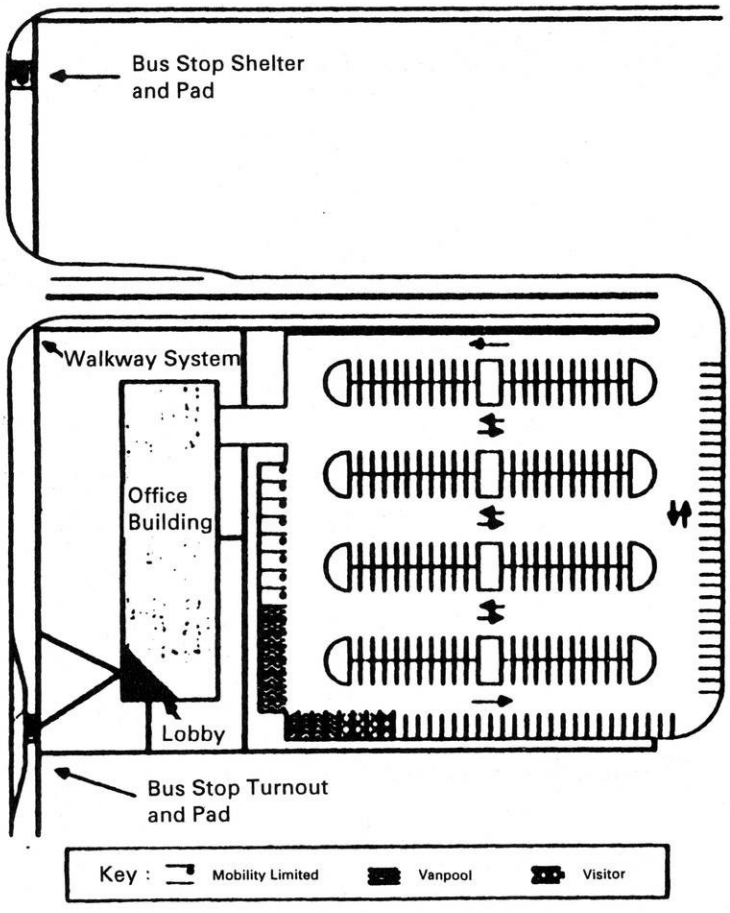
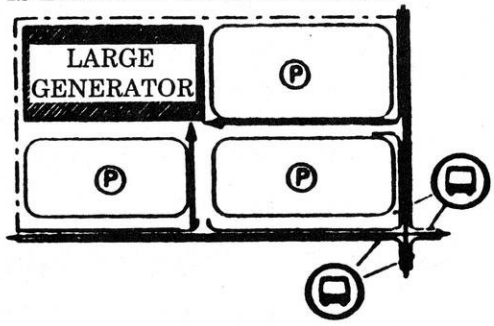


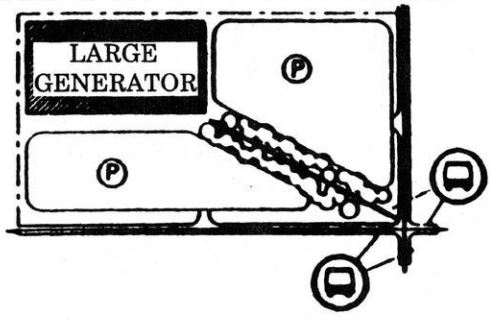
Figure A-24

EXAMPLES OF PEDESTRIAN ACCESSIBILITY BETWEEN TRANSIT STOPS AND TRIP GENERATOR

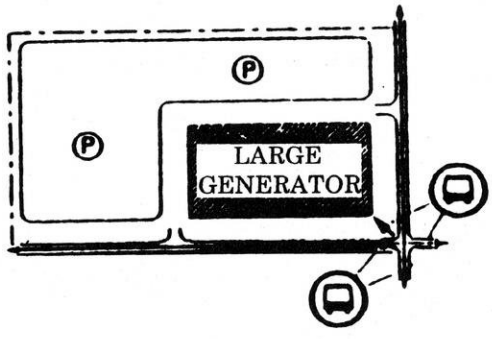
1. POOR
PEDESTRIAN ACCESS THROUGH PARKING LOT IS LENGTHY & UNPROTECTED



2. BETTER
PEDESTRIAN ACCESS ALONG LANDSCAPED MEDIAN IS LENGTHY BUT PROTECTED



3. BEST
PEDESTRIAN ACCESS IS SHORT & PROTECTED



Here in this slide [Figure A-24] are some more diagrams showing a large trip generator located at the rear of a property, a view of how it could have a pathway from a bus stop to the generator, and another alternative involving having the building located near transit. Having major developments on two sides of an arterial street causes further problems if buildings are located far from the street. Which way do you go? One might try and bring them together, to locate them in some creative way.

This slide [Figure A-25] shows an example of two extremes of transit-related development and an automobile-related development—parking in front versus parking in the back or on the side.

Finally, there are project-level actions that can facilitate pedestrian and bicycle movement [see Figure A-26]. A bicycle/pedestrian-friendly environment is at a different scale. It is at a human scale and it is safe and

Figure A-25

Transit-related development/automobile related development

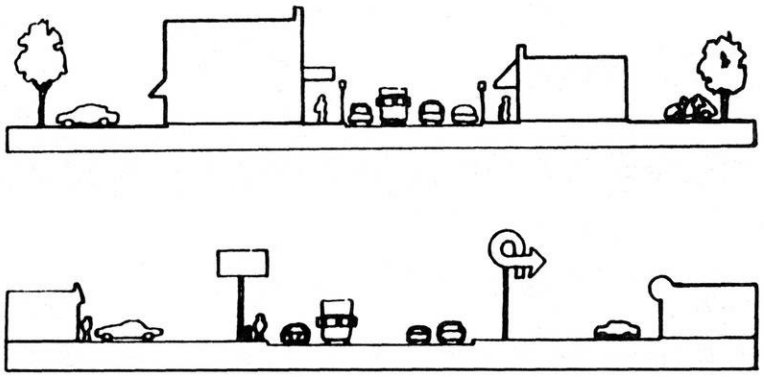


Figure A-26

Project Level Actions — Pedestrian/Bicycle

- Create a pedestrian/bicycle friendly environment (interesting, human scale, safe, secure)
- Provide pathway connections between subdivisions, at ends of cul de sacs, to improve connectivity — shortcuts
- Walk the routes, experience barriers and seek ways to avoid them
- Narrow neighborhood streets

secure. We can provide pathway connections—as we talked about, short cuts—enabling one to just go out of a building and walk to another building. To find the best solutions in a given area, you need to personally walk the routes, experience the barriers, and seek ways to avoid them.

Some people would argue that there is a need to narrow neighborhood streets. The full widths of many neighborhood streets are probably wider than they really need to be. In some European countries, roadways are often designed to provide a better environment. In some cases, trees may encroach into a roadway, but that roadway is not one that you are going to travel on very fast, and it is designed in such a way as to facilitate bicycle and pedestrian movement.

As part of our research, we did a project entitled "Guidelines for Transit-Sensitive Suburban Land Use Design." We looked at various development projects around the country and the trends taking place in land use design. One trend involves something called "traditional neighborhood development"; another trend is called "transit-oriented design." These concepts first appeared three or four years ago in a few isolated instances in California and Florida and appear to be gathering momentum around the country. According to my colleague, Harvey Rabinowitz, there are now over 100 projects of this type in the works at various stages around the country. In our project, we developed guidelines for transit-sensitive developments and also did a prototype design to demonstrate how they could be used [see Figure A-27].

We tried to test the concepts and guidelines which I have very briefly summarized. If you are interested in the technical aspects of this, let me know, and I will provide the whole report. The report details how the guidelines for transit-related design could work in a situation like that in Southeastern Wisconsin, where we have a variety of developers, multiple land uses, and varying timing of projects. A lot of little projects are undertaken, and not necessarily in a coordinated manner.

We looked at an area in Menomonee Falls—a half-mile-wide corridor, two-and-a-half miles long, parallel to Silver Spring Drive from Pilgrim Road to One Mile Road. This area is almost entirely rural at this time, but there is development all around it. It is just west of the Butler area, in Waukesha County. Our project assumed that someone would have designated an east-west transit route that would go from Sussex to Butler and into Milwaukee. At the same time, there would be a north-south route that would connect the center of Menomonee Falls to the Brookfield Square area. We used a team approach involving five or six different people, who separately dealt with a portion of land in the project area. Their instructions were to design their parcel and to not worry about what the other person is doing, except to follow these guidelines [see Figure A-28]. The result, therefore, was a mixed-use pattern, designed to maximize transit market potential and

Figure A-27

Example

- Prototype design done to test concepts and guidelines. How would they work with a variety of developers, multiple landowners and different timing of projects?

- Menomonee Falls, 1/2 mile x 2 1/2 mile corridor, parallel to Silver Spring Drive from Pilgrim Road to One Mile Road

- Assumed an east/west transit route from Sussex to Butler and into Milwaukee and a north/south route from Menomonee Falls center to Brookfield Square area.

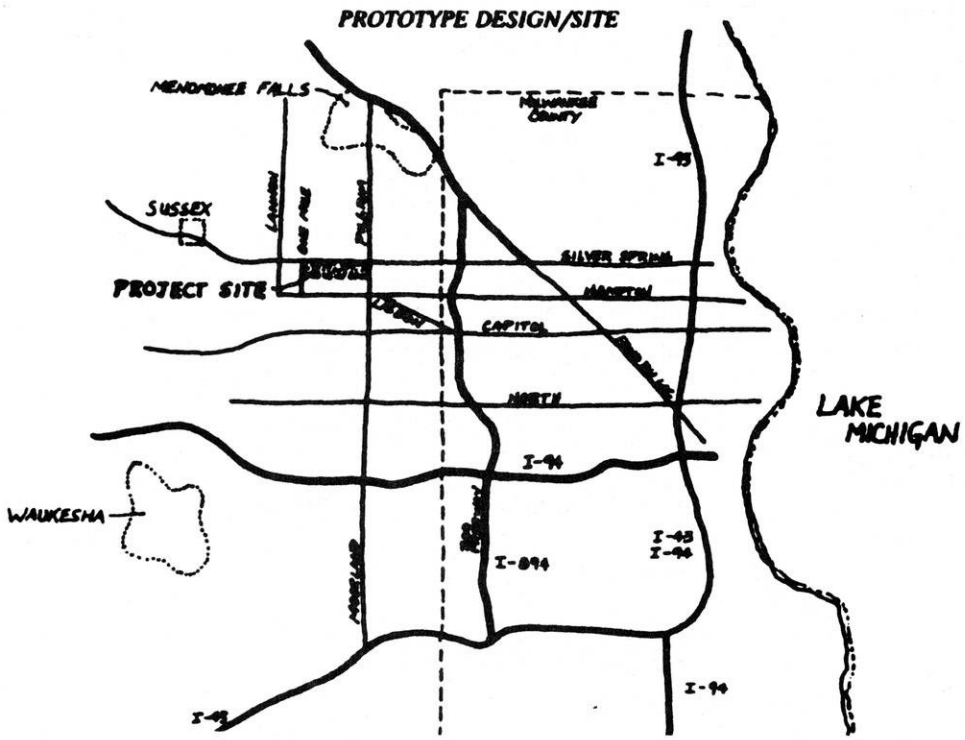
Figure A-28

- Team approach with different designers following basic guidelines

- Result was a mixed use system, designed to maximize transit market potential and to facilitate easy pedestrian and bicycle movement

Figure A-29

LOCATION OF MENOMONEE FALLS PROTOTYPE DESIGN PROJECT SITE



facilitate easy pedestrian-bicycle movement. It was a test of the guidelines. The design project was carried out to indicate what the area would look like if the guidelines developed under our study were implemented. The site is shown in the crosshatch pattern on this slide [Figure A-29].

This slide [Figure A-30] shows the plan that resulted from our effort. It is the third iteration of the plan, and there are more things that we could change with further work. What we did initially was to locate where the transit service would be, with a north-south route and an east-west route. The transit service was located a quarter-mile from the arterial so that the arterial would have automobile-oriented land uses and the transit corridor would have transit-oriented land uses. The plan shows the locations of both transit routes and of transit stops.

The transit service would not necessarily always be on a road shared with automobiles. There could also be transit-only segments or pedestrian/bicycle-only segments. The proposal includes a variety of high-density uses in the form of office buildings, schools, and the like around the area where the two transit lines intersect [see Figure A-31]. This would be a natural area for commercial business development. We would also have a mixture of office buildings, higher-density residential areas, shopping areas, and related land uses. There might also be some public spaces. Elsewhere, we would have more high-density development close to the transit route. In all cases, it is critical to locate the transit stops as a basis for the land use design. What is important is not so much where the transit route is located, but where the stops are located. That is important, because stops are where people get on and off the transit vehicles. In our example, we have an arterial street system that allows you to circulate, but there is also an open space area where transit vehicles might operate. Automobiles might also be allowed to travel in that open-space area on a limited basis. In all cases, we try to provide a reasonably direct walking path to the transit stops.

This slide [Figure A-32] shows a view that is further to the west. In this case, there were four different people designing plan elements, but they had to maintain an interconnection between their areas, and again a pathway system carries it through. This slide [Figure A-33] shows how you can serve two markets. At the right of the drawing would be the site of a neighborhood convenience shopping area. Adjacent to it would be a larger, more regional, shopping facility whose parking facilities would be located away from transit so you can have access from one side by transit and from the other side by automobile. The overall arrangement is a mixed-use arrangement.

The result of this effort is a community that provides its residents with choices—choices of housing type, places to work, and places to shop in their neighborhoods or elsewhere; and choices in how to travel—to walk, to bicycle, to use transit, or to use a car. Such a community can serve a variety of markets, traditional households and nontraditional ones, and still provide a great deal of flexibility in its design. The concepts I have discussed are not that complex. They need to be viewed as a way to improve our Region for the future, not as a target for criticism. I urge you to have an open mind and seriously explore these types of new options and choices for our Region.

Again, if anyone wants to borrow the video or some of the reports, please let me know.

Thank you.

Figure A-30

PROJECT SITE DEVELOPMENT PLAN

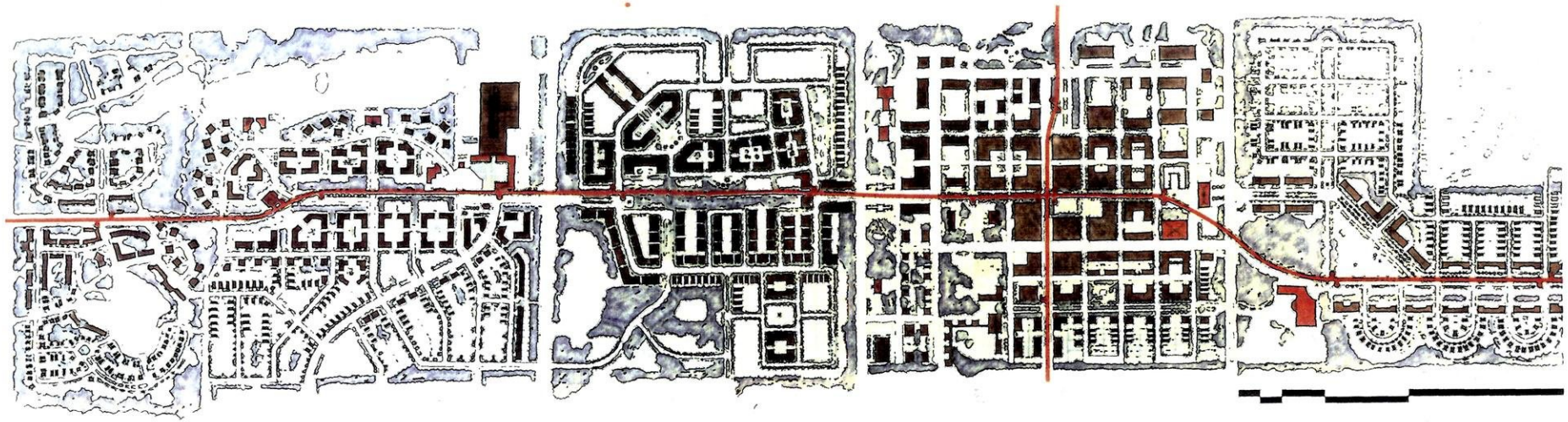


Figure A-31

HIGH-DENSITY USES NEAR TRANSIT-LINE INTERSECTION

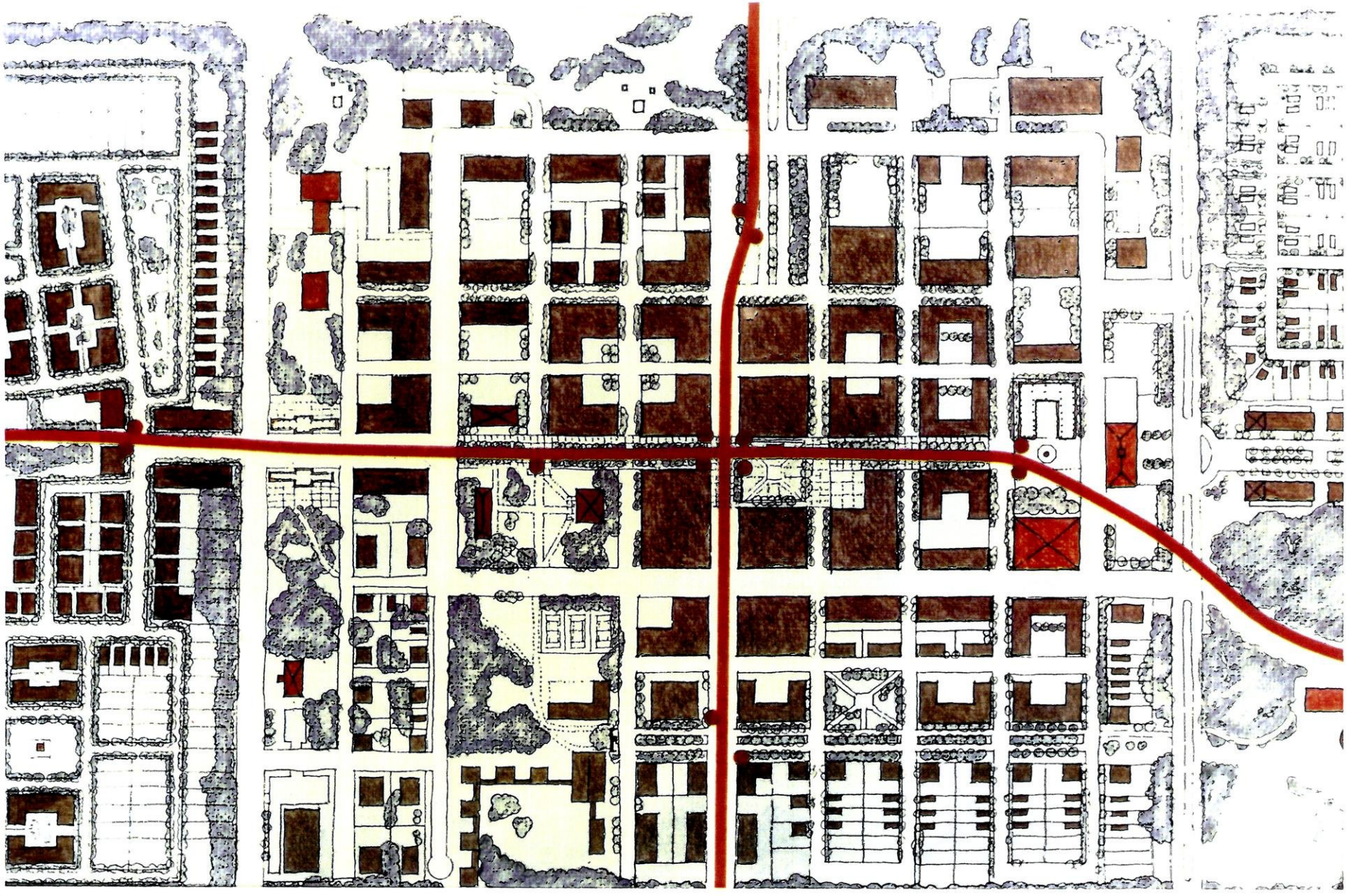


Figure A-32

PEDESTRIAN PATHWAY SYSTEM LINKING AREAS

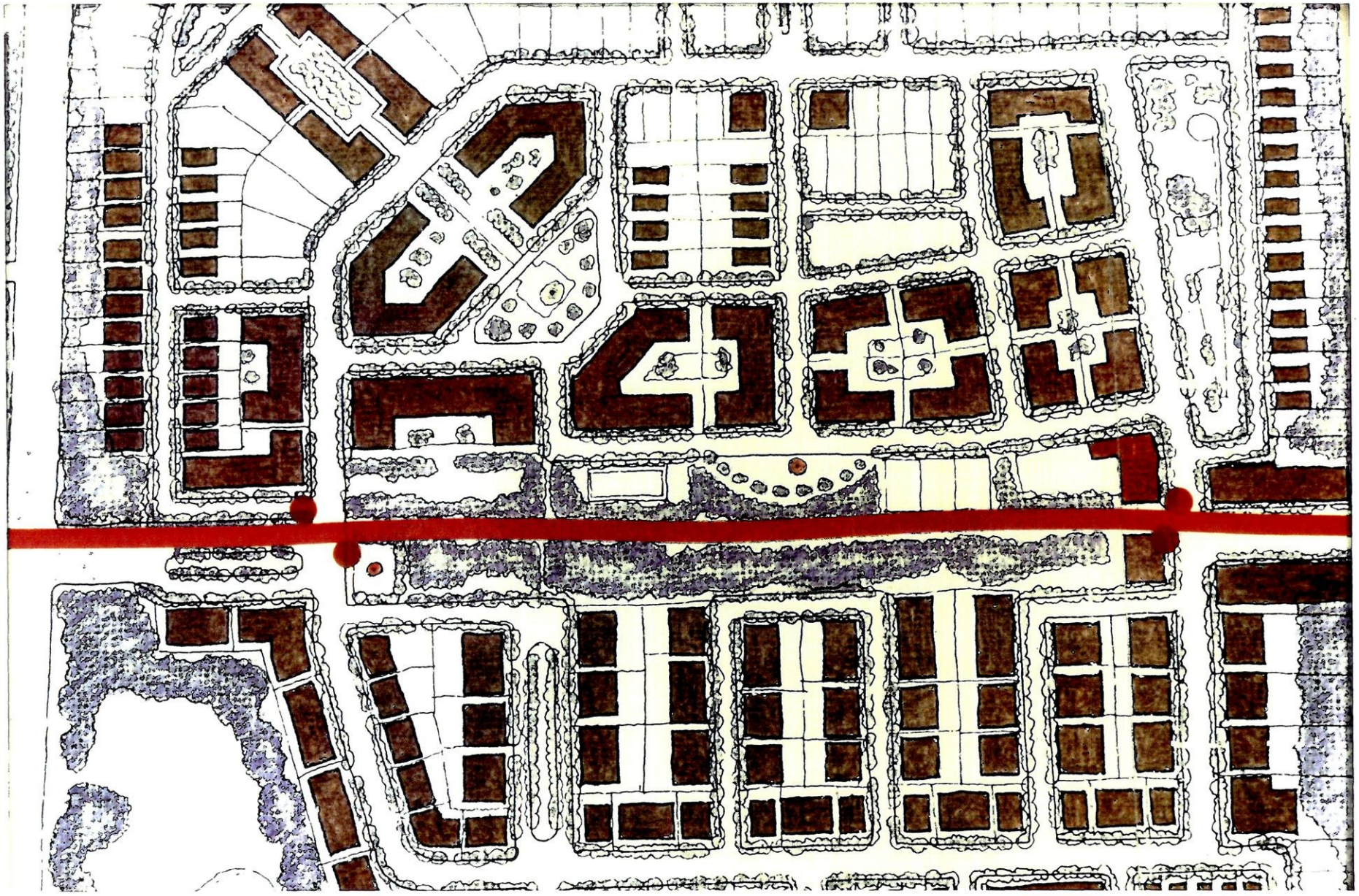
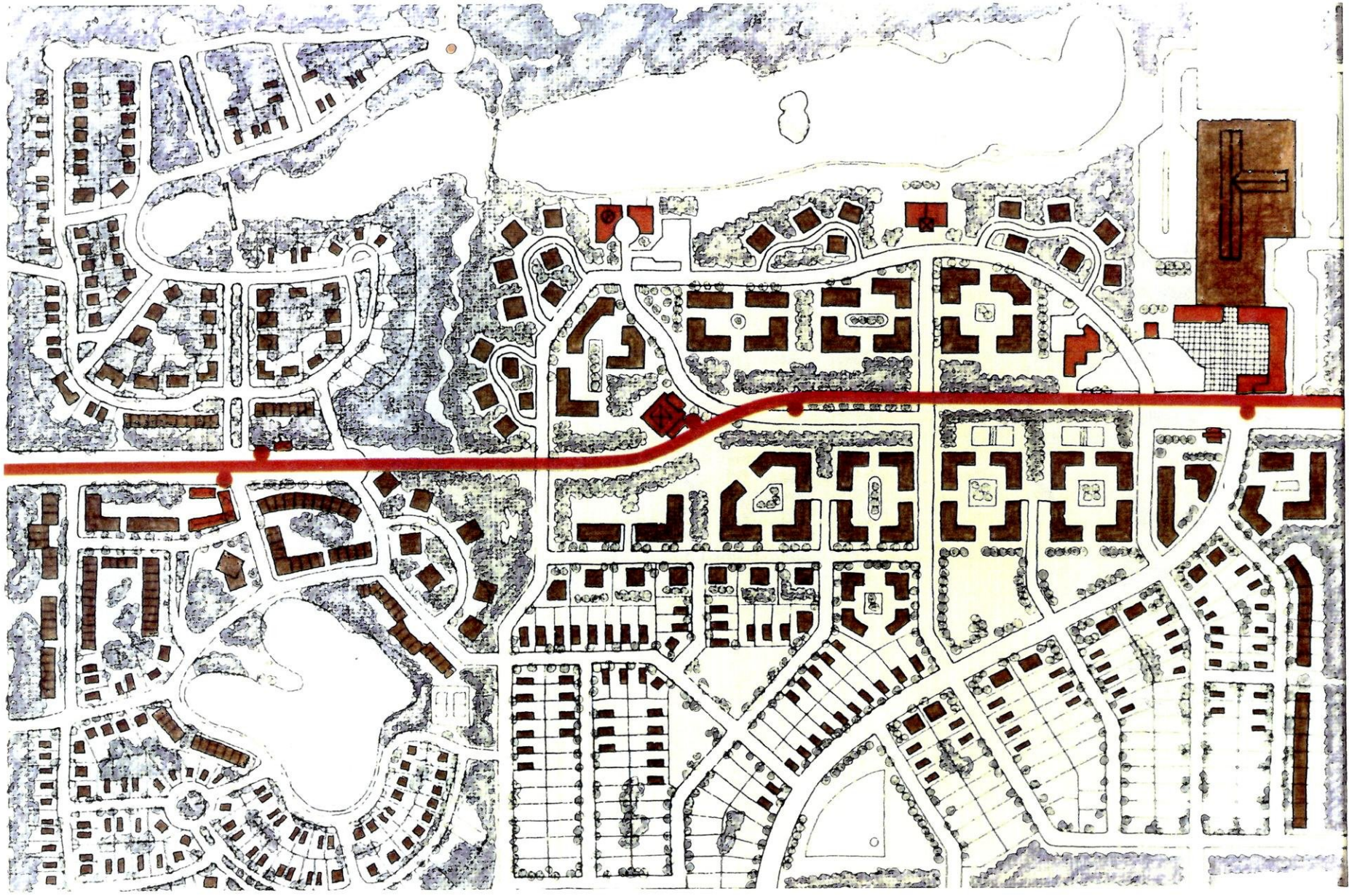


Figure A-33

MIXED-USE DEVELOPMENT SERVING NEIGHBORHOOD AND REGIONAL SHOPPING CENTERS



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Transit-Based Approach to Land Use Design

EDWARD BEIMBORN, HARVEY RABINOWITZ, CHARLES MROTEK, PETER GUGLIOTTA, AND SHUMING YAN

The nature of land use patterns that are sensitive to the needs of public transit was examined. Design elements that directly address the success of development activities and transit services are proposed; requirements for successful transit are discussed; and design guidelines for land use, access systems, and transit service types through a range of scales are provided. Transit-sensitive land use design can be developed through the designation of transit corridor districts (TCDs) that would separate transit- and auto-oriented land uses. Such areas would have a mix of land uses, with higher densities located near a transit route. A high-quality access system for pedestrians and bicyclists should be provided to permit easy connections between buildings and transit vehicles. Guidelines are developed for the overall administrative and policy issues, systems planning considerations, and specific designs of individual districts in which transit service is provided. A prototype TCD, based on the guidelines, illustrates how the guidelines can be applied at a specific location.

In the last 50 years, suburban areas have evolved into places having a unique life-style and pattern. Widespread availability of automobiles and the mobility they provide has led to a dispersal of activities and trip making. Employment and commercial activity have grown along with housing and recreation to lead to complicated trip patterns and increasing congestion of local streets and arterials. Activity centers and trip generators are poorly tied to each other and totally depend on the automobile for access. Little, if any, concern has been made for pedestrian or bicycle movement or for the provision of public transit in land use decisions. Most work on the problem of transit in suburban areas to date has concentrated on the development of new methods of operation or administration of public transit services in suburban areas. Demonstration projects have been attempted and new services have been offered with the hope of finding a "magic" transit solution to suburban travel problems. Although these efforts certainly have merit, they tend to ignore the underlying land use planning and design issues that are the root of many of these problems.

Recent efforts to rethink suburban land use provide new directions for suburban planning and design (*1*). Early work by Teska (*2,3*) defined a concept of high-accessibility corridors that would integrate highway, transit, and land use development. Beginning in the early 1980s, proposals for innovative physical design solutions to address suburban problems in high growth areas were initiated. These included development of the Neo-traditional Neighborhood Design concept led by the architectural firm of Duany/Plater-Zyberk (*4*) and the Pedestrian Pocket/transit-oriented development concepts as advanced by Calthorpe and Associates (*5*). Both of these concepts move toward higher density, mixed-use development with an emphasis on pedestrian movement. By the late 1980s, a few developments based on these solutions were under construction. Many of these developments reflect projects done 50 or even 100 years earlier. These precedents included a pedestrian-oriented environment, conservation of the landscape, significant amenities, and higher densities, and often provided mass-transit opportunities as well. Innovative solutions for suburban development have found acceptance by the development community in areas in which suburban problems are most intense. Although it is too early to judge the acceptance of these pioneering projects by market response (the first projects are still under construction), conditions indicate that they may be successful and such solutions may proliferate. At the same time, efforts in the Pacific Northwest by Snohomish County Transportation Authority (SNOTRAN) (*6*) and the Seattle Transit agency (*7*) and in Canada (*8*) have provided a better definition of how public transit can relate to development activities. Collectively these efforts can lead to a model that integrates land use and transit services and a movement away from the auto-dependent suburbs.

This paper provides an outline for a land use planning, design, and development process that is sensitive to the operational and economic requirements of public transit systems. The goal is to develop a transit basis for land use design and to demonstrate how planning decisions could be made to provide a greater variety of modal options for suburban communities. This paper condenses a larger work (*9*) that provides comprehensive guidelines for transit-sensitive suburban land use design.

PRINCIPLES

Elements of Successful Transit

To look at a land use design from a transit perspective requires a clear understanding of what is necessary for transit to successfully compete with the automobile in terms of access, convenience, and comfort. A land use pattern based on transit should incorporate the following principles:

1. *Market orientation.* Transit services should be operated from a market-based, user-oriented point of view. The driving force in decisions regarding the planning, location, design,

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frequency, operation, and maintenance of public transit and associated land uses should be to respond to customer needs. Transit can be successful in attracting a significant number of users from the automobile if it provides a user-oriented service. User-oriented transit operates directly between passengers' origins and destinations without transfer, on a convenient schedule, and at a price that is competitive with the automobile. Transit stops and building entrances should be located to minimize walking and there should be clear pathways that connect activity centers and transit services. Under such conditions, and with the use of appropriate land use patterns, transit will be successful and provide a meaningful alternative to the automobile.

2. *Land use pattern with concentrated trip ends.* Transit requires an adequate market size to be successful. There needs to be a concentration of trip ends along the transit service. Those activities that most relate to transit should be located as closely as possible to transit stops. Furthermore, they should be concentrated to create a number of high-volume destinations to support a high level of transit service.

3. *Quality access system.* Access to public transit by pedestrians, bicyclists, and automobile users should be convenient, safe, and direct. All transit trips begin as pedestrian trips and end as pedestrian trips. Pathways should be provided that minimize walking distances to points of activity, provide an interesting bicycling and walking experience, provide attractive waiting environments, and incorporate land uses and services that support pedestrians and bicyclists.

4. *Transit-oriented streets.* Street systems should be laid out to facilitate efficient transit operations. Streets that have transit service should be free of sharp curves or steep grades, and through routing should be provided. Transit service should directly connect activity centers; there should be no need for shuttle services that connect activity centers to primary transit lines. Geometric design criteria for transit routing should provide for high-speed movement, adequate stopping areas, safe pedestrian crossings, and proper visibility. Automobile traffic should be restricted if necessary, to ensure that transit vehicles do not experience delays because of highway congestion.

Conceptual Design

A major goal of this project was to develop a conceptual framework for the design of transit-sensitive suburban areas. This effort was based on our reviews of the literature and an analysis of exemplary designs as outlined in *The New Suburb* report (*1*). Though none of the designs we examined incorporates all the elements of a transit-sensitive suburb, taken together they provide a variety of concepts and features that could be the basis for such projects. The integration of transit and land use planning should provide the features and services necessary to create a genuine and workable community. The suburban community must be planned to be an attractive and viable place to live and work as well as capable of confronting issues related to the provision of transit. The land use plan should have at its core a mix of uses and a pedestrian orientation. In addition, the location of streets and parking should support transit services. Part of the land use plan is the preservation of land in natural and agricultural areas that will also reinforce the milieu of the developments.

The project must function as a community. The design should provide features, amenities, design, and services that will make the community an attractive place to live in. Market considerations also include the provision of many types of housing to attract a diverse market, as well as a market that will use transit more frequently. Transit services should be market oriented (i.e., the needs of users should be the driving force in its design and operation).

Based on these factors, a conceptual design was developed that separates transit- and auto-oriented land uses and calls for the creation of transit corridor districts (TCDs) where public transit, walking, and bicycles are to play a major role in providing mobility. Transit corridor districts would serve as prime locations of transit-oriented land uses and as a means of creating an environment in which mobility is provided by non-automotive means (Figure 1). Transit corridor districts would be segments of existing arterial streets but ideally would be separated from arterial highway corridors by a distance of at least 1/4 to 1/2 mi. These corridors would be protected through zoning actions and by the careful placement of periodic closures to nontransit traffic—to avoid excessive automobile usage (Figure 2). Technological flexibility should be provided in the design of transit corridor districts. Corridors for transit would likely be serviced by buses at early stages of development, but they should be designed to be easily upgraded to light rail transit or other technological options in the future. The critical feature is that there is a concentrated land use pattern and pedestrian/bicycle access system that supports and is served by transit.

Separation of transit service from conventional auto-oriented arterials is attractive since conventional arterials in the suburbs are seldom suited to transit service (Figure 3). Suburban arterials are typically lined with strip commercial developments that are normally set far back from the roadway and have few, if any, pedestrian facilities that can connect them to transit. Land uses along suburban arterials are also often

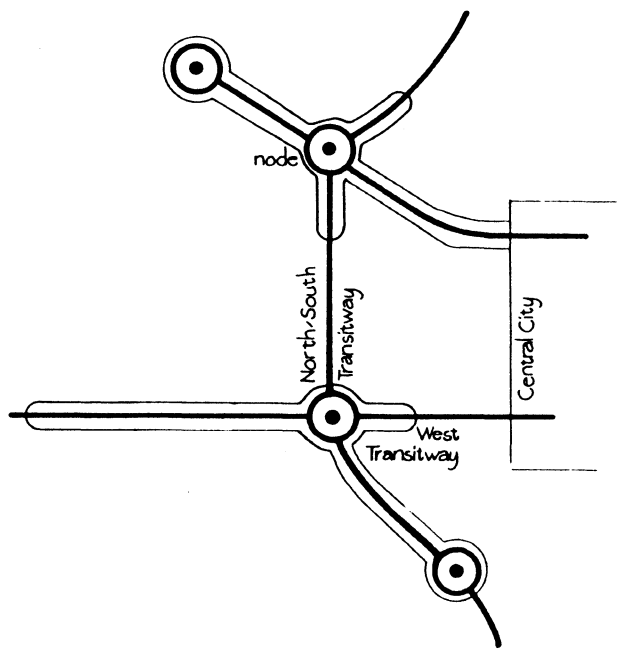

FIGURE 1 General location of transit corridor districts.

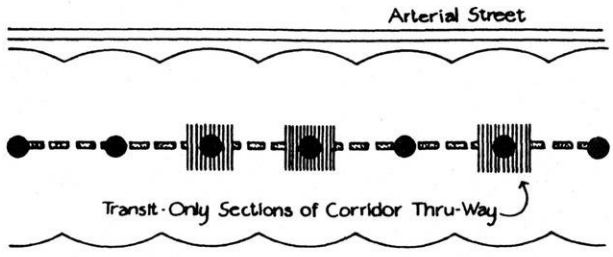

FIGURE 2 Control of through auto traffic.

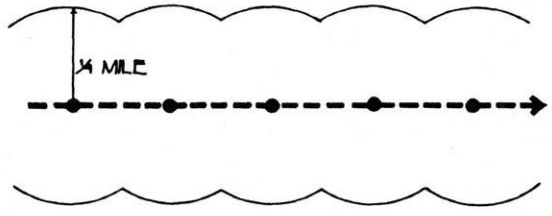

FIGURE 3 Separation of auto- and transit-oriented land uses. Auto-oriented land uses are kept near arterial to maintain pedestrian movement at the transit corridor.

inappropriate for transit use. Auto-oriented uses such as lumber yards, garden centers, drive-in banks, auto dealers, fast food drive-through restaurants, and funeral homes, which predominate along suburban arterials, are intermixed with land uses that relate to transit. On the other hand, those land uses that relate strongly to transit, such as housing, office buildings, educational facilities, retail buildings, and factories are often separated from the arterials that have the transit service. Thus the separation of transit corridors from highway/arterial routes and the location of land uses appropriate to each of these modes can create a more efficient and convenient overall system (Figure 4).

Part of the transit corridor district zoning would designate locations for activity centers where stops would be located. These centers, which would allow a variety of uses and high levels of activity, would be the focus of individual neighborhoods, as developed by various organizations. This type of zoning creates an attractive community as well as a feasible public transit system.

These designated transit corridor districts will capture much of the metropolitan growth for some time. Areas between districts will either be preserved as agricultural and natural areas or will contain low-density uses. The use of only a portion of the land surrounding the central city for development encourages preservation of the environmental quality of open and rural spaces.

GUIDELINES

Our basic approach was to define a development pattern that follows corridors and occurs as linear extensions of urbanized areas. Transit routes will operate most effectively in a linear pattern with very few turns. These overlapping demands of market forces and transit service needs provide a natural situation for the development of organized transit corridors.

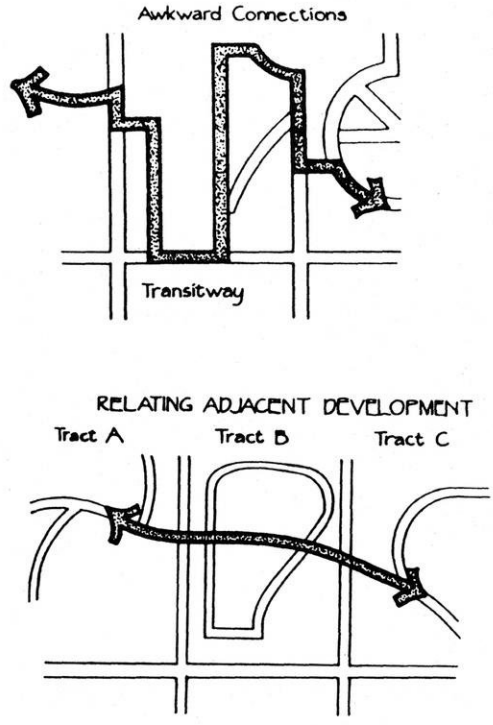

FIGURE 4 Provision of direct routing between parcels.

Three major guideline categories were developed: (a) administration and policy guidelines; (b) systems planning guidelines; and (c) guidelines related to the design of the transit corridor districts. The systems planning and district planning guidelines each have three parts: land use, access to transit, and transit operations guidelines. Policy guidelines relate to how things are implemented, who has input into the process, and how services and areas are managed. Systems planning refers to the overall location of transit corridor districts, access to public transit, and general rules for the operation of transit services. District level relates to the way in which land uses are arranged within a transit corridor district, how access is provided, and how transit services are accommodated.

Space does not permit a discussion of all of these guidelines. However, certain key guidelines were developed to help explain the concepts. In addition, a prototype design was developed to help illustrate the concepts involved.

Separate Transit-Oriented and Auto-Oriented Land Uses

A key element in the design of transit-sensitive suburban land uses is to spatially separate activities that are highly related to the automobile from those that are related to public transit. Certain activities are distinctly auto-dependent—it is difficult to perform them using transit. These are activities that require transporting large objects, that require multiple stops, or that take place in evenings or on weekends. Examples include purchases at a lumberyard, collecting a group of children and taking them to a soccer practice, or going out for dinner and

a movie. Activities conducive to the use of public transit include those that occur with some regularity and with a direct origin-destination pattern.

To maximize the potential for the use of public transit and to alleviate suburban traffic problems, there should be a separation of land uses based on their associated traffic modes. Ideally, parallel corridors would be developed, one primarily for the automobile and its associated land uses, and one for transit and its related land uses. Land uses oriented to the automobile—car dealers, large-package retail shopping, low-density housing, motels, car-oriented food franchises, large-plot outdoor recreation, etc.—should be located along highway corridors. Land uses oriented to transit—high-density residential developments, office buildings, schools, facilities for the elderly, and some retail—should be located along a transit corridor. Within the corridor, a mixture of building types and the proximity of building types would also encourage pedestrian access. Concentrated locations of educational facilities, office buildings, shopping, and housing would reduce the amount of transportation required—whether by auto or public transit (*1,6*).

Encourage Transit-Sensitive Land Use Design by Designating TCDs

The local zoning ordinance is the primary tool used to implement land use policy. Unfortunately transit issues are seldom addressed in contemporary zoning ordinances. The local zoning ordinance should be updated to include the consideration of transit throughout all relevant sections. The inclusion of transit will provide a regulatory basis for the enforcement of a transit-based land use pattern. Detailed transit regulations should be incorporated into the zoning code for transit corridor districts as an overlay zoning area.

Additions to the existing zoning ordinance will improve a municipality's efforts to encourage transit and to concentrate development in areas with a potential for high transit use. A TCD would permit much greater regulation of transit-related concerns in primary service areas while allowing the conventional zoning code to govern development in other areas.

The review process for proposed projects in a TCD would be much like the review process for planned unit developments. The TCD would expand on the concept of a transit overlay zone, used in the Portland, Oreg., area that focuses on the mixture and density of developments near light rail stations (*6,7*). Transit districts of 10 to 11 acres in size were created at light rail stations for high-density residential and office development. Another example of a zoning district would be the many historic districts created to preserve the history of older downtowns. Transit corridor districts could be areas along existing arterial streets or could be future sites of new roadways/corridors.

Predesignate a Future System of Transit Corridors

A transit-sensitive solution to land use in the suburbs must be part of an overall metropolitan or regional transportation plan. A transportation corridor must be linked to heavily concentrated locations, such as the central business district or existing major employment areas and suburban activity centers.

An important element in making the concept feasible is to predesignate corridors for transit service and for the location of transit-oriented land uses. It is vital to establish the basic transit corridor district locations before most development activity. The most effective corridors will be initiated in undeveloped areas. Early location and designation of the corridors is essential to making subsequent land use decisions with a commitment to future transportation services. Early establishment of TCDs also reflects a commitment from the government to future developers that a full-service transit line will operate in a specific area, which helps to eliminate fear and speculation about the future of the corridor. Demand for land along the corridor should stabilize once the zoning is established. This will enable communities to separate auto-oriented land uses from transit-oriented land uses and to locate them according to the appropriate means of transportation.

The creation of transit-sensitive districts ideally can be accomplished by a physical separation of transit services from primary auto-oriented arterials. Transit services should be at least 1/4 mi away from the parallel arterial and should provide opportunities, through zoning, for development of land uses, population sizes, and densities that relate to transit. The success of the corridor relies on the ability to integrate a pattern of land uses that is compatible with transit, as well as with the internal design of each site.

Provide Adequate Population Size and Density to Support Transit Use

The density of trip ends at a transit stop is critical in determining if public transit has sufficient demand to justify its service. Both land use densities and the total population in the service area of a stop are important. Suburban areas have many areas with higher densities that could relate to transit, but they are physically separated and difficult to connect. TCDs provide a way to organize such areas that can be served by transit. Average residential densities of at least seven dwelling units per acre within the service area of a route are considered the minimum level to justify the use of local bus routes with 30-min headways, whereas densities of 15 dwelling units per acre are needed for 10-min headways (*7,10*). These values, however, can vary significantly based on assumptions about capture rates of transit, service frequency, average fares, subsidy rates, hours of operation, speeds, and average hourly costs. The critical factors that lead to density requirements are the capture rate, the cost recovery ratio, and the service ratio of transit (*9*).

The required density of residential or employment land use depends on assumptions about the portion of trips that use transit and trip rates per household. An important tradeoff occurs between these factors. Whereas a high density is required if there is a low capture rate by transit, a lower density is needed if the capture rate is higher. The density requirements drop off rapidly if transit successfully captures market share. On the other hand, a high capture rate is likely the result if there are low fares and high levels of service. These in turn increase the need for higher densities.

Density requirements also vary directly with service frequency and farebox recovery rates. If high levels of service are provided, there will be a need for higher densities. Analysis of these factors indicates that the required residential and employment densities for transit are complex and strongly dependent on policy (i.e., subsidy rates and fares), as well as operational factors (i.e., hours of service, headways, and hourly cost of operation). It is important that these factors be explicitly considered in land use design to ensure an adequate market for transit services.

Encourage Technological and Infrastructure Flexibility

A transit corridor must be able to accommodate various transit modes. It is expected that the transit corridor would initially be used by buses and perhaps even minibuses; however, the corridor should be designed to provide options for other technologies. As the market size increases, more capital-intensive modes, such as light rail, become feasible. Thus alignment and placement of underground utilities should permit an upgrading to light rail transit in the future if warranted. Geometric design of transitway components of the corridor should be based on the needs of a rail system rather than a bus system including more stringent standards for gradient and curvature. The corridor could be used by a mixture of road-based vehicles and services such as a conventional buses, vehicles for the disabled, express services, shuttles, subscription buses, taxis, and van pools.

Control Through Automobile Traffic

The provision of a convenient transit service requires a speed and level of service competitive with those of automobile travel. If transit vehicles operate along a congested street, travel times by transit will be increased and the street will be dominated by auto traffic. Because TCDs are areas of concentrated development that generate significant numbers of trips, it is important to control through automobile traffic to prevent excessive congestion. One way would be to provide periodic sections in the transit right-of-way where only transit vehicles would be permitted. These breaks would occur approximately at every mile and would likely be located at high-activity stops. The remainder of the corridor would operate with mixed traffic, with the roadway serving as a local or collector street.

Use Corridor for Primary Pedestrian, Bicycle, and Transit Movement

The corridor should be designed to accommodate pedestrian and bicycle movement as well as transit vehicles. Separate pathways should be provided parallel to the transit routes. These pathways should be on both sides of the roadway and should accommodate two-way movement. In addition, direct pathways should be provided to lead pedestrians safely and directly to the transit stops. High-quality pedestrian/bicycle facilities are essential for bringing users to and from the transit system, to interconnect areas, and to improve the overall quality of the environment in the corridor.

The designation and location of transit stops are key decisions in the planning process for a transit corridor district. Because pedestrian use of transit falls off rapidly when offices or residences are located more than 1/4 mi from a stop, to provide good quality pedestrian access, stops should be spaced no more than 1/4 mi apart. This distance provides a maximum walking distance of 1/8 mi for trips beginning or ending on the corridor itself and a band width 1/2 mi wide for concentrated land use related to transit. The overall pattern is a series of overlapping concentric circles that define the zone of transit-oriented land uses. These areas (*stadtwurst* or sausage city) may be separated by areas of open space where stops are omitted. In areas of concentrated demand, stops could be located more closely together, as close as 1/8 mi to improve accessibility.

Reduce Noise and Air Pollution Levels of Transit Vehicles

Transit vehicles, especially buses, have a poor image in suburban areas (*11*). Local residents will often protest the location of bus routes in their neighborhoods because of the noise and air pollution produced by the vehicles. To prevent negative reactions to transit services, present noise levels of buses (in the range of 80 to 85 dbA while pulling out from a stop) would need to be significantly reduced. Similarly, vehicle emissions of pollutants and visible exhaust need to be reduced. Transit service in the corridor district must be of a high quality to both attract patrons and not be a nuisance in the community. Efforts to design cleaner, quieter, and higher-quality vehicles are critical to the development of the overall concept.

Provide Mixed Land Uses

Traditional suburban zoning can be characterized by a separation of land uses, such as residential, commercial, educational, and recreational land uses, requiring the use of the car and many separate trips. By locating various land uses in close proximity, two benefits can be achieved. First, the total number and length of vehicle trips within the area could be reduced. It would not be necessary to travel to numerous locations because most destinations would be within a few minutes' walking distance of each other.

The second advantage of mixed-use activities and land use is the improved feasibility of transit service. Transit operates best when there are simple origins and destinations and when users can meet their needs by walking to the destination of the trip. Generally, suburban residents do not use transit because they need to make trips to multiple locations during the day. If these activities and destinations can be concentrated, the auto's advantage over transit will be greatly reduced (*5,6*).

Land uses should be arranged to maximize the potential for walking and bicycle trips as well as for use of transit. A mixture of activities, including housing, employment, shopping, public facilities, and schools is desirable around each

transit stop. Densities would be highest near the stop and then remain fairly high within the 1/4-mi walking distance of transit.

Relate Design and Connections of Adjacent Developments Across "Seams"

The incremental planning and development of suburban subdivisions and parcels result in an unrelated functional and visual environment between tracts (*6*). These mismatched "seams" can be avoided in a master planned district. During site planning, each land development parcel should be required to include access points to neighboring tracts. The coordination of these seams and connections should be strictly regulated by the district. Considerable flexibility can be allowed within parcels as long as proper connections are maintained to the adjacent parcels.

Minimize Distances Between Building Entrances and Transit Stops; Provide Logical Connections Between Buildings and Transit

Nearly all trips begin in a building and end in a building. To maximize the potential for transit, building entrances and transit stops should be located in close proximity to each other. Moreover, there should be a clear, direct path between the building and transit stop locations. Although it may seem obvious, this point is seldom taken into consideration in conventional suburban development. Transit stops usually are located on arterials, and it is necessary to walk considerable distances through parking lots and across grassy areas to get to a building. Pedestrian walking distances should be measured along the actual paths, not just straight line distances.

There are various ways to provide good access to buildings, especially in the site design phase of development. For example, buildings and their entrances could be directly located next to transit stops, which could mean locating parking or open space behind or beside a building rather than in front of it. In addition, buildings themselves could be set perpendicular to the transit corridor rather than parallel to it.

PROTOTYPE DESIGN

To test our guidelines and concepts, a prototype design of a transit-based land use pattern was developed for a suburban area. The site chosen is 1/2 mi wide by 2 mi long and is located west of Milwaukee in the township of Menomonee Falls. The area is rural in character with little development. However, urban development activity is occurring south, north, and east of the site, and it is likely that it will see a transition from rural to suburban land use in the near future. The site lies between two suburban centers that have had substantial suburban development during the past 20 years. To the east is an industrial district and the city of Milwaukee, and to the west are other rapidly growing areas. The site chosen is parallel to a major east-west arterial that connects to the U.S. Highway 45 belt freeway 2.5 mi east. The comparable arterials located to the south have been sites of substantial commercial strip development.

The site consists of gently rolling hills with no significant slopes to impede development. Current use is agricultural with a few scattered residences. A large wetland is located in the northwest corner of the site. There are some wooded areas in the site, primarily in the form of mature fence rows with some larger wooded tracts in the south-central and west portions of the site. Land ownership is primarily in large parcels up to 80 acres in size.

The selection of this site was based on its potential for future suburban development activity. In addition, it appeared to be a potential location of transit services that could connect into the Milwaukee central area and provide an east-west crosstown service into the city of Milwaukee. Because the site is relatively undeveloped and has relatively few owners, there are opportunities to provide concentrations of demand that could create a significant market for transit services.

Transit Service

It was assumed that there would be two transit routes that would intersect in the district. An east-west line that parallels Silver Spring Drive and a north-south route that connects the suburban centers of Menomonee Falls and Brookfield Square. Our primary emphasis is on the east-west line, which could be extended westward an additional 2 mi before it would encounter existing development and have to be rerouted along Silver Spring Drive. The intersection of the two routes presented an opportunity to create a town center for shopping and office activity built around the transit services. Since no substantial shopping districts existed nearby the town center appeared to be a logical use that would work well with the transit service.

Transit stops were located approximately every 1/4 mi along the corridors with a closer spacing in the town center. Generally stops were located 1/8 mi in from crossing arterials to provide for reduced walking distances to transit. Some modifications of stop locations were made to take advantage of site conditions.

Design

The prototype design (Figure A-30, page 84) was developed by a team of architectural faculty and students following the guidelines developed for this project. Four districts were identified as a basis for design. These areas—the Woods, the Farms, the Central District, and the Estates Area—were identified based on existing land use or the impact of the transit system on design or both. These themes helped to develop a basis for design, they also help to illustrate how various approaches can be blended within a transit corridor district and to examine how the guidelines would be used by various designers working on five sites with varying topography and other natural features such as woods, lakes, and wetlands.

In general, the design includes a band of high-density housing and office facilities located along the east-west transit route and a lower density development at the fringes. A business district/civic center is located at the point of intersection of the two transit routes toward the east end of the site.

Smaller neighborhood business areas are located at other transit stops to the west. The plan would contain approxi-

mately 3,000 housing units and approximately 1.4 million ft² of commercial/office space. Substantial retail areas also would be included which would result in a net residential density of approximately 6.5 units per acre for residential areas only. Densities in individual areas may vary considerably ranging up to seven to ten residential units per acre near the center and eastern edge of the site. Commercial densities are highest in the central district and lower elsewhere. Actual densities could vary, however, depending on how individual lots and multifamily units were used.

CONCLUSIONS

This paper has outlined an approach to arranging land uses to be more responsive to the needs of public transit. The purpose is to demonstrate how planning decisions could be made to provide a greater variety of modal choices and more efficient use of transportation. Transit-sensitive land use design can be developed through the designation of transit corridor districts, which would separate transit and auto-oriented land uses. Such areas would have a mix of land uses with higher densities located near the transit route. A high-quality access system for pedestrians and bicyclists should be provided to permit easy connection between buildings and transit vehicles. Auto access should be controlled, if necessary, to prevent excessive automobile traffic within a transit corridor district. Finally, such areas should be designed to permit flexibility in land use patterns and transportation technology.

This paper has included a summary of guidelines that could be used to develop such areas and has provided an illustration of how such an area could be designed in an actual situation. Such an approach appears to be promising and may have the potential for more efficient land use and transportation patterns in the future.

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Focus on Land Use Site Design: The Potential to Influence Travel Demand

Background

- Series of Federal Transit Administration projects
  - Market Based Transit Facility Design
  - The New Suburb
  - Guidelines for Transit Sensitive Land Use Design
  - Measurement of Transit Benefits

Problems

- Land use in suburbs is totally designed around the automobile
- No consideration is made of pedestrian/bicycles/transit or their relationship to land use
- Very difficult to walk anywhere safely
- No pathways, no connections between adjacent parcels of land

Trends

- Steady growth in travel, 1-3% per year, VMT is growing faster than population
- Major decline in carpooling
- Travel pattern of women no longer different from men
- In many places the number of vehicles is greater than number of licensed drivers

- Major growth in suburban employment, shopping, and recreational land use: "Edge Un-City"

- Major development pressure in the suburbs with low density, high value land use. There is little control of land use, no public space

- Job growth is occurring away from the people who need the jobs

- Most development decisions are made with little or no knowledge of their financial or environmental consequences

- High density suburban development occurs but it is uncoordinated and scattered

- Major growth in "nontraditional" households, one and two persons, new markets for housing

- New legislative framework — ISTEA, Clean Air, Storm water management, etc., etc., demands a broader look at land use issues

Consequences

- Need to use auto for all travel, short trips, serve passenger trips

- High VMT rates per household, leading to high costs, energy use and air pollution

- Suburban congestion — Saturday at noon is the new peak hour, traffic seems to be always turning left or waiting for someone else to

- Safety of pedestrians, bicyclists are major problems

New Directions for Land Use and Site Design

- Fundamentally we need to consider pedestrians, bicycles and transit in the land use process

- Provide and preserve choices for the future

- Need to ask how will people walk or bicycle safely before land use decisions are made

- Adopt a vision, positive approach, how to make it work, rather than reasons why it won't

- Increase awareness of the market and design to serve new land use and travel markets

Systems Level Actions — Transit

- Create transit corridor zoning overlay districts — areas that will have future transit service

- Separate transit oriented and auto oriented land uses. Land uses which are conducive to transit; compact residential, schools, health care, office buildings, should be located along transit corridors

- Predesignate a future system of transit corridors; areas that have higher densities, mixed use development, and are served by transit with quality pedestrian and bicycle facilities with control of through automobile movement

System Level Actions — Pedestrian/Bicycle

- Develop standards for pathways to be included with arterial, and collector highway projects, parallel facilities which are separate from the roadway

- Institute a plat review process that includes consideration of pathway connections, safety of pedestrian and bicycle movement

- Have a process where there is input from transit agencies and pedestrian/bicycle users in development decisions.

Project Level Actions — Transit

- Provide for better connections between adjacent development projects — connect across "seams"

- Provide logical connections between buildings and pedestrians, bicycles, and transit, minimize the distance between vehicle door and building door

- Locate buildings near streets, maximize utilization of curb space to serve many uses

- Provide for mixed use development to facilitate shorter trips and use of non-vehicle travel

- Relate project design to market conditions

- Provide for passenger safety and security

Project Level Actions — Pedestrian/Bicycle

- Create a pedestrian/bicycle friendly environment (interesting, human scale, safe, and secure)

- Provide pathway connections between subdivisions, at ends of cul de sacs, to improve connectivity — shortcuts

- Walk the route, experience the barriers and seek ways to avoid them.

- Narrow neighborhood streets

SESSION A

FOCUS ON LAND USE SITE DESIGN: THE POTENTIAL TO INFLUENCE TRAVEL DEMAND

Panelist: Harlan E. Clinkenbeard, Administrator/Planner
Town of Pewaukee

Commissioner Balestrieri, ladies and gentlemen, I wish to note that land use development site design indeed can be used as a means of enhancing the use of, and encouraging more efficient means and patterns of, both private and public transportation. As a land use development designer, I can tell you that there is no problem of land development design that cannot be solved given sufficient time and money, and a lack of inviolable constraints.

In addition, the ordinances to help implement effective overall land use design with regard to transportation systems are essentially already in place in most of the larger urban communities in the Southeastern Wisconsin Region. There is also good news in that historically, land use in our older cities and villages was developed on a strong neighborhood basis thanks to a society that relied on, and accommodated through its land use policies, walking trips to neighborhood-based schools and shopping, recreation, and social facilities. Also, higher-density development along high-level transportation corridors is not a new phenomenon in either land use planning theory or reality. Many of the older urban communities in this country developed with fixed transit lines already in place. Without alternative modes of transportation, high-density development generally occurred along those fixed transit routes—but not, however, in Southeastern Wisconsin.

As many of you know, the concept of planning for transit- and pedestrian-dependent urban land use development in transportation corridors, and also in "satellite cities," is not new to Southeastern Wisconsin. SEWRPC visited this concept in the mid-1960s and could sell it to almost no one, even though application of the concept would provide more efficient development than the pattern that was evolving then and that has continued to evolve to this day. So what Professor Beimborn is proposing, in my view, is a reversal of Back to the Future—a sort of Forward to the Past. Such a concept could indeed be implemented, and could result in the design of attractive places in which to live and work. But the bad news is that such reverse evolution cannot be brought about without heavy government constraints and large subsidies. In other words, how are you going to keep 'em down in that corridor after they've seen the farm?

The pattern of urban development that is taking place in this Region today has evolved based on expanding alternative and flexible transportation modes. Back when the only alternatives to traveling by streetcar were riding a horse or a horse-drawn carriage, riding a bicycle, or walking, urban development occurred in close proximity to what we would today call fixed light-rail facilities—namely, streetcar routes. When automobiles became more prevalent and their ownership came within the financial reach of almost everyone, the more constraining modes of transportation, namely, the horse, the bicycle, walking, and light rail—or streetcars—were virtually abandoned. The majority of this Region's current land use pattern has occurred, fortunately or unfortunately, during the automobile era, and the resulting land use pattern involves the widespread development of low- to medium-density uses that the combination of transportation flexibility and relatively low land costs has wrought.

As we speak, 92 percent of all urban land development proposed to be in place in the year 2010 under the adopted regional land use plan is already in place. During the period from 1963 to 1990, 91 percent of all residential land was developed for single-family use at low to medium densities. Even if we were willing to make the major changes needed to bring about the development patterns proposed by Professor Beimborn, even assuming that the proposed development policy changes would be Region-wide and that those changes would take effect immediately, the resulting land use development between now and the year 2010 would be of little consequence for or impact on the year 2010 land use pattern. That does not mean that we should not try to implement changes in regional development patterns.

The really bad news is that the chances of such major changes in land use development practices are very low. By any measurement, study, or survey, it is clear that the vast majority of the populace of this Region will not abandon their two cars in every garage to walk through the snow to a transit stop and wait 10 to 30

minutes for a bus—or a streetcar—unless one or both of those cars is taken from them by government action, or the whim of—or the manipulation of—the economy.

But we need not despair, and we must not lose sight of the three principal land use-related goals of this Region—namely, reduction of air and water pollution; reduction or elimination of urban sprawl; and the preservation of the other elements of the natural resource base. These goals can be reached while retaining the flexibility that is afforded by personal automobiles and rubber-tired mass-transit vehicles as the primary forms of transportation. This is so because the new technologies that are evolving to meet air pollution reduction goals, for example, are very advanced. I believe that many, even a majority, of the people in this room will be traveling in a battery-powered automotive vehicle by the year 2010. There are, of course, land use planning and planning implementation measures that need to be implemented concurrently with such technological changes, such as reduction of automobile parking space in certain areas; the provision of park-and-ride facilities in our principal transportation corridors; the downsizing of transit vehicles; and the nonproliferation of automobile-only or intensively parking-oriented land uses.

In my opinion, the realization of Professor Beimborn's proposal of transit-related land use corridors, which realization would in turn help achieve the three principal land use-related goals of this Region, would require a massive change in lifestyle and freedom of flexibility in travel. Such change cannot be brought about in this Region in any significant way within the next 50 years without the imposition of draconian measures by Federal, State, county, and local levels of government, even though the land use pattern that he proposes may be aesthetically pleasing as well as efficient.

The good news, however, is that our principal land use-related goals in this Region can, in my opinion, be accomplished by use of new and old technologies along with limited legal and administrative constraints on urban development. The regional land use plan that drives the regional transportation system plan that you are considering here today is a compromise between the utopian which cannot be brought about and what is really happening. We need to crawl before we can walk.

Thank you.

SESSION A

FOCUS ON LAND USE SITE DESIGN: THE POTENTIAL TO INFLUENCE TRAVEL DEMAND

Panelist: Patrick J. Meehan, President
Meehan & Company, Inc., Franklin

Thank you very much. I want to discuss five different topical areas this afternoon, the first one being the benefits of compact development. I know that we have been talking today about trip reduction and air pollution abatement as the primary benefits of such development, but there are some other benefits that I think should attract the interest of local communities. I also want to talk about some primary considerations in site planning for mixed-use compact developments because, in my opinion, such compact developments can take place in urban, suburban, and, indeed, even rural settings. I would also like to describe, very briefly, some criteria that local planners can use for making sure that development occurs in a compact fashion and does not waste land. There are also some techniques that are already in place and that are allowed by State statute for controlling the intensity of development and achieving more compact development. I also want to share with you some facts and figures that came to my attention as I was reading statistics put out recently by The Business Journal of Milwaukee. I think these statistics have certain implications that need to be discussed here today.

I have a handout for you [see Attachment A-3]. As I mentioned earlier, the benefits of compact development include the reduction of trips and the reduction of air pollution, but there are also certain benefits that local communities can enjoy by infilling, renewing, and restoring areas that are already dilapidated and failing. If a community has higher land utilization and more developed property in the form of buildings rather than pavement, the community will benefit from an improved property-tax base. Property-tax values will go up if development is more compact. More compact development also usually means that more people are going to congregate in any given particular area because there will more often be attractive activities. More people and more activity mean there will be a certain amount of synergism occurring. And if that synergism occurs, people are going to be where the activity is. Compact development attracts people. This point is important from a business standpoint, because usually where there is synergism between people and activity, there are usually dollars being spent locally.

Also, being an architect, I am always concerned about how attractive environments are, and compact development, if done correctly, can most certainly provide an attractive, pedestrian-oriented environment. It can provide a sense of place. It is definitely possible to ensure mobility between and within such pedestrian-oriented areas, but you have to have the legal mechanisms in place so that you can assure that that indeed does happen. Compact development also reduces noise, can result in decreases in motor-vehicle-related accidents and improve safety, and can result in decreases in response time for emergency services.

With regard to site selection and mixed-use compact development design, Professor Beimborn has touched on some of the pertinent issues, and Mr. Clinkenbeard has touched upon others. Obviously, mixed-use development has become a "buzz word" in the planning profession over the last several years. However, each type of land use included within the category of mixed-use development has unique locational needs and land use intensity requirements [see Attachment A-4]. It is therefore very important to recognize the differences between uses and how those differences, when the uses are grouped together, can be mitigated or prevented from having adverse effects on lands surrounding mixed-use areas. Some criteria—or measurement and control methods—have to be in effect at the local level. Some people will argue against any such regulatory measures on the grounds that those measures constrain development. Some people do not like development being constrained in any way. But, on the other hand, regulation does help promote planning, and it can be a useful tool in achieving specific land use development goals. Obviously, on-site relationships between uses of varying intensities must be dealt with. These relationships exist both within any given site and between different sites. In addition, people have to travel to get to the envisioned nodes of compact development. How do such areas relate to one another? To allude to Professor Beimborn's remarks, is the relationship good or is it dangerous?

Also, from the standpoint of building design as well as site design, how public areas and private areas relate to one another is very important. How do you achieve successful building and site design at both a development level and at a local regulatory level? It is very important to look at both the private and the public aspects of any site. This hotel in which we are meeting, for instance, has both private and public spaces. In assessing any site, one must ask regarding these spaces: How do they mix? How do they interrelate? How do they link?

Professor Beimborn discussed some suburban areas where circulation and linkages are not connected. They very well should be connected, but in many cases, areas of development are so spread apart that it does not make any sense to link them.

I would also like to discuss some of the ways that you can incorporate measurement tools into your local regulatory mechanisms [see Attachment A-5]. A fair number of you, I know, are involved in local zoning administration, are on plan commissions, or are otherwise public decision makers. How many of you know if your zoning ordinance or any of your development codes utilize floor area ratios? Floor area ratio is a tool that came about in the 1950s as part of early modern zoning ordinances. This tool is not used as much today, but it can be used very effectively to get some of the pedestrianized areas that you might want. Gross floor area can be used as a key part of a "carrot-and-stick" method for getting developers to do something—such as improving pedestrian circulation—in return for being allowed to use a higher floor area ratio. In essence, this approach involves stating that a floor area ratio cannot exceed a certain number unless the developer provides something to the community, such as pedestrian linkages or pedestrian spaces.

How many of you use a landscape surface ratio or any kind of landscaping requirements in your zoning ordinances? Your zoning ordinance can be a tool to encourage developers to provide more landscaped surface area in return for higher floor area ratios. All of these different mechanisms are interrelated.

Another example involves building height. You can also increase the floor area ratio by allowing the height to go up. The problem with allowing the height to go up, however, involves the hazard of fire on upper floors. Not all fire departments are adequately equipped for fighting fires in taller buildings. Building massing, building volumes, and density can also be addressed in your local development codes to encourage compact development.

I would also like to talk about both public- and private-sector tools for implementing on-site land use intensity measures to define planned compact-site design outcomes [see Attachment A-6]. Public-sector tools for doing this include master plans, zoning ordinances, land division control ordinances, unified development ordinances, and design guidelines. Design guidelines represent a relatively recent trend in development implementation. You most certainly can implement compact development through such guidelines. In the private sector, many developers, in fact, use design guidelines as part of their deed restrictions and protective covenants.

I would also like to touch upon some information that appeared in the May 28, 1994, issue of The Business Journal [see Attachment A-7]. None of the discussions that I have heard today have dealt with cellular phones and their importance relative to making people more mobile. Let me cite a specific example of this trend. I know a person in Lake County, Illinois, who happens to have a cellular phone. He literally has a mobile office. If I want to talk to him about something, I can call him while he is on the road. He can go to the trunk of his car, get the information I need from a file box in his trunk, and talk with me. He can also call me from his car. His car is a mobile office. This phenomenon has implications for land use development. As the same issue of The Business Journal shows, there is a vacancy rate for office development in the metropolitan Milwaukee area of between 11 and 21 percent [see Attachment A-8]. Activations of cellular phones have increased dramatically—by about 33 to 48 percent every year since 1991. More people are indeed using their vehicles as mobile offices while commercial offices remain vacant.

How far is somebody willing to walk within these compact areas which we are planning? There are data that answer this question, but those data probably will not be found in any recent studies. I went back to an old traffic engineering handbook and found that drivers, on average, are willing to park and walk from about 200 to 600 feet from their automobiles to get to their ultimate destinations [see Attachment A-9]. In midtown

Manhattan, where a lot of people do not drive, people are willing to walk an average distance of about 1,200 to 2,000 feet. People need to consider these facts when planning and designing compact developments.

Finally, we need to consider the fact that there is a lot of infrastructure that has already been built and paid for out there. There are a lot of suburban shopping centers that have been built and that are under construction. You have to recognize that by creating development in areas where it perhaps does not belong, you are going to be detracting from other development that has already been committed to.

Thank you.

Attachment A-3

BENEFITS OF CREATING "COMPACT" PLANNED PEDESTRIANIZED SITES AND AREAS:

1. Can result in decreases in the number of vehicular trips resulting in a reduction of air pollution and energy savings.

2. Promotes existing building restoration and renewal and infill development taking advantage of already existing infrastructure such as water and sanitary sewer in *existing* urban and suburban areas.

3. Increases tax base through higher land utilization for buildings rather than paving.

4. Increases property tax values through property improvement.

5. Attracts people. More people means more opportunity for business and potential increased sales. More business means the creation of more jobs.

6. Provides an attractive environment. Off-site and on-site signs, lights, spaces, colors, and surface textures can be designed to relate to the pedestrian rather than the automobile.

7. Provides a sense of place that strengthens community identity and community pride.

8. Improved mobility both within and to otherwise congested areas through walking, bicycling, and the use of public transit.

9. Results in reductions in motor vehicle induced noise.

10. Can result in decreases in motor vehicle-related accidents and improved safety.

11. Can result in decreases in emergency response time--particularly in existing urban areas due to the proximity of existing emergency services.

PRIMARY CONSIDERATIONS FOR THE SITE PLANNING OF MIXED-USE "COMPACT" DEVELOPMENTS:

- DETERMINATION OF THE POTENTIAL RANGE OF USE TYPES FEASIBLE AT A PARTICULAR SITE--Each use type has unique land use intensity, and both spatial and travel-related on- and off-site demands.
  - Residential
  - Commercial
  - Office
  - Industrial
  - Institutional
  - Recreational
  - Other Use Types and Mixes
- MEASUREMENT AND CONTROL OF OVERALL ON-SITE LAND USE INTENSITIES--At both the *regulatory and site planning levels*, using both proven and new *innovative* methods and standards. *Methods and standards can be tested using interactive computer modelling.*
- ON-SITE RELATIONSHIPS BETWEEN USES OF VARYING INTENSITIES--Particularly between residential and nonresidential uses within a "compact" area.
  - Minimization of potential conflicts
    - Between on-site uses
    - Between on-site travel modes (pedestrian, bicycle, transit, auto)
  - Public area versus private area issues
- CIRCULATION AND LINKAGES:
  - Accommodation of various *modes* of circulation (pedestrian, bicycle, transit, auto)
    - To the site
    - Between "compact" sites within the community and region
    - Within the site
    - On-site space needs for circulation and linkage channels and storage

SOME METHODS OF MEASUREMENT OF ON-SITE LAND USE INTENSITY TO DEFINE "PLANNED" COMPACT SITE DESIGN OUTCOMES:

- GROSS FLOOR AREA
  (typically for measuring the *intensity of nonresidential uses*)
  --The floor area is the sum of the gross horizontal areas of the floors of a building or buildings.

- FLOOR AREA RATIO
  (typically for measuring the *intensity of nonresidential uses*)
  --The ratio is derived by dividing the total gross floor area of a building or structure by the total area of the site upon which it is placed.

- LANDSCAPE SURFACE & OPEN SPACE RATIOS
  (the amount of *on-site landscaped or "open space"*)--The ratios are derived by dividing the area of landscaped surface, or open space, on a site by the total area of the site.

- BUILDING HEIGHT
  (measured in both *number of feet and floors*)

- BUILDING MASSING AND BUILDING VOLUME
  (measured as a *building volume ratio*)--The ratio is derived by dividing the total volume of the buildings on a site by the total area of a site.

- DENSITY
  (for measuring *intensity of residential uses*, typically measured as dwelling units per acre)--The ratio is derived by dividing the total number of dwelling units by the total area of a site.

Attachment A-6

SOME METHODS OF IMPLEMENTING ON-SITE LAND USE INTENSITY MEASUREMENTS TO DEFINE "PLANNED" COMPACT SITE DESIGN OUTCOMES:

■ PUBLIC SECTOR TOOLS

Land use intensity measurements and standards for site planning can be incorporated into local community land use and regulatory tools including:

- Master Plans & Detailed Community Subarea/Special Plans
- Zoning Ordinances
- Land Division Control Ordinances
- Unified Development Ordinances
- Design Guidelines

■ PRIVATE SECTOR TOOLS

Private sector implementing tools including:

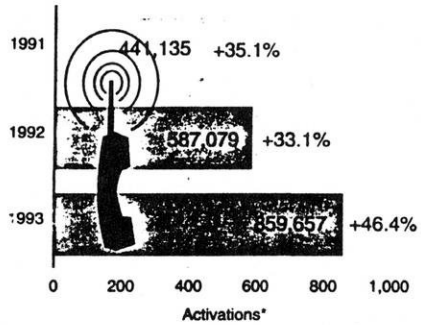
- Deed Restrictions and Protective Covenants
- Design Guidelines (associated with Deed Restrictions and Protective Covenants)

Attachment A-7

THE "MOBILE" OFFICE

Cellular Activations*
(in thousands)

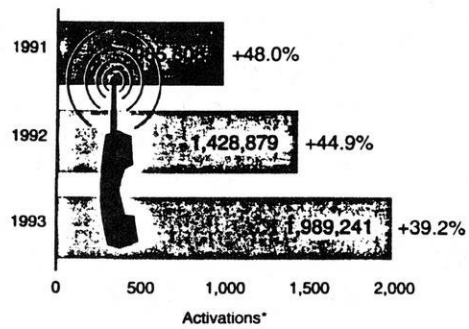
Ameritech



*Activations, or customers, in portions of Wisconsin, Illinois, Michigan, Ohio and Indiana. Totals include Ameritech's 1991 acquisition of Cybertel Corp.'s cellular properties in Illinois and Missouri.

Source: Ameritech Corp.

Cellular One/Bell South Cellular Properties



*Activations, or customers, for properties in Wisconsin; Indiana; Richmond, Va.; Bakersfield, Calif.; Los Angeles; Houston; Honolulu; Mobile, Ala.; and Jackson, Miss. Totals also include Bell South Mobility markets in the southeast.

Source: Bell South Cellular Corp.

EXISTING COMMERCIAL & OFFICE DEVELOPMENT VACANCIES--DEALING WITH EXISTING NON-"COMPACT" AUTO-ORIENTED DEVELOPMENT

Milwaukee-Area Submarket Office Vacancy and Leasing Rates*

Area	January 1993 Vacancy	January 1993 Leasing rate**	January 1992 Vacany	January 1992 Leasing rate**
Downtown Milwaukee				
Downtown East	14.0%	$17.00-27.00	20.3%	$19.00-20.00
Downtown West	18.2	17.00-18.00	19.0	17.00-18.00
Suburban				
Mayfair	10.7%	$16.50-17.50	13.5%	$16.50-17.50
Bishop's Woods	14.6	15.50-16.50	13.3	15.50-16.50
Brookfield Square	11.3	16.00-19.00	13.9	16.00-19.50
West Allis/Southwest	21.0	15.00-16.00	24.7	15.00-16.00
North/Park Place	16.3	14.00-18.00	17.0	14.00-18.00
Waukesha	19.0	16.50-18.00	33.5	16.50-18.00

*For Class A space **Range of quoted face rents per square foot

Source: The Polacheck Co. Inc., Milwaukee

Milwaukee-Area Shopping Center* Vacancy Rates

Area	No. of centers	Total square feet	Rate[1]
North shore	10	1,059,200	3.7%
North	16	1,008,426	6.1
Northwest	36	3,835,200	10.2
Far northern suburbs	8	736,991	10.5
Far northwestern suburbs	12	915,677	15.4
East	11	1,239,218	2.8
Central	6	918,336	17.0
West	43	4,263,811	3.6
Far western suburbs	30	1,707,076	6.1
Southeast	13	916,421	20.3
South	23	1,865,896	7.9
Southwest	51	4,455,705	6.5
Racine	23	2,669,481	10.8
Kenosha	20	1,576,029	7.3
Totals	**302**	**27,167,467**	**8.0%**

*Includes regional, community, neighborhood and strip centers

[1]As of Dec. 31, 1993

Source: The Polacheck Co. Inc., Milwauke

Shopping Center Construction, Six-County Area
In square feet

County	In progress 1991	In progress 1992	In progress 1993	Pending 1991	Pending 1992	Pending 1993
Kenosha	NA	NA	540,000	NA	NA	90,000
Milwaukee	6,800	30,000	155,110	15,000	140,000	131,000
Ozaukee	0	0	0	0	0	0
Racine	NA	NA	13,500	NA	NA	0
Washington	142,000	0	0	0	0	0
Waukesha	105,375	131,500	0	130,000	13,000	23,000
Totals	**254,175**	**161,500**	**708,610**	**145,000**	**153,000**	**244,000**

Source: The Polacheck Co. Inc., Milwaukee

Source of Tables: "Market facts: Metropolitan Milwaukee by the Numbers and Behind the Numbers" reported in *The Business Journal*, May 28, 1994.

HOW FAR WILL PEOPLE WALK IN "COMPACT" AREAS?

● FROM THEIR CARS:

Average Walking Distances of Parkers at Various Types of Facilities, Percentage Parking Illegally, and Percentage Using Off-Street Pay Facilities

Population Group Range (000 omitted)	Average	Number of Cities	Walking Distance, in Feet, According to Type of Parking									Percentage of Parkers —	
			Curb Parkers			Off-Street Parkers			All Legal Curb and Off-Street Parkers	Illegal Curb Parkers	All Parkers	Illegally Parking	Using Off-Street Pay Facilities
			Free	Pay	Legal	Free	Pay	All					
Under 25	13,332	4	...	...	215	158	...	158	208	139	201	11.2	...
25–50	33,388	8	421	306	338	266	491	315	311	184	285	8.0	3.9
50–100	82,683	3	454	307	354	255	588	358	355	202	344	6.2	5.2
100–250	164,545	6	428	387	395	283	660	521	438	192	426	7.0	8.9
250–500	399,043	4	482	527	512	365	851	715	614	270	581	9.3	29.9
Over 500	880,145	7	612	516	543	352	799	720	621	204	564	13.6*	24.8

* 19.4 for cities over 1 million.

Source: *Parking Guide for Cities*, U.S. Department of Commerce, Bureau of Public Roads, U.S. Government Printing Office, Washington, D. C., 1956, p. 117.

Average Distance Walked from Parking Place in the Central Business District, According to Length of Time Parked

Population Group (000 omitted)	Number of Cities	Average Distance Walked, in Feet, When Length of Time Parked Was —											Average Distance Walked by All Parkers
		Less Than 15 Minutes	15–29 Minutes	30–59 Minutes	1–2 Hours	2–3 Hours	3–4 Hours	4–5 Hours	5–6 Hours	6–7 Hours	7–8 Hours	8 Hours and Over	
Under 25	2	195	220	248	291	328	347	337	253	244	278	327	233
25–50	3	244	298	330	371	408	407	411	386	383	416	386	303
50–100	4	238	304	374	425	471	523	532	592	587	661	623	369
100–250	4	276	403	491	552	598	606	592	591	610	580	480	440
250–500	3	392	526	580	668	768	801	747	767	766	828	787	614
Over 500	3	350	451	508	571	633	673	677	694	729	778	646	560

Source: *Parking Guide for Cities*, U.S. Department of Commerce, Bureau of Public Roads, U.S. Government Printing Office, Washington, D. C., 1956, p. 29.

● *WITHOUT* CARS:

Walking Distance by Age and Sex at Two Office Buildings

(based upon 1,400 interviews representing 17,000 pedestrians entering and leaving two office buildings located in Midtown Manhattan)

Group	% of trips	Av. walking distance ft	(m)	Estimated av. net walking time min.
Males, under 25	10.2	1,502	(458)	4.70
Males, 25-50	35.1	2,044	(623)	6.83
Males, over 50	6.5	1,711	(522)	6.50
Females, under 25	28.8	1,608	(490)	5.80
Females, 25-50	14.6	1,443	(440)	5.47
Females, over 50	4.8	1,244	(379)	5.59
All males	51.8	1,900	(579)	6.37
All females	48.2	1,520	(463)	5.67
Total (16,740 trips)	100.0	1,720	(524)	6.03

Source: Boris Pushkarev *Urban Space for Pedestrians*, 1975.

SESSION A

FOCUS ON LAND USE SITE DESIGN: THE POTENTIAL TO INFLUENCE TRAVEL DEMAND

Panelist: J. Michael Mooney
Mooney LeSage Group, Brookfield

Good afternoon, everyone. I am pleased to have the opportunity to participate in this discussion. As I understand it, my assignment is to give a private-sector developer's perspective on the suggestions that Professor Beimborn has brought before us today.

In addition to listening to his presentation, I was able to read the basic paper that he had previously produced in 1992 with others on the subject matter. Along with several people in the audience, I have also had the opportunity to learn a lot about urban sprawl over the last couple of years because I sat on the Commission's Technical and Intergovernmental Advisory Committee on Regional Land Use Plan Implementation, whose findings will be discussed in this very room after this session.

Clearly, urban sprawl, clean air, clean water, and preservation of our natural resources are issues all responsible people must concern themselves with and dedicate their thoughts and energies to dealing with. Our land use planning system in Wisconsin has played a major role in getting us to where we are, and we need to play a major role in getting ourselves out of what we have dug ourselves into. For concepts such as Professor Beimborn's—and for anti-urban-sprawl initiatives proposed by other land use planning committees like the one that I served on—to have any chance for success, we need an overhaul of our land use planning system. Under our current system, land use planning is primarily a local community initiative. In this Region, we are fortunate enough to have an outstanding Regional Planning Commission that has considerable skill in land use planning. Ultimately, however, and perhaps unfortunately, most of the authority for such planning in this Region is local. In most cases, the focus of local communities is strictly local. Often, local land use decisions are made by appointees who may have a single-issue focus, beyond which they have very little or no interest. Unfortunately, the impact of the decisions of these local plan commissions is stumped by other jurisdictions, often to their detriment. Therefore, the focus of local people may be micro, but their impact can be and often is macro. Regrettably, we have instituted authority without accountability. A local committee can act with virtual impunity. Compound that reality with dozens of local groups, each acting in a vacuum, and you have chaos. You also have developers that are clearly discouraged from taking to the communities involved any proactive initiatives to bring about the mixed-use kinds of developments that would be much more favorable from the standpoint of the Clean Air Act and land use in general.

The likelihood of problems arising from the current, highly localized process exists in large part because one does not need to know anything about land use planning to be appointed to a planning committee. We encourage municipal clerks and assessors to be certified so that they can do their jobs well and make sure that they serve their communities. But rarely does the work of a clerk or assessor have any impact beyond the borders of his or her local community. However, our land use planners can make decisions that could have profound impacts beyond their own municipal boundaries, but the only requirement for empowering them to make these decisions is that they be appointed. It seems to me that there ought to be a system of certifying members of plan commissions and land use committees. Such a system could be implemented by the University of Wisconsin-Extension, by the technical college system, or perhaps, in areas like this, by the Regional Planning Commission. It is likely that being confronted by an educational requirement and by a requirement of accountability will keep some of the single-issue candidates off of some such local boards.

With such a training system, we would have more enlightened local plan commissioners, able to anticipate the macro impacts of micro decisions. Creating true accountability, however, will require some blend of local and regional or local and State input. We need a system with balance—one where the State cannot dictate to local communities, but one where the "big picture" impact can be blended with the local focus. We also need flexibility. The pace of change in our world today requires land use plans that can keep up with that change as it affects the world of real-estate development. Many land use plans are rigid documents. The details of those plans are not allowed to change until the planning period, even one encompassing the next 10 or 20 years, is up. The entire plan is then reevaluated at once.

These rules are no longer practical in light of the rapid changes in lifestyles, development styles, business practices, and the economy itself. A major factor in the rigidity of our current system involves our zoning ordinances. These ordinances work against combining land uses in ways that would minimize the dependence on automobile use. When a developer suggests changes in such ordinances toward this end, however, it is often feared that such a proposal is some scam that will cost the community dearly. I would like to see the call for change in our zoning ordinances come equally from public-sector sources so that we can be in concert on this issue.

Another barrier to implementation of the concepts suggested by people like Professor Beimborn—a barrier which is a major deterrent that is too seldom acknowledged—is bigotry. It is a sad commentary on this Region, but economic and racial bigotry are behind most of the "not-in-my-back-yard" opposition to implementing concepts that would mitigate urban sprawl. Opponents of denser housing developments are often oblivious to the fact that the victims of this opposition to more affordable housing are often the young adults and elderly persons of the very community involved who can no longer afford to live in that community.

Shifting from land use issues to specific suggestions regarding Professor Beimborn's remarks, I would like to offer a few thoughts. We are at a moment in time in which different land uses are more compatible than they may have been for some time. My organization, the Mooney LeSage Group, has two mixed-use projects in the planning approval stage. These projects respectively encompass 390 and 220 acres, and each will enable people to live, work, shop, and play in the same project area. Our intent with these projects is to minimize the need for vehicle use. Those projects are now possible because the style of industrial development has changed from "Smokestackville" to the appearance of an office park. It is ironic, therefore, that one of the guidelines proposed by Professor Beimborn is a separation of land uses—those transit-oriented and those auto-oriented. To me, it seems it is the very synergy of the blend of these types of land uses in a mixed-use development that gives rise to the potential of concentrating people to make transit more feasible. I am concerned about the impact of separating these uses. I see factory and office owners wanting their facilities to be located near restaurants, hotels, filling stations, retail outlets, office supply stores, dry cleaners, and the homes of the work force. Each of the other groups involved feels the same. Their interdependence seems to be an asset worth taking advantage of.

At another level, successful implementation of such a different approach to land use planning will depend upon the recognition of the basic truth that all development is market-driven. It matters little if the best plans in the world are created if they do not meet the needs and interests of the market. If markets are not satisfied, they go elsewhere, and they have plenty of choices in this day and age to go. "Market savvy"—that up-to-the-moment knowledge of the needs and interests of the market—is primarily the province of private-sector people—developers, brokers, and others. Unfortunately, in this Region, those experts are rarely invited to participate, from day one, in the creation of land use plans. Until they are invited to be partners in the process, land use plans, especially revolutionary ones, will be risky exercises in theory. With regard to pedestrian- and bicycle-oriented plans, we need to consider yet another practical element—the problem of Wisconsin winters.

I believe that Professor Beimborn and others are performing a valuable public service in formulating programs that can help us maintain a healthy economy and a healthy environment. The issues involved in implementing plans designed to do both are complicated and plentiful. I would like to suggest, if it has not already been done, that an excellent forum for dealing with these issues would be the Urban Land Institute. The Institute, based in Washington, D. C., is a unique blend of highly experienced developers, planners, and educators, and could be an excellent source of objective evaluation and practical guidance on implementation.

I appreciate the opportunity to participate in this interesting discussion. Thank you all for your interest and attention.

SESSION A QUESTION-AND-ANSWER SESSION

MR. BALESTRIERI:

Two questions. Who wants to be the first? Yes?

QUESTION:

I have a comment on Professor Beimborn's slide. I don't know if you picked up on it or not, or if anyone else did, but on the Goerke's Corners slide—the one showing the newspaper boxes—did you notice that on the post above, there was a sign for some kind of employment shuttle? I thought that might be something that we in Waukesha County are interested in, and I think it is significant.

MR. BEIMBORN:

I saw the shuttle in operation. That shuttle bus carries people from the Goerke's Corners parking lot to suburban employment sites. That is the kind of thing which has to be done if we don't do transit-friendly land use planning. The extra cost and the extra inconvenience of a shuttle is something that you should not have to endure, but I certainly think Waukesha County should be acknowledged for providing that shuttle service.

MR. BALESTRIERI:

Thank you. Yes, sir?

QUESTION:

I wonder if Professor Beimborn would address the subject of delivery systems. In the past, you had milk and a lot of other things delivered to people's homes. Nowadays, you have to use the car to take trips, whether they be to the grocery store or elsewhere. Are people looking at the methods of reducing vehicle travel discussed during this session?

MR. BEIMBORN:

Well, it is amazing that we can get a pizza delivered to our house in 30 minutes, but we can't get ourselves delivered to work in 30 minutes, except by driving a car. In terms of the regional transportation system plan that we are discussing here today, that issue was not a major consideration. But, certainly with the more compact or mixed-use development patterns, people will walk more to some places. The delivery process will also be favorably affected by more compact development patterns.

MR. WILSON:

I think our challenge lies in helping citizens and local units of government understand transportation and land use concerns, recognize alternative potential solutions, and feel comfortable enough to begin making decisions based on a plan which captures a vision of the community's future. This needs to be done with a view that transcends municipal boundaries and with a willingness to cooperate with adjacent communities.

MR. BALESTRIERI:

Thank you, ladies and gentlemen, for coming this afternoon. There will be another session in this room shortly.

SESSION B

FOCUS ON PUBLIC TRANSIT: DETAILS OF THE NEW SYSTEM PLAN

Presiding: Paul G. Vrakas, SEWRPC Commissioner

From left to right: Mr. Paul G. Vrakas, Mr. Kenneth R. Yunker, Mr. Lawrence J. Kenny, Mr. Robert L. Turner, Mr. James A. Beckwith, and Mr. Albert A. Beck

Good afternoon. My name is Paul G. Vrakas, and I am a Commissioner of the Southeastern Wisconsin Regional Planning Commission as well as the former Mayor of the City of Waukesha. I welcome you here.

The title of this session is "Focus on Public Transit: Details of the New System Plan."

A sound transportation system for any large metropolitan area must include an effective urban public transit system. This system must at a minimum be integrated with the arterial street and highway system, function to relieve traffic congestion during peak periods of travel, and provide transportation service to individuals who cannot make use of private automobiles. Investment in public transit may be a means of achieving other social, environmental, and economic goals as well—including providing better access to jobs for the poor, ensuring access to jobs and services for the elderly and disabled, reducing motor-fuel consumption, improving air quality, and shaping urban land use development. If society's almost total reliance on the automobile for personal transportation is to be reduced, a transit system that provides a viable alternative to the automobile must be provided.

This session will address the full range of potential public transit improvements envisioned in the proposed new transportation system plan for Southeastern Wisconsin, from commuter-railway service linking outlying urban centers to downtown Milwaukee to local bus service meeting everyday needs of urban residents in many communities.

Participants in this session, Session B, include presenter Mr. Kenneth R. Yunker, Assistant Director, Southeastern Wisconsin Regional Planning Commission; panelists Mr. Lawrence J. Kenny, Supervisor, Milwaukee County; Mr. Robert L. Turner, Alderman, City of Racine, and State Representative to the Assembly from the 61st Assembly District; and Mr. James A. Beckwith, Chief of Transit System Development, Wisconsin Department of Transportation; and staff resource person Mr. Albert A. Beck, Principal Planner, Southeastern Wisconsin Regional Planning Commission.

SESSION B

FOCUS ON PUBLIC TRANSIT: DETAILS OF THE NEW SYSTEM PLAN

Presenter: Kenneth R. Yunker, Assistant Director
Southeastern Wisconsin Regional Planning Commission

Good morning. Public transit system maintenance and improvement is one of the three basic elements of the proposed new regional transportation system plan. The plan includes proposals for rapid, express, and local transit service.

Rapid transit service is intended to provide primarily commuter-oriented service between major trip generators in Milwaukee County and between such trip generators and outlying suburban areas. A total of 28 rapid transit service routes would be provided, of which 25 would be focused on the Milwaukee central business district and three on the University of Wisconsin-Milwaukee campus. Such service would be extended from Milwaukee to Racine and Kenosha to the south, Mukwonago to the southwest, Waukesha and Oconomowoc to the west, Germantown to the northwest, and Cedarburg and Grafton to the north. Service would be provided initially by buses operating primarily over the operationally controlled freeway system, with route extensions provided over the surface arterial street system.

Within the East-West Freeway Corridor extending from about N. 4th Street in the City of Milwaukee west to the STH 164 interchange in the City of Waukesha and Town of Pewaukee, the rapid transit bus service would be provided over a busway facility. The alignment for that facility is currently being examined in detail as part of a major transit investment corridor study being conducted by the Wisconsin Department of Transportation. The plan incorporates the proposed East-West Corridor busway facility, recognizing that it may be determined under the corridor study to allow high-occupancy vehicles to travel on the busway facility. Should the corridor study ultimately result in a conclusion not to construct a busway facility, then the rapid transit bus service would have to be provided over regular freeway lanes.

There would be 65 public transit stations located along the system at a spacing of about three to five miles. Most rapid transit service would be provided only during peak travel periods, with midday service provided over selected routes, and with little or no weekend or evening service. Headways would range from five to 30 minutes in the peak travel period, and from 30 to 60 minutes in the off-peak period.

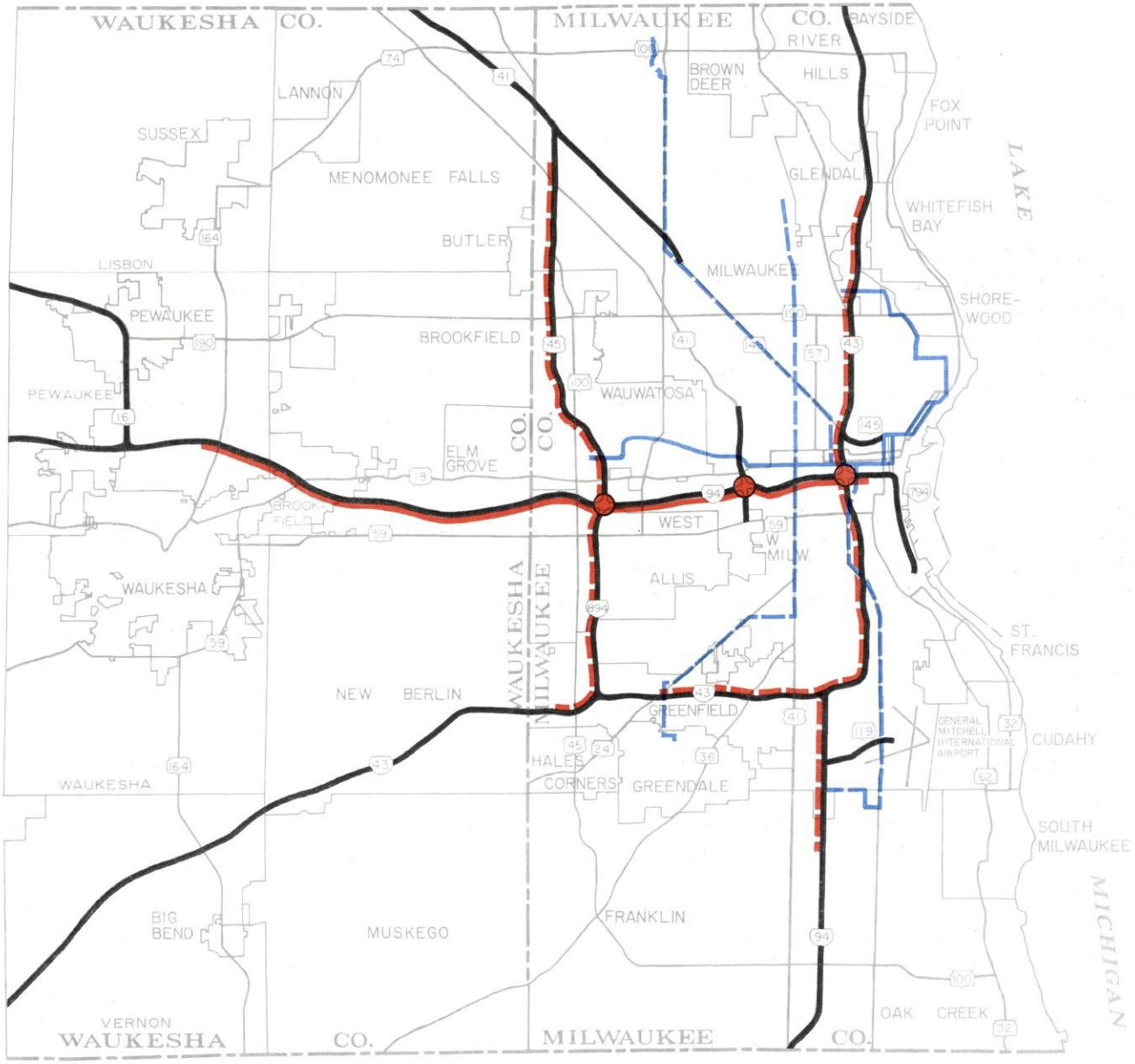
The preliminary plan also includes the identification of potential additional busway facilities either within, or parallel to, other congested freeway facilities in the Region [see Figure B-1]. These include IH 43 North, IH 43-IH 94 South, USH 45 North, and IH 894. The potential additional busway facilities and attendant costs, however, have not been explicitly included within the preliminary recommended plan. Rather, the plan calls for supplemental corridor studies—termed major investment studies by the Federal government—to be conducted to determine the feasibility of, and financing for, such additional rapid transit facilities. Those corridor studies would be designed to determine the feasibility of providing rapid transit in certain corridors by commuter-railway passenger train instead of by bus on busway or bus on freeway. The plan identifies four potential commuter-railway routes extending from Milwaukee south to Racine and Kenosha, west to Oconomowoc, northwest to West Bend, and north to Grafton [see Map 1, page 10, SEWRPC Newsletter, Vol. 34, No. 3, May-June 1994].

Express transit service is intended to substantially improve both commuter and noncommuter transit service in the most heavily urbanized portions of the Region. A total of 12 express transit service routes would be provided. Within Milwaukee County, the express routes would be oriented to the Milwaukee central business district, connecting that district to other major trip generators, and, to a more limited degree, to providing cross-town service. Within the Kenosha and Racine areas, express service would provide direct connections to major employment concentrations.

Under the preliminary recommended plan, express transit service would be provided in part by light-rail facilities and in part by buses operating over arterial streets, either in mixed traffic or on reserved lanes. Light-rail express transit service would be provided in both the East-West Corridor from the Milwaukee

Figure B-1

EXTENT OF POTENTIAL BUSWAY AND LIGHT-RAIL/EXPRESS-BUS GUIDEWAY FACILITIES IN THE MILWAUKEE AREA



LEGEND

- BUSWAY FACILITY--UNDER CONSIDERATION IN WISDOT CORRIDOR STUDY
- BUSWAY FACILITY--TO BE CONSIDERED IN ADDITIONAL CORRIDOR STUDIES
- LIGHT RAIL TRANSIT FACILITY--UNDER CONSIDERATION IN WISDOT CORRIDOR STUDY
- LIGHT RAIL/BUS GUIDEWAY FACILITY--TO BE CONSIDERED IN ADDITIONAL CORRIDOR STUDIES
- MAJOR INTERCHANGE RECONSTRUCTION DESIGNED TO ACCOMMODATE BUSWAY FACILITY
- RESURFACING/RECONSTRUCTION OF FREEWAY TO PROVIDE SAME CAPACITY; INCLUDES STRUCTURE RECONSTRUCTION TO ACCOMODATE BUSWAY ONLY IN THE EAST-WEST CORRIDOR

NOTE:
1) PRELIMINARY RECOMMENDED PLAN INCLUDES ONLY THE BUSWAY AND LIGHT RAIL FACILITIES AND THEIR ATTENDANT COSTS AS DEVELOPED IN THE WISDOT EAST-WEST CORRIDOR STUDY

2) BUSWAY AND LIGHT RAIL/BUS GUIDEWAY FACILITY ALIGNMENTS SHOWN ON MAP ARE CONCEPTUAL; CORRIDOR STUDIES WOULD BE DESIGNED TO SELECT A PREFERRED ALIGNMENT

3) CORRIDOR STUDIES WOULD BE DESIGNED TO DETERMINE DESIRABILITY OF ALLOWING HIGH-OCCUPANCY VEHICLES TO USE BUSWAYS AND EXPRESS BUS GUIDEWAYS

GRAPHIC SCALE
0 1 2 3 MILES
0 5000 10,000 15,000 20,000 FEET

Source: SEWRPC.

central business district to the Milwaukee Regional Medical Center, and in the Northeast Corridor from the Milwaukee central business district to the University of Wisconsin-Milwaukee campus and Glendale. Alignments for these light-rail facilities are currently being examined in detail as part of the aforementioned major transit investment corridor study being carried out by the Wisconsin Department of Transportation. Should the corridor study ultimately result in a conclusion not to construct light-rail facilities, then the express transit service would have to be provided by buses operating over arterial streets.

Express transit service would be provided weekdays from 6:00 a.m. to 6:00 p.m. on all routes, with weeknight service provided on selected routes until 10:00 p.m. In addition, weekend service would be provided on selected routes. Headways in Milwaukee County would range from 10 to 15 minutes during weekday peak travel periods and from 20 to 30 minutes in off-peak periods. In the Racine and Kenosha areas, express routes would operate at headways of 30 minutes during weekday peak travel periods and 60 minutes during off-peak travel periods.

The preliminary plan also includes the identification of those express transit routes for which it would be desirable to undertake major investment studies to determine if the express service should be provided by light-rail or bus facilities [see Figure B-1]. Four such express transit corridor studies are envisioned, including corridors from the Milwaukee central business district to the south to General Mitchell International Airport; to the southwest to the Southridge Shopping Center area; and to the northwest to the Northridge Shopping Center area. The fourth corridor study would concern a cross-town route along N. and S. 27th Street from W. Florist Avenue to W. Oklahoma Avenue. The supplemental corridor studies would be designed to determine the feasibility of, and financing for, such additional express transit facilities.

The local transit service included in the preliminary recommended plan represents a significant expansion and improvement of existing services. The local transit service element of the plan assumes the continued operation and extension of the present grid system of local bus routes in Milwaukee County. That system would extend across the Milwaukee-Waukesha county line to provide service to the eastern tier of communities in Waukesha County. The plan also provides for extensions of the systems of local bus routes in Waukesha, Racine, and Kenosha. The plan recommends that the local transit operators undertake more detailed implementation studies to identify the best way to provide for the needed local service extensions, holding open the possibility of a transit-center-based route system to replace, in some areas, the grid route system.

The preliminary plan also recommends improvements in service levels on local transit routes. Within the central portion of Milwaukee County, most local transit routes would have headways no greater than 10 minutes during peak travel periods and 20 to 30 minutes during midday and evening off-peak travel periods. In the remaining portions of Milwaukee County, peak-travel-period headways would range from 15 to 30 minutes, and off-peak headways would range from 30 to 60 minutes. In Waukesha, peak-travel-period headways would be 30 minutes, while in Racine and Kenosha, such headways would range from 15 to 30 minutes. Off-peak headways in these communities would be the same as current 1994 headways, ranging from 30 to 60 minutes. Service would also be improved by extending the hours of operation to include weekday and Saturday evenings until 10:00 p.m. in the Kenosha, Racine, and Waukesha areas.

The preliminary recommended plan also recognizes the need to provide transit service in the smaller urban communities of the Region. Explicitly incorporated into the plan is the continuation of shared-ride taxi service now being provided in the Hartford, Port Washington, West Bend, and Whitewater areas of the Region. The plan also recognizes that it may be desirable to establish such demand-responsive services in other smaller urban areas of the Region.

At this point in my presentation, I would like to direct your attention to the annual cost associated with implementing the transit element of the preliminary recommended plan [see Figure B-2]. As noted this morning, the transit element of the plan has an annualized total cost, including both capital and operating costs, of $177 million. The cost of constructing the proposed busway and light-rail facilities in the East-West and Northeast travel corridors—about $793 million, or about $49 million annually—is significant. Indeed, such capital costs far exceed the combined capital cost of maintaining the current level of transit service and expanding bus service throughout the Region. With respect to operating costs to maintain the current

Figure B-2

TRANSIT PLAN ELEMENT COSTS

ANNUAL COST

CAPITAL	
EAST-WEST CORRIDOR BUSWAY CAPITAL COST	$ 17 MILLION
EAST-WEST CORRIDOR LIGHT RAIL CAPITAL COST	$ 32 MILLION
SYSTEM MAINTENANCE CAPITAL COST	$ 19 MILLION
PLAN EXPANSION CAPITAL COST	$ 8 MILLION
OPERATING	
SYSTEM MAINTENANCE OPERATING COST	$ 67 MILLION
ADA REQUIRED PARATRANSIT SERVICE OPERATING COST	$ 18 MILLION
SYSTEM EXPANSION OPERATING COST	$ 16 MILLION
TOTAL	$177 MILLION

operating level of transit service regionwide, the plan calls for the expenditure of about $67 million annually through the year 2010.

To implement the paratransit service required under the Federal Americans with Disabilities Act, or ADA, the plan calls for the expenditure of about $18 million annually. Thus, the plan would serve to double the amount of resources directed to providing paratransit service for the elderly and disabled. The cost of operating the ADA-required paratransit service would be greater than the system expansion and improvement operating costs attendant to the substantial increase in transit service proposed under the plan.

In summation, the preliminary plan recommends the development of true rapid and express transit systems. The plan in particular recommends that the busway and light-rail facilities currently being considered as part of the East-West Corridor Study be provided, pending the outcome of that study. In all other major travel corridors, the plan envisions the evolution of bus-based transit service to some form of fixed-guideway transit service through potential light-rail, commuter-rail, or high-occupancy-vehicle facilities. The plan supports the potential cost-effective provision of light rail by initially proposing the extension of motor-bus service as a basis for identifying service improvements and promoting the ridership levels that would support the development of rail facilities.

It has been asked by many in attendance at this Conference if the plan is "visionary," particularly with regard to the transit element. While each person will have to make that judgment for herself or himself, the information and data available clearly indicate that the plan represents a significant departure from recent trends with respect to transit system development. Over the past 12 years, there has been an annual 1 percent reduction in transit service within the Region as funding pressures have resulted in service cuts. The plan would not only halt this reduction but would provide for a 3.5 percent annual increase in transit service. The preliminary recommended plan would expand transit by about 70 percent in terms of vehicle-miles of service provided. Further, as previously indicated, the plan calls for the development of a true rapid and express transit system, promoting an evolution of this system from one based primarily on the use of the motor bus to one geared to the increasing use of fixed-guideway facilities.

Thank you for your attention.

SESSION B

FOCUS ON PUBLIC TRANSIT: DETAILS OF THE NEW SYSTEM PLAN

Panelist: Lawrence J. Kenny, Supervisor
Milwaukee County

We have been spending a lot of time on transportation, so I would like to talk about a seemingly unrelated subject—welfare reform. I will explain why in a moment, but I think that most people in this room are aware of what Title 19—Medicaid—is. Most of us understand that a huge amount of Federal and State dollars goes to Medicaid. Seventy-five percent of all Medicaid clients are Aid to Families with Dependent Children (AFDC) recipients. The question I ask you is: should we continue funding Medicaid in the way we do? Take a second and answer that to yourself.

When many people think about Medicaid, they envision a welfare mother going to a hospital emergency room with her child—who may have only a simple cold or upset stomach—and getting billed for $100. Many would say about this: "Gee, what a waste of money. Isn't there a better way to provide health care?" And so we have a lot of people who say, "Let's get rid of Medicaid. It's just money going down the drain."

The fact is that that 75 percent of the people who are on Medicaid only utilize 30 percent of all Medicaid dollars. The question is: who are the other 25 percent and where does their 70 percent share go? The other 25 percent of Medicaid recipients are senior citizens and the disabled. These people are in our nursing homes or are receiving Supplemental Security Income from Social Security. Despite these facts, people still attack welfare recipients, thinking that we can save a lot of money by cutting their Medicaid benefits, when, in fact, most Medicaid funds are used elsewhere. Many adults who have parents or grandparents in nursing homes, given the high cost of these homes, are very grateful that Federal financial aid exists for nursing-home expenses. But many of these same adults say they oppose Medicaid—they do not perceive any connection.

The reason why I bring this up in a discussion on transportation is that often, when people are for or against something, they use statistics to make their point. But they sometimes do not tell all the truth or quote all of the relevant statistics. That is unfortunate, because I think that was what Mr. Klauser was getting at when he spoke to us earlier today regarding the "wars" that are going on in this area marked by the controversy over transportation modes.

Before I talk about the public transit aspects of the proposed new regional transportation system plan, I would like to share a few more thoughts with you. First, I want to talk about my personal historical perspectives on land use and transit. I grew up in Chicago but I also had roots in northern Wisconsin. Our family did not have a car. I got my first car—the first car in our family—when I was 22 years old. Our family was confined to using public transit, but that was not a problem. My first job was with a restaurant a block away from my house. My dad worked for a trucking company. He took two buses to work and back home. The trucking company was only six miles from my home in the central part of Chicago. My elementary school was four blocks away; my high school was eight blocks away. The neighborhood movie theater was on a bus line. The store was down the block. There were no parking lots in front of the store. For us, transit was very functional because the land use pattern was one of high density and accommodated public transit. For many people in Milwaukee at that time, I believe, things were quite similar. Even people who worked at American Motors, for instance, often took the bus to work. Industry was located in the city. We allowed industry to be part of our community. We did not say, "We only want one-acre lots; we don't want any industry; we don't want any shopping centers; we don't want that gas station at the corner; we don't want that drug store to be located across the street from us." We have become a society that says, "We don't want these things around us."

I have a brother-in-law who lives in Bartlett, Illinois. Out there, they impose a lot of restrictions on residents—he is not allowed to hang his washing on an outdoor clothesline or keep his boat in his driveway, for instance.

Another thing I want to tell you is that since my family did not have a car and my grandparents lived in northern Wisconsin, we had to take a train whenever we wanted to visit them. On vacations, my parents would put us on the train and the next morning we would be in northern Wisconsin, 12 hours and 300 miles later. The trip was scheduled to be 10 hours long, but the train always ran behind schedule. But that didn't matter to us; we accepted it. On the way home, we would sometimes stop to visit relatives in Adams County. There was a Chicago & North Western station there, so we would take "The 400" back home. We would travel through Milwaukee, through its back yards. That was my first glimpse of Milwaukee—of the old North Western train depot as we headed down the Milwaukee lakefront. I was 12 or 13 years old at the time. At that time, people did not seem to mind having that great transportation system in their back yards. There was no "not-in-my-back-yard" movement. People realized transportation was essential to living. While there was some inconvenience and noise, the transportation was at least nearby.

What has happened since that time is that a lot of us have gotten into this mode of wanting everything but not wanting to pay for it, or not wanting to put up with the problems associated with it. It is essential that we look at basic realities in land use planning as we look at mass transit in the future. As a case in point, the freeway system in Milwaukee County was subject to major social engineering. Right or wrong, people with philosophical and political concerns fought the building of the freeway system, and that has resulted in a poorly designed freeway system that is dangerous and congested, and that is going to take a huge amount of money to rebuild.

Let me give you two examples. First, look at the design of the Marquette Interchange, probably the deadliest interchange in the State of Wisconsin. Look at the ramping, with its uphill, single-lane curves that force cars to slow from 55 miles per hour to 20 and 30 miles per hour.

The second example is the demapping of the proposed Park West Freeway. This was done because people feared that building that freeway would divide Milwaukee's central city. It was going to create white flight. What has the demapping done? The Park West Freeway has divided the central city by its lack of being there. Unemployment in Milwaukee's central city is 40 percent. There are no jobs, so there is crime and there are people who live there in fear of that crime. When will we be able to get redevelopment of the central city when there is no transportation system to it? Did white flight occur? It sure did. Those who fled are now in Menomonee Falls, in Germantown, and in Waukesha. People were able to move out of the central city. Industry also moved out. We are, however, grateful to businesses like Master Lock that are still in the central city. But other businesses have left—and they cannot feasibly come back because there is no feasible transportation to or from the central city. So as we look at mass transit, remember that we are preparing a transportation plan, not a wish list. A transportation plan cannot be merely what one would like to see. It must set forth a realistic and effective means of moving people to where they want to go and where they need to go. Transit must be responsive; it must be innovative. It must utilize effective technology—that which is developed and that which is developing.

In 1975, Milwaukee County acquired the local public transit system. Milwaukee County has operated that system since then, and will continue to do so. The County Board is responsible for the ultimate decisions on how that system will operate. There are many other people out there who want to run our transit system, but if they want to do so, they are asked to bring their own checkbooks. No one wants to do that yet. When the system was first taken over by the County, there were only 40-foot buses on city streets. The Milwaukee County Transit System was the first system in the country to use freeway flyers. In addition to the standard 40-foot buses, we use 25-foot buses; and we use articulated buses. We are willing to look at any other technology that is out there, whether it be a busway or a light-rail facility, but we cannot make decisions on the basis of what is merely philosophically or politically popular. We must go by what is factually effective.

What about the mass transit plan as proposed by SEWRPC? From my perspective, first, it is functional; second, it is fundable; and third, it is visionary.

The mass transit element of the proposed regional transportation system plan is functional in that it basically proposes a bus system, which is easily implementable. You do not have to spend years trying to find the right-of-way, create a corridor, acquire the land, and find a funding source. If we were a very narrow area spatially, such as San Diego, it might be feasible to build light rail in a corridor. But our area, in reality, is not defined

by a corridor but by sprawl. Can we change that? No. The fact is that people will choose to live where they want to live. And as much as we would like to change the way people live and return to maybe the days when I grew up in Chicago—when there was a corner store and when the school was a couple of blocks away—that's not going to happen, except by choice of the people who live in this country. So in proposing a bus-based system as a primary source of mass transit, the plan is clearly implementable.

A bus-based transit system is also encompassing. It can encompass the areas where people need to go—whether to a job or to school, or, for people who do not have autos, to essential services. It is flexible—if a bus line does not work, you can readily move it. The backbone of a successful mass transit system must be the bus system.

Is the plan visionary? Yes, it envisions the future—the possibilities of busways and light rail. It alludes to specialized transportation. But we should realize that it is a plan for the year 2010. I am 47 years old. I was born in 1947, and in the year 2010 I will be 63. There are a whole lot of us out there of my age group. That little demographic "bubble" is moving toward senior citizenship. The "yuppies" of the 1970s and 1980s are going to be the senior citizens of the year 2000 and beyond. If you look at the demographics—the ages of people living in the suburbs and suburban counties—the baby boomers are graying quickly. There is going to be a day when the automobile is not going to be their primary mode of transportation. So an innovative transit system must be there to get people to the store that is no longer on the corner, but is five miles away in the form of a Wal-Mart, or to the doctor who is 20 miles away at a clinic. There must be a specialized transportation system that is included in SEWRPC's proposed plan. That is where the vision comes in.

Finally, I believe that the proposed plan is balanced. We cannot have only a mass transit system, nor can we have a system that is only roads and cars. This fact does not please everybody, but we must be practical and realistic. Transportation must meet the needs, wants, and pocketbooks of both individuals and the community. While people on Milwaukee's East Side, during my childhood, were willing to walk to get to the old North Western train station to catch "The 400," many people today in that same area will not accept light rail down their street. Instead, they want any light-rail system moved to an abandoned rail corridor, say, four blocks away. They also want to maintain bus service. I would suggest that if you move light rail off of the street to four blocks away because people do not want it in front of their homes, it will not be utilized to the extent that it should be. This, again, is social engineering.

The road builders have no use for mass transit. Mass transit people have no use for road builders. I think they are both wrong. The advocates for light rail and the opponents of light rail both have their reasons, but, unfortunately, they do not always come up with the facts. The most important group of people we have to be careful of are the politicians. There are some people who say "We can't do anything." Some just say "No." Talk shows in this community have popularized the "just-say-no" mentality. If that is all we're going to get, why don't we all pack up and move someplace where there's a "yes-we-can" attitude?

It is essential to approve and implement a transportation plan that will provide mobility and that will be efficient, environmentally sound, and fiscally affordable to Southeastern Wisconsin. The last factor is the key to the plan—"fiscally responsible." The year 1995 is going to be a crisis year for Milwaukee County transit. The reason for this is that there will be literally no local funding available to maintain the system that we have. Three years ago, a Regional Transportation Authority (RTA) was created. I am a member of the RTA, but it is now virtually defunct. However, I hope that it comes back. Three years ago, I stated that by 1995 Milwaukee County would be facing bankruptcy because of the property-tax problem. The transit system is going to face that in 1995, and unless we find a way to get transportation financing off of the property tax—both roads and transit—the future of transportation in Southeastern Wisconsin is bleak.

I believe that is a key message in the transportation plan. Thank you.

SESSION B

FOCUS ON PUBLIC TRANSIT: DETAILS OF THE NEW SYSTEM PLAN

Panelist: Robert L. Turner, Alderman, City of Racine;
State Representative, 61st Assembly District

Good afternoon. The area of transportation interests me a great deal, and I was very interested in the fact that both Supervisor Kenny and I were born in the same year, 1947. Otherwise, however, his experience is a little different from mine. I was born and raised in Columbus, Mississippi, and I remember the days when we would move around with a horse and a wagon—or walk. Fortunately, I lived on a farm, so I was able to hook up a horse and drive downtown and go shopping while I parked my horse. There was a place where you could park your horse. There were very few cars at the time and there were no paved roads. It was all dirt roads, and those ended about five or six miles from my hometown. Ultimately, Columbus was very fortunate because of the location of a big Air Force base nearby. This meant that local authorities were able to obtain some Federal funds to help augment the city budget and build paved highways.

Things have changed a lot since then. I recall when I first moved to Racine in 1965, the year I graduated from high school. I came up to Wisconsin by train. I left home after graduation without telling my mother and father that I was leaving or where I was going. I just wanted an adventure—to see what the rest of the world looked like—and I caught a northbound train. I had to hitchhike to the nearest train station, about 40 miles from Columbus. I caught the train to Memphis, changed trains in Memphis and went to Chicago, and then took a third train to Racine. That was when the railroads, rather than Amtrak, ran rail passenger service. Afterwards, I went to Vietnam and I stopped in Korea and Japan. I got to see what mass transit really meant. In those countries, the buses and trains were really filled with people. Some would be hanging on outside the doors; it was really a challenge, and was something to see.

I know most of you here probably have more experience than I have in terms of transportation. Many of you have made transportation planning and engineering your full-time profession. I have looked at the proposed SEWRPC plan, and would like to commend SEWRPC. The Commission has a very good preliminary plan. The SEWRPC proposal is well put together. I would say, meanwhile, that the State of Wisconsin's transportation position at the present time mostly focuses on highways. Upstate, it's always highways. How do you change people's focus from cars to mass transit? This is a challenge that we all have to face. How do you integrate those two modes? That, too, is a challenge that we all have to confront. How do we move people to job sites? As you know, many of the jobs are now moving out of the urban areas and into the rural areas. So how you move the people to the jobs is a question that we have to look at, and the proposed SEWRPC plan addresses this issue by proposing potential light rail, busways, commuter rail, and improved bus service. I feel that we can implement them all, but it will take some sacrifice. It will involve some give and take. It will take a change in attitude by the people in the State Legislature as well as cooperation between State, county, and local transportation management people to resolve some of these problems we are faced with.

If we do not rise to the challenge, we are all going to be left out in the cold in terms of how we move people. Transportation effectiveness will decrease, and costs will increase. The burden on local and county governments is astronomical now, with budgetary limits and taxpayers' resistance to spending more tax dollars. Everyone wants to move people efficiently, but no one wants to pay the price of doing it. As far as possible ways of financing transportation initiatives are concerned, I would be very skeptical of supporting any gasoline-tax increase at present, because those who would be most affected by such a tax are those who need effective transportation the most—the poor people trying to get to those outlying job sites.

I look at the pattern of my own community. Last year, I commuted over 30,000 miles between Racine and Madison, back and forth, going to meetings of the Legislature. As you may know, the State only reimburses me for one way. Since I also serve on the City of Racine Common Council, there are often times when I go back and forth every day. If you add those miles up in terms of what it costs for a gallon of gasoline, you will find that it is a very high bill. I would love it if I were able to travel by rail from Racine to Madison. I hope that in the near future, in my lifetime, we can have rail service to move people at a decent speed and without the congestion we now have. Currently, available bus service is poor, especially from the Racine area to

Milwaukee and from Milwaukee to Madison. Only three or four trips to Madison are scheduled each day. The scheduling presents a problem if you have an early-morning meeting. If you have a legislative session at 9 a.m., the existing bus scheduling creates difficulties. I usually leave at about 5 a.m. At that time of day, there is no available form of transit departing anywhere in Southeastern Wisconsin that I know of. If you know of one, please let me know because I would be more than happy to park my car and leave it parked, and hop on a bus or a train to go to Madison. It would save me a lot of headaches and problems, and would help my budget out tremendously.

As a member of the Assembly Committee on Highways and as the Chairman of the Assembly Committee on Transportation, I know what it means to have to try to balance out where you put your loyalty. I know that if we increase the gasoline tax again, we are going to hurt the farmers and tourism at resorts up north. We have to be careful as to how we balance the needs of the northern part of the State with those of the southern part of the State, as well as between east and west.

Our outlook on transportation is being driven by the Federal Clean Air Act and right now we are getting mixed signals from Washington, D. C., as to where we are going to go with the Clean Air Act—what route we are going to take. I know Congressman Barca wants to change some of the rules implementing the Clean Air Act in Southeastern Wisconsin. He has asked, "Why should people in the southeastern part of the State have to pay the brunt of the cost to clean our air?" Paying that cost should be a nationwide matter. It is my position that we need a national policy to deal with air pollution in this country as a whole, so that people in places like Southeastern Wisconsin do not have to pay the brunt of the cleanup costs. We long thought that most of our air pollution was coming from Illinois as well as a certain part of Indiana. Now we know from recent studies that most of the pollution over our area is coming from as far away as New York City and Texas. It all depends on atmospheric and wind conditions—they determine where pollution produced in another place ends up. Although Wisconsin does produce some of the pollution that we now experience in Southeastern Wisconsin, we are not the sole pollution source, as was originally thought. I hope that we can look at how we are going to approach the requirements of the Clean Air Act. How are we going to get and use money that is now available from the Federal government? One concern that I have with respect to this is that I think the State has dragged its feet in terms of obtaining Federal funds available under the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA. Money is available to help with mass transit. But until we get a better, clearer focus as to what modes of transit we are going to use now and in the future to offset the air pollution, we are going to continue to discuss how we are going to move people in this country and in this State.

I am therefore very concerned. I am committed to listening. Much of what I have done during my 19 years in government has involved listening to what the people have to say, and I find that there is mixed opinion among the population in terms of support for mass transit versus for highways. I find very little support now for the idea of people giving up their cars completely, but there are those who are willing to share and maybe park their cars one or two days a week and use alternative modes of transportation.

But when you talk about alternative modes of transportation, you have to link not only Milwaukee, but surrounding communities: Racine, Kenosha, Walworth County. We must take a more regional approach, as opposed to addressing only the transit needs of Milwaukee, even though Milwaukee is the hub—the focal point—of Southeastern Wisconsin. You cannot go from Racine to Madison efficiently, for instance, unless you go through Milwaukee if you are traveling by highway. Although I have tried about seven different routes for driving to Madison myself, I have come to the conclusion that going there via IH 94 is still the best way to go. One time I left Racine and tried driving to Madison by a more circuitous but less congested route. It was about 20 miles longer than the IH 94 route, but it took about the same amount of time to get to Madison using the longer route as it does if one goes via IH 94. Depending upon what time of day it is, however, the latter may not always be the case.

I hope that we can also improve the system going through Kenosha to Madison to alleviate some of the problems involved in going through Milwaukee, because most people driving from Kenosha to Madison go through Milwaukee. As a former truck driver, I drove 18-wheel trucks for four years. I know firsthand that it is a challenge for truckers to try and find the best route to go from Kenosha to Madison or to Green Bay that is safe during the peak travel hours.

I have read the proposed SEWRPC plan. It offers many good proposals, but the question is, "Does the State have the will to implement those proposals?" I would hate to see the proposals contained in the plan end up on a shelf and sit and collect dust just as so many other proposals I have discovered over the years have done. They sit on a shelf, and maybe 40 years from now we may pull one out and say, "Gee, there was a plan which, had we implemented it 40 years ago, could have helped us avoid the problems we're now faced with today." So I would say to you in this audience that you can have a big impact as to which direction the State goes on transportation. How are we going to fund the transportation system? How are we going to support cities and counties in meeting the transportation challenge? I would strongly encourage you to contact your legislators, your Mayor, and your Representative in Congress. I also encourage you to get out there and become vocal and let the people know.

The people are listening and looking to you and me for direction. The majority of people who use the transit system today are not aware of some of the challenges that we will have to meet and address between now and the year 2010. By that year, I'll be 63 years old. I hope that I will not have to drive my car by then, but, from the way things look now, I may still have to. Yet by 2010, there might be other means of transportation besides cars, buses, and trains because technology is moving so fast. Perhaps with the emergence of the "information superhighway," we will all be able to stay home and just use our computers and our telephones to work and conduct personal business.

Whatever actually happens, however, cars will be with us for a while to come yet, so how we integrate our transportation system is a challenge we all have to face. I think we have a blueprint and a guideline that can lead us in that direction. I will continue to be "all ears," listening to try to make sure that I make the right decision and support those plans that I feel would be in the best interest of all the citizens of the State of Wisconsin.

With that in mind, I hope that I can take more back than I brought to today's discussion. Thank you.

SESSION B

FOCUS ON PUBLIC TRANSIT: DETAILS OF THE NEW SYSTEM PLAN

Panelist: James A. Beckwith, Chief of Transit System Development
Wisconsin Department of Transportation

Many of you have heard me speak previously about the East-West Transit Corridor Study. Other speakers have mentioned that study at this Conference, often in conjunction with the words "light rail." I am the Project Manager of the East-West Corridor Project. That position brings a lot of controversy with it. I am often asked how the Milwaukee East-West Transit Corridor Study fits in with the regional transportation system plan, and, more recently, how it fits in with TRANSLINKS 21.

TRANSLINKS 21 is a comprehensive strategic plan being prepared by the Wisconsin Department of Transportation. This planning effort is examining the long-range strategic elements of transportation in this State and how we might best invest in the various modes of transportation in the future. This study is very pivotal; it will probably direct and guide transportation investments in this State for many years to come. The State plan and the regional plans must, under Federal guidelines, be consistent.

We often talk about system plans and strategic plans, but seldom do we find ourselves starting to move forward on actual implementation. To successfully complete any planning effort involving developing transportation facilities in a corridor, a project development process must follow completion of the strategic planning and systems planning stages. Even after extensive system planning is completed, a significant amount of work will need to be done before one can actually realize any transportation improvements out on the ground. That is becoming more difficult given the increased regulations under the Federal Intermodal Surface Transportation Efficiency Act (ISTEA). After the system plans for an area are developed, the alternatives analysis project stage follows at the corridor level. At this stage, a planning effort for one particular corridor in the system plan is undertaken to evaluate various transportation modes that can serve that particular corridor. This stage also involves the identification of a number of alternative route alignments in which the various modes to be considered might successfully be operated. After the alternatives analysis stage comes the preliminary engineering stage. This stage involves resolution of some of the engineering problems which may be involved in implementing the recommended improvements. Then come the design, and, finally, the construction stages. As I talk throughout the Region about TRANSLINKS 21, I find that many people think we simply move from a system plan—one that might be produced by SEWRPC—immediately into design and construction. This is not the case.

The efforts to implement the recommendations of the current, second-generation regional transportation system plan adopted in 1978 illustrate this process. That plan, in addition to envisioning the expansion of local bus service, envisioned the provision of commuter-rail service; express, or rapid, bus service; and light-rail service in various corridors of the Region.

To implement the 1978 plan, we had to begin the alternatives analysis studies for the corridors delineated in that plan. The first alternatives analysis study, which started in the mid-1980s, involved the Northwest Corridor project. The Northwest Corridor ran from downtown Milwaukee to the Northridge Shopping Center area. An alternatives analysis was developed by the Regional Planning Commission, and its results were given to the Milwaukee County Board and the County Executive. In accordance with those results, the County decided to implement MetroLink—express bus service in mixed traffic—essentially along W. Fond du Lac Avenue and up N. 76th Street to Northridge.

The second corridor studied was the East-West Corridor. This was considered the second most important corridor in the Region. It extends about 22 miles from Milwaukee to Waukesha. It is five miles wide, encompasses about 110 square miles, includes lands under the jurisdiction of 15 different local units of government, and has 450,000 people residing within its boundaries. Running right through the middle of the Corridor is IH 94, the most congested facility that WisDOT now owns.

As transportation and traffic patterns through the East-West Corridor indicate, however, that Corridor actually contains all or part of three subcorridors: the main corridor along IH 94 between Milwaukee and Waukesha; a North Corridor extending north from downtown Milwaukee, up along the Lake Michigan shoreline, to Shorewood and Glendale; and a Northwest Corridor, running in a direction similar to the Northwest Corridor delineated under the first alternatives analysis. With these three subcorridors to contend with, the purpose of the alternatives analysis was to study various transit technologies that could be used in each of these subcorridors. In each case, we also examined a "no-build" alternative as a basis upon which to build. As Secretary Klauser has indicated in his luncheon address, the "no-build" alternative is perhaps the most publicly accepted alternative for the East-West Corridor today. Under this alternative, basically, the transportation facilities we have today would be what we would have in the future. But traffic conditions will not stay the same as they are today; they will worsen in the future. Is this acceptable? I do not know. But I think it is incumbent on us to make sure the public understands what kind of transportation service it will get from a "no-build" alternative.

In addition to the "no-build" alternative, several other alternatives should be studied in any alternatives analysis project for a corridor like the East-West Corridor. One involves improvement of the existing bus service within the area being studied—basically making improvements without "selling the farm," as some people say. We call this alternative "expanded metropolitan bus service." This alternative simply involves expanding the bus service in an area; making buses more accessible to more people; and providing a better, higher level of service for those people that already have usable bus service.

Another possibility that should be examined involves implementation of HOV—or high-occupancy-vehicle—lanes, now often also called MOV—or multiple-occupancy-vehicle—lanes. These lanes can be provided on the segment of IH 94 within the East-West Corridor, for example, by taking the inside shoulder lanes from both the eastbound and westbound portions of IH 94 and striping those lanes to indicate that they are reserved for carpools and buses. We are also examining this alternative for the IH 94 Corridor.

Another possibility, and a step up from HOV lanes, involves implementation of a busway. Busways are in many ways very similar to HOV lanes, but busways, unlike HOV lanes, can be placed in their own rights-of-way, rather than down the middle of a freeway. It is possible to implement busways along the side of a freeway or even along a new, busway-specific, right-of-way in a corridor, such as the CP Rail System/Soo Line corridor that appeared at one time to be an attractive potential location for an East-West Corridor busway. Busways located on their own right-of-way have several advantages over HOV lanes. Separate stations can be built immediately adjacent to the separate right-of-way. The problems posed by other forms of traffic—carpools, private buses, vanpools—and by the need to enter and exit an inside shoulder lane, all of which arise with HOV lanes, are eliminated. The City of Pittsburgh, for example, has done well in implementing the busway concept. The Pittsburgh busway, one of the first to be built in North America, was built on a railway corridor and coexists today in that corridor with the railway.

Light rail is another technology that should be examined. Fewer and fewer people today remember the streetcar. Some people, however, remember the PCC cars which operated in many cities around the country. The light-rail vehicles of today, meanwhile, have evolved to look and operate much better than the vehicles of even a few years ago. The vehicles running on the newly implemented light-rail system in St. Louis, for example, run very quietly, have high acceleration rates, and have proven very attractive to the people of St. Louis.

Under the East-West Corridor Study, we examined both the various potential corridor routes and the multiple transportation technologies which I have described. From this examination process, 12 specific alternatives, each designated by number, were developed for evaluation. I will now discuss several of these alternatives.

Alternative 4, for example, envisions implementation of light rail in all three corridors: the East-West Corridor, the North Corridor, and the Northwest Corridor. This alternative envisions an express light-rail system—a light-rail system that has more stops than a rapid light-rail system. An express light-rail system therefore serves people somewhat closer to their residences and their destinations than a rapid light-rail system does. It is thus accessible to more people, but it also involves tradeoffs in that express light-rail travel

speeds are generally slower than those of rapid light-rail systems. The cost of providing express light-rail technology in all three of the corridors was projected at over $1 billion.

Alternative 10, on the other hand, includes examination of the various technologies and their potential implementation within all three corridors. Because Waukesha County was generally not interested in light-rail service, we, under this alternative, proposed implementing bus and carpool lanes on IH 94 from STH 164 to a point near the Milwaukee County Institutions grounds. Alternative 10 there envisions a transfer point to a rapid light-rail system that would run eastward through the City of Milwaukee and then north to a park-and-ride lot in the City of Glendale. In the Northwest Corridor, this alternative envisions an express light-rail line running from downtown Milwaukee to the Capitol Court Shopping Center.

A third alternative, Alternative 12, is one with which many transportation planning professionals in the Region are familiar, as well as the one alternative among the 12 upon which most people seem to agree. In fact, this alternative received fairly strong support in early December 1993 from all of the local elected officials representing the residents of the East-West Corridor. Alternative 12 envisions a light-rail line running from the City of Glendale southeasterly to Shorewood and to the University of Wisconsin-Milwaukee, and continuing through the Milwaukee central business district. From there, this light-rail line would continue west along W. Wisconsin Avenue to Wauwatosa, the Milwaukee County Institutions grounds, and the new research park located west of USH 45. In addition, this alternative envisions special lanes for buses to enable express buses, which otherwise would operate in mixed traffic, to have their own lanes on the arterial streets. Alternative 12, in its initial form, also proposed an HOV-lane-and-busway route through Waukesha County eastward to STH 100 along one of two proposed alternative alignments: one on IH 94 and the other on the CP Rail System/Soo Line right-of-way alignment.

However, the possibility that the proposed HOV-lane-and-busway route might be built along the CP Rail System right-of-way alignment raised some concern among some residents living along that proposed route in West Allis and in Milwaukee. In response to these concerns, the Governor decided that we would no longer study that particular alignment. This means that of the two proposed alignments, only the alignment along IH 94 will continue to be studied. The other technologies proposed as part of this alternative would also continue to be studied. Until Alternative 12 is fully revised in light of these developments, we might refer to Alternative 12, as it is now being studied, as "Alternative 12 Modified."

The preliminary regional transportation system plan being presented at this Conference is a design year 2010 plan. This plan, like TRANSLINKS 21, deals with potential rapid and express transit service. The rapid transit service envisioned under the preliminary regional plan has two elements. One of the elements envisions the service to be provided by buses operating over exclusive busways, including one such busway between downtown Milwaukee and Waukesha. The plan also identifies potential future expansions of the initial recommended rapid transit system. Importantly, the plan indicates not only the recommended main line of such a system, but also provides a vision for the future as to what a more extensive rapid transit system for the Region might look like. Anyone involved in transportation planning for Southeastern Wisconsin needs to know how any proposed longer-range system would relate to facilities we are now designing.

This is especially true with regard to the Stadium Interchange. In reconstructing that interchange and redeveloping its environs, one needs to know how the long-range transportation system for the Region would be constituted.

Finally, with regard to the express transit service envisioned under the preliminary regional transportation system plan, there are a number of elements involved. Light-rail facilities have been included in the plan as one such element. As in WisDOT's Alternative 12, the plan envisions a light-rail line potentially running from Glendale to Shorewood, and then to the University of Wisconsin-Milwaukee, downtown Milwaukee, and then westward to Wauwatosa. Under the plan, the western terminus of the line would be at the Milwaukee Regional Medical Center. The plan also contemplates the possible extension of that initial light-rail service from the Milwaukee central business district south to General Mitchell International Airport; to the southwest to the Southridge Shopping Center; to the northwest to the Northridge Shopping Center area; and along a cross-town route along N. and S. 27th Street from W. Florist Avenue to W. Oklahoma Avenue.

These proposed extensions are very long-range, very tentative, and very expensive. Implementing them, however, would be a key step toward the development of a real express transit system for this Region.

But our current concern with light rail focuses on the proposed initial system. As far as the proposed rapid transit system and the proposed busway and high-occupancy-vehicle lanes are concerned, we are poised to make these first critical steps toward a modern regional transportation system into realities.

The people attending this Conference, as well as the 450,000 people residing within the East-West Corridor, need to think carefully and long about those first steps. The Wisconsin Department of Transportation is continuing its analysis of alternatives, trying to gather the needed information and provide that information so that the people concerned can make an informed decision regarding these transportation projects.

Thank you.

SESSION B QUESTION-AND-ANSWER SESSION

MR. VRAKAS:

We are interested in your comments, and we want to get your questions on the record.

QUESTIONER (WAUKESHA COUNTY BOARD SUPERVISOR VERA STROUD):

I have two questions, or, perhaps, one question with two parts. When you calculated the estimated financial costs for this system, did you take into account the additional capacity needed for power plants to power the light-rail system? Also, with regard to volatile-organic-compound emissions, did you take into account those emissions, which, to my shock, would be only about 4 percent lower than the emissions level expected under the "no-build" alternative? Did you calculate that assuming the use of alternative fuels for the buses?

MR. VRAKAS:

You want Mr. Beckwith, I trust, to speak to the light-rail question, and Mr. Yunker to address your question on buses. I take it you want to know whether they calculated the expected additional power costs for the proposed light-rail system. Could you please elaborate, however, on what you are asking with regard to buses?

MS. STROUD:

We were told this morning that implementing this plan would result in only a 4 percent reduction in volatile-organic-compound emissions. That seems a very small gain in exchange for the expenditure and the changes in travel habits that the plan envisions. Also, what does the plan have to say regarding having buses run on alternative fuels? If it is envisioned that this will be the case under the plan, how will that affect the emissions?

MR. VRAKAS:

Mr. Beckwith, do you wish to answer first?

MR. BECKWITH:

Let me first address that part of the question that deals with the cost of the additional electricity needed for the proposed light-rail system. Actually, my understanding of this from the discussions we have had is that the amount of electricity needed for the light-rail system would simply be a "little blip on the chart." It would represent a very small amount of the total electricity usage in the Region. As to whether it is worth spending a lot of money on projects to achieve, again, only a minuscule reduction in volatile-organic-compound emissions in the Region, I think that we need to consider the level of ridership that would be attracted to a project like the proposed light-rail system. Today, only about 3 percent of the daily travelers in the Region use public transit regularly. If we could increase that current ridership by 25 percent, it would be a major achievement. If we doubled the number of people that use public transit in the Region and the percentage went from 3 percent to 6 percent, we would be absolute heroes in this Region. Even so, still only a small proportion of the people would be using public transit. So the level of expected emission reduction here is definitely related to the number of people we envision as changing from the automobile to public transit, even if that number may still be small in terms of its proportion to the total population of the Region.

MR. VRAKAS:

Mr. Yunker, do you want to add to that at all?

MR. YUNKER:

With respect to electric power use, we would note that the times of peak use of all electricity within the greater Milwaukee area do not coincide with the expected times of peak electricity demand by a light-rail

system. So light rail would not add to the overall peak need for electricity and the overall need for more power-plant generating capacity.

As for volatile-organic-compound, or VOC, emissions, implementation of the preliminary recommended plan would provide about a 4 percent reduction in such emissions, the precursors to ozone, as compared with the level expected under a "no-build" alternative. The plan seeks to accomplish that reduction through improved transit services, other efforts to attract more people to transit, and some of the travel demand management measures. I would note, though, that as you move away from measures which would tighten up on the emissions coming from the automobile—measures where you get a "big bang" in the form of a big percentage reduction in emissions, such as having automobiles use fuels that are less volatile, or going to tighter emissions standards on cars, you are restricted to measures that have only a very, very small impact on VOC emissions. As one example of such measures, I mentioned the Employee Commute Options program which is mandated for the six-county "nonattainment area" within Southeastern Wisconsin. Large employers in this area will have to increase the number of people using transit and ridesharing, possibly go to a four-day work week, and take other measures designed to decrease single-occupancy-vehicle usage by employees. Yet this mandated program is expected to result in a reduction of VOC emissions of less than 3 percent.

In response to the question about alternative fuels, the preliminary recommended plan does not factor in the use of any alternative fuels. Under the plan, total transit-bus usage in the Region would average about 100,000 vehicle-miles on an average weekday. Since automobiles and trucks in the Region would account for 43 million vehicle-miles of travel on an average weekday under the plan, buses would account for a very small proportion of total vehicle-miles. Therefore, even the total elimination of buses would have an extremely modest impact on overall emissions.

QUESTIONER (WAUKESHA COUNTY BOARD SUPERVISOR EDWARD J. STOLTZ):

I would like to ask about WisDOT's recommendation to Washington for approval of preliminary engineering for the proposed light-rail line. Will the list of proposed preliminary engineering work include the proposed light-rail line in Milwaukee County or will it not? Will it include potential alternatives?

MR. VRAKAS:

Mr. Beckwith?

MR. BECKWITH:

The recommendation to Washington regarding which of the proposed rapid transit technologies should proceed to a preliminary engineering phase would be based on the selection of the locally preferred alternative. We are at the end of the alternatives analysis process. We still need to go through a public hearing process. We will then need to take a look at the questions and concerns raised at public hearings. The study advisory committee, which is made up of local elected officials, will then make a decision as to which of those technologies WisDOT will recommend to Washington and, we hope, get the concurrence of the Federal government to move ahead on that technology. So, to answer your question, no decision has been made yet on a locally preferred alternative, but when it is, the locally preferred alternative will be the technology that we will pursue. It will be some time, however, before we reach that stage.

MR. VRAKAS:

I wish we could take more questions, but time has gotten away from us, as it often does. However, I would encourage each of you to submit your comments on the proposed plan to the Regional Planning Commission if you feel so inclined. Thank you all for coming.

SESSION C

FOCUS ON FINANCING: PAYING FOR THE PLAN

Presiding: Sheila M. Siegler, SEWRPC Commissioner

From left to right: Mr. Patrick Marchese, Mr. Roger L. Schrantz, Ms. Kathryn C. Bloomberg, Mrs. Sheila M. Siegler, Mr. Kenneth S. Kinney, and Mr. Philip C. Evenson

Good afternoon. My name is Sheila M. Siegler. I am a Commissioner of the Southeastern Wisconsin Regional Planning Commission from Kenosha County. In addition, I am the Town Clerk of the Town of Wheatland. The title of this session, Session C, is "Focus on Financing: Paying for the Plan."

Historically, one of the basic impediments to the implementation of transportation system plans involved inadequate funding, particularly for county and local arterial streets and highways and for transit. New Federal regulations now require that before long-range transportation plans are adopted they must be demonstrated to be financially feasible; that is, implementation of the plan must cost only as much as the public can and is willing to pay. Accordingly, the vision for the future transportation system in the Southeastern Wisconsin Region must be constrained by projected revenue availability given society's many competing demands for funds.

This session will discuss the revenues anticipated to be made available through typical Federal, State, and local transportation funding sources. It will also explore public willingness to provide new sources of funding for the construction, maintenance, and operation of highway and transit improvements not covered by these sources.

Participants in this session include presenter Mr. Patrick Marchese, a professional engineer with Foth & Van Dyke, Milwaukee, as well as a SEWRPC Commissioner from Milwaukee County; panelists Mr. Roger L. Schrantz, Administrator of the Division of Planning and Budget, Wisconsin Department of Transportation; Ms. Kathryn C. Bloomberg, Mayor of the City of Brookfield; and Mr. Kenneth S. Kinney, Strategic Planning Director for the City of Milwaukee; and staff resource person Mr. Philip C. Evenson, Assistant Director of SEWRPC.

SESSION C

FOCUS ON FINANCING: PAYING FOR THE PLAN

Presenter: Patrick Marchese, P. E., Foth & Van Dyke, Milwaukee;
SEWRPC Commissioner

Thank you very much, Commissioner Siegler. I would like to start by asking a question. How many of you can identify a single, major regional plan that, as of today, has been fully implemented? Is there anybody that can come up with at least one or two plans that were fully implemented? Mr. Bauer, I know that you are going to be able to come up with at least one. And I guess that is the point of today's discussion. As a Region, we have experienced difficulty in implementing certain major regional plan recommendations.

Let's start out, for example, with the existing regional transportation system plan. It has not been fully implemented. The freeway system as originally planned has not been built as we speak today, and there are many, many traffic problems that are the result of not implementing that recommended system. Let's also look at the jurisdictional highway system plans that were done in the counties as a result of the regional transportation system plans. Those jurisdictional highway system plans were not implemented because of tremendous problems as far as financing—and upgrading highways so that you could transfer responsibility for them from one jurisdiction to another—was concerned. Let's also look at the Lake Arterial proposal; that, too, has not been implemented. The water pollution abatement plan was a major regional plan that has been implemented, but it had a court order backing its implementation. Even with that, the program experienced a funding crisis. As Secretary Klauser has indicated, the program continues to have some difficulty in obtaining local acceptance with regard to funding mechanisms.

However, the preliminary regional transportation system plan, unlike all the other plans done in the Region, will be different, for one simple reason. If this plan is not financed, the plan will be rejected by the Federal government through the usual Federal method—a cutoff of Federal funding. So of all of the plans that we have seen throughout this Region, this is one that is going to be different.

I would therefore like to summarize the cost of the plan; discuss some of the constraints to funding implementation of the plan; discuss the track record in this area for developing needed funding sources; and discuss what we have to do to actually implement this plan with respect to funding.

I would like to start by showing you this table [see Attachment C-1]. This table sets forth a comparison of the estimated average annual costs and revenues connected with two of the plans that were evaluated during the third-generation regional transportation system planning process: the "no-build" alternative which was described by Mr. Yunker this morning, and the recommended plan. The top portion of the table sets forth the average annual cost of the plan. The "no-build" alternative cost is estimated to have an average annual cost of $360 million. The recommended plan is estimated to have an average annual cost of $473 million. The middle portion of the table sets forth the estimated revenues attendant to these two alternatives, setting forth envisioned highway capital, highway operating, transit capital, and transit operating revenues by Federal, State, and local levels of government. The overall totals are the most significant numbers. For the "no-build" alternative, the envisioned average annual cost is $360 million, and the envisioned average annual revenue available is $352 million. There is an average annual shortfall of $8 million. That's for "no-build." "No-build" means only such improvements as are on the drawing board today.

For the recommended plan, the estimated average annual cost is $473 million, and the estimated average annual revenue from the current Federal, State, and local sources is $381 million. The envisioned average annual shortfall is $92 million. As the bottom portion of the table shows, the Technical Advisory Committee overseeing preparation of the plan has chosen to use the motor-fuel tax to illustrate how much additional revenue would be needed in each case to meet the expected shortfall. As you can see, under "no-build," a motor-fuel tax increase of about one cent per gallon would be needed, while an increase of 11 cents per gallon would be required for the recommended plan. What must we do at a regional level to come up with enough cash to cover a $92 million average annual shortfall?

Let us look at where we are in relationship to the major agencies that are going to fund plan implementation. Let us start with the Federal government. I do not think I have to tell you about the deficit crisis in Washington, D. C. Clearly, it is going to have an effect on the plan funding. As a case in point, I want to share a little anecdote with you. About six weeks ago, I had the pleasure of going to Washington, D. C., with other members of a professional association. We were given a briefing by Congressman David Obey. Mr. Obey, who is, of course, from Wisconsin, is the Acting Chair of the U. S. House of Representatives Appropriations Committee—in a way, that is like being the Dean of the College of Cardinals. Mr. Obey is the gentleman who, working with the other members of the Appropriations Committee, helps distribute Federal money to the States. Mr. Obey was very much to the point. He said to us, "I know what you're going to ask me for. You want full funding of ISTEA, you want the National Highway System approved, and you want all your little pork-barrel projects." He then said, "I have some news for you. You are not going to get any of your requests." And he was that curt. He told us that the Federal government cannot be continuously tripping over itself, attempting to reduce the overall deficit while still funding personal pork-barrel projects. He added, "There is only so much money to be given out under Federal laws which seek deficit reduction"; and he said that he is going to follow those laws. This basically means that we are going to have to present a united front to be sure that we can obtain every available Federal dollar possible for this Region—and the amount of Federal dollars available will be limited.

Now let us look at the State level of government. In this election year, we have already heard one candidate for State office, Governor Tommy Thompson, state that he is not going to increase taxes. He is sending a clear signal that there will not be any new taxes for highways, let alone anything else.

You know that there is a tax-rate levy limit imposed on counties right now. This limit is going to produce tremendous difficulties for county officials in Wisconsin. I do not have to go into great detail about other pressures facing counties and municipalities. You know that there is continuous pressure on the counties to implement unfunded Federal and State mandates with regard to such things as courts, corrections, and human services. I have some "battle scars" from the struggle in Milwaukee County over building a $100 million jail and installing a related computer system. Struggles like these will continue to occur. It will continue to be difficult to get any more money from the municipalities.

So let us look next at our track record in the Region insofar as finding means to fund shortfalls in transportation is concerned. Again, I would like to share a couple of anecdotes with you. The City of Kenosha passed a wheel tax that was so unpopular that it barely lasted a year, and was repealed. The County Executive of Milwaukee County proposed a wheel tax in his budget two years ago. Not only did this proposal get very cold reception in the community; it was eliminated in the first review of the budget by the County Board.

State law permits counties to levy a one-half percent sales tax for general purposes. How has the Region responded to that? Four of the seven counties have levied such a tax. Milwaukee, Ozaukee, Kenosha, and Walworth Counties are the four counties in the Region that have used the extra one-half of 1 percent sales tax. How about the funding of MECCA, a major regional convention center? New funding was indeed approved for MECCA, but only within—and from—Milwaukee County. The source of this new funding is a food and beverage tax, and, I believe, a small increase in the hotel tax and a tax on rental cars of one-quarter of 1 percent. Again, however, these taxes apply only in one of the Region's seven counties.

There are many of you who remember what I believe was probably one of the most strategically executed planning efforts to develop a regional source of funding for transportation. Two of the members of the reaction panel were intimately involved with that effort—an effort to establish a Regional Transportation Authority. The RTA effort was initiated at first by the Southeastern Wisconsin Regional Planning Commission at the request of Milwaukee County. A study was completed that recommended that a Regional Transportation Authority be created in Southeastern Wisconsin to, among other things, provide a dedicated, non-property-tax-based source of funding for transportation plan implementation. The State of Wisconsin took notice of the study, and the Governor and the Legislature, in effect, put the RTA in place, conditionally—in effect asking, however, the counties of the Region to determine how the RTA should be governed and funded. After months of study, a very diverse group representing all of the counties in the Region, which comprised the governing body of the RTA, did come up with recommendations. The recommendations, in short, stated that the shortfall for highway and transit plan implementation should be paid for by an increase in the sales tax

of four-tenths of 1 percent and a five-cents-per-gallon increase in the gasoline tax. Diesel fuel would have been excluded from the gas tax increase, which was proposed to be regionwide. It was also recommended that each county that contributed funds to the RTA through those taxing mechanisms would have 80 percent of its contributed funds returned to it each year, and that over a six-year period, each contributing county would retrieve 98 percent of the funds that it had contributed to the Regional Transportation Authority. The proposed funding mechanism covered transit and highways, involved two forms of taxation, and, again, guaranteed to each county that over a six-year period, it would get 98 percent of its money back. Well, let me tell you how this recommendation fared. The continued existence of the RTA was approved in only one county—Milwaukee County. I believe that not even one member of the Ozaukee County Board voted in favor of keeping the RTA in place. In Racine County, if I remember correctly, the RTA proposal got three votes on the County Board. While it carried in Milwaukee County, the County Board there attached some conditions to its approval. The conditions required that the proposed taxes must be imposed statewide, not just in the seven-county Region, and that the funding mechanism had to guarantee property-tax relief. As a result, the RTA will go out of existence this July.

We are therefore not doing very well in terms of arriving at a consensus among political leaders within the Region regarding new ways to make funding available for needed transit and highway projects. Yet we must deal with some absolute realities if we are to come up with a funding source for the shortfall envisioned under the preliminary plan. First, whatever funding source we come up with must be stable and continuing, and it must be non-property-tax-based. This is the world of reality; you are not going to add $92 million annually to the property-tax load in this Region. That simply will not happen. The needed funds must come from elsewhere. Most people believe the funding source must be user-related, which means it would be directly related to the operation of vehicles. The funding must also be stable and continuing, since all transportation improvement programs must be just that. They are programs. Whether a program involves implementation of a new transit route, a purchase of new buses equipped with wheelchair lifts, resurfacing of a county trunk highway, or construction of a new interchange, it takes three to 10 years to go through the planning stage, the design stage, and the actual construction, and that is assuming everything goes right. So you cannot have a funding source that just works in one-year dribbles; it has to be stable and continuous. To successfully finance large-scale public works projects involving major components of our infrastructure, a funding source must produce sufficient funding to cover the local share of the cost of highways and transit and demand management. It cannot be a funding source that pays only for highways. It cannot be a funding source that pays only for transit. The reason that I say this is because the Region is very diverse. If you heard the presentation this morning, you know that each of the seven counties of the Region has differing transportation needs. So whatever funding source is proposed must be able to meet the needs of all of the counties within the Region.

Last of all, we need leadership. I am not going to point the finger at any one level or agency of government. We need leadership at the Federal level; we need leadership at the State level; and we need leadership at the local level. How do I define leadership? First, you cannot continue to have parochial battles between the counties in the Region. You can no longer afford to have parochial battles between people who want transit and people who want highways. You cannot continue to have the constant city-suburb battles. All of these are counterproductive and will only prevent the kind of coalition that will be needed from forging an agreement on a funding source. The Region faces problems that have to be dealt with by individuals—including, yes, some of the individuals in this room. You have to put aside your own personal, organizational, and political baggage. I know that that can be difficult, but you need to put those aside for the benefit of the whole Region.

In conclusion, we have not done very well when it comes to implementing large-scale infrastructure development programs in this Region. But the program proposed in the preliminary regional transportation system plan is different. If we do not come up with a reliable funding source for this program within three to five years, the plan that is being presented here today will have to be redone. This will be because the Federal government will simply come forward and say that the plan that was approved is not financially implementable, and, therefore, by definition, is no good, and must be redone. You must have a joining of key leadership at all levels to work together to come up with and agree on a workable funding mechanism. If we do not do that, this plan will not be implemented—and this Region will lose hundreds of millions of dollars in Federal funding. With that, I would like to thank you very much and turn the discussion over to the panel.

Attachment C-1

AVERAGE ANNUAL COSTS AND REVENUES ASSOCIATED WITH THE PRELIMINARY REGIONAL TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN: 1995 THROUGH 2010[a]

Cost or Revenue Item	"No-Build" Alternative	Recommended Plan
Transportation System Cost (average annual 1995-2010 expressed as millions of dollars)		
Arterial Street and Highway System		
Capital	190	228
Operating	67	68
Subtotal	257	296
Transit System		
Capital	19	76
Operating	84	101
Subtotal	103	177
Total	360	473
Transportation System Revenues (average annual 1995-2010 expressed as millions of dollars)		
Highway Capital		
Federal	126	132
State	66	66
Local	11	11
Subtotal	203	209
Highway Operating		
State	36	36
Local	28	28
Subtotal	64	64
Transit Capital		
Federal	10	23
Local	3	3
Subtotal	13	26
Transit Operating		
Federal	6	6
State	54	64
Local	12	12
Subtotal	72	82
Total	352	381
Cost-Revenue Comparisons		
Average Annual Difference between Costs and Revenues (millions of dollars)	-8	-92
Motor-Fuel Tax Required to Fund Shortfall (cents per gallon)	1	11

[a] *All figures are expressed in constant 1994 dollars.*

Source: SEWRPC.

SESSION C

FOCUS ON FINANCING: PAYING FOR THE PLAN

Panelist: Roger L. Schrantz, Administrator, Division of Planning and Budget, Wisconsin Department of Transportation

Thank you for the opportunity to be here today. I am the type of person who sees the glass half-full instead of half-empty, so I will probably provide a counterpoint to the bleak outlook Mr. Marchese has set forth. I do agree with much of what he has said, but I want to add something further to it. I hope what I say may offer a bit of optimism. I want to emphasize, however, that in this Conference session, I am speaking for myself. I am not necessarily expressing Wisconsin Department of Transportation, or WisDOT, policy. I am not so foolhardy as to bring to you views that are contrary to Department policy, but, nonetheless, I do not want to have people thinking that what I have to suggest here is necessarily official WisDOT policy.

I join many experts in believing that the Nation as a whole, this State, and the Southeastern Wisconsin Region are all underinvesting in our transportation infrastructure. As Secretary Klauser has indicated, we do so at our economic peril, especially in long-range terms. In this highly competitive world economy, nations in the Pacific Rim and the European Community—nations against which we must compete economically—are making transportation infrastructure investments at a pace far in excess of our own. Does this suggest to you that we can afford, in the long run, not to try to develop a more substantial and adequate level of transportation infrastructure? I think not. I think that the preliminary regional transportation system plan that is being presented and discussed here today would, in fact, help to address this problem of underinvestment. It would help us shift away from this era of underinvestment to one of at least more adequate levels of investment in all forms of transportation: highways, transit, commuter rail, and other modes.

I think that that goal is what our statewide intermodal transportation planning effort, TRANSLINKS 21, is also attempting to achieve by presenting alternatives to the public for consideration. We need to look at the possible alternatives in terms of this question: "Do we want to provide additional funding to be able to have additional transportation benefits?"

One area among many where we have a critical need for both increased investment—and for vision and courage—with respect to both the regional plan and the statewide plan is the decaying, deteriorating, now 35-year-old Milwaukee freeway system. This system is, indeed, the backbone of the regional transportation system and is the economic lifeblood of the Region. Yet we have no ready resources available today to pay the hundreds of millions of dollars that will be required to simply rehabilitate that system. Worse yet, it will take hundreds of millions of dollars more to bring that system up to modern standards. Both the preliminary proposed SEWRPC plan and what we will be identifying as the TRANSLINKS 21 plan seek to address this problem. Solving this problem will cost money and will require substantial efforts on our part. This may not be a pleasant prospect, but what is the penalty if we do not undertake these efforts? What happens if we do not do what needs to be done in this respect?

Mr. Marchese has spoken primarily about the need for increased county and local revenues to enable implementation of what will, we hope, become the adopted regional plan. I would suggest to you that a portion—maybe a fairly sizable portion—of that $92 million in additional revenue that is anticipated to be needed will be used for improvements of the portions of the transportation system in this Region that are fundamentally—and financially—the responsibility of the State. A number of the arterial highway improvements that are identified in the preliminary regional plan, in fact, involve arterials that are part of the State trunk highway system. It is an obligation of the State of Wisconsin to deal with that system. I therefore think that a portion of the effort to generate the additional $92 million in revenue that will be needed to implement the proposed plan must be undertaken not only at the county and local level, but also at a State level. We need to develop additional resources at the State level to meet statewide transportation needs, and, in particular, to be able to provide additional funding for the transportation infrastructure of this Region. It may be fairly simple to suggest, "Well, why don't we simply transfer some resources from elsewhere, resources we are now spending in other regions of the State, to the Southeastern Wisconsin Region?"

Things do not work that simply. Over the course of time, this Region has been very insistent that it receive an adequate share—a fair share—of the total State and Federal resources that are available for transportation in Wisconsin. There is no way to precisely quantify how much constitutes a fair share that this Region ought to receive, but I think that a number of studies done by the State, including the Metro 2020 effort, as well as studies done by SEWRPC, indicated that about 30 percent of the total State and Federal resources available for transportation in this State come from this seven-county Region. I think it is also fair to say that during the 1980s, the amount of transportation investment made in this Region from those State and Federal resources, as a percentage of those total resources statewide, I believe, ranged from about 27 to 29 percent. I think, however, that that has shifted. In our current budget, I believe, this Region now receives a share of around 32 percent. Given the kinds of demands for financial resources that will be necessary for this Region to implement the proposed regional transportation system plan and to enable an adequate level of State investment to be made in the overall transportation improvement program which that plan proposes, we will need to increase the Region's share of total resources over the course of time.

I would suggest that we all need to investigate different funding sources. The State needs to do so. It is important for you, if you support the proposed regional plan and want to see it implemented, to also support several of the alternatives in TRANSLINKS 21. In addition, to underscore what Mr. Marchese has said, it is also important to recognize the great necessity of developing dedicated non-property-tax county and local revenue sources for transportation.

Thank you. I will now relinquish the podium to City of Brookfield Mayor Kathryn Bloomberg.

SESSION C

FOCUS ON FINANCING: PAYING FOR THE PLAN

Panelist: Kathryn C. Bloomberg, Mayor, City of Brookfield

It is a pleasure to be here. One of the capacities in which I have served for the last two or three years has involved working toward the creation of and then with the Regional Transportation Authority (RTA) in an effort to try and come up with a way that we, as a Region, can appropriately address both the physical and the financial transportation needs that we have. I consider Mr. Marchese's comments all "right on." I cannot really take issue with any of them. What I would like to do is to share with you some perspectives regarding the journey of transportation planning for this Region that perhaps only someone who has actually been on that journey could possess.

The first perspective is that if we are going to come up with any way to finance the transportation projects that this Region hopes to undertake in the future, we need a mechanism for building a consensus under which we—and the Region—can appropriately accept some plan. That plan may not bring us Utopia, but it would be the plan that we agree we are going to move forward on. In the last work I did with the Regional Transportation Authority, I thought that we were generally in agreement on a transportation plan for the Region.

I then became part of the East-West Corridor transportation planning initiative, an initiative undertaken by the Wisconsin Department of Transportation. I asked my staff members—who generally perceive that they are overworked and underpaid—to make this initiative a high priority professionally. I determined that this initiative was not going to be a political issue in Brookfield. I determined, instead, that we were going to do the best we could to have at least the first level of work done by the planners and the engineers who would give us, as best they could, data on which we could base good political decisions. I watched my Director of Public Works and my Planner plow through piles of documents literally several feet high. I watched them spend countless hours attending meetings. They did all this, only to find that when we politicians got in a room, we failed to make prompt or effective use of the data gathered from all that work.

I have been fundamentally disappointed in the behavior of this Region over the recent past. We must change our collective ways. We must focus on one question: "What's our objective?" Our objective is to provide an integrated transportation system for Southeastern Wisconsin. We must keep our eyes on that target, and we cannot let ourselves be diverted from it with political rhetoric, whether that rhetoric comes from some of our better-known radio talk show hosts or others whose agenda includes derailing the plan. We must keep focused on the fact that our job is to put together a plan for the desired integrated transportation system. We will not be able to agree on how to fund the plan until we first agree on a plan. We must then agree to stick to that plan. Those who use their public time to derail the plan must be told, firmly, that such activity is not appropriate.

There are some parts of the preliminary regional transportation system plan with which I disagree. There are parts of that plan which, if I were writing that plan by and for myself alone, would be written differently. But we are preparing this plan through consensus, and I am but one of its shapers. I therefore recognize that there are components of that plan that may not be important to me personally, but which are important to others. Once we are finished preparing this consensus plan—a plan in which we recognize the various needs and interests of all the municipalities and counties of the Region—we must then do the hard work of going out there "in the trenches" and doing whatever it takes to "sell" and implement this plan. If we do not consider that part of our job, we need to go back and write a more moderate plan. We cannot "straddle the line" between plan preparation and funding. We cannot promote a plan that recommends numerous highway and transit improvements, and then, when the time comes to decide how we will get the money for plan implementation, refuse to support any funding initiatives.

Mr. Marchese has already identified the initially recommended option for funding transportation system development under an RTA, a combination of a sales tax and a gasoline tax. For most people involved with the RTA effort, this was a compromise. This option was not one that drew everyone's instant support. It

emerged from "digging in the trenches" for a workable compromise. Nevertheless, when we brought this proposal before the county boards, it drew virtually no support. Most of the county board members within the Region sincerely believed that the traditional way of paying for transportation projects—the property tax—was preferable to any new Regional Transportation Authority tax. Their message was loud and clear: "Go away. We would rather do it the same old way. We really do not want another level of government with the attendant bureaucracy."

As we look at the critical issues involved in taking the preliminary new regional transportation plan from its conceptual stage to its adoption and implementation stages, we must therefore be aware that there is grave concern out there in the "hinterlands"—and even within Milwaukee County and the City of Milwaukee—about any new level of bureaucracy that duplicates the structures now in place. Yet as you review the parts of this proposed plan that identify the transportation projects that are important to this Region, you will find that those projects not only transcend municipal boundaries; they also transcend county boundaries. Therefore, even if one considers the property tax the preferable way of paying for transportation projects, one must acknowledge that trying to get two or three counties and four or five communities along, for instance, a given highway or transit-line segment proposed for improvement, to collectively—and simultaneously—agree to commit limited property-tax revenues to any such improvement is difficult if not impossible.

I therefore believe that as we look at the possible ways of financing plan implementation, we need to do one of two things. We either have to discard the RTA concept in any of its forms and come up with something new; or we have to accept the possibility that the plan will be implemented in a very fragmented, noncomprehensive manner. To some people, the latter option may be preferable to any unified regional implementation and funding structure. But, in reality, we cannot fund implementation of this plan successfully without some change to the current funding structures. There is a great deal of denial of this fact in the Region's counties. Many county board members still believed that they can "have it both ways"—that they can enjoy the benefits of a comprehensive regional transportation system plan without changing the paradigm under which we have historically developed and funded the transportation system in this Region.

Thank you for letting me share my comments with you. I will now let Kenneth Kinney, who sat with me during many of those RTA meetings, share his.

SESSION C

FOCUS ON FINANCING: PAYING FOR THE PLAN

Panelist: Kenneth S. Kinney, Strategic Planning Director
City of Milwaukee

As we explore the issue of paying for the proposed regional transportation system plan, I perceive a need to move beyond what I see as the overly narrow question of funding to the real question—what is the appropriate pricing structure for transportation in general?

If we could appropriately price all transportation in Southeastern Wisconsin, the narrower issue of funding implementation of the plan as a whole or of specific plan recommendations would prove much easier to address. Answering the overall pricing question is, in fact, vital to successful implementation of the plan. Given the nature of the metropolitan Milwaukee area, and of similar areas nationwide, the evidence is overwhelming that a comprehensive, three-part transportation strategy is required. Such a strategy is the only way to change some of the travel habits and patterns of the Region. The first part of this comprehensive strategy, of course, involves improvements in public transit—and there has been much consideration given to such improvements in the Milwaukee area over the last few years. The second part of this strategy involves better and more efficient land use, including, potentially, the use of effective land use controls. The third part of this strategy involves better pricing of transportation.

The transportation planning model set forth in the proposed plan indicates that such a multi-part strategy will indeed be necessary for the attainment of meaningful changes in the Region. As a recent report on models of transit usage and transit planning in parts of California suggests, pricing and land use measures may be more important factors in influencing travel behavior than any narrow improvements in public transit. A Cambridge Systematics study regarding the impact of various transportation pricing strategies in Wisconsin also indicates that a multi-part strategy will be required to bring about meaningful changes. All the other evidence that I have seen suggests likewise.

If we want real results in terms of changing travel behavior or of promoting more concentrated physical development in this Region, we cannot practically or realistically rely on only one of the three strategies I have described. We must use all three.

Often, when we talk about a more rational transportation pricing strategy for a region, we tend to view that concept as a pie-in-the-sky, nonsensical idea. We need to recognize, however, that in reality there already is a pricing strategy in place in this Region and in other urban areas of this country. But that pricing strategy, which we have had in this country for the past 50 to 100 years, is dysfunctional. It has helped produce some of the urban problems that we now have in urban areas like Milwaukee. The keystone of this current pricing strategy is a heavy subsidy of one form of transportation—the automobile. There are few real facts in economics, but it has been demonstrated repeatedly that automobile usage in the United States enjoys a large economic subsidy. We can debate, as Mr. Schrantz and I have, the exact size of that subsidy, but I do not think that we have ever debated the fact that it exists. Debating the size of the subsidy is probably as useful as debating whether the temperature on a summer day hit 92 degrees or 94 degrees. The relevant fact is that it was hot. Likewise, regardless of the true size of the subsidy of automobile use, the central fact about that subsidy is that it is significant—and it causes a significant change in people's behavior.

To return to the narrower issue of funding—in the context of pricing—there are a number of possible ways to implement a pricing strategy. The Cambridge Systematics study examined, for instance, such things as State user fees and taxes, which include registration fees, driver's license fees, and vehicle sales taxes; motor-fuel taxes; and parking fees and taxes. We are all familiar with these straightforward measures, even though some of them might be difficult to implement at the regional level. There are also some comparatively more esoteric possibilities, such as vehicle-miles-traveled (VMT) fees and emissions fees. Freeway and other highway facility tolls are not as esoteric, but they are not popular, either.

As a driver, I hate tolls, but as an economist, I really like them. Tolls are sound public policy in that they place the burden of highway costs on those who are most directly responsible for those costs. A more esoteric variation of the toll concept involves requiring people who want to travel within a congested area, or during a congested time period, to pay a special toll or obtain a supplemental license.

Another option, of course, involves seeking increased transportation funding from State and Federal levels of government.

In short, we do not lack options for funding. As Mayor Bloomberg suggested—and as Mr. Marchese pointed out—the question is more one of willingness than of ability. This is true whether we look narrowly at funding measures or, as I prefer, more broadly at pricing measures. This gets us back to the lack of regional cohesion in Southeastern Wisconsin with regard to virtually any issue area, but especially in the area of transportation. Unfortunately, I see little hope for such cohesion and cooperation in this Region in the near future. Those county boundaries are just overwhelming barriers.

However, I believe, as Secretary Klauser said, that most people in this Region—perhaps not everyone at this Conference, but certainly most of the other nearly 2 million people—are not as concerned about county boundaries, especially those of Milwaukee County, as a lot of people who make decisions in this Region seem to be. The truly important boundaries in this Region are economic and market boundaries. Concern over these boundaries should be a key consideration in resolving both the funding question and the overall transportation question in the Region. We will make true progress on these issues when we in the public sector look at both our boundaries and our problems in the same way that the people we work for look at those boundaries and problems.

Thank you.

SESSION C QUESTION-AND-ANSWER SESSION

MRS. SIEGLER:

We will now take questions and comments.

QUESTIONER (MILWAUKEE COUNTY BOARD SUPERVISOR DANIEL CUPERTINO, JR.):

I am Milwaukee County Supervisor Dan Cupertino. I voted against the proposed increase in the fuel tax envisioned under the Regional Transportation Authority proposal, as my constituents told me to, because it was just another added tax. Would anyone on the panel consider recommending a 15- or 16-cents-per-gallon increase in the gasoline tax to offset the property tax for transportation purposes—and also offset the $92 million estimated shortfall for carrying out the plan? People would understand that. But if you say, "We're going to add another tax while we continue to keep existing property-tax dollars for transportation," people throughout Milwaukee County will not support that. I cannot understand why you are not recommending raising the gasoline tax to a level sufficient to enable property-tax reduction. Could someone on the panel explain why?

MS. BLOOMBERG:

Many different potential options have been considered for funding transportation improvements in this Region. Those who advocate using both the sales tax and the gasoline tax as funding sources argued that the gasoline-tax increase would be for highway improvements and the sales-tax increase would be for transit-related improvements. This issue is far from resolved. There still needs to be extensive public debate. The proposed use of increases in both the sales tax and the gasoline tax was considered a workable compromise. However, there were many people involved in the Regional Transportation Authority effort who believed, as you do, that transportation improvements in the Region should be funded entirely through a user-based gasoline tax.

MR. CUPERTINO:

I believe we can "sell" a user-based gasoline tax to the public. As an elected official, I cannot "sell" another tax on top of the property tax, however. Milwaukee County must spend scarce property-tax monies every year for its road program because the County does not get an adequate level of State funding for those roads. Milwaukee County is the only county in the State that paid 10 percent of the cost of building the Interstate highway system. I hope at least some State officials realize that. Today, light rail is being proposed, but no one yet knows who will own and operate a light-rail system. Neither Milwaukee County nor the Wisconsin Department of Transportation, nor, for that matter, Secretary Klauser, has expressed any willingness to own and operate one. We need to know who will run the light-rail system being proposed for Milwaukee County before we start spending millions of dollars on it. The public would not stand for that. I am concerned that many politicians are trying to decide this issue without regard for what the people who will pay the bills want. Although I have some reservations about the Regional Transportation Authority concept, I would like to see us pursue it.

MS. BLOOMBERG:

When the proposal to implement a Regional Transportation Authority was submitted to the counties of the Region, there was such overriding concern with regard to how any light-rail system would be funded that ultimately, we specifically excluded light rail from any funding that would be directly involved with a Regional Transportation Authority. There was simply so much conflict over that funding issue that we could not resolve it any other way. The potential light-rail system envisioned under the proposed regional transportation system plan has specifically been removed from the overall funding proposal in the plan, not because light rail may not ultimately be funded, but because it is envisioned that it will have to be funded differently and separately. There simply would not be enough money available to fund light rail under the main funding mechanisms envisioned in the plan.

MR. CUPERTINO:

I still think we should consider a 15- or 16-cents-per-gallon increase in the gasoline tax. We should inform the public of the funding constraints involved through every medium available, including public hearings. I know that Governor Thompson may not agree to such an increase, probably on the grounds that it would be an additional tax whose adoption in itself would not result in any property-tax relief. But I think the public would ultimately accept this means of removing transportation program costs from the property tax. This would allow property-tax monies now used for transportation to be used for, say, the park system in Milwaukee County. Other counties could use those monies for other purposes.

Right now, counties in Wisconsin are under a State-mandated cap on spending. We cannot spend—or raise—any more money than we are now getting and spending. As a result, our parks and our transit system are deteriorating. Newspaper articles say that I want to use all that money now being used for transportation for the Milwaukee County park system instead. The gasoline tax is simply a more visible, coherent, and user-linked means of funding transportation than the property tax is.

COMMENT:

The State-mandated cap on county-level tax and spending levels is relatively new, but concern with restraining taxes and spending is not. Many State legislators, in effect, feel thus: "Sure, we could relieve 50 or 55 percent of the county property-tax burden if we took transportation spending off the property tax, but all the county boards would then turn around and use those intended savings for jails, parks, social services, or something else." There is therefore little belief among State legislators that taking transportation spending off the property tax would actually result in property-tax relief.

MS. BLOOMBERG:

When we broached the possibility of a regionwide gasoline tax to fund transportation improvement projects in the Region, we encountered grave concern that if any such gasoline-tax increase resulted in too substantial a difference between the price of gasoline in the outlying areas of the Region and gasoline prices immediately outside the Region, that increased tax could hurt rather than help the Region. People would just drive a few miles more to buy gasoline outside the Region. In light of this possibility, we realized that we could not rely too heavily on using the gasoline tax to raise revenue for regional transportation purposes. If we did so, we might change the buying habits of the people on whom we were depending to buy gasoline at a level sufficient to raise adequate revenues for transportation. We therefore had to examine other alternatives.

QUESTIONER (MILWAUKEE COUNTY BOARD SUPERVISOR LeANN M. LAUNSTEIN):

I am Milwaukee County Supervisor LeAnn Launstein. While I voted against the sales tax proposed by the Milwaukee County Executive, I voted in favor of the Regional Transportation Authority. Many transportation issues affect not only the counties of the Region, but the Region as a whole. We therefore need to find some regional sources of financing. However, as Mayor Bloomberg has noted, several important questions exist with regard to this issue. For instance, should the proposed regional gasoline tax include diesel fuel? The diesel-fuel industry in the Region is very limited and faces intense competition, not just within Wisconsin but from other States. A regional tax on diesel fuel would raise major competitive concerns for the Region's diesel-fuel industry. This concerns me a great deal. Also, billions of dollars are spent each year in this country on capital improvement projects for transportation. Much of this money is paid by local governments which raise the money through their own funding sources, a major one of which, of course, is the property tax. Many of these transportation projects serve not just regional, but statewide, concerns. Accordingly, was any consideration given under the Regional Transportation Authority effort to a statewide increase in the motor-fuel tax?

MR. SCHRANTZ:

The total cost of local roads in Wisconsin is over $1 billion per year. The State pays about 25 percent of that cost. Of course, an increase in the State gasoline tax would make an increase in that percentage possible. For

example, increasing the State gasoline tax by 10 cents per gallon would enable the State to increase the current 25 percent share in paying the cost of local roads to a 50 percent share. Any possible increase in the State gasoline tax, of course, would be a matter for public discussion, possibly as a part of the statewide TRANSLINKS 21 planning process.

MS. LAUNSTEIN:

There are many practical reasons underlying the funding of the transportation needs of areas like the Region through an increase in the State gasoline tax. Urban areas like Milwaukee County, for instance, have high levels of pass-through traffic, particularly from the trucking industry. This creates a severe strain on Milwaukee County's roads—a strain far more severe, proportionately, than that caused by private automobiles. Yet we are not attempting to recoup any of the expenses resulting from this pass-through trucking activity. A statewide tax is the only way to recoup any of these expenses.

These expenses strain already strained county budgets. In Milwaukee County, for instance, we are very concerned that budget constraints will force us to close parks and other long-accustomed recreational amenities. We are unable to fund any kind of transportation plan from the property tax, which already faces excessive demands. If we are to effectively promote any transportation plan other than a "no-build" alternative, we need an effective alternative funding source.

QUESTION:

How can we discuss funding without asking why people continue their present driving habits? For instance, how did you get here today? Did you share a ride? Did you use mass transit? Most of you probably drove to this Conference by yourselves. Are we really willing to impose measures upon others requiring them to do things we are not willing to do ourselves? As one newspaper columnist wrote, it is easy to be enthusiastic about mass transit when someone else is using it. There are many reasons why people prefer the single-occupancy vehicle as a mode of transportation, including solitude, perceived status, and personal freedom. We value highly the freedom to travel where, when, and as we please. If we are collectively unwilling to give up this solitude, status, and freedom, shouldn't we be willing to pay for those benefits and the resulting social costs through user fees?

MS. BLOOMBERG:

I could not agree with you more. User fees are critical to funding any transportation system adequately. Let me tell you about an experience I recently had when I addressed some high-school seniors. Many teenagers are "green" people—very sensitive to environmental concerns, and often wanting acres and acres of parklands and other open space areas. In my discussion with the students, I mentioned the need to balance concerns over clean air and clean water with other concerns. Of course, they were cheering the idea of clean air and clean water. I told them that their concern was wonderful. But I finished by asking, "How many of you drove to school today?" About 80 percent of them said they had. I then asked them, "Is the environment my problem—or our problem?" I do not think that anyone here would disagree with the fundamental concept that the costs arising from the usage of the transportation system should, as much as possible, be borne by the people who actually use that system.

MRS. SIEGLER:

We have had an informative session, but we now need to bring it to a close. If you have any other questions, please contact the panelists separately. Thank you.

SESSION D

FOCUS ON CLEAN AIR: THE ROLE OF TRANSPORTATION

Presiding: Daniel S. Schmidt, SEWRPC Commissioner

From left to right: Mr. Donald R. Martinson, Mr. Donald F. Theiler, Mr. Daniel S. Schmidt, Ms. Susan Mudd, and Mr. John B. Torinus. Not shown: Ms. Lynne B. Judd.

Good afternoon. I would like to welcome you to this session, Session D, "Focus on Clean Air: The Role of Transportation." My name is Daniel Schmidt. I serve as a SEWRPC Commissioner from Washington County. I also serve as the Village Administrator of the Village of Kewaskum.

The Federal Clean Air Act Amendments of 1990 require that in areas where the Federally established ambient air quality standards are not met, transportation and air quality management planning must be integrated. The seven counties of Southeastern Wisconsin do not meet the national standards for air quality with respect to ozone. On this basis, Federal law requires that the new transportation system plan for the Region be in conformance with the State air quality management plan. That plan is to be prepared by the Wisconsin Department of Natural Resources to reduce pollutant emissions and achieve national ambient air quality standards.

This session is to explore the technical and procedural links between air quality and transportation in the Region, including plan recommendations. Addressed will be the relative contribution of transportation within the Region to air quality problems; the potential for transportation control measures, including policies to increase automobile operating costs, in order to reduce motor-vehicle use and motor-vehicle emissions; the potential for technological innovations and stricter tail-pipe standards to reduce vehicle emissions; and the transportation-related consequences for the Region of not meeting the conformity requirements of the Clean Air Act Amendments.

Participants in this session include: presenter Mr. Donald F. Theiler, Director, Bureau of Air Management, Wisconsin Department of Natural Resources—the man responsible for preparing the State air quality management plan; panelists Mr. John B. Torinus, Chief Executive Officer, Serigraph, Inc., West Bend; Ms. Susan Mudd, State Director, Citizens for a Better Environment; and Ms. Lynne B. Judd, Chief, Environmental Strategies Section, Bureau of Strategic Planning, Wisconsin Department of Transportation; and staff resource person Mr. Donald R. Martinson, Chief Transportation Planner, SEWRPC.

SESSION D

FOCUS ON CLEAN AIR: THE ROLE OF TRANSPORTATION

Presenter: Donald F. Theiler, Director, Bureau of Air Management
Wisconsin Department of Natural Resources

I would like to take this opportunity to give you a brief introduction to the role of transportation with regard to air quality and the pertinent related issues for Southeastern Wisconsin. I will give you my conclusions at the start and then lead you, during the rest of my presentation, to those conclusions.

We are doing a great deal to reduce air-pollutant emissions both here in the Region and across the United States. In the next few years we will be getting transportation-related emissions down to a level where it will be virtually impossible to get any additional significant reductions from the transportation sector. It is important to have a transportation system plan for Southeastern Wisconsin which is realistic and meets the requirements of the transportation planning process as well as the requirements of the Federal Clean Air Act. The conformity requirements of the Clean Air Act affect the entire transportation planning process, recognizing, as that Act does, the importance of regional transportation plans in the overall scheme of air quality management.

As evidence of how air quality in the Region has been improving, let me note that there have not been any ozone alerts issued during the hot spell the Region recently endured. Normally, an ozone alert is issued when there is a very high level of ozone pollution—at least 200 parts per billion of ozone. The acceptable standard is no more than 120 parts per billion of ozone. We exceeded the 120-parts-per-billion ozone threshold at 17 different locations in the Region during our recent hot spell. However, compared with 10 years ago, this is a major improvement. The overall levels of air pollution in the State and the Region have declined markedly during that period. We have seen considerable overall improvement in air quality.

But the job is clearly not yet completed. We still experience severe ozone pollution in the Region. The 175-parts-per-billion ozone level that we experienced at Harrington Beach State Park in Ozaukee County earlier this year is, I believe, the highest recorded ozone level anywhere in this country so far this year outside of the Los Angeles area.

Air quality is not just a local issue, but an issue for the Southeastern Wisconsin Region, the Midwest, and the Nation. One of the reasons some of the counties designated as nonattainment areas appear on some maps to be so clean is that there are no monitors in those counties. In fact, however, the entire area, including all of the counties around Lake Michigan, is in violation of the air quality standard on hot summer days under certain conditions. This is indeed a regional problem affecting all four States bordering Lake Michigan. The major source of the emissions in this area is the vast Northwestern Indiana-Northeastern Illinois-Southeastern Wisconsin urban area. Air pollution emitted in this area goes out over the Lake. What happens then depends on the direction and intensity of the prevailing winds. If the prevailing winds are light, a lake breeze from the east can send polluted air to Wisconsin's eastern shore. On the other hand, a strong wind from the west can blow the pollution into Michigan. So air pollution in the Lake Michigan region is not just a problem for Milwaukee; it is a regional problem.

As we have also determined, the amount of pollution coming in from the rest of the country, especially from the eastern United States, is very high. These background conditions make the situation very difficult to deal with. We in the Lake Michigan region experience air pollution problems when we have a high-pressure system situated somewhere south of us, usually over the Ohio River valley. The air is moving clockwise around that high-pressure system and bringing air into the Milwaukee area from the south and the east. Much of that air is highly polluted. This influx of polluted air does not leave us much margin with regard to meeting air quality standards. Yes, we have to make reductions here—in Milwaukee, in Chicago, and in Northwestern Indiana, but there must also be some reductions made in the pollutant emissions from the rest of the country. Those emissions are transported into the Lake Michigan region. For some people, this information about the true extent of the problem is new, but it is not too difficult to understand. People in

both the Lake Michigan region and throughout the United States must be made aware of the true nature and scope of this problem.

The Federal Clean Air Act, as recently amended, requires different areas of the United States to meet the ambient air quality standard on different schedules, depending upon the severity of the problem in a given area. Areas which are classified as having moderate air quality problems are required to meet the standard by 1996. Areas which are classified as having severe air quality problems are required to meet the standard by the year 2007. The remaining areas are required to meet the standard at this time, and all available information indicates that they do.

There is a complex air quality planning process that has been established to enable those of us in the severe nonattainment areas to meet the Federal air quality standard by 2007. Part of this process indicates that we must submit a State implementation plan for meeting air quality standards. The State implementation plan is to contain all of the rules and regulations that are necessary to bring an area into attainment of the standards. Under the Federal Clean Air Act, we are expected to have a complete plan in place and submitted to the U. S. Environmental Protection Agency—the EPA—by the end of 1994. This plan must be one under which the Wisconsin-Chicago nonattainment areas could meet air quality standards by the year 2007.

We have found, however, that because of the technical difficulties involved in preparing the modeling and performing the necessary analyses, it will not be possible to submit a complete plan—as we had hoped to—this November. It is simply impossible to get all of the required technical work done, the necessary political agreement between the four States concerned accomplished, and the regulations in place by that time. What will therefore almost certainly happen during 1995 is that the EPA will make a "finding of noncomplete submittal," and will start a "sanctions clock" that will give us an additional 18 months. We will then have until about the middle of 1996 to get all of the decisions made and the regulations in place toward meeting the requirements of the Clean Air Act. Even a few more additional months will be useful to us in obtaining agreement between the four States involved. Illinois and Indiana are not normally States that we are used to getting along with when it comes to dealing with environmental problems. At this time, we have a very good working relationship with them, but that could break down at any time.

One of the important requirements of the Clean Air Act is the so-called "3 percent-or-even-further-progress" requirement. Under this requirement, a nonattainment area for which violations of the ambient air quality standard can be satisfactorily explained must reduce its amount of volatile-organic-compound, or VOC, emissions—emissions from petroleum-based products, be they fuels, coatings, or consumer products—by at least 3 percent each year, until the standard is attained. To meet the ambient air quality standard which we expect to meet in the year 2007, we must therefore attain a 48 percent reduction in VOC emissions between 1990 and 2007. We currently anticipate the attainment of a 15 percent reduction in VOC emissions between 1990 and 1996, but that is a long way from the overall 48 percent reduction from 1990 VOC emissions levels that will be required by the year 2007. That 48 percent reduction is a very ambitious goal.

The Federal Clean Air Act also includes other mandates, including requirements that new cars be "cleaner" than cars of past years. People in Wisconsin and other midwestern States will be, and are, driving automobiles equipped with pollution-control devices which, only a few years ago, were required only in California. The catalytic converter, which is today standard automotive equipment, was pioneered there. Air quality concerns have also resulted in less-evaporating fuels, more stringent vehicle inspection and maintenance requirements in Wisconsin and other States, and vapor-recovery devices on gasoline pumps—either the flexible boot on the dispenser or the less noticeable vapor-assist system. All major service stations in the Region are now required to implement a vapor-recovery system.

All of these initiatives will help reduce VOC emissions in the Region. Between 1990, when the Federal Clean Air Act Amendments were enacted, and the year 2007, specific levels of reductions in emissions are envisioned, under Federal mandates, for specific sectors of the economy and specific categories of emissions sources: aerial sources, industrial sources, gasoline distribution, and other off-highway sources including lawn mowers, tractors, construction equipment, weed cutters, and other small-engine sources—as well as recreational-boat engines, a major source of emissions, and other mobile-source emissions. In the gasoline-distribution sector, the mandates require the vapor-recovery systems that I mentioned at service stations.

These systems are expected to virtually eliminate emissions from this sector by the year 2007. In the off-highway and mobile-source sectors, Federal requirements for small engines are coming into place. The State of Wisconsin is also active in dealing with small-engine sources as well as mobile sources. Significant reductions in emissions are expected as the result of some of the Federally mandated measures that will apply in Southeastern Wisconsin.

I would like to discuss further the nonindustrial emissions sources: off-road engines, mobile sources, and the like. The nonindustrial sources include many fuel-handling activities as well as the use of many consumer products such as paints, carburetor cleaners, and other common household products containing large amounts of volatile organic compounds.

As I have noted, Federal requirements envision a total reduction in emissions of 48 percent no later than 2007. How will we get there from here?

Totaling emissions from mobile, off-road-engine, aerial, and industrial sources, we now get about 286 tons of emissions each hot summer day in the Region. To arrive at a 48 percent reduction, we have to get that number down to 146.8 tons per day. Under the mandated reductions I have discussed, plus the 15 percent reduction expected from measures basically adopted in the State, we can expect a reduction of 83.8 tons each hot summer day. But at this point, very little of that reduction comes from the industrial sector. A fairly significant proportion of the reduction consists of reductions from aerial sources. This is a result mainly of the State's new vapor-recovery requirements for service stations. The off-road-engine sector is also going to contribute a substantial amount to this overall reduction as the result of the Federal requirements for small engines. These requirements are not yet in full force. However, we will have to anticipate them in our planning efforts. It is expected that the mobile sources will be contributing almost half of the reduction that will occur as a part of the overall reduction effort.

The Wisconsin Department of Natural Resources, with the cooperation of industry, the Wisconsin Department of Transportation, and other parties, tried to identify additional reductions that could be attained with known technology that is available at this time, "building in" the assumed adoption of the preliminary State and regional transportation system plans. The identified additional reductions will get us to a total reduction level of about 105.4 tons on a hot summer day. In the transportation area specifically, the assumptions underlying these identified additional reductions included the introduction of automobiles with emission-control features that are currently required to be marketed only in California. This would result in further reduction in automobile emissions. Our assumptions also included the adoption of the proposed third-generation regional transportation system plan as well as the marketing of reformulated gasoline that currently is marketed only in the southern part of the United States. This reformulated gasoline evaporates at a rate slower than the evaporation rates now allowable for gasoline sold in this part of the country.

Combined with other measures and given existing technology, these measures will bring the envisioned total reduction level to about 105 tons per day and make it relatively affordable. To arrive at the required 48 percent reduction level, however, we must achieve a total reduction of 139.6 tons. We are still substantially short of the 48 percent reduction requirement. It is important to understand this. It is also important to understand that after we have reduced emissions to this level, we cannot reduce transportation-based emissions much more without resorting to what are truly draconian measures. The needed additional reductions, realistically, are going to have to come from other categories of emissions sources. I have very little hope that these reductions can be obtained from the off-road-engine sector. Given the levels of emissions reductions being required of the industrial sector, it is important to understand that we are looking at getting almost every single ounce of emission reductions we can from the transportation sector. We will be looking very seriously at all viable options in this respect as we go forward.

I now want to explain the process of conformity. Conformity is really a fairly simple concept. What it involves is that as part of the State emission limitation plan, we need to project the amount of emissions expected from mobile sources. The basis for making those projections should be the transportation plans which are established in this area. Clearly, we are talking about the State and regional transportation plans. These

plans should give us reliable projections of the expected vehicle-miles of travel. We translate expected vehicle-miles of travel into expected emissions levels and include those in the State air quality management planning effort.

Under the conformity process, we would determine, on an annual or other regular time-interval basis, whether or not the projected vehicle-miles of travel are actually occurring. We then will translate the actual vehicle-miles of travel into actual emissions levels to determine if that derived actual emissions level from the mobile-source sector is equal to the expected emissions level set forth in our plan. For example, if we adopt all the measures I have just described, we would anticipate a mobile-source emissions level of 23 tons per day in the year 2007. If, in the year 2007, we find that the actual mobile-source emissions level, as derived from actual vehicle-miles of travel, is indeed 23 tons per day, we will have met the conformity requirements with respect to mobile-source emissions. On the other hand, if we find that the actual mobile-source emissions level in 2007 is greater than 23 tons per day, we would then need to take additional measures to achieve the needed reductions, presumably in the mobile-source sector.

It is therefore very important that we attain the emissions reduction levels that are required by the Clean Air Act. If we fail to attain these levels in the mobile-source sector, needed transportation improvement projects will be put at risk in the area. Therefore, the regional transportation system plan is very important. Its projections of vehicle-miles of travel should provide the mobile-source emission projections that are to be incorporated into the State implementation plan for air quality. Because of the consequences of the conformity determinations and their implications for transportation improvement measures, it is very important that our plans and our projections be realistic and that they be based on assumptions which will in fact be implemented, not on some abstract notion of what constitutes a "fair share" of emissions reductions from specific sectors or from the Region as a whole. We cannot support, nor could we implement, such an unrealistic plan. In such a case, our forecasts of vehicle-miles of travel would be incorrect. If forecast levels are much lower than the actual levels that will occur, we will not be able to meet the conformity-determination standards.

This is a very serious exercise that we are involved in here. The Wisconsin Departments of Transportation and Natural Resources have been very actively involved with SEWRPC in the development of the regional transportation system plan. The final adopted plan should provide a good basis for making the projections that we at the State level will need to include in the State air quality management plan.

Thank you. I will now turn the meeting over to the reactor panel.

SESSION D

FOCUS ON CLEAN AIR: THE ROLE OF TRANSPORTATION

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

Given how projected reductions in air pollution from industrial sources are substantially short of the reduction level that will be required to meet air quality goals, I wonder if "the other shoe is about to drop" for industry. While the industrial sector has made considerable progress in reducing its pollutant emissions over the last 10 to 15 years, this shortfall means that industry might face even more pollution-control mandates than it now does.

Let me share an anecdote with you. A young engineer from my company recently returned from a 10-day assignment in Germany. He went there to examine methods that will enable Serigraph to eliminate any pollution from the various liquids we use. One possible method he examined involves using bacteria to absorb wastes—biofiltration. In the printing industry, the emissions involved are very diffuse—a few parts per billion of pollutants that can be mitigated by incineration, by the use of catalytic converters, or by having them consumed by bacteria. Because of the large number of printing plants we operate and the diffuse nature of the emissions involved—pollutants evaporating off newly printed sheets—incineration and catalytic conversion are relatively inefficient. We hope that biofiltration will prove the "silver bullet" for handling these emissions. The biofiltration devices we are considering each contain about a three-foot-thick layer of wood-chip material impregnated with human waste. When a live bacteria culture is introduced into the device, the bacteria remove the solvent emissions, just as they remove pollutants in oil spills and in sewage treatment plants.

Our engineer, despite suffering from jet lag after his trip, gave our staff a daylong presentation on biofiltration. At the end of the day, I asked him, "Well, does it work?" He said, "I don't know." I thought, "If he doesn't know, nobody knows!" A consultant to our company, however, knew the price involved—he said it would cost $1.2 million to install a biofiltration system in our new printing plant in West Bend. Consider this figure in light of the fact that the printing plant itself, a plant which employs about 300 people in high-skill, high-wage jobs, cost about $7 million.

I recently considered doubling the size of another printing plant we own. It was built in 1992 and has 38,000 square feet of floor area. Under the Clean Air Act, however, the allowable emissions level for that plant was decreased to the point that doubling the size of the plant is no longer economically feasible. In effect, I now have half of a printing plant. I cannot feasibly expand it unless biofiltration technology provides a solution.

For Serigraph, the "giant sucking sound" of which Ross Perot speaks is now going in the direction opposite that which he envisioned. Some of the work performed at our new printing plant is being done for Mexican customers. However, if biofiltration does not prove an economically feasible means of helping us meet the new air quality standards, we will probably have to move our plants—and jobs—outside of this nonattainment area. The antipollution restrictions now being imposed on business are extremely severe. The attitude of some people in some government agencies toward business is a part of the problem.

In light of how both industry and transportation are significant sources of air pollution, I believe that if the industrial sector is to be placed under severe—but appropriate—pollution-control restrictions, we must be just as rigorous with regard to pollution-control restrictions on the transportation sector. In the long run, the perceived tension between economic growth—jobs—and pollution control is a deadlock. Only prosperous societies can afford the costs of cleaning up pollution. The environmental disaster areas of the world tend to be found in unprosperous countries, such as Russia, Liberia, or Romania. We need to be prosperous to clean up our environment while preserving jobs. We must remember the balance between economic and environmental considerations. If we are not prosperous, we will not have a clean environment.

Even though I make my living in printing rather than pollution control, I must deal with the latter on a daily basis. From my perspective, some of the answers to pollution problems are obvious. Higher gasoline taxes,

for instance, are one common-sense answer. But most politicians are afraid to raise any taxes, as I found when I was involved in the study for improved highway and transit facilities in Milwaukee and proposed raising the gasoline tax as a method of financing the proposed transportation improvements. As we found when oil prices rose dramatically in the 1970s, raising the price of gasoline encourages conservation. Speaking only for myself, I believe that raising gasoline taxes, perhaps by 25 to 30 cents per gallon—and perhaps raising vehicle registration fees and sales taxes as well—would certainly help reduce air pollution. Given how the number of cars on the road and the number of vehicle-miles traveled both continue to rise each year, we cannot continue to build more roads and attempt to live with more vehicle-based pollution indefinitely. Higher gasoline taxes, and perhaps higher vehicle taxes as well, would counter this trend. The monies raised from such higher taxes could also be put to good uses such as reducing government budget deficits.

We also need more good science. A recently released study indicates that much of the air pollution in the Region comes not from the immediate area, but from places like the Ohio River valley. All of the controls being imposed on the Region were imposed in the absence of that knowledge. We are attempting to solve the emissions problems without regard to what we now know about those problems.

We also need to expand mass transit in the Region. However, I do not believe that mass transit, by itself, will do much to solve our air pollution problems. According to one set of figures I saw, the implementation of a light-rail system in the Region, for instance, would decrease our emissions level by only 1 percent.

Ultimately, I believe we need to concentrate on finding new and effective antipollution technologies. Before everyone in the printing and paint industries in Wisconsin begins to leave the State, we need to use some of those monies from the tax increases we are considering for a "Manhattan Project" to find the new technologies that will be effective in lowering the production of pollution in such industries. We are seeking these technologies ourselves, but we and other industries cannot find the answers alone. The University of Wisconsin (UW) System, with its 26 campuses and centers, its UW-Extension, and its technological resources, could be one potential source of help to industry with regard to this. Why isn't the UW System more engaged in efforts to solve this mass societal problem? My own experiences with the UW System tell me that it is not thus engaged. I tried to get some people from UW-Madison to help us with our emissions problems. They were not of any help. I finally got some people from the Milwaukee School of Engineering (MSOE) interested in this matter. MSOE is willing to do contract negotiation and help us out with this problem. But MSOE is only one small private college. The UW System and other major colleges and universities in the State should also become involved.

Finally—and I hope that these remarks do not get back to Detroit—I believe that we should seek more stringent emissions standards for automobiles. Higher automotive emissions standards are achievable within the range of what is technologically possible.

It is important to first set goals, and then to start working toward them. There are no "magic wands"—just a lot of hard work. If a large share of the air pollution in the Region—50 percent of it, according to the recent study I have cited—is coming from outside our nonattainment area, specifically, from the eastern United States, the idea of my moving the operations of my company from Southeastern Wisconsin to someplace else does not seem fair. It seems that the entire country should be declared a nonattainment area. Shouldn't the same standards applicable to my factory apply to my competitor's factory in northwestern Wisconsin—or in Utah?

I will close with that thought. Thank you.

SESSION D

FOCUS ON CLEAN AIR: THE ROLE OF TRANSPORTATION

Panelist: Susan Mudd, State Director
Citizens for a Better Environment

Good afternoon. I welcome this opportunity to talk about the connection between air quality, the situation we have in Southeastern Wisconsin as set forth by Mr. Theiler, and the preliminary regional transportation system plan being presented at this Conference. Air quality is only one aspect of the quality of life that we have here in Southeastern Wisconsin. Most of us attending this session live in Southeastern Wisconsin and have experienced the air quality problems attendant to this area.

These problems are a reality of our lives. What I envision from my perspective as State Director of Citizens for a Better Environment is a vision of actually achieving healthy air for ourselves and our children. The situation in Southeastern Wisconsin which faces industrialists such as Mr. Torinus means that in the future we cannot base antipollution regulations on across-the-board assumptions about any given industry. Some companies in industries classified as heavy polluters may indeed be successful in controlling emissions while trying to operate successfully in the Region, while other companies in other industries which are classified as comparatively "clean" may in fact be contributing more to the air quality problems which we all suffer from.

The fact that this Region is classified as a nonattainment area affects how and where and when our businesses can grow and expand as well as the health, economic futures, and overall quality of life of the employees of those businesses. It also affects the health and quality of life of all residents of the Region, including those who are not employed at any such business, especially with regard to day-to-day transportation decisions.

I think about air quality in not only a general sense, but in a very specific and personal sense. I have a two-year-old son. He will be 15 years old in the year 2007, when the air quality standard is supposed to be met in Southeastern Wisconsin. It is now known that one's lungs are not fully formed and developed at the time of birth; lungs and lung capacity continue to develop during childhood and adolescence. During the entire time that his lungs are developing, he will be living in an area with severely degraded air quality. This could have long-term adverse effects on his health. My son has two cousins who live in Mexico City, where the air quality is extremely poor. Every time my son sees these cousins, both cousins have had respiratory diseases. In comparison to them, my son has been lucky so far. But many children who live—and breathe—much closer to where my son does have not. Specifically, in western Milwaukee County, children under the age of 15 are seven times as likely to be hospitalized for asthma than children under the age of 15 throughout the rest of Wisconsin. These things have current and long-term effects on anyone's life. I am concerned about the children in our community and what they will have to face if the air quality in our area continues to be severely degraded.

I am also thinking about the year my son will turn 18—the year 2010, when the regional transportation system plan being presented at this Conference is supposed to be fully implemented. I wonder which transportation options my son will then have. I am sure that he, like any other teenager, will be pressuring his father and me for a car, even though by then we hope to have done all we can to convince him regarding the merits of rail-based mass transit. For the record, my son is a consummate "train buff" who enjoys playing with all kinds of miniature trains. But children today do not have many opportunities to ride full-size trains. Even though my son often rides the local buses with us and once went to Chicago with us via Amtrak, our ability to teach him to be a responsible user of mass transit in Milwaukee is limited. I feel sad that children—and adults—today have fewer mass transit options available than was the case only a few decades ago.

We must consider what kind of world our children and grandchildren will have. The world needs to change from the transportation systems and policies—and the resulting declines in air quality—which have

developed over the last 40 to 50 years. As Mr. Evenson stated this morning, in 1972, only two-tenths of 1 percent of the arterial street and highway expenditures in the Region went to mass transit.

The decisions we have collectively made over the years have meant degraded water quality resulting from the runoffs of tail-pipe emissions, streets, parking lots, and highways, and from the destruction of wetlands, some occupying eight or 10 acres each, due to the construction of arterial streets and highways.

We have also suffered as a result of our piling up waste in the largest type of structure ever built in the United States—landfills. We are filling them with cars and other metallic objects which could be recycled. Our air quality has been degraded in a variety of specific ways—increased levels of ozone, nitrogen oxides, the global-warming gases such as carbon dioxide, and toxins which are sensitive to tail-pipe emissions. In addition, as Secretary Klauser alluded, some of the transportation decisions we have made have resulted in wasteful and unhealthy land uses. We have needlessly converted a large amount of productive farmland and other aesthetically pleasing lands in this Region to transportation-oriented uses. We need to explore alternatives to such conversions as much as possible.

I want to mention some of the changes that Citizens for a Better Environment believes should be made to the preliminary plan. We have set forth the changes we propose on a handout [see Attachment D-1] we are distributing at this Conference. We believe that several aspects of both the proposed plan and the air quality plans being developed by the Wisconsin Department of Natural Resources (DNR) should be changed. As Mr. Theiler said, the DNR is planning reduced emissions from mobile sources. However, we wish to note that most of the planned improvements in the mobile-source sector are based upon more stringent vehicle standards, as opposed to actions in other areas. We believe that improvements in those other areas need to be made.

While SEWRPC's preliminary recommended plan, for instance, envisions an increase of nearly 30 percent in daily vehicle-miles of travel in the Region by 2010, we believe that it is feasible and desirable to hold that envisioned increase to 16 percent, especially in light of how the plan envisions that the population of the Region will increase by only 6 percent by 2010. We believe that the disparity between the projected levels of growth in vehicle-miles of travel and in population is due to land use policies and decisions which, left unchanged, will accelerate trends making it all but impossible for many people to go anywhere—to the doctor, to the store, to work, to religious services—without an automobile. Public policies and decisions, not people's needs, are behind the fact that these increases in private automobile use are out of proportion to the relatively small increase in population in the Region. We believe that measures to control the increases in private automobile use can be fairly effective.

In terms of specific control measures, we are currently examining options involving encouraging more people to ride buses. Despite the fact that the preliminary recommended regional transportation system plan proposes increased bus service, the likely reality is that bus service in our community will continue to decline in quality—and increase in price—every year. In fact, Milwaukee County is currently debating a proposed budget containing increases in bus fares and cuts in bus service. Another reality is the fact that buses do not attract middle-class riders; trains do. We clearly need a transit system which, in addition to serving the needs of low-income people, also offers middle-class riders an attractive alternative to the automobile. This means pursuing trains as part of mass transit for the Region.

Thank you.

Attachment D-1

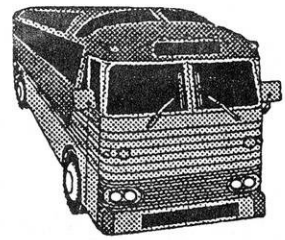
Compare the Differences:

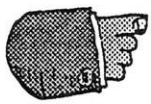
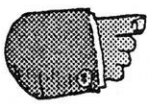
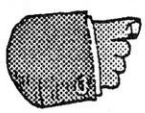
*CBE's **Alternative #1 PLUS** is based on SEWERPC's Alternative #1, a big improvement over the Preliminary Recommended Plan. NOTE: SE Wisconsin's population is expected to increase only 6% by 2010.*

Performance Characteristic		Alternative #1	Preliminary SEWRPC Plan
Daily Vehicle Miles Travelled (VMT)		16% more than now (38.4 mil. miles)	30% more than now[1] (42.8 mil. miles)
Congested Roads		131 miles	168 miles
Motor Fuel Used		412 mil. gallons	454 mil. gallons
Emissions:	*VOCs*	25.6 tons	28.6 tons
	NOx	71.3	79.1
	CO	211.5	237.8
Land Lost for Facilities:	*-Wetlands & Woods*	432 acres	475 acres
	-Prime Agric.	1,039 acres	1,644 acres
Land Lost to Sprawl		less acres	thousands of acres more.
New Lane Miles for Arterials/Highways		15.6% increase[2]	16.4% increase
Transit Passenger Miles		1,275,900 miles/day	903,400 miles/day
Transit Route Miles		4,190	3,460
% Who Can Get to Work on Transit w/n 45 minutes:			
	-Milwaukee	48%	25%[3]
	-Racine	81%	71%
	-Kenosha	91%	59%
Total Annual Cost		$546 million[4]	$520 million

[1]NOTE: Population will increase only 6% and this VMT is only 4% less than the "no-build alternative".
[2]CBE recommends less new lane miles compared to Alternative #1 to save money and reduce sprawl effects.
[3]An estimated 20% increase over Alternative #3, the basis for the preliminary recommended plan.
[4]CBE's *Alternative #1 Plus* Plan proposes a reduction in construction of new and wider roads that would result in a total cost significantly less than that shown here for Alternative #1. (Constant, 1994 dollars.)

Which Transportation Plan is cleaner, conserves land, and takes you where you're going?



 SEWRPC's Preliminary Plan	**Won't stop the "Los Angeles syndrome":** • only 4% less vehicle miles travelled (VMT) than doing nothing • even more urban sprawl from new, wider roads • reduced portion of trips made by transit to central Milwaukee • less than 1/4 Milw. transit riders will be within 45 min. of work
 SEWRPC's Alternative #1	**Big improvement:** • 14% less vehicle miles travelled (VMT) due to gas pricing change • boosts transit portion of central Milwaukee trips to 15% • puts half of Milw. transit riders within 45 minutes of work • 22% less congestion than Preliminary Plan **But not enough:** • still too many new and wider roads • buses still to infrequent on trunk lines and other lines • no commitment to commuter rail to Racine & Milwaukee • keeps plans for unpopular busway
 CBE's Alternative #1 *PLUS*	**All of the Improvements in Alt. #1 *PLUS:*** • no more than a 10-minute wait on major bus lines • commitment to light rail, not a busway • commitment to Kenosha commuter rail to Racine/Milwaukee • no new, wider arterials/highways that cause sprawl • specific proposals for transit/pedestrian-oriented development • pay-as-you-drive transportation pricing & property tax relief

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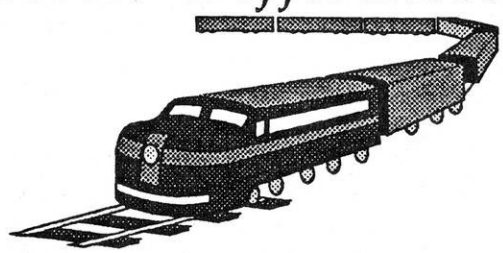


Citizens for a Better Environment, 647 W. Virginia, Milwaukee, WI 53204 (414)271-7280

SESSION D

FOCUS ON CLEAN AIR: THE ROLE OF TRANSPORTATION

Panelist: Lynne B. Judd, Chief, Environmental Strategies Section
Bureau of Strategic Planning, Wisconsin Department of Transportation

Thank you. I would like to offer my own insights regarding the issues that have been addressed so far in this session.

Mr. Theiler talked about what is happening to vehicle emission levels as a result of the Federal mandates that came from the Clean Air Act Amendments of 1990. Under the State implementation plan for air quality that was submitted in 1993, and given the air quality mandates that are in place, we must be able to demonstrate a 15 percent reduction from current emissions levels in the Region by 1996. By the year 2007, we hope to have been successful in reducing emissions to projected levels as a result of the antipollution measures that are coming "on-line." These measures include activities we are already committed to. Under these measures, ideally, volatile-organic-compound emissions from mobile sources, essentially cars and light-duty trucks, will decline by about 75 percent between 1990 and 2007. However, differing assumptions exist as to how rapidly travel in the Region will grow during that period [see Attachment D-2].

These differing assumptions form part of the overall transportation picture related to the regional transportation system plan and the decisions that must be made regarding that plan. As Mr. Theiler stated, additional measures beyond those already mandated and planned will be required if we are to attain the goal of a 48 percent reduction in overall emissions levels in the Region by the year 2007. When he mentioned that we may have to seek additional reductions from the industrial sector, I heard Mr. Torinus object. I would like to discuss the measures that are being taken and that will be taken to reduce mobile-source-sector emissions to give you a better idea as to what is being done to reduce overall emissions toward our stated goal.

The post-1990 mandates for the transportation sector, under the 1990 Federal Clean Air Act Amendments, involve such measures as enhanced emissions inspection and maintenance requirements, reformulated gasoline, the Employee Commute Options (ECO) program, "clean-fuel" vehicle fleets, and, for the 1994-1995 automotive model year, enhanced emission standards for new vehicles. All of these mandates, of course, are expected to contribute to the overall emissions reductions. In addition, very substantial reductions are expected to occur as a result of some things that were "on-line" prior to the 1990 mandates, such as tail-pipe emissions controls and controls on gasoline and its cleanliness.

Essentially, there are two basic types of options for reducing vehicle emissions: technological options, such as cleaning up tail-pipe emissions or evaporative emissions or requiring the use of cleaner fuels, and travel-demand-reduction options. In the vehicle technology category, most of the major measures possible are already in place and "on-line," including tail-pipe emissions controls and reformulated gasoline. In short, the "big fish" in this "pond" have already been caught. We have obtained tremendous reductions as a result. Some additional technological changes, however, are possible. Mr. Theiler mentioned California vehicle standards. There is a tail-pipe standard known as "Tier 2" which is less stringent than the California standard but which can nevertheless help reduce emissions significantly. We can also achieve an additional reduction through another "bump" in the cleanliness of gasoline.

However, these measures are really smaller "fish" than the "big ones" I have described. Whatever reductions we can achieve with these new measures will be relatively small compared to those we have already achieved through measures already in place.

With respect to measures to limit, delay, or dampen growth in travel demand, I would like to discuss the two different levels of projected travel growth in the Region that I have noted. One projection envisions that vehicle-miles of travel in the Region will grow at an annual rate of 1.25 percent; the other envisions an annual rate of 2 percent. These projections give us points of reference with respect to the preliminary regional transportation system plan, which envisions an annual growth rate for vehicle-miles of travel of about 1.4 or 1.5 percent, a rate between the projected rates of 1.25 percent and 2 percent. Between these two growth

projections, the difference in projected volatile-organic-compound emissions is 4.4 tons. As points of comparison, enhanced vehicle inspection and maintenance measures have yielded an emissions reduction of about 19 tons. Reformulated gasoline has yielded a reduction of about 16 tons. As I stated, these and other "big fish" are "out of the pond"—these major measures are already in place. The remaining transportation-sector measures that have not yet been implemented, with the exception of that one more "bump" toward cleaner gasoline, yield smaller reductions. So is 4.4 tons significant? It depends on how you look at it.

We at the Wisconsin Department of Transportation believe that it is very important to consider and predict accurately and realistically what kind of travel growth rate you are going to see in the future. We cannot afford to downplay the importance of this, because with the conformity regulations as they now are, our projections of travel growth will have a binding regulatory or contractual effect. In the past, if you did not adequately consider future levels of travel growth, you could easily adjust plans and programs to the actual growth levels as they occurred. You can no longer do that, given the interrelationships between the transportation system plan, the air quality maintenance plan, and our ability to proceed with transportation improvement and expansion projects. This is the case for not only highway projects, but all projects to expand transportation system capacity. All these things are now closely tied together. If we fail to accurately and adequately anticipate either travel growth or the problems resulting from that growth, we either will have problems in that we may not be able to go forward with planned transportation projects, or we will need to have a mechanism in place by which we can adjust to emerging realities before we have problems proceeding with plans.

I would like to discuss the management of travel demand and travel growth. The Wisconsin Department of Transportation has been predicting for a long time that travel growth in the Region will be tapering off. The preliminary regional transportation system plan seems to validate this prediction. Travel in the Region simply cannot keep growing at the same rate at which it has been growing over the last 20 to 30 years. The vehicle-occupancy rate for work trips is now about 1.1 persons per vehicle. It is impossible for it to go much lower. Among other key trends, we have seen tremendous feminization of the work force and tremendous increases in the number of women who hold driver's licenses. However, these trends are bottoming out, too.

This bottoming out does not mean that demand management—changing the rate of travel growth—is therefore an insignificant matter. There are a number of reasons, beyond air quality, why we might be concerned about travel growth. We know we have traffic congestion problems "out there"—and those problems are growing. Managing the demand for travel can help to relieve congestion; it improves travel choices, as Ms. Mudd so well noted, for the next generation; and it helps us chip away at a number of environmental problems—not just air quality problems, but some of the other problems of which Ms. Mudd spoke.

We need to be cautious, however, because some of the things Ms. Mudd advocated mean that we may not be able to dampen travel growth as much as we might like. We are living with the suburban and exurban development patterns which have come about over the last 30 years. Such development is truly very difficult to serve with transit and most other alternatives to the automobile. Some suburban and exurban areas have developed in a way that makes even carpooling difficult. That indicates a need to pay attention to what will occur in the future; it is very hard to make changes or do things differently in areas that are already developed.

With respect to demographics, we know that a lot of travel growth is driven by household size and by age patterns. We know that the "baby boomers" and the people born after the "baby boom" era are moving through their highest-travel-growth years. These are the years during which many people have children who need to be taken to day care, to soccer practice, and to a lot of other activities. This is compounded by the fact that many people have personal preferences that have developed over the last 30 years based upon the existence of convenient and inexpensive automobile travel.

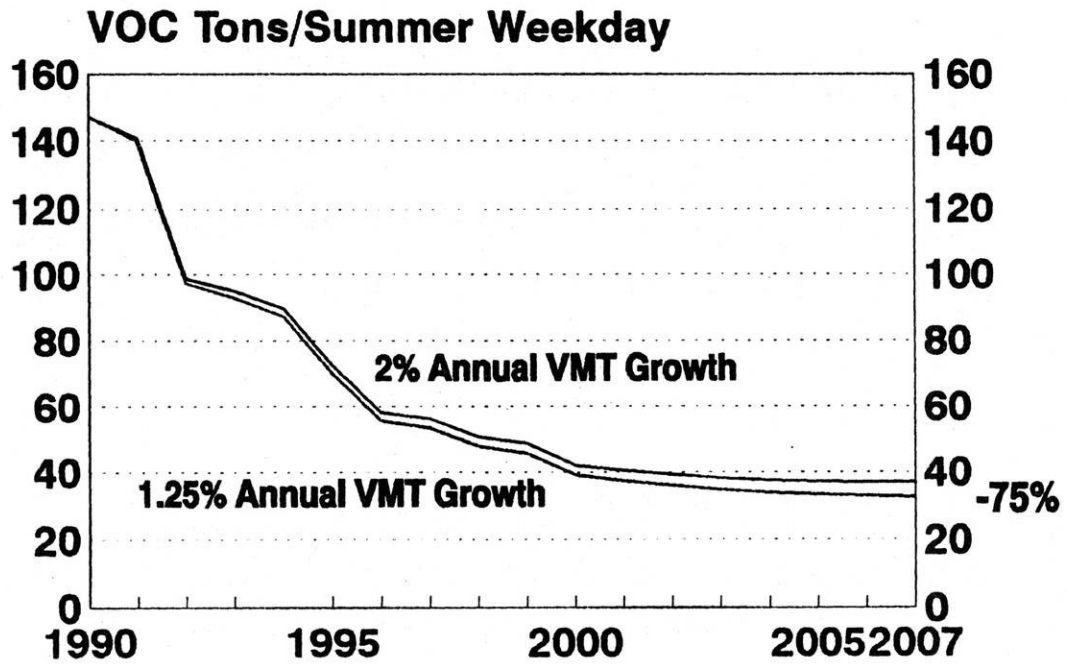
I do not want to give the impression that we must choose between transportation or industry, because, as I think we all know, we do not face such an "either-or" choice. Transportation does not exist for its own sake. It exists to get people to jobs, raw materials to the point of production, and finished products to the market. You therefore need good transportation for industrial growth. You also need clean transportation for industrial growth.

One potential area of agreement for us all, in light of Mr. Theiler's presentation, is that we need to view emissions control in nationwide terms. We need to consider the possibility of doing some of the things we are doing within the Region on a nationwide basis. We need to require that someone perform an analysis of whether or not we should implement things like reformulated gasoline nationwide instead of just in the nonattainment areas. We need to examine whether the "Tier 2" tail-pipe standard or, perhaps, some other tail-pipe standard between what we now have and what is now required in California, would be appropriate nationwide. Finally, as Mr. Torinus indicated, we might consider applying some of the industrial-source controls on a wider geographic basis so that we do not end up "redlining" our nonattainment areas and making them unattractive places for industry.

Thank you.

Attachment D-2

Wisconsin's VOC Emission Projections for Motor Vehicles Show Steep Decline



MR. TORINUS:

As a member of the reactor panel, I have a comment. It seems that the emissions figures I have been accustomed to hearing have undergone major revision. I have long heard that the transportation sector bore a much larger share of the overall blame for emissions than Mr. Theiler now states that it does. Has there really been that much progress toward reducing transportation-sector emissions since I wrote about them in my days as a reporter? The current picture seems far different from the one I was used to.

MR. THEILER:

It is indeed a very different picture. When you were a reporter, mobile-source emissions indeed did dominate the overall volatile-organic-compound emission inventory. The numbers have been revised because emissions from the mobile sources are declining very rapidly. This is due to more stringent tail-pipe emission standards; the use of "cleaner" fuels; efforts to reduce travel through the Employee Commute Options (ECO) program; and the vapor-recovery systems now in use at automobile service stations. None of these was in existence when you were a reporter.

MS. JUDD:

While we do envision improvement in transportation-based emissions to about the year 2010, beyond then we now envision a point where emissions levels will again start to increase.

MR. THEILER:

That is right. If we do not "get a handle" on vehicle-miles of travel, those emissions levels, as Ms. Judd said, will be expected, around the year 2010, to start to go up again because even though the cars will be extremely "clean," the sheer number of cars and the volume of travel will start to push the mobile-source emissions level upward again.

MS. JUDD:

Wisconsin Department of Transportation data indicate that transportation-based emissions will not begin to rise again before the year 2007, given the mandates and plans in place to date. But at some time beyond 2007, an increase can again be expected. Analyses that show exactly when such an increase may be expected to occur or how rapid the rise will be have not been done. I believe we would all agree that such analyses need to be performed. If we were to implement another tier of tail-pipe emission standards, or another tier of fuel standards, we would expect the time of the envisioned uptick to be pushed further out into the future, but we do not know how far.

QUESTIONER (MS. KATHERINE STADLER):

My name is Katherine Stadler; I am with the La Follette Institute of Public Affairs at the University of Wisconsin-Madison. Let me preface my question by noting that I heard the word "draconian" used twice today, in reference to pricing measures and what I can only assume are other transportation and land use control measures. Mr. Jackson said that the "bait" would be more effective than the "bite" in implementing emissions reductions. After listening to Mr. Yunker's explanation of how Alternative Plan 3, rather than Alternative Plan 1, was chosen as the basis for the preliminary regional transportation system plan, it seems to me that the Regional Planning Commission agrees that pricing mechanisms are politically infeasible. In my reading on this topic, I have found that many scholars and analysts agree that financial disincentives to driving are perhaps the only way to "get a handle" on this seemingly uncontrollable growth in vehicle-miles of travel.

My question is for all of you—perhaps most of all for Ms. Mudd—do you foresee a political climate in which pricing mechanisms and other transportation demand control mechanisms will be politically feasible, or will

the direction taken have to be something more along the lines of a government mandate and a "bite" instead of "bait"? Is it going to have to be a bitter pill for all of us to swallow, or are we ever going to be ready to accept it?

MS. MUDD:

We at Citizens for a Better Environment disagree with any characterization of needed transportation demand management measures as "draconian," and we are hopeful that the political climate will be such that people understand the tradeoffs that are involved and see their choices as positive ones, as we do. Most people in our society right now do not understand the tremendous subsidy that is coming from property-tax-payers to pay for local roads. This subsidy is one of 70 to 80 percent of the total cost of local roads. People hear that they are paying a lot of money for transit when the overall subsidy there is one of maybe 20 to 30 percent of total transit costs. But the perception in the public's eye is totally the reverse, and what most people do not understand is the immense amount of political resources that are going to pay for all of the negative aspects of automobile use. I am here thinking about the extra penalty that is imposed on all of us.

One of the things that we were therefore suggesting is that we need to reveal the actual costs that are being imposed on all of us as citizens by "uncloaking" some of those subsidies. For instance, right now, people pay for insurance on their cars once or twice a year, and they tend to forget it in terms of a cost of driving. However, if we switched to a system of "pay-as-you-drive" insurance, for instance, people would not necessarily pay any more than they now do for insurance, but the fact that they would pay whenever they purchase gasoline would more directly link that cost with the act of driving. Every time you fill up your tank, you would pay a set amount of money per gallon of gasoline, and you would know exactly how much of that amount was for your automobile insurance. This means that those who drive more than others would pay higher insurance costs. This would send an economic signal to people that they might want to reconsider taking an extra, and perhaps unnecessary, trip by automobile.

COMMENT (CITY OF MILWAUKEE ALDERMAN DONALD F. RICHARDS):

My name is Don Richards. I am an Alderman in the City of Milwaukee. I think the panel and the speaker were very fine. However, politicians are not elected by small children like Ms. Mudd's son, Ben Norquist. They are elected by members of groups like the American Association of Retired Persons (AARP), and a lot of AARP members do not want to pay more for anything. I am an AARP member myself—believe me, I do meet AARP's minimum age requirement! We need to face this demographic and political reality as we consider transportation problems.

We also need to undertake a massive educational effort, because unless people understand what is really going on with regard to transportation costs, they will continue to hold their biases and false assumptions. For instance, the biggest welfare program we have is the subsidy of the automobiles we use. In Milwaukee, meanwhile, there is a 33 percent subsidy to the Milwaukee County Transit System. People say, "That's terrible. That's a subsidy! That's welfare!" But if you point out to those same people that we give a 37 percent subsidy to the automobile, they think, "That's something we invest in." We "invest" in highways, but we "subsidize" mass transit.

This brings up the issue of what some call—or condemn as—"social engineering." If, for instance, we would tell people that we are going to raise gasoline taxes a dollar per gallon because we want to change their travel habits, we would hear people complain: "Social engineering!" You hear little complaint, however, about "social engineering" when it is in favor of the automobile. That really got started when Dwight D. Eisenhower came back from the Second World War, became President, and then made the President of General Motors his Secretary of Defense and initiated the construction of the Interstate highway system. That was "social engineering"! But we, as a society, decided to follow such a policy. We wanted the convenience of the automobile. Because of the political and social realities we face, a lot of people are saying, "We are out of options. We're at the end of the fish pond, and there are no big fish left to pull out." One way to interpret that is that we would need to give up not only just driving and riding in automobiles, but producing automobiles as well.

We have got to find new ways to create and sustain prosperity in our world. We have got to find new ways to get people jobs besides the automobile industry. We have got to look at these other options because we simply do not have any more room to continue as we are. Neither Ben nor any other child in Milwaukee should be forced to grow up breathing all those pollutants. Ten or 15 years from now, those children will hold all of us now in this room accountable for the decisions we make—or fail to make—today.

In light of this, what really needs to be "draconian" is the regional transportation system plan we adopt. Alternative Plan 3, upon which the preliminary recommended plan is based, is not draconian. Thank you.

MR. SCHMIDT:

We have time to field just one more question.

QUESTIONER (MS. VERA BOONE):

My name is Vera Boone. I am concerned about the off-highway air-pollutant emissions. Emissions from sources like lawn mowers and motorboats are of particular concern to me, especially from older, secondhand lawn mowers. Are there any Federal guidelines regarding such equipment? If we really want to reduce emissions, shouldn't we be examining this and every possible source for reduction?

MR. THEILER:

One of the problems we face in getting further reductions from the small-engine sector is that the time it will take to replace existing engines, especially motorboat engines, is rather long. The expected life of a standard 60-horsepower outboard motor today—the type often used for fishing—is over 20 years, so we expect that many outboard motors operating today will still be operating, still excessively polluting, in the year 2012. Unless we set up some sort of system to take some of those motors out of service, we will have a large amount of motors out there that will continue to pollute well into the future, even though over the next five or six years, we will require small engines, especially two-stroke engines, to be much "cleaner" than they are now. In the case of two-stroke engines, where you mix the gasoline with lubricating oil, only about two-thirds of the fuel is actually burned; the other third gets blown out into the air. These are very "dirty" engines.

MR. SCHMIDT:

As we end this session, I would like to thank our panelists this afternoon. Can we have a round of applause for the job they did?

I would also like to remind you to fill out your evaluation forms before you leave. Thank you all for coming.

SESSION E

FOCUS ON TRANSPORTATION DEMAND MANAGEMENT MEASURES: COSTS, BENEFITS, AND PRACTICALITIES

Presiding: Patrick Marchese, SEWRPC Commissioner

From left to right: Mr. Rob D. Kennedy, Mr. Patrick Marchese, Mr. Ernest Stetenfeld, Mr. Peter W. Beitzel, Mr. Kenneth J. Leonard, and Mr. Wayne H. Faust

Good afternoon, ladies and gentlemen. Welcome to Session E, entitled "Focus on Transportation Demand Management Measures: Costs, Benefits, and Practicalities." My name is Patrick Marchese, and I am a SEWRPC Commissioner from Milwaukee County.

"Travel demand management" refers to measures intended to reduce or eliminate automobile trips—especially single-occupancy-vehicle trips—to reduce automobile trip lengths, or to shift travel to alternative times and routes. The intent of such measures is to reduce traffic congestion, air pollution, and motor-fuel consumption. A travel demand management program may thus increase the cost of automobile travel, control the supply and cost of parking, facilitate telecommuting and work-schedule changes, and promote better land use site design.

While such measures, especially pricing measures, have been shown to affect travel demand, public resistance to their implementation has often been strong. Proponents of increasing the cost of automobile operation contend that pricing measures are justified since they make apparent the costs that are typically "hidden." A sound pricing strategy would, for example, reduce transportation-related property taxes as automobile operating costs—"highway user costs"—are increased. Opponents of measures to increase the perceived costs of automobile operation contend that affected areas could be disadvantaged economically, and that the individual freedom permitted by automobile use could be compromised, affecting, in particular, lower-income residents.

This session will explore the public and private costs and benefits related to travel demand management, seeking to assess the practicality of implementing such measures within the Region.

Participants in this session are: presenter Mr. Rob D. Kennedy, State Coordinator, New Transportation Alliance; reactor-panel members Mr. Ernest Stetenfeld, Director of Public and Government Relations, Wisconsin Division, American Automobile Association; Mr. Peter W. Beitzel, Vice-President of International Trade, Transportation, and Business Development, Metropolitan Milwaukee Association of Commerce; and Mr. Kenneth J. Leonard, Director, Bureau of Strategic Planning, Wisconsin Department of Transportation; and staff resource person Mr. Wayne H. Faust, Community Resource Development Agent, University of Wisconsin-Extension, Waukesha County.

SESSION E

FOCUS ON TRANSPORTATION DEMAND MANAGEMENT MEASURES: COSTS, BENEFITS, AND PRACTICALITIES

Presenter: Rob D. Kennedy, State Coordinator
New Transportation Alliance

It is a pleasure to speak before an audience whose members each appear to have a copy of my paper [Attachment E-1] and a copy of the February 1994 Federal Transit Administration report on parking cash-outs [Attachment E-2] before them. It is unusual to come to a conference whose sponsors are actually willing to print and distribute copies of what you have to say, but SEWRPC Executive Director Kurt W. Bauer is one of those people who has always been willing to help those of us with links to the academic community feel right at home. I will not read my paper to you, but I will use it as a resource in my presentation.

The environmental community is one of the major participants in the debate about land use and transportation. In many communities, that debate is not going very well or very productively. But this is not the case in Southeastern Wisconsin. I thank the Regional Planning Commission, and particularly its staff—Dr. Bauer, Assistant Director Kenneth R. Yunker, and all of the other members of the Commission staff—for fostering a very different climate. I want to engage you in a very polite, but nonetheless aggressive and perhaps provocative, dialogue about what needs to be done with respect to transportation demand management, or TDM. I think that major changes are necessary. Most if not all of you know that I am one of the leading advocates in this Region and State of making such changes.

As Mr. Marchese indicated, TDM measures are essentially measures that can be taken to reduce single-occupancy-vehicle usage. TDM measures, however, are not necessarily the same as a host of other measures sometimes known as transportation system management, or TSM, measures. There are TSM measures which are not TDM measures. Some of those TSM measures include, for example, measures taken to improve the flow of traffic on highways in a given area. Traffic management steps of that type would not be considered TDM measures, nor would technical "fixes," such as measures to clean up motor fuel or vehicle engines, be so classified. Such measures are good; all these measures have related purposes, such as clearing up traffic congestion and reducing pollution, but they are not necessarily TDM measures.

I am not going to describe every possible TDM measure in this session. However, my paper includes tables that list many of the measures I discuss in its text, as well as estimated reductions in vehicle-miles of travel that might be attained through implementing those measures. These tables should give you a fairly comprehensive sense of what constitutes a TDM measure. I will describe my favorite aspects of TDM, as well as some general aspects of specific TDM measures, their classifications, and their respective costs and benefits. Finally, I will discuss the practical issues involved with respect to TDM—how we might "get there from here."

First, what is TDM supposed to do? We are all aware of the ozone problem and what it can mean with respect to lung diseases. We probably need greatly increased educational efforts regarding that. At a conference like this, some of us may forget that the Clean Air Act seeks to deal with a problem that affects people's lives at the most basic and vital levels. Because of our ozone problem, people are getting sick. People are suffering crop losses that are hard to measure, but which are nonetheless significant. People are dying early deaths.

But these problems are not the only reasons why we are interested in TDM. While TDM measures are generally not the most potent short-term "fixes" for air-pollution problems—technical measures fill that role better, and most of the reduction in ozone pollution that we can expect over the next 10 years will come from those technical "fixes"—only TDM, involving steps that we take to reduce trips and vehicle-miles of travel, will reduce the root causes of transportation-based air pollution.

One aspect of TDM measures is becoming increasingly important to many people. People at the Wisconsin Department of Natural Resources are interested, I think, in this aspect of TDM more than any other. We need to implement TDM to fix, or at least reduce the extent of, a number of problems. TDM can help us mitigate

the land use problems that we now have, code-named "urban sprawl." TDM can help us abate congestion problems. In addition, the problem of global warming may begin to receive regulatory attention from the Federal government to the point where we may end up with more than just the kind of voluntary, and rather soft, measures that the Clinton administration has so far proposed. I would not be surprised to see a Clean Air Act Amendment in the future that would seriously address global warming. Anything that we do to reduce automobile usage now will make living under more stringent future regulation much easier.

We are all familiar with the decline of our larger urban areas, especially the central parts of those urban areas. There has long been an ongoing process of physical and socio-economic segregation between people living in those central areas and those living in the periphery—the suburbs. One need not be a rocket scientist to discern the social problems that are attendant to that segregation and what those problems cost taxpayers. We did not always have this segregation. It is not entirely the fault of the automobile, but the automobile, its use, and our failure to fund other transportation alternatives are together part of the overall problem. Fixing that part of the problem is part of the overall solution. Indeed, we can attain a variety of objectives if we concentrate on TDM. These objectives are probably equally as important as transportation issues themselves among the issues that confront our policy makers and citizens at large.

Another important aspect of TDM measures is that they do not stand very well alone. To illustrate this fact, increasing transit levels is a TDM measure, but doing that alone will not in itself make a significant difference. Even if the State decides tomorrow to suddenly supply us with all the transit dollars we want, both operating and capital, that, by itself, would not necessarily cause a significant reduction in air pollution in this area. This is because, aside from whether or not transit is supplied at a desirable level, there are many other reasons why people do not use transit, but instead drive. It is therefore important to assure that TDM measures work together in a synergistic manner. We obviously do not have much experience with measuring the effects of how TDM measures work together, but I have tried to describe the synergy we could expect in a hopeful and fairly reasonable manner on page 3 of my paper. Table 2 of my paper lists reductions in vehicle-miles of travel expected to result from implementing various TDM measures. These measures need to be considered in cumulative, synergistic terms. Their cumulative effect is stronger than the effect you would expect if you considered each measure in isolation and added the reductions derived in such a discrete manner. If you assessed, for example, the reductions a pricing change or improved public transportation would cause, without regard to the existence or effects of other measures, your resulting estimates of travel-volume reductions would probably be smaller than those set forth in the table.

A third general point I would like to make is that when we think about TDM and, specifically, which TDM measures are worth implementing, we need to think in terms of at least a 20-year time horizon. We have become used to looking for a fairly quick "bang for our buck," but there will be many times we will not get that with TDM, especially when we attempt to create TDM financing mechanisms. Some of the more potent TDM measures, such as changes in land use policies, take considerable time to implement and yield their effects. But once they take effect, the resulting benefits snowball. We need to keep that in mind and educate people about that.

In exploring specific TDM measures, we must consider the crucial subject of costs. Before this workshop, I attended Session C, where people discussed the financial aspects of various transportation options. That workshop was gloomy. I did not leave it with any incredible sense of optimism. I think Mr. Marchese was right to sober us up and set us straight during that session about the financial realities we face. I fear I am about to make the picture we face, if only the short-run picture, appear even worse.

One of the problems that we have right now, and the reason why it is so politically difficult to talk about changing transportation pricing and, perhaps, raising revenue in some way different from the ways we now use, involves the fact that the public perception of the cost of transportation is very primitive. We have not done a good job of educating the public regarding the true costs of transportation. I therefore want to discuss the work we need to do regarding this, as well as some of the facts I think that people are beginning to learn about transportation pricing and transportation costs. We are at a fairly early stage with regard to some of this. Nonetheless, the basic facts are well established. Most of the people of Southeastern Wisconsin are probably not aware that 70 to 80 percent of their local road costs are covered by their property taxes. It is important that they become aware of this. It is then important to contrast this with the extent of the

subsidies we provide for other local transportation services, such as mass transit. Most people do not seem to know, for example, that widening a 10- or 15-mile segment of a rural road can cost as much as providing Amtrak passenger train service from Milwaukee to Green Bay and Madison. If we provide people with cost comparisons like this, they just might start to understand that maybe some of the changes we are talking about are not so unreasonable or impractical.

The actual costs of transportation facilities, however, are not the most important issue. The most important issue, I think, involves the fact that most of the costs of transportation are externalized; they are generally not included when the costs are calculated and stated. Table 4 of my paper, which sets forth four categories of transportation costs and benefits, helps illustrate this. As this table shows, not all of the costs and benefits of transportation choices are reflected on the "bottom line" when municipalities and State agencies calculate transportation costs and consider alternatives.

Like other environmentalists, I am very concerned about the fact that environmental and societal costs are generally externalized. We have only begun to develop a methodology by which such costs can be quantified. It is nonetheless incredibly important to consider these costs. As I mention in my paper, Mark Hanson, for example, calculated an externalized cost of $1.27 per gallon of gasoline used. This cost is not in any way covered by user fees or any other directly dedicated transportation fees. Mr. Hanson's estimate is relatively conservative. A new and more detailed study of externalized transportation costs was recently performed by Apogee Research. This private research organization was retained by the Conservation Law Foundation to examine and prepare cost estimates for transit, automobile, high-occupancy-vehicle, and various other transportation options for Boston, Massachusetts, and Portland, Maine. What Apogee Research discovered is not particularly surprising, at least to some of us—the societal costs of options like single-occupancy vehicles are very high, notwithstanding how traditional costing methods make those options appear to cost less per vehicle or per trip than, for example, transit-oriented options.

It is therefore important that we become familiar with these issues and help the general public become familiar with them. If this seems overly abstract, consider what externalized environmental costs, for example, have left us to deal with in Southeastern Wisconsin. The contaminated industrial lands near IH 94 in southern Milwaukee County are a good example of the real costs we face when costs are externalized. That externalized cost now poses a real problem for everyone who wants to encourage development in order to attract business to that area. If we treat other lands or our air or our water in the same way, we will end up with costs that many of us will ultimately be forced to bear, if we are not doing so already. It is certain that our children will be forced to bear those costs. It is unfair to place such a burden on the next generation.

Some interesting points can be made about specific TDM measures, including full-cost transportation pricing. Each TDM measure has a specific role to play in a synergistic strategy. I consider pricing the main motivator, or "engine," that drives the way people choose one transportation option over another. Obviously, if we change the pricing, we can change the way that most people choose. We do not have to change the way everybody chooses. It is not necessary to get one-half or two-thirds of the people involved to change their actions; if we could, in one way or another, affect one-third of the trip decisions currently being made, we would be doing well.

With transportation pricing measures, you do not need to change the actual cost of transportation choices to get people to change their behavior; you need to change the perceived cost. This is a very important difference. No environmentalist would look forward to trying to convince people, for example, of the merits of the pricing change modeled in Alternative Plan 1—the equivalent of a $1.10-per-gallon increase in the gasoline tax within the Region.

If you realistically seek to change people's behavior, you need to consider measures that people might be more likely to understand and accept as public policy. To use a simple example with simple numbers, assume that you tell people that their $300-per-year automobile insurance fee will be paid in increments at the gasoline pump each time they purchased gasoline. Assuming a person drove 10,000 miles a year, he or she would then pay about 60 cents more per gallon. Having to pay 60 cents more per gallon of gasoline would make me think a bit more about how much I am driving. It would make a large number of people think a bit more, even though one would not necessarily be paying more in total automobile-related costs. This measure therefore

involves raising the perceived, but not the actual, cost of driving. Not every pricing measure includes such simple "tricks," but enough do to affect overall travel habits.

Cash-out parking is a pricing measure which might prove more politically feasible than "pay-as-you-drive" automobile insurance. It is easy to implement, especially if one is an employer participating in the Employee Commute Options, or ECO, program. In the metropolitan Milwaukee area, people generally pay about $20 to $40 per month for parking. If an employer who has been providing parking to employees free of charge begins charging that rate, the employees will think much more carefully about whether or not they will drive to work. Again, one need not change the behavior of every person involved every time. If one measure changes the behavior of 10 or 20 percent of the people involved at any given time, and another measure changes the behavior of an additional 5 or 10 percent of the people involved, you will start to make and see a difference. Yet we would not be increasing the actual costs of transportation to anyone. What we would be doing is unbundling those costs to make them perceivable, thereby making it clear that they indeed are a function of the amount of driving.

Other possible pricing measures include vehicle-miles-of-travel fees, or smog fees, which would vary according to how much people actually drive. People would pay these fees when they pay their annual vehicle-registration fees, at which time an odometer reading would be required. Higher-mileage drivers would pay higher fees because they had "used up" more clean air, more services to maintain roads, and more of other related resources.

Most environmentalists, I think, clearly support these and other "revenue-neutral" measures. In fact, many environmentalists do not support any measures which would change the overall revenue collected at either the local or State level for transportation purposes.

On the other hand—let's face it—we may need more revenue. How do we get it? We first need to look at what we can do to equalize the way we fund highways and the way we fund transit. We cannot solve the transit-operating problem by seeking help only from the State; we may also need to do something at the local level. Nonetheless, it is fair for us to point out how readily the State funds major highway capital projects and ask why the State cannot do the same for a major transit capital project, such as the East-West Corridor project. Certainly, the East-West Corridor project, whether it ultimately results in a busway or light-rail facility, will affect the community, the transportation system, and the demands on that system as much as a major highway project would. We should therefore expect the State to support whatever emerges as the preferred option for the Corridor—either a busway or a light-rail facility—at the same level that it would support a highway facility. That would dramatically reduce the need to seek local funding, at least for the busway or light-rail-system facility element of the East-West Corridor project.

We need to remember that under the concept of a multimodal transportation system, highways are not sacrosanct; they should be evaluated in the same way that transit capital projects are. This means that just as we expect an alternatives analysis to be performed regarding a light-rail or busway proposal, it is now the case that a major investment study, or MIS—basically, an alternatives analysis—must be conducted for major road improvement projects which, in the past, would not have been subject to such a review. This is integral to planning a multimodal transportation system. We need to examine all proposed transportation projects with the same depth of scrutiny so that we can make truly informed choices between competing alternatives. If we do that, I believe that we can reduce our expectation of funding some of the roads that are envisioned under the preliminary regional transportation system plan. We would not eliminate those roads from the system plan, but we would examine them in the same light under which we examine other transportation projects. It is not sound to place transit projects on a more difficult project evaluation "ladder" than highway projects. However, while project evaluation procedures may now be more equitable than has historically been the case, major inequities continue to exist when it comes to obtaining funding for those projects. If you were in charge of obtaining financing for a transportation project, most of you, all other things being equal, would probably prefer the task of obtaining highway dollars to that of obtaining transit dollars.

Let me move on to a second major category of TDM measures—transit improvements. Transit improvements are the backbone of any effort to implement an integrated, synergistic TDM system. As I have noted, I do not think that transit, by itself, has a major impact on transportation demand. On the other hand, without transit

in place, having a number of other TDM measures in place will be pointless. Changing the pricing of transportation options without having a transit network available as an alternative that works for most people will prove ineffective. We need to keep these facts in mind when we consider financing transit improvements.

Our current transit network is extremely inadequate. Yet the people staffing our transit operating agencies are doing an excellent job, despite their lack of anything even approaching the funding needed to develop the needed transit network. One way to assess the adequacy of a transit network is in terms of the percentage of the population within a given area which can use transit to get to at least 40 percent of the jobs in that area within 45 minutes. In other words, can you use transit to get to your job? Within the Milwaukee urbanized area, as of 1991, only about 1 percent of the population fell within that category. Under Alternative Plan 3, which served as the basis for the preliminary recommended plan, about 19 percent of the population of the Milwaukee urbanized area would fall within that category by the year 2010. This problem facing our transit system contrasts sharply with the kind of problem we face in trying to improve our arterial street and highway system. The latter is a mature system that has problems, but those problems do not include huge gaps of the kind we have in our transit system.

I will now briefly discuss a third group of TDM measures—pedestrian- and transit-friendly land uses. Aside from talking about compact land use in the macro sense of drawing a boundary and saying, "Here are the limits within which we are going to have urban development, and outside of these limits, we are going to have only rural land uses," we need to consider what the development is to be like within those urban boundaries. We need to do this, not only because restoring pedestrian access of the kind we once had in many older communities and providing transit-oriented development at densities conducive to transit use will help us create a more efficient transit system, but because political realities require us to educate the public about this matter. We have to be able to show the public an attractive alternative to what we now have.

Most people do not at first think that a more compact land use pattern can provide an attractive way to live. The whole "package," however, if properly presented, can be attractive to a large segment of our community. Although not everyone living in one-unit-per-acre suburban developments will find compact development attractive to the point where they will want to move into areas of such development, there are many people who could be attracted to the kind of pedestrian- and transit-oriented development that urban planners can design and present in a visually attractive manner. A good rendering can show people, as no words can, that such development would provide quick and easy access to high-quality transit service like light-rail service; where retail shopping areas are nearby; and where there is a variety of different types of housing appealing and affordable to people in a wide range of socio-economic groups so that you do not end up with the problems presented by socio-economic segregation. You can make these areas sufficiently attractive to a segment of the market large enough to enable such development to be a significant factor in helping avoid some of the problems of urban sprawl that you would otherwise see.

Many of the points I make in my paper regarding pedestrian access and what is entailed in designing pedestrian-friendly areas are drawn from the experience of those who conducted the famous LUTRAQ study in Portland, Oregon. The people who conducted this study developed a method for rating an area in terms of its pedestrian-friendliness. There are standards that you can apply very easily: mixed-use development, connectivity of streets, connectivity of sidewalks, ease of access on actual development sites, and the like. These concepts are not complex, but we nonetheless need to educate people about them.

I am well aware that neither environmentalists as a group, nor I alone, will be able to go out tomorrow and obtain all the changes we want to see in the preliminary regional transportation system plan. Whatever the views of each of us at this Conference may be, however, we all have a major job ahead of us. We therefore need to do at least two things.

First, we have to define what we mean by "realism," or at least choose the form of "realism" that is most important to us.

To illustrate what I mean by this, let me use a metaphor involving something that most, if not all, of you are familiar with—cholesterol. It is realistic, if I have a cholesterol count of 270—not a desirable condition to

have—for me to acknowledge and act upon the fact that my cholesterol count is simply too high. Our Region faces a comparable situation with regard to its vehicle-miles-of-travel count.

If your doctor finds that you have a dangerously high cholesterol level, does he or she say, "Look, it's not realistic to ask you to stop eating eggs and bacon every morning. So I'll tell you what—why not just make out your will and get on with it? You might just have some luck and live for another five years"? No. The kind of realism that any decent physician uses, and, I think, that any decent environmentalist must use, must acknowledge the existence of a major problem that will not be remedied by taking minor action. We need to take major, serious actions.

The kind of realism we should talk about should therefore ask: "What will work?" If we know pricing strategies will work, we need to be creative. We should not be spending most of our energy trying to come up with ways to talk any environmentalist out of making this an issue. Rather, we should be seeking less painful, but nonetheless effective, ways of implementing pricing strategies. To take another example, if we have problems with trying to fund transit, we need to identify some of the solutions. We need to use a pragmatic, action-oriented kind of realism, rather than the kind of "political realism" which does not get us anywhere.

Nonetheless, and second, we need to be politically realistic. This is not a contradiction. In my paper, I state that we should approach our crisis as Winston Churchill and Franklin D. Roosevelt approached theirs. As you might know, Franklin D. Roosevelt spent a lot of time thinking about how he could lead the American people to the point where they understood that America was going to have to enter World War II. He was successful in that; he waited until a major, direct crisis occurred. It took the attack on Pearl Harbor to galvanize the American people, but Roosevelt had done a great deal of spadework prior to December 7, 1941. He had tried to educate people so that they would be concerned about the possibility of such an attack to the point that when the attack actually occurred, they were ready to act.

As imperfect as the metaphor may be, I do not want to see a "Pearl Harbor" happen, for example, with respect to ozone, but we need to learn from history. If we do not start spending some of our planning dollars to perform studies needed to tell the public about the problems created by automobile use, we will never get people interested in changing their single-occupancy-vehicle-oriented behavior. While we have made some efforts to tell people that the Federal government wants some things to change, and while the Wisconsin Department of Natural Resources has made efforts to tell people about ozone problems, we have not really told people about the full costs of driving. We have not really educated people about how much their property taxes subsidize highways. We have not really educated people about how urban sprawl results from highway expansions and how urban sprawl significantly increases the overall costs of infrastructure in a community or region.

People need to learn about and make logical connections concerning these and similar facts. Most of the people I have talked with are willing to make the hard choices we need to make once they are given the needed facts about the issues involved. I therefore urge that we do much more educating, and much less refusing to challenge—or, for that matter, defending—the idea that change is difficult and infeasible, and, therefore, generally unattainable. The needed changes are not only attainable, but necessary.

Thank you very much.

TDMs: COSTS, BENEFITS, PRACTICALITIES[1]

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A. TDMs, THE FLAVOR IN DOT's ACRONYM STEW

The acronym for transportation demand measurement (TDM) cannot be found in your Funk and Wagnall's but is part of an increasingly rich acronym stew cooked up by the US DOT. This stew contains such popular abbreviations as TCMs, or transportation control measures--brought to you by the Clean Air Act--and one of SEWRPC's current favorites, TSMs or transportation systems management measures which include TDMs as well as more intense utilizations of existing transportation facilities. To keep things simple here I will define TDMs to signify any and all measures that reduce the demand or use of single occupancy vehicles (SOVs) regarding both trips and vehicle miles travelled (VMT). Some of these measures involve policy changes like pricing and ECO (Employee Commute Option) regulations for employers, and some involve facility improvements, especially for public transit. On the other hand, TDMs are not technical fixes such as cleaner fuels and engines, traffic management systems designed to improve traffic flow, or various other congestion mitigation measures that do not reduce SOV usage. I will list and describe a number of these TDMs a bit later. The Clean Air Act requires that most of these TDMs or TCMs be evaluated for their potential in reducing area ozone levels.

It is important to note that trip reduction and VMT reduction are two different animals. Ozone reduction is primarily affected by reductions in trips since most of a vehicle's ozone precursors are emitted by simply cold-starting and then shutting off your vehicle's engine. Thus, your car trip to a park-n-ride lot might reduce highway congestion and boost transit revenues without making much of a difference in area ozone levels. On the other hand, data-gathering conditions require that some of our regulations and measurements use VMT. The positive side to using VMT is that reducing VMT is a fairly direct way to reduce emissions of global warming gases--subject to probable future regulations--as well as conserve land and the fiscal costs associated with roadway facilities.

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[1]I owe a great deal of thanks to my colleague, Bill Schaefer, Staff Attorney for Citizens for a Better Environment, for numerous suggestions and access to his important work.

B. KEY GENERAL POINTS:

Many useful points can be made about TDMs, but I would stress these:

1. TDMs Are the Answer to More Than Just Clean Air: Most of us are now familiar with the need to reduce ozone pollution--a hazard to all living things especially human beings. Every year ground level ozone forces thousands of area residents into hospital beds and early graves as a result of respiratory diseases including asthma, lung cancer, and emphysema. But why bother with TDMs when technical fixes--cleaner cars and fuels--are such potent remedies regarding ozone precursor emissions?

The first reason to stay with the program regarding TDMs is that they are the only way to deal with the root cause of ozone increases--namely, an out-of-control increase in the relative use of single occupancy vehicles. Analysts differ about when ozone levels will start to rise again after technical fixes have had their effect, but eventually they will rise again--we environmentalists estimate that this will happen before the federal standard for reduced ozone levels must be reached in the year 2007. Prescribing technical fixes without TDMs for an area is a bit like a cardiologist telling a patient to take cholesterol-reducing drugs without reducing his or her reliance upon bacon and eggs every morning for breakfast. That is why the Congressional doctors who fashioned the Clean Air Act Amendments separately prescribed VMT reductions for polluted areas like ours.

The second reason for working hard on TDMs is that emission reductions in the transportation sector make good economic social policy sense. Not only do they translate to a reduced emission-reducing burden for manufacturers and other job providers but also they mean improved transportation productivity and less money wasted on energy--especially fuels produced outside the area.

Moreover, a TDM focus is the most time- and cost-efficient way tackle many if not most of our current environmental problems as well as a number of local fiscal problems and even a number of costly social ills. Reducing highway and road use takes a big bite out of congestion and water pollution from highway runoff--Where *does* all of that tire tread go? Reducing road use reduces global warming gas emissions, especially CO2, as well as sprawling land use development that eats up what's left of our rural land and public funds for duplicatory infrastructure and services--Witness the growing interest in development impact fees. Finally, our public investment in highways over transit has underwritten a massive and documented historic exodus from older urban area resulting in a new socioeconomic segregation. This segregation bedevils city budgets and turns our urban areas into a hot house for cultivating that segment of our population with the most problems and the least skills. Virtually everyone working on social problems today agrees that we must focus our resources on land use and transit strategies that make cities more attractive and prosperous if we want to reverse current trends.

2. No TDM is an Island, Think TDM Synergy: The TDMs listed in Tables 1 and 2 need to be considered in terms of how they work together synergistically. Many TDMs will have only limited effects by themselves. For example, providing more transit service can have only a limited benefit regarding trip or VMT reduction by itself. On the other hand, transit is what most people will turn to *if* pricing changes reduce the subsidies for cars and the cost of transit and *if* land use development is more compact and designed to make walking attractive for transit users once they get where they're going. Moreover, the attractiveness of transit is relative. We cannot expect transit use to increase or even hold its own if we simultaneously make SOV travel more convenient via road expansions.

3. TDMs for the Long Run: Partly because we are talking about behavioral changes and partly for complex objective reasons, the effectiveness of TDMs tends to increase geometrically over time--that is, on a curve with the strongest improvement occulting as time goes on. For example, compact and pedestrian-friendly land use takes time to implement but can eventually produce strong SOV savings that then encourage further compact land use and higher transit ridership in a mutually supportative cycle. Or again, compact land use at one end of a trip--say a job--may not convince someone to use transit if the bus is infrequent or distant at the start of their trip. In turn, providing more pedestrian-freindly land use may take time. Or finally, a starter segment of a new transit service, say light rail, will have a limited effect on trip reduction until the size of the *whole network* of rail and rubber tire transit increases beyond the threshold that ensures most transit riders that they can conveniently travel to most of the places they want to go using transit. Clearly, we are a fairly long way from reestablishing that network at present.

C. TDM COSTS: THE GOOD NEWS IN THE FINE PRINT

At present, the public and public officials have access only to a very proscribed idea of what different transportation options, including TDMs, cost. Transportation departments and developers tend to talk only in terms of direct outlays for transportation capital and operating expenses. What's more, traditional transportation information sources tend to sit on information regarding how much we publicly subsidize transit and rail vs. roads and the comparability of different alternatives. For example, the public is generally unaware that their property taxes subsidize 70-80% of the cost of their local roads but only 20-30% of their transit system. Or again, the public is generally unaware that for $50 million we can extend Amtrak service from Milwaukee to Madison and Green Bay and that widening a typical rural highway for 10-15 miles can cost the same amount while replacing an urban interchange, say Marquette, can cost $350 million. Indeed, the public is unaware that almost 90% of our $3 billion biennial state transportation budget is dedicated to cars and trucks with little discussion while those needing transit, elderly and disabled para-transit, or pedestrian and bicycle facilities repeatedly find it impossible to get legislators to increase their budgets by a couple of million dollars.

Table 1

Estimated VMT-Reduction Potential of TCMs in U.S. Urbanized Areas

Potential Aggregate VMT Reduction Growth Trends	Category in 1992 EPA TCM Info Documents[a]	Apogee/NARC Estimated VMT Reduction[b] Max in Lit.	Potential	EDF Estimated VMT Reduction For All Daily Travel[c] 1996	2000	2010
A. Pricing Measures		**14.5**	**12.6**	**4.5**	**9.0**	**18.7**
Cash Out Employer-Paid Parking & Boost Parking Fees	# 2,8	4.0	3.0	1.6	2.3	4.2
Parking Pricing for Non-Work-Related Destinations	# 8	4.2	4.2	0.7	2.1	3.8
Pay-As-You Drive Auto Insurance ($.50/gal)	–	–	–	1.0	1.9	2.5
Smog/VMT Tax	–	0.6	0.4	0.1	0.2	0.5
IVHS Automated Toll Express Lanes/Congestion Pricing	–	5.7	5.0	0.0	0.9	4.7
Central Area Pricing	–	–	–	0.0	0.1	0.3
Transit Fare Integration, Marketing, Pass Subsidy	#5	–	–	1.7	1.5	2.9
B. New Options for Short Trips		**0.0**	**0.0**	**0.9**	**3.2**	**8.0**
Traffic Calming, Bicycle/Pedestrian Improvements	#10	0.0	0.0	0.9	2.7	5.4
Develop Traffic Cells in Selected Primary Centers	#12	–	–	0.0	0.5	2.6
C. Smart Systems & New Technologies		**3.4**	**1.1**	**0.5**	**2.7**	**6.6**
IVHS Advanced Transit Information Systems	#5	–	–	0.4	1.1	2.9
Smart Communities: Teleshopping & Telelogistics	–	–	–	0.1	1.5	3.6
Telecommuting	#3	3.4	1.1	0.0	0.1	0.1
D. Growth Management and Land Use Policies		**5.4**	**5.4**	**0.4**	**2.7**	**9.5**
Encourage Accessory Apartments, Neighborhood Retail	#14	–	–	0.3	2.0	5.0
Growth Management Favoring Infill/Clustering/Centers	#14	5.4	5.4	0.1	0.7	4.5
E. Improved Public Transportation		**2.6**	**1.0**	**1.5**	**3.4**	**7.3**
Expanded Paratransit Services	#5	–	–	0.6	1.2	2.5
New Rail Starts & Major Transit Investment/Improvements	#5	2.6	1.0	0.4	1.1	2.6
Enhanced Bicycle/Pedestrian Access to Transit	#5,10	–	–	0.5	1.0	2.1
F. Marketing and Incentives		**5.9**	**2.2**	**1.3**	**2.7**	**3.6**
Employer Trip Reduction Programs	#1,2	3.3	1.0	0.5	1.0	1.0
Compressed Work Week	#3	0.6	0.8	0.1	0.3	0.2
Public Education Campaigns for New Transportation Ethics	–	–	–	0.5	1.0	2.0
Area Wide Ridesharing Programs	#4	2.0	0.4	0.1	0.4	0.4
G. Automobile Infrastructure		**1.8**	**1.8**	**-0.1**	**-0.8**	**-2.0**
HOV Lanes	#6	1.4	1.4	0.1	0.4	0.7
Park-and-Ride Lots	#9	0.5	0.5	0.1	0.3	0.5
Traffic Signal Timing/Intersection Traffic Flow Enhancement	#7	-0.0	-0.0	-0.3	-0.9	-2.0
Traffic Incident Management	#7	-0.1	-0.1	-0.1	-0.6	-1.2
H. Miscellaneous: Temporary & Non-VMT Related		–	–	–	–	–
Special Events Management	#11	–	–	–	–	–
Accelerated Retirement of Vehicles	#13	–	–	–	–	–
Controls on Extended Vehicle Idling	#15	–	–	–	–	–
Controls on Low-Temperature Cold Starts	#16	–	–	–	–	–
Total Reduction from Growth Trend		**33.6**	**24.0**	**8.9**	**22.9**	**51.7**
Growth Trend: Ratio to 1990				1.1	41.23	1.42
With Comp. Demand Management: Ratio to 1990				1.05	1.00	0.90

[a] *Cambridge Systematics, Inc. for the U.S. Environmental Protection Agency, Office of Mobile Sources.* Transportation Control Measure Information Documents. *March 1992.*

[b] *Apogee Research, Inc. for the National Association of Regional Councils, the U.S. Environmental Protection Agency and the U.S. Department of Transportation.* Costs and Effectiveness of Transportation Control Measures (TCMs): A Review and Analysis of the Literature *(draft study). April 1993. Preliminary data subject to changes.*

[c] *Environmental Defense Fund estimates based on literature review and analyses by Michael Replogle, EDF. July 1993. (For additional information on assumptions and sources, see* Transportation Conformity and Demand Management: Vital Strategies For Clean Air Attainment *by Michael Replogle, EDF: April 30, 1993.)*

Table 2

Average Estimated Potential of Comprehensive Transportation Demand Management in U.S. Urbanized Areas, By Trip Purpose[a]

I. Potential Aggregate VMT Reduction from Growth Trends by Trip Purpose	Estimated VMT Reduction (%) Daily Travel			Estimated VMT Reduction (%) Work Travel			Estimated VMT Reduction (%) Non-Work Travel		
	1996	2000	2010	1996	2000	2010	1996	2000	2010
A. Pricing Measures	**4.5**	**9.0**	**18.7**	**7.3**	**15.5**	**31.5**	**3.4**	**6.7**	**15.0**
Cash Out Employer Paid Parking & Boost Parking Fees	1.6	2.3	4.2	5.0	7.5	11.0	0.3	0.5	2.0
Parking Pricing for Non-Work-Related Destinations	0.7	2.1	3.8	0.0	0.8	1.5	1.0	2.5	4.5
Pay-As-You Drive Auto Insurance ($.50/gal)	1.0	1.9	2.5	1.0	3.0	4.0	1.0	1.5	2.0
Smog/VMT Tax	0.1	0.2	0.5	0.1	0.2	0.5	0.1	0.2	0.5
IVHS Automated Toll Express Lanes/Congestion Pricing	0.0	0.9	4.7	0.1	2.0	10.0	0.0	0.5	3.0
Central Area Pricing	0.0	0.1	0.3	0.1	0.5	2.0	0.0	0.0	0.0
Transit Fare Integration, Marketing, Pass Subsidy	1.0	1.5	2.9	1.0	1.5	2.5	1.0	1.5	3.0
B. New Options for Short Trips	**0.9**	**3.2**	**8.0**	**0.5**	**2.5**	**6.5**	**1.0**	**3.5**	**8.5**
Traffic Calming, Bicycle/Pedestrian Improvements	0.9	2.7	5.4	0.5	2.0	3.5	1.0	3.0	6.0
Develop Traffic Cells in Selected Primary Centers	0.0	0.5	2.5	0.0	0.5	3.0	0.0	0.5	2.5
C. Smart Systems & New Technologies	**0.5**	**2.7**	**6.6**	**1.2**	**3.0**	**6.0**	**0.3**	**2.6**	**6.8**
IVHS Advanced Transit Information Systems	0.4	1.1	2.9	0.5	1.5	2.5	0.3	1.0	3.0
Smart Communities: Teleshopping & Telelogistics	0.1	1.5	3.6	0.0	0.0	0.0	0.2	2.0	4.8
Telecommuting	0.0	0.1	0.1	0.7	1.5	3.5	-0.2	-0.4	-1.0
D. Growth Management and Land Use Policies	**0.4**	**2.7**	**9.5**	**0.4**	**2.5**	**8.0**	**0.4**	**2.3**	**10.0**
Encourage Accessory Apartments, Neighborhood Retail	0.3	2.0	5.0	0.3	2.0	5.0	0.3	2.0	5.0
Growth Management Favoring Infill/Clustering/Centers	0.1	0.7	4.5	0.1	0.5	3.0	0.1	0.8	5.0
E. Improved Public Transportation	**1.5**	**3.4**	**7.3**	**1.1**	**3.0**	**6.5**	**1.6**	**3.5**	**7.5**
Expanded Paratransit Services	0.6	1.2	2.5	0.2	0.5	1.0	0.7	1.5	3.0
New Rail Starts & Major Transit Investment/Improvements	0.4	1.1	2.6	0.4	1.5	3.0	0.4	1.0	2.5
Enhanced Bicycle/pedestrian Access to Transit	0.5	1.0	2.1	0.5	1.0	2.5	0.5	1.0	2.0
F. Marketing and Incentives	**1.3**	**2.7**	**3.6**	**3.0**	**6.0**	**7.0**	**0.5**	**1.0**	**2.9**
Employer Trip Reduction programs	0.5	1.0	1.0	2.0	4.0	4.0	0.0	0.0	0.0
Compressed Work Week	0.1	0.3	0.2	0.5	1.0	1.0	0.0	0.0	0.0
Public Education Campaigns for New Transportation Ethics	0.5	1.0	2.0	0.5	1.0	2.0	0.5	1.0	2.0
Area Wide Ridesharing Programs	0.1	0.4	0.4	0.5	1.5	1.5	0.0	0.0	0.0
G. Automobile Infrastructure Systems	**-0.1**	**-0.8**	**-2.0**	**0.0**	**0.5**	**1.0**	**-0.2**	**-1.3**	**-3.0**
HOV lanes	0.1	0.4	0.7	0.5	1.5	3.0	0.0	0.0	0.0
Park-and-Ride Lots	0.1	0.3	0.5	0.5	1.0	2.0	0.0	0.0	0.0
Traffic Signal Timing	-0.3	-0.9	-2.0	-0.5	-1.0	-2.0	-0.2	-0.8	-2.0
Traffic Incident Management	-0.1	-0.6	-1.2	-0.5	-1.0	-2.0	0.0	-0.5	-1.0
Total Reduction from Growth Trend	**8.9**	**22.9**	**51.7**	**13.5**	**32.5**	**65.5**	**7.2**	**20.1**	**49.3**
Growth Trend: Ratio to 1990	1.14	1.23	1.42	1.14	1.23	1.42	1.14	1.23	1.42
With Comp. Demand Management: Ratio to 1990	1.05	1.00	0.90	1.00	0.91	0.77	1.07	1.03	0.92

II. Assumed Composition of Travel by Purpose	1990	1996	2000	2010
% of VMT for Work Travel	28	27	26	24
% of VMT for Non-Work Travel	72	73	74	76

[a]*Estimates based on literature review and analyses by Michael Replogle, Environmental Defense Fund, July 1993. For additional information on assumptions and sources, see* Transportation Conformity and Demand Management: Vital Strategies For Clean Air Attainment *by Michael Replogle, EDF; April 30, 1993.*

TABLE 3: Madison, Wisconsin, highway expenditures and subsidies for 1983 (1000s of 1983 dollars)

	Total aidable expenditures	Billings to other parties	Federal aid	State aid	Total direct expenditures	State highway general aid	General revenue expenditures, i.e., direct subsidies	Externalities and other indirect subsidies	Total subsidies
Highway infrastructure									
Construction	5,268	97	392	330	6,087	1,369	3,899		3,899
Maintenance	3,298				3,298	857	2,441		2,441
Other	2,198				2,198	571	1,627		1,627
Traffic police costs	5,058	1,969			5,058	1,315	3,743		3,743
Environmental impacts									
Air pollution								5,200	5,200
Water pollution-salt								600	600
Human impacts									
Personal injury								12,536	12,536
Property damage		4,857							
Lost earnings								1,586	1,586
Land use opportunity costs								1,000	1,000
Petroleum subsidy								1,800	1,800
Total	15,822	6,923	392	330	16,641	4,113	11,709	22,721	34,430

But, as important as these issues are to environmentalists trying to describe the true costs and benefits of TDMs, we face a far bigger problem. That is, most of the costs of our transportation options, especially driving, are *externalized* or made invisible by the way we calculate transportation costs. They are not covered by user fees or any other directly dedicated transportation fee. Some of these externalized costs--totalling about $1.27 per gallon ($462 per vehicle)--are itemized in Table 3, taken from a recent article by Mark Hanson. However, the most detailed effort to get a handle on these costs is probably contained in the categories listed in Table 4 based on the currently unfinished work of Apogee research. These costs are either disproportionately borne by those who suffer lung ailments or who don't drive at all, or indiscriminately borne by all of us who must pay for such things as emergency room health care, petroleum subsidies, duplicate infrastructure out in some former cornfield. In the end, the biggest price tag is likely to be paid by our children and grandchildren who will, in all likelihood, enjoy fewer options at a higher cost with reduced quality of life as a result of our relatively cavalier and short term attitudes about clean air, land, energy, and other resources.

Take the issue of CO2, the primary culprit in global warming. Pretend for a moment that you are now your 40-year old grandson or grand daughter who has just had the misfortune of being appointed to the ghost of SEWERPC Commission to come, say in the year 2030. On the table in front of you is a report indicating that way back in 1993 experts and some public officials knew the following:

- That the U.S. is responsible for about 40% of the world's transportation-related CO2 emissions

Table 4

A. Governmental/Fiscal Costs and Benefits

1. Capital costs for land, infrastructure, vehicles (including "secondary" transportation effects on nearby highways, roads
2. Operation and maintenance
3. Police, fire, justice services, security
4. Parking subsidies/tax breaks
5. Energy
6. Accidents (public assistance)
7. Pollution, (public assistance)
8. Additional Public revenues (tax base, property taxes, income taxes, user taxes, sales taxes, fares)
9. Lost revenue from existing development elsewhere due to loss of business and jobs.

B. Societal Costs

1. Subsidized/free parking
2. Pollution (effects on health care, productivity, environmental damage)
3. Accidents (health insurance, productivity loss, pain and suffering)
4. Energy
5. Noise
6. Land loss (urban value, crop value, wetlands)
7. Property values (aesthetics)
8. Induced land use patterns

C. Economic Development

1. Number of additional direct and indirect jobs in area from development
2. Number of existing jobs elsewhere directly and indirectly lost to development
3. Additional corporate and individual income (direct and indirect) in area from development
4. Loss of corporate and individual income (direct and indirect) elsewhere from development
5. Additional output in area from development
6. Loss of output elsewhere from development

D. User Costs/Benefits

1. Vehicle purchase/rent, repair, parts, insurance costs
2. Fuel
3. Fares
4. User fees
5. Accidents, private expense
6. Parking
7. Travel time

- Tat the U.S. EPA estimates that CO2 emissions must be reduced by 50-80% to stabilize the rate of global warming.
- That if the less developed world moves from a car ownership level of about 1% to as little as 3-4% the global car fleet--and CO2 emissions--will double.
- That the average car produces almost 2,000 pounds of CO2 per year and even doubling CAFE standards will not cancel out the effects of projected growth in VMT

Your report goes on to tell you something you already know; namely that Southeast Wisconsin failed to reverse its trends regarding sprawl and less transit service and it became increasingly impossible for most of its residents to walk or take transit. Now in the year 2030, Southeast Wisconsin faces severe and costly transportation choices as a result of new regulations and taxes stemming from the Global Warming Development pact signed by the President the year before in Rio de Janiero. With the cost of driving nearly triple what it was a decade earlier, the value of housing and commercial buildings in the suburbs are dropping as commuters and offices try to relocate to areas served by transit. Meanwhile, this ghost of SEWERPC to come is stuck with the job of finally trying to build and pay for an adequate rail and rubber tire transit network in urbanized areas without the density that makes transit economical. If my venture her into science fiction seems misguided, I welcome you back to earth in form of the contaminated industrial land that presently help holds up infill business development and jobs here in Milwaukee. Environmental costs are real, whether we externalize them or not.

D. TDM EFFECTIVENESS: NOT ALL TDMS ARE THE SAME

TDMs can differ a great deal in their effectiveness as well as their respective roles in an integrated TDM scheme:

TDM #1. Full-Cost Transportation Pricing

Pricing is probably the motivator or *main engine* driving modal choice. Change this engine and transit, walking, good land use, bikes, and carpooling should be able to pull off the siding and move on down the main track. Different estimates indicate that major pricing changes could reduce VMT by 12-18% by 2020 or by twice as muchg as any other TDM. The key basis for policy changes regarding pricing is that at present motor vehicle travel is the most heavily subsidized and costly form of travel. The job of pricing TDMs is to make these costs more visible or "perceivable" as a function of how much someone drives. The key notion behind this strategy is that making driving pay its own way will allow the market to work its magic and improve transportation system efficiency.

SEWRPC and other planners often express pricing changes in terms of one simple change like a big gas tax increase to simplify their modeling. However, pricing changes can and must take a number of forms. Environmentalists tend to stress

pricing changes that simply "unbundle" existing auto costs so that they vary with the amount of driving. For example, pay-as-you-drive (PAYD) or metered auto insurance, charges motorists at the pump on a per gallon basis. Similarly, instead of increasing the absolute cost of driving, "cashing out" free parking makes that cost of driving visible to the driver and gives him or her the option of avoiding it. Estimates of the VMT reductions possible with cash-out parking range around 2-4%.

Taxing strategies can be designed to unbundle and rearrange the taxes that pay for roads and highways in a revenue neutral way. For example, local road aids from state user fees currently cover less than 1/4th of the cost of these roads. Thus, Wisconsin environmentalists favor shifting the subsidy for cars and trucks off the backs of property tax payers by increasing user fees such as gas taxes and registration fees. Moreover, flexible federal funds administered by the state, such as STP funds, should be applied in an equal way to transit and highway capital needs so that highways will not have the overwhelming price advantage they have relative to transit when they come before local and state public officials. It makes no sense, for example, that the expense of a local highway interchange in Milwaukee is completely covered by state administered funds while a project like the east/west transit corridor project must fight for special transit funds from Congress and a big local payment using property tax or other local funds.

Of course, pricing changes can also be designed to generate new tax revenues. However, as Tables 3 and 4 illustrate, these new revenues could be seen as simply charging drivers more directly for the societal and environmental costs mentioned earlier that drivers currently externalize. Pricing changes that would generate more revenue either for reducing property tax subsidies or funding alternative transportation include VMT/smog fees. These are registration fees based on the number of miles indicated on a vehicle's odometer at registration. Increases in taxes on motor fuel and parking would also generate new revenues. Of these, the most effective tax increase would be a regionally uniform increase in parking fees. Please note here that selective increases on parking in certain downtown areas can be counterproductive with respect to reducing trips and VMT since it makes downtowns less attractive. For that reason, Los Angeles recently agreed on a historic new increase in parking fees that generally applies to the entire region.

Let me summarize the package of pricing changes that area environmentalists might propose for Southeast Wisconsin. Above all, this package would not increase actual automobile costs. Rather, it would take existing costs and make them vary according to how much you drive so as to decrease area VMT by about 10% as indicated by SEWERPC's Alternative #1. On the other hand, SEWERPC modelling requires that Alternative #1's pricing changes be expressed in terms of increasing the cost of travel by 1.10 per gallon, or 5 1/2¢ per mile. That may sound like one "heck" of an price increase. But, environmentalists actually propose a combination of techniques, most of which would be revenue neutral, or would help replace and/or reduce property taxes. That is, pricing measures would not increase the

actual cost of driving--only the "perceivable" price of driving. Imagine this package of pricing changes:

- An end to free employer parking via parking cash-outs and higher public parking taxes. (A $20-40/month cash out for employer parking is equivalent to about 2.4-4.8¢ more per mile or 50-95¢ more per gallon assuming you drive 10,000 miles per year.)
- PAYD insurance at the pump (Assuming you pay $300/year for insurance and drive 10,000 miles /year this would mean paying about 3¢ more per mile or 60¢ more per gallon--a big "perceivable" difference but no difference in fact.)

Plus:
- Equal state/federal public funding for transit and roadway capital projects
- Increased state fees and gas taxes to replace local property taxes for roads

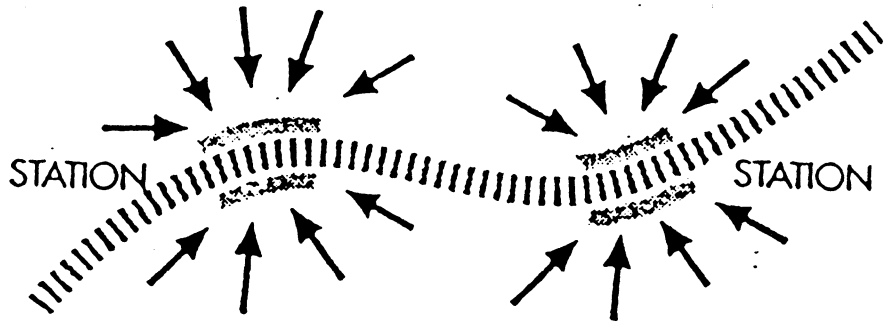
There is less agreement within the alternative transportation community about increasing taxes *to generate new revenues*. Most often proposed is a few cent increase in state or local motor fuel tax or the sales taxes on motor fuel at the wholesale or retail level. Some environmentalists believe that this tax should be dedicated to transit and alternative transportation. Others have a more fiscally conservative stance, arguing that current transportation funds are adequate and that what we need is a new way to divide the same public pie so that roads and alternatives to cars and trucks get equal slices of that pie. Still others argue for a gas tax dedicated to transit and road expenses that don't involve capacity increases.

TDM #2. Transit Capacity Improvements to Establish Convenient Transit Network:

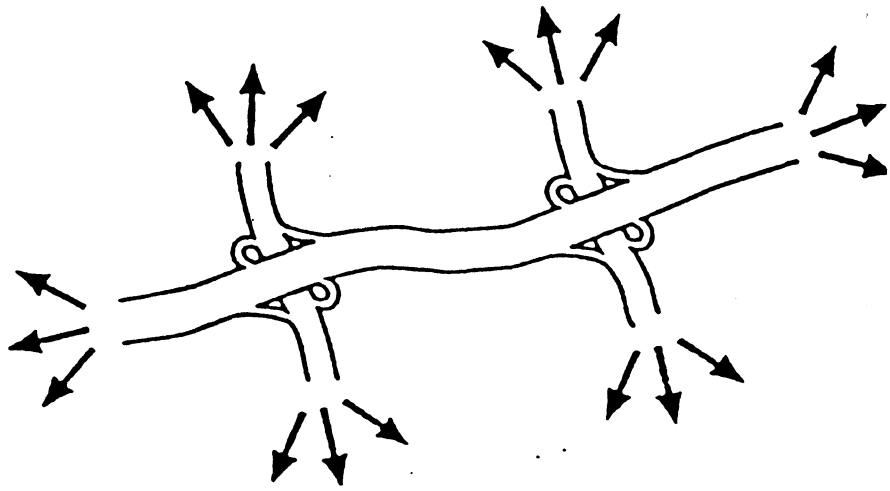
Transit improvements are what I would call the *backbone* of an integrated TDM strategy. The other TDMs, including Incentives, pricing changes, regulations, education, and land use changes, often primarily gain their effectiveness from getting people to take transit instead of drive. However, if there's no transit for them to turn to then people will look for ways to continue driving their cars--including new highway capacity and suburban sprawl locations for their homes, shopping, and jobs.

It's crucial when talking about transit to recognize--even though our transportation modelling does not yet do it--that not all transit is the same. Many folks, especially middle-class people, just don't like buses and thus there are limits to how far we can improve transit ridership by simply providing more and better bus service. Also, private and public investors are not interested in building compact habitat--homes, shops, offices--around bus stops. On the other hand, for reasons frustrating to most traffic engineers I know, lots of people like trains and trolleys. Although building a rail-based network won't solve all our problems, it will a least provide us with a more reliable ridership, a more typical demographic ridership mix, and a transportation infrastructure that encourages attractive compact development. (See Figure 1.) I would spend more time on transit as a TDM but it is being discussed in a separate workshop.

Figure 1. Rail Transit *Concentrates* Development



While Highways *Disperse* Development



TDM #3. Pedestrian Facilities and Right-of-Way:

Since at least WWII, pedestrian access has typically been overlooked by state and local departments of transportation (DOTs). Although many localities have certain minimum requirements regarding sidewalks, pedestrians still typically lack good access across arterials, highways, or through new housing subdivisions and shopping centers. In turn, poor pedestrian-friendliness at the origin or destination of a transit trip can dramatically reduce someone's willingness to take transit. The famous LUTRAQ study in Portland, Oregon reports that auto trips account for 93% of all trips for zones that are hostile to pedestrians while only 50% of all trips in pedestrian-friendly zones. Meanwhile, SEWRPC has taken an important step towards being able to model the trip reduction potential of better pedestrian and transit access. Alternative #1 assumes improved pedestrian-friendliness and transit access in new developments for a 5% redection in trips in those newly developed areas. This effect is necessarily diluted when applied to trips throughout the

SEWERPC area but projections by others for a maximum applicaton of pedestrian freindliness measures indicate a trip reduction potential of 9-17% by 2020.

Part of the issue regarding pedestrian- and transit-friendliness is *land use* as discussed in the next section. But another part of the problem is the provision of *transportation facilities* that are simply inadequate from a pedestrian viewpoint. Transportation facility features that improve pedestrian friendliness and thus decrease vehicle trips and pollution include:

• **Easier street crossings:** The degree to which one may safely cross the street is a function of its width, the distance between crossing signals (intersections) and the level of traffic. Older developments tend to have local streets that are 26-28' wide with corners set a 10' radius that slow cars down and make street crossings easy for pedestrians. Streets in most new developments now have 30-36' widths with 25' radii that make it easy for cars to drive fast and scary for pedestrians to cross streets.

• **Sidewalk continuity:** Do your sidewalks get you where you need to go in a relatively straight line? Many sidewalks in new developments end at the corner of a block or don't help you get from one store in a shopping area to another without walking on the street and across lawns, through bushes, and down dirt paths.

• **Street connectivity:** Sidewalk connectivity is necessarily a function of the extent to which *streets* are connected to each other. Traditional grid pattern streets offer pedestrians many ways to get somewhere without going out of their way. On the other hand, cul de sacs, dead ends, and long winding streets can make walking a tedious and time-consuming activity and force people into cars for nearly every activity, even visiting someone three houses away through their back yards. (See Figures 2 and 3.)

• **Traffic cells/driving restricted zones:** A traffic cell is a neighborhood-sized street system organized to make pedestrian (and transit) travel easy. Automobiles are required to circulate around the neighborhood's perimeter while space on the streets in the core is dedicated solely to transit, bike, and pedestrian use. Pedestrian and transit malls are especially effective in urban retail zones and in connection with parks and civic centers.

TDM #4. Pedestrian/Transit-Friendly Land Use:

Land Use is the context or *condition* within which modal choices are made. Reducing car travel will remain a pipe dream as long as we continue to locate and design buildings so that cars are convenient and walking makes sense only if you're too poor to own a car or a goody-two-shoes like I and the other other environmentalists. Planners and architects know how to make and remake human habitat to be compact, convenient to walkers and transit users and, most of all, attractive. Land use features that are important for increasing the proportion of transit and pedestrian trips include:

Figure 2. Typical Sprawl-Type Cul de sac, Collector, and Arterial Street Hierarchy

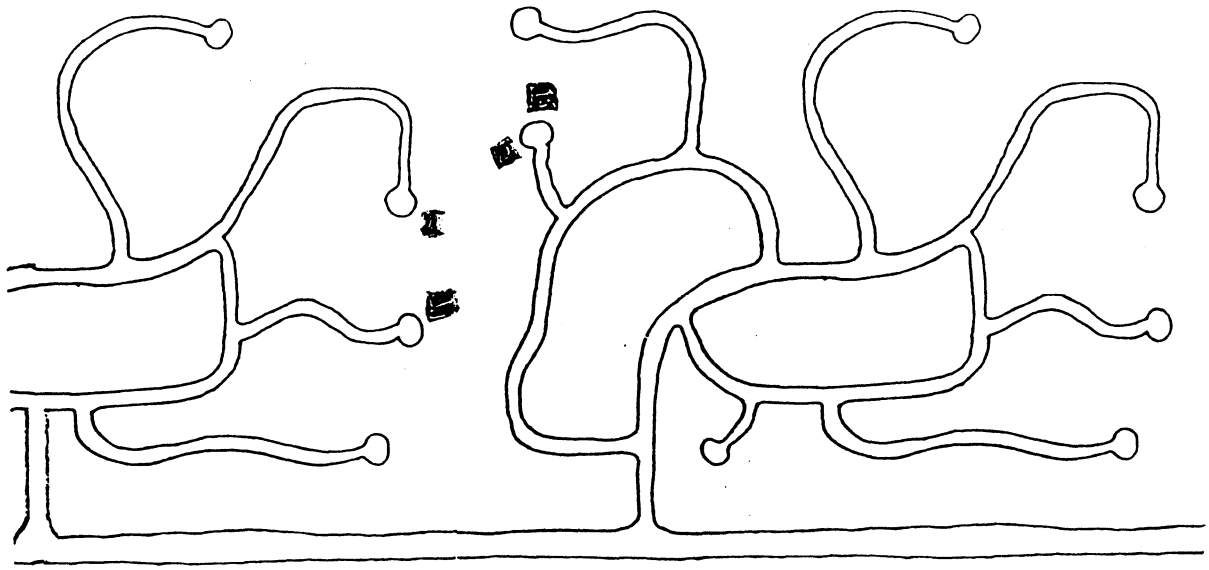
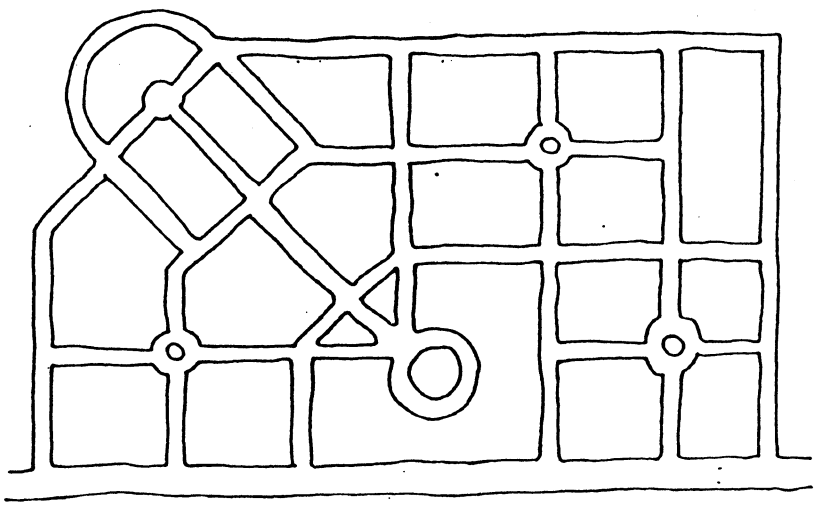


Figure 3. Traditional Grid Pattern Street Design
Allowing Easy Pedestrian and Auto Travel in Any Direction



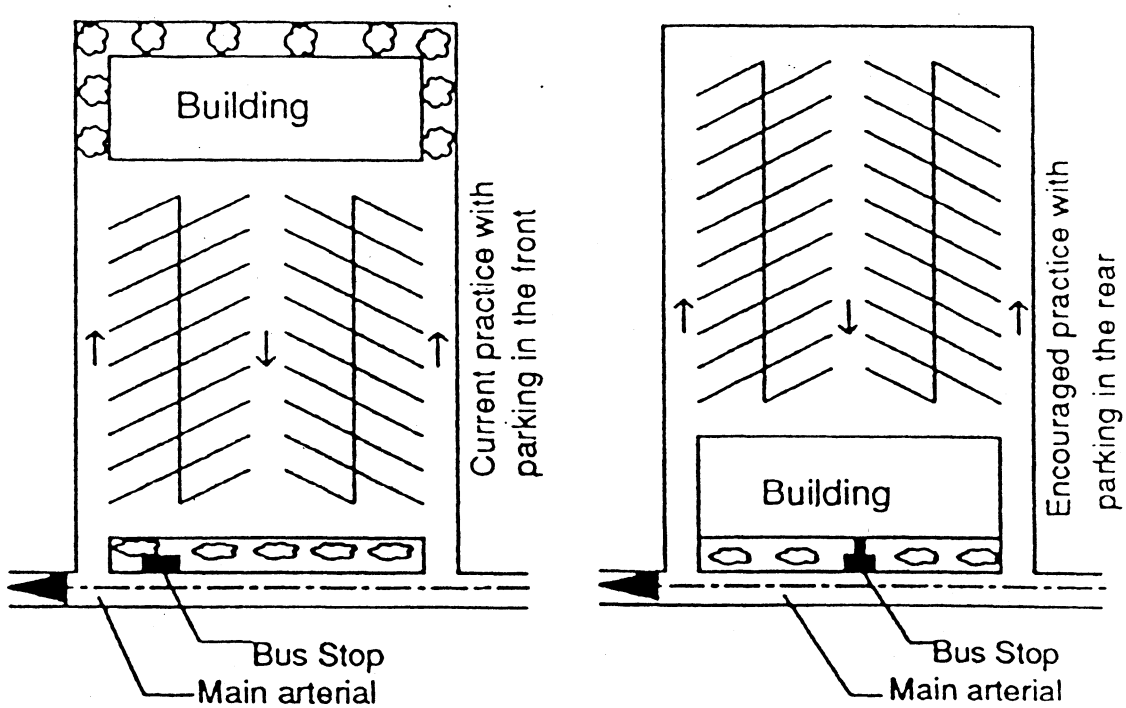
• **Mixed-use development:** A key feature of traditional neighborhood land use has been zoning that allows a mix of single and multi-unit housing as well as small retail and other small businesses. 'Ever forget to get a loaf of bread, some milk, or beer at the big store? Mixed-use zoning allows you to remedy this oversight with a quick dash--on foot--to the corner store. Unfortunately, because housing, retail, and office developments are now typically segregated from each other, getting a couple of things at the store or dropping the kids off at day care usually requires an ozone-producing trip in the car. Or again, we tend to (re)use our cars just to get from one store to another in a segregated-use shopping area because we don't want to wade

through acres of parked cars or across arterial roads. Fixing this problem requires new ordinances and zoning to allow and encourage mixed land use as well as retrofit measures for big, single-use housing areas to provide residents with small retail businesses.

• **Denser, compact development:** Getting somewhere fast and conveniently on foot is often a function of density. Moreover, density is a necessary element in boosting transit ridership to economical levels. The LUTRAQ study found that transit trips in Portland were about 12% of all trips in compact developments vs. only 2% in sprawled areas. In short, density is a crucial factor in emissions.

• **Pedestrian/transit-friendly site design:** Site design standards define what happens in land use at a "micro" level. We all instinctively know what ped/transit-friendly site design looks like. In a word, it's "Main St." Ironically, this is the very quality that an enclosed shopping mall tries to capture--once you drive there. As in Figure 4, key features are entrances to storefronts and other buildings that are close to each other and the main sidewalk. On the other hand, development site designs that use a lot of horizontal space and put parking in front require pedestrians to walk long distances through parked and moving cars. Naturally, few people are willing to do all that.

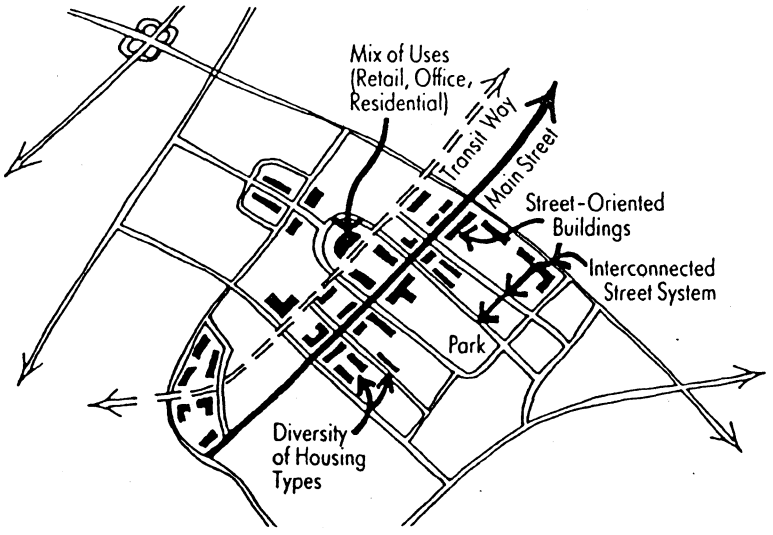
Figure 4. Pedestrian-Friendly and Hostile Site-Designs



• **Transit-oriented (re)development (TOD):** TODs combine many of the above features of ped./transit friendly facilities and land use to create an economical concentration of riders for a transit system. Compactly located businesses and

housing with ped-friendly site design that's close to a transit stop allow for the most efficient and economical passenger transportation possible. Reorienting land use in the direction of TODs may be the singlemost important step we can take to reduce emissions and bring transportation back into balance with the environment.

Figure 5. TOD Development Design



TDM #5. HOV and Carpooling: All that Glitters Isn't Gold

Despite the fervent interest of environmentalists in TDMs, we remain almost completely united in our lack of excitement about HOV lanes and carpooling. Believe it or not, this is not simply because most environmentalists backpack to work, eat granola, or are train freaks whiling away their hours in their downtown basements setting up elaborate model railroad exhibits. In fact, environmentalists drive and fly more than most--mainly enroute to DOT and regional planning conferences. No, the problems we environmentalists have with HOV lanes and carpooling are the result of the following observations:

- When forced to fund some sort of TDM, highway-oriented DOTs tend to push add-a-lane HOV lanes to the exclusion of rubber-tire and rail transit alternatives.
- Add-a-lane HOV lanes have been a "trojan horse" for new regular lanes in many communities across the U.S., especially during non-peak times
- Highway-oriented DOTs tend to define an HOV as car occupied by only two persons resulting i little improvement in serious HOV use
- Carpooling cannot serve the core transit customer community--those who can't drive.

- Carpooling cannot serve the core transit customer community--those who can't drive.
- Rather than decrease SOV use, HOV lanes tend to absorb existing HOVs as well as regular transit users from all over a corridor
- However you slice it, adding an HOV lane adds to highway capacity and thus "induces" new SOV travel. A new lane for certain vehicles frees up space on regular lanes for other vehicles which then makes a car trip more attractive for someone formerly discouraged from SOV use by old congestion levels.
- Carpooling does not get people out of their cars and thus continues to promote sprawl-type development.
- For all of these reasons and more, a growing literature--some of it produced by a special transportation research board committee--beleives that new HOV lanes actually increase SOV travel and emissions of ozone pre-cursors.

TDM #6. Telecommuting, Painless TDMs, & Other Sleights of Hand:

What about compressed work weeks, telecommuting, and staggered work hours? What about intelligent vehicle highway systems (IVHS)? First of all, none of these approaches makes us less dependent upon cars and car-oriented land use. True a compressed work week can make a small difference in VMT, maybe one half of one percent. However, although much ink has been spilled about how people will soon switch from regular highways to the information highway, I wouldn't bet the farm on these techniques. Like most professionals, I enjoy riding the information highway and can't imagine life without it. However, rather than replace my driving it has allowed me to escape postal time delays and complement my face-to-face meetings with extra meetings, extra revisions of my memos and papers for clients, and more detailed literature and information searches. In short, the information highway has made me more productive without reducing my driving.

But what about non-professional employees telecommuting at home? I believe that only a limited number of employees (who don't need to drive during the workday) will ever be sent home to work. What's more, commuter trips are not really our biggest trip problem. Three-quarters of our trips are not work-related and it's that segment of our trips that is increasing. And, staying home all day could simply encourage more people to jump into their cars to do more errands than they now do.

Meanwhile, although staggered work hours and IVHS could reduce congestion and some of the emissions that result from idling cars, the overall effect is likely to be minor. The potential reduction in emissions from these approaches is small by anyone's estimate. More importantly, however, the higher vehicle speeds that could result from less congestion could simply spell more emissions to the extent that more cars exceed 35 miles per hour. Finally, if these measures are effective in

reducing congestion or the number of rush hour cars, this could simply add to road capacity and thus induce more driving.

E. PRACTICALITIES: ENVIRONMENTAL REALISM PLUS ADEQUATE PUBLIC EDUCATION

So, what's practical or realistic regarding TDMs? Highway enthusiasts tend to stress political realism given the dearth of public knowledge about transportation problems. They speak with a wise pessimism about the American love affair with the car and its identification with old fashioned American freedom. In short, there is no way in the near future that we are going to promote urban infill, reinvest in our cities, hold the line on new highway capacity, or fund any significant improvements in alternative modes. The code name for this strategy is voluntary ECO, exhortations about carpooling, and new diamond lanes on I-94.

Meanwhile, we environmentalists urge you not to be so quick to throw in the towel or appease the enemy--that is, sprawl and SOV use. Starting from an objective realism about what steps have a realistic chance of beating this enemy, we would argue that this is not the time emulate Chamberlain. Instead, our relatively Churchillian approach stresses these points:

1. Let's take seriously the one-third or so of current SOV drivers who, according to national polls, say they would switch from driving to another way to get to work if given an option.

2. Let's put our energy towards implementing the most effective TDMs and those TDMs most likely to have what clinicians call a "broad ban" effect--that is, those TDMs that affect a number of social, economic, and environmental problems in addition to short term air pollution problems. Using our brightest DOT personnel to sell us HOV and carpooling is a waste of precious time and public resources. We need a DOT Secretary and management team that charges its staff to promote transit and more efficient land use as well as effectively as it currently promotes roads.

3. Of course, as Churchill (and Roosevelt) knew, it does no good to issue a call to arms minus the spade work needed to bring the public and various public agencies up to speed about the crisis we face.

Doing the spadework necessary on TDMs means putting an end to the current WisDOT strategy of minimizing the problems with driving as well as minimizing the directives of the Clean Air Act and ISTEA's call for multimodal funding. It also means starting a serious, TransLink-sized education campaign and information-gathering effort designed to raise the public's awareness about the costs of driving and sprawl and about the alternatives to driving. Think about the difference it might make if DOT generated, and then conducted, a publicity campaign using these kinds of information:

- the estimated number of area hospitalizations, deaths, and agricultural losses attributable to current ozone levels.
- local property tax subsidies for roads
- an Apogee-type analysis of the extra societal, environmental, user, and fiscal costs associated with a transit-oriented vs. highway-oriented long range transportation plan for the SEWRPC area. If the Conservation Law Foundation can afford to do this than WisDOT can surely afford it.
- a spreadsheet type PC computer program for local units of government to calculate the extra costs associated with sprawl developments like Pabst Farms relative to urban infill
- the positive affects on Wisconsin's economy that might result from saving some of the billions of dollars we now send out of state every year to pay for motor fuel.
- the difference in the number of trips generated and pollution produced with compact vs. sprawl-type residential development.

Clearly, this list could roll on and on. But my point is made, I hope. Wisconsin has received several million dollars in new planning dollars annually since 1992 and by and large this money has been used to rationalize old plans, not develop the kind of information that would convince the public to invest in multimodal transportation.

I remain convinced that at some point we *will* develop the information, the campaign, and the TDM approaches we really need. I will continue working to make that day come sooner rather than later. I don't think that there's any doubt that the longer we wait the higher the price tag we'll eventually pay--not only in terms of dollars, but also in terms of our children's quality of life.

U.S. Department Of Transportation
Federal Transit Administration

Attachment E-2

TDM Status Report
Parking Cash Out

February 1994

Office of Technical Assistance and Safety * Office of Mobility Enhancement * Service Assistance Division

PARKING CASH OUT

I. DESCRIPTION

Employers often provide employees with subsidized parking. Employers may provide free parking to employees in parking spaces they own or lease, or provide parking at rates below market value in the area. The parking subsidy is the difference between what employees pay for parking, if anything, and the market rate for parking as established by comparison with rates for long term parking in the vicinity of the employer.

Employer paid or subsidized parking boosts employee use of autos for commuting. Studies of like employers with and without employer paid parking suggests employer paid parking increases the number of cars driven to work by an average of 19 cars per 100 employees, and increases solo driving about 25 percent.[1]

There are at least two ways to change employer parking subsidies in the interest of reducing their effect on solo driving. The charge parking or "cold turkey" approach removes the subsidy and provides no form of compensation. While potentially effective in reducing solo driving, employees accustomed to employer parking subsidies are likely to resist a sudden end in subsidies. The "Cash Out" perhaps is a more acceptable way to deal with parking subsidies. Under this option, the employer gives employees eligible for discount parking the choice of taking subsidized parking or taking the parking subsidy in cash. This option may be more acceptable because it provides subsidized employees a new choice. They may continue to enjoy the same subsidized parking, or they may take the cash equivalent of the subsidy and use transit or carpools or even continue solo driving as long as they park outside the employer owned or leased parking facilities.

The cash out is different from a general travel allowance or from subsidies targeted toward transit or carpool ("alternative mode") users. The cash out is tied specifically to the parking subsidy. In the case where the employer leases parking, the subsidy is the difference between what the employee pays, if anything, and the lease rate for the parking space. In the case of owned parking, the subsidy is the difference between the fair market value of the parking in the vicinity and what the employee pays. In either case, it is directed only at parkers eligible for subsidies. In some companies, the cash out might apply only to a small set of employees eligible for parking subsidies. Examples include managers or employees with the most seniority. Only these employees would be eligible for the cash out option. In contrast, a travel allowance is not tied to the parking subsidy. It may be set at any rate and may be offered to all employees or to alternative mode users.

New California legislation will soon provide numerous examples of the cash out. AB2109 requires certain employers in poor air quality areas to offer employees the cash out option. Specifically, employers who provide employees with lease parking for free or a discount must offer the same employees the option of taking the parking subsidy in cash.

II. EFFECTS

Travel Effects

Documented experience with the cash out concept is limited. However, its effectiveness in reducing auto use can be estimated from experience with charge parking, alone or in combination with a general travel allowance. There are cases in the literature showing the effect of introducing employee charge parking without a simultaneous change in other transportation program variables. Based on these cases, if the cash out is as effective as charge parking without any cash or allowance alternative, solo driving might decline significantly. Two examples suggest the possible range of effectiveness:

- Twentieth Century Corporation, Los Angeles, CA: A program of transit and vanpool subsidies as well as preferential parking for carpoolers had little effect until the company raised the price of employee parking from no charge to $30 per month for solo drivers. Solo driving decreased from 90 to 65 percent after pricing, a 49 percent decline.[2]

K.T. Analytics, Inc., 103 Baughmans Lane, Frederick, Maryland 21702

- Commuter Computer, Los Angeles, CA: This Los Angeles company dropped the drive alone share from 42 percent to 8 percent by eliminating free parking, an 81 percent decline.[3]

The cash out probably will not be as effective in reducing solo driving among employees at any given work site as charging employees for parking with no other compensations. Under the cash out, only employees opting to take the cash out face new parking charges. And, even among those employees facing new parking charges, the cash out will be less effective than the charge parking ("cold turkey") option simply because employees have cash to pay for some or all the parking cost.

How much *less* effective might be the cash out compared to charge parking? An indication is provided by a model predicting effectiveness of the cash out. The model is based on results of parking pricing experience among a national sample of employers, formulated into a relationship between price and the drive alone share among commuters. The model was developed by Donald Shoup at the University of California, Los Angeles.[4] According to the model, the cash out might be about two thirds as effective as charge parking.

Another way to gauge the effectiveness of the cash out is to examine experience where employers have charged for employee parking but combined pricing with a general travel allowance. Specifically, since the cash out entails charge parking for employees who take cash, it is somewhat similar to combining charge parking with a travel allowance for some or all employees. Certainly, the cash out effect should be closer in effectiveness to this option than charge parking alone. As expected, at least some programs combining charge parking and travel allowances are less effective in reducing solo driving than previous examples of charge parking alone:

- Los Angeles County, Los Angeles, CA: Eliminated free parking for civic center employees and charged from $120 to $70 per month depending on location. Provided $70 per employee transportation allowance. Solo shares declined from 53 to 47 percent, an 11 percent decline.[5]

- CH2M Hill, Bellevue, WA: Began charging solo drivers $40 per month for parking, the amount the company pays the building owner for parking. All employees receive a $40 per month travel allowance in their paychecks. Carpoolers park for free. Walkers, cyclists and drop offs keep the travel allowance. Solo driving declined from 89 percent to 64 percent after the parking policies were put into place, a 28 percent decline.[6]

Of course, the applicability and effectiveness of the cash out depends on a variety of area and employer variables:

- The proportion of employees who are candidates for the cash out. For example, the cash out option may not apply to employees who use personal vehicles as a condition of work.

- Availability of transit and other alternatives to solo driving which might attract employees to take the cash out and use these alternatives

- Availability of uncontrolled parking supplies (e.g. neighborhood streets, vacant lots, utility and train right of ways) where some employees might be tempted to park after taking the cash out.

Other Effects

Because the cash out reduces solo driving and traffic, it also reduces vehicle miles of travel and related emissions. One study suggests the cash out might reduce VMT from 24.1 to 20 per day per employee in the Los Angeles area.[7] This reduction translates into a savings of roughly $2.3 million in annual pollution costs for the area.

Another important effect of the cash out is on employer parking. As employees opt for the cash out, employers will require less parking. Employers leasing parking may be able to reduce the number of stalls leased and thereby reduce costs. Of course, if the employer can not re-negotiate the lease or if the lease rate for parking is buried in the overall building space lease, it may not be so simple to reduce lease costs. Employers owning parking may be able to use freed up space for other than parking, or offer the stalls on the open market at long or short term rates.

Developers also may gain from the cash out as the need for employee parking declines. They will save by reducing the amount of garage and parking lot space necessary to service commuters. As an illustration, suppose the developer is allowed to build 1,000 fewer surface spaces around an office building because of reduced commuter parking demand. A conservative estimate of amortized savings might be about $900 per stall per year. Amortized over 30 years at 10 percent, the annual savings are about $95,500 per year. Operations and maintenance savings might be $100 per space per year), or $100,000.

One of the possible ill-effects of the cash out is spillover parking. Parkers accepting the cash out and exiting their usual parking facilities may be tempted to park on street in neighborhoods and commercial districts, or may turn to meter feeding. Anticipating this possibility as a result of the cash out law recently passed in California, the legislation provides (Section 1f) that employees accepting the cash out must comply with employer guidelines designed to avoid spillover parking in neighborhoods or lose the cash out privilege.

III. IMPLEMENTATION

Applicability

The potential of the cash out concept relates first and foremost to the degree of employer subsidized parking in an area. The proportion of commuters with employers paying for all or part of parking may be over 50 percent in some areas.[8]

The availability of alternative free or unregulated parking within an area considered for the cash out is another applicability consideration. An ample supply of parking will tend to reduce the proportion of solo drivers taking the cash out and switching to alternative modes.

The capacity of transit and rideshare services in an area is an important applicability issue. Price increases will shift more commuters to transit or ridesharing where these services and opportunities are best, all else being equal.

Applicability also may be determined by the proportion of lease versus owned parking in an area. If recent state legislation requiring the cash out option in California is any guide, the first application of the cash out will be to employers who lease rather than own parking. These employers stand the best chance of being able to shrink lease parking as they pay the cash out.

The proportion of lease versus own parking will vary across jurisdictions, company size, private versus public sector and urban versus suburban setting. For example, a recent survey of employers in the Honolulu area suggests the highest proportions of own versus lease parking might be in Waikiki as opposed to downtown. The first area is dominated by hotels where 92 percent of employers own their own parking. In downtown, only 32 percent own parking, with the private sector leasing more than the public sector.[9] Thus, in this example, the cash out is initially most applicable to private employers in the downtown.

The structure of lease parking also will bear on applicability. As mentioned, the cost of parking to an employer may be lumped into the overall lease rate or simply not negotiable separate from the overall lease rate. Little is known about the proportion of leases in urban areas with parking rates bundled versus separated. In the Honolulu area, parking lumped into the overall lease can be found in up to one third of the leases depending on specific area.[10]

Applicability also depends on the willingness of jurisdictions to alter parking codes in concert with the cash out. In the best case, localities will revisit parking requirements in light of reduced commuter demand for parking and alter codes accordingly.

Company policies with respect to personal or company car use are another issue in applicability. The fewer the number of employees that fall under such policies, the better the prospects for cash out since such policies complicate consideration of the cash out. At the least, policies encouraging personal or company car use raise questions about which employees will fall under what policies or whether the policies need revision.

Office of Technical Assistance and Safety * Office of Mobility Enhancement * Service Assistance Division

Policy Development

There are a variety of policy issues to consider in the implementation of a cash out program. Legislation or regulation is needed to implement a program, unless the cash out is simply promoted to employers on a voluntary basis. Additionally, tax codes and labor agreements may need review and modification.

- *Enabling Legislation:* If implemented at the metropolitan level, enabling legislation might take the form of an ordinance. A cash out ordinance might require employers who offer subsidized parking to any employees to offer those same eligible employees the option of taking the cash equivalent instead of the parking. The ordinance might apply to all employers in a central business district, to regional activity centers or to an entire region. It might apply to all public and private employers over a certain size threshold, to just leased parking or leased and owned parking. All depends on perceptions of traffic problems in the areas, political support for action or the status of other transportation and parking programs in the respective areas.

- *Tax Code Reference/Modifications:* A cash out ordinance should indicate the cash out is a taxable fringe-benefit which employees must report. While not strictly necessary, it may be advisable to clarify its deductibility as a business expense in both state and federal tax codes, since it is not treated explicitly in such codes. There are other state tax code changes which are not required but advisable to consider in the case of the cash out. Limiting State tax deductibility of parking allowances and subsides in line with recent changes in the federal tax law, or reducing deductibility for state taxes even further than the federal limit, would put the cash out on a more competitive footing with the subsidized parking benefit.[11]

- *Labor Contract Negotiations:* In some cases, the cash out may require negotiations between union and management. Where parking privileges have been negotiated as a formal benefit between labor and management, the cash out probably will require negotiations. Unions may or may not resist the cash out depending on the package of wages and benefits under negotiations at the time cash out options are brought up. One point of contention might be that the cash out is a benefit to only one segment of employees, those eligible for parking privileges. Union representatives may push for a broader based benefit, such as the travel allowance applying to all employees.

- *Parking Code Modifications:* Because the cash out can be expected to reduce parking demand, localities should re-evaluate parking requirements for new office, industrial and other developments generating commuter parking in the zone where the cash out applies. It should be possible to reduce requirements for such future developments. Furthermore, because parking demand will fall in *existing* developments as well, it may be possible for employers to satisfy employee parking demand by leasing available parking in other buildings off site. Parking code provisions might be revised, if necessary, to permit this action as a way to satisfy code requirements.

Program Exemptions

Where employers are bound to provide subsidized parking by collective bargaining agreement in effect prior to the effective date of the regulation, any enabling ordinance might exempt employers from ordinance requirements until expiration of such agreements. The ordinance should not conflict with or supersede employer obligation under any such agreement.

Exemption also is needed to account for certain parking lease provisions. Under the cash out, employers should be exempted whose current parking leases preven reductions in the number of stalls without penalty. The exemption should run only until expiration of the lease. The cash out also might exempt owned parking spaces, if the owned parking issue proves a barrier to the political feasibility of a cash out ordinance. Another option might be to exempt only those owners who can demonstrate

significant financial penalty resulting from inability to utilize parking freed up under the cash out.

Exemptions also should address employees in appropriate special circumstances. For example, the Los Angeles County Charge Parking and Travel Allowance program (not a true cash out, but instructive nevertheless) excludes Judges and Commissioners of the Municipal or Superior court; employees assigned to double shift operations; all "mileage permittees" (those using personal cars as a condition of work); employees who begin work on a regular shift beginning before 6:00 a.m. or after 2:00 p.m.; and rotational shift employees in the Sheriff's Department. Where employers perceive a conflict between cashing out employees and policies providing for use of personal vehicles as a condition of work, one approach might be to follow the Los Angeles County example and simply exclude from the ordinance employees using personal vehicles as a condition of work.

Of course, as with any exemptions, care should be taken not to weaken the ordinance's intent and effect. If those with personal car use assignments as a work condition are exempted, requests for personal car use may well increase. Thus, it may be appropriate to tighten the approval process for personal car use at the same time a cash out is implemented. For example, Los Angeles County requires "mileage permittee" approval by not only department heads but the Auditor Controller as a way to discourage abuse of the policy.

Violation, Notice and Penalties

Any cash out ordinance pertaining to private sector employers should incorporate customary penalties for violation of requirements. For example, where the ordinance requires providing information to employees about the cash out option as evidenced by postings, written company policy, employee orientation materials or other means, failure to do so after appropriate notice should be defined as a violation with associated penalties.

Monitoring and Enforcement

The implementation of any cash out policy must be monitored and enforced. There are options ranging from least to most proactive. The least proactive approach would require employers to post notice of the policy, keep records of employees receiving the cash out and be subject to spot checks for compliance on posting and records. This approach parallels the way most jurisdictions enforce standard health and safety regulations. More proactive would be the additional requirement of annual reporting to the regulating jurisdiction, following a specified report format. Reports would be reviewed, accepted or rejected for compliance in the same way localities enforce trip reduction ordinances.

Monitoring also will entail a periodic check of market rates. The cash out references the market rate to establish the cash out level. Monitoring needs to check on cash out subsidies paid relative to market rate. The simplest monitoring procedure might be to allow employers to establish market rate in their vicinity and for the monitor to cross check these rates against a periodic survey of rates in the area subject to the ordinance. Such a survey of rates for some downtowns is conducted periodically by Downtown Improvement Associations.

Costs and Benefits

In structuring program proposals for the cash out, planners must be sensitive to the cost benefit implications for employees, employers, building owners and developers.

Employees under the cash out generally are the same or better off. Upper income employees concerned with the tax implications of taking the cash out can opt to remain with subsidized parking. Lower income employees, on the other hand, may decide cash is preferable to subsidized parking, in spite of the tax implications. These employees who accept the cash occasionally will ride transit, or carpool and share parking costs. Because this choice is more likely to be made by lower income employees, the cash out is "progressive," meaning it is more likely low income employees will take advantage of it than upper income employees. *Since the cash out is purely voluntary, those accepting it must count themselves at least as well off or better off than before.* Overall, employees are better off as a group, since those selecting the cash out have a new source of income.

On the employer side, there is no loss if the employer can reduce lease parking costs as employees accept the cash out and vacate spaces. To take an example, the employer leasing stalls for $150 per month and receiving $50 per month from employees per stall is no worse off if he or she pays $100 (the "cash out" subsidy) to employees who vacate stalls and then reduces the lease cost by the number of vacated stalls. Essentially, instead of paying the parking operator $100 on net for a stall ($150 - $50), the employer is now paying the vacating employee the $100. Of course, this situation changes if the employer can not reduce parking lease costs.

For building owners operating commuter parking facilities, all depends on how the owner can utilize parking freed up due to the cash out. It may be possible for these owners to lease the available space on the open market, especially if new developments are allowed to satisfy their parking code requirements by securing lease parking off site. Of course, if the owner can not "sell" the spaces freed up by vacating employees, the employer's financial condition may be worse compared to before, not the same.

For developers of future properties serving commuters, much depends on if and how the cash out is related to parking code revisions. As discussed, developers of future offices might benefit if parking requirements are reduced and/or made flexible to allow some portion of the requirement to be met off site.

IV. FUTURE DIRECTIONS

While experience with the pure cash out concept is limited, evidence from experience with other parking pricing approaches suggests it should be effective in reducing commuter solo driving. Specific effectiveness and implementation issues deserve attention in future applications:

Effectiveness

- What is the reduction in solo driving attributable to cash out programs, and the influence of site specific variables such as available alternative parking and transit/rideshare capacities? What about unintended consequences such as spillover into unregulated areas or meter feeding?

- What are the best markets for the cash out in terms of employers owning and leasing parking, public versus private sector, lease conditions and levels of employer subsidies for employee parking?

- Which employees opt and don't opt for the cash out, and what are the financial implications for employees and employers? What do employers do with freed up parking? If converted to short term parking, what is the evidence about any new shopping or other trips generated?

- What are the implications of reduced auto use on parking code requirements for office, industrial, research and development and other uses generating employee parking demand? What cost savings might be possible?

- What are the effects on carpooling and transit use, and the financial implications?

Implementation

- How was the cash out program implemented? Who objected and supported initial proposals? What compromises were necessary? What position did unions take? Was there a need to re-negotiate any labor agreements? Was the fact that the cash out is taxable a major or minor point in discussion of the concept? To what extent was there a problem with parking lease rates lumped with overall lease rates? What were the positions of building owners, operators of commercial parking and developers?

- Was possible spillover anticipated and were any actions taken to guard against it? Was transit capacity enhanced or were rideshare services augmented along with the cash out?

- What policies accompanied the program and which should be developed in future applications? What were the terms of the enabling ordinance, especially with respect to areas and types of employers under

the regulation? What were the new terms of revised union agreements, if any? What tax code changes were made, if any, and which others might be advisable to consider? What exemptions were developed pertaining to types of employees, employer policies, union agreements or lease provisions? What parking code modifications, if any, were made or are anticipated?

- How are employers informed of the cash out program requirement? Generally, how is the program administered? How are market rates established as a benchmark for the cash out? By zone?

- How is compliance with the cash out program to be monitored? What records must employers keep? What are enforcement procedures and penalties for violations? What are appropriate and justifiable penalty provisions?

- With respect to all these issues, what are lessons learned and recommendations for other localities interested in possible application of the cash out?

Footnotes

[1] "Commuting, Congestion and Pollution: The Employer-Paid Parking Connection," Donald Shoup, Richard Wilson, prepared for the Federal Highway Administration *Congestion Pricing Symposium*, June, 1992. Also see, *Cashing Out Employer Paid Parking*, Donald Shoup, for the Federal Transit Administration, FTA-CA11-0035-92-1, December 1992.

[2] *Parking Subsidies and Commuter Mode Choice: Assessing the Evidence*, Richard Willson, Donald Shoup and Martin Wachs, University of California at Los Angeles, July, 1989.

[3] *The Effects of Ending Employer-Paid Parking for Solo Drivers*, Monica Surber, Donald Shoup, Martin Wachs, University of California, Los Angeles, California, 1984.

[4] *Commuting, Congestion and Pollution: The Employer-Paid Connection*, Donald Shoup and Richard Willson, Op. Cit.

[5] *The Effects of Parking Pricing and a Transportation Allowance on Commute Behavior and Employee Attitudes*, Tanya Husick, Commuter Transportation Services, Los Angeles, December 15, 1992.

[6] *Proceedings - Commuter Parking Symposium, Sponsored by Metro and Association for Commuter Transportation*, Seattle Washington, December, 1990.

[7] *Commuting, Congestion and Pollution: The Employer-Paid Connection*, Donald Shoup and Richard Willson, Op. Cit.

[8] *The Effect of Employer Paid Parking in Downtown Los Angeles*, Donald Shoup and Richard Willson, Op. Cit.

[9] *Oahu Transportation Systems Management Study, Alternatives to Employee Parking Subsidies*, for Oahu Metropolitan Planning Organization, by Wilbur Smith Associates and K.T. Analytics, Inc., April, 1993.

[10] *Oahu Transportation Systems Management Study, Alternatives to Employee Parking Subsidies*, Wilbur Smith Associates and K.T. Analytics, Inc., Op.Cit.

[11] It is important to appreciate how tax treatment of the cash out contrasts with treatment of parking and alternative mode subsidies. Under current federal tax law effective January 1, 1993 employer provided parking is exempt from gross income, as previously, but only up to $155 per month under new provisions (IRS Code, Section 1321). An employer provided mass transit or vanpool subsidy is exempt from gross income up to $60 per month, unless the subsidy is paid to an employee in the form of cash, in which case it is taxable.

SESSION E

FOCUS ON TRANSPORTATION DEMAND MANAGEMENT MEASURES: COSTS, BENEFITS, AND PRACTICALITIES

Panelist: Ernest Stetenfeld, Director of Public and Government Relations
Wisconsin Division, American Automobile Association

While there are some areas in which we agree, and some areas in which we disagree, I always find Mr. Kennedy's comments both challenging and interesting.

By way of introduction, I would like to explain briefly what the American Automobile Association, or AAA, is, and why it does not have as strongly vested an interest in the automobile as some people might think. The AAA is a nonprofit motor and travel club with 470,000 members in the State of Wisconsin and about 33 million members nationally. From my perspective as a member of the staff of the Wisconsin Division of the AAA, I can tell you that the AAA is multimodal, at least in one sense of that word. Specifically, the AAA, in addition to serving motorists, is also a travel agency with 13 outlet locations in Wisconsin. We sell a large number of Amtrak tickets, probably more than any other travel agency in the State. Given that, one could say that we promote and support intercity railway passenger service and use.

More importantly, I believe that you can nevertheless discount any suggestion that the AAA has any vested interest in transportation demand management, or TDM, primarily because our members do not hold us accountable for what happens with TDM proposals. That might not be good, but even if the public suddenly was required to pay a dollar more per gallon of gasoline in an effort to manage transportation demand, I do not think we would see a large number of AAA members cutting up their membership cards and sending them back to us in protest. To illuminate this point, let me note that in New York City, perhaps the one area within the United States where AAA members and the general public feel least inclined to own an automobile, AAA nonetheless has done very well in terms of membership recruitment and retention. The principal reason for this is that the AAA's New York City members like other benefits of membership, particularly the auto-rental discounts that are made available to them through such membership.

With regard to TDM, we at the AAA are concerned about it primarily from the perspective of the AAA's historic role as the motorist's champion. That term may be outdated and clichéd, but we still find ourselves motivated by it.

We find much of what Mr. Kennedy discussed, as well as much of what the SEWRPC Advisory Committee considered under Alternative Plan 1 in formulating the preliminary regional transportation system plan, to be inappropriate in its focus as, in effect, an attack on the personal mobility conferred by our dominant mode of transportation—and we do have a dominant mode of transportation. That mode involves automobiles operating on highways. During his presentation, Mr. Kennedy mentioned the idea of considering transportation options on an equal footing, or taking a balanced approach to transportation. I do not think we owe anything to any particular mode of transportation, including highways. We do owe something, however, to the people who use the transportation system, and the vast majority of those people operate automobiles on highways. They are also the people who generate revenues at both the Federal and State levels. For instance, the greatest proportion of our State transportation fund—about 96 percent—is derived from taxes paid by motorists, mainly gasoline taxes and vehicle-registration fees. Indeed, most of the money that subsidizes mass transit comes from taxes paid by motorists. Mr. Kennedy indicated that automobile transportation places a heavy burden on the property tax. I will address that issue.

First, however, I would like to address the question, "Why TDM?" We need to focus on the "why" aspect of TDM. Mr. Kennedy explicitly, or implicitly, addressed some of the potential answers to that question in his presentation. However, I would like to address the issues of ozone pollution—as raised by the Federal Clean Air Act Amendments of 1990—traffic congestion, global warming, urban sprawl, externalities, and transportation-based burdens on the property tax, in turn.

Ozone pollution appears to be the primary impetus behind the Federal legal cudgels we now face. Progress in reducing ozone pollution, as defined under the Clean Air Act Amendments, is tied into the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA, the major Federal transportation funding legislation enacted in 1991. Mr. Kennedy has stated that TDM is the only way to deal with the root cause of increasing ozone levels. If I am correct, he specifically means ozone increases arising from the transportation sector. That qualification partially answers my objections to his statements about TDM, but I nonetheless disagree with him on this issue for several reasons. First, ozone pollution is decreasing. In 1990, transportation contributed about 26 percent of all volatile-organic-compound, or VOC, emissions in Southeastern Wisconsin, if one includes biogenic emissions. If one excludes biogenic emissions, transportation-based emissions constituted about 40 percent of the human-generated total in 1990. Transportation-sector emissions totaled about 160 tons per day in 1990, but automobile emissions constitute a decreasing portion of a declining overall level of VOC emissions in the Region. Under the Wisconsin Department of Natural Resources' State implementation plan for air quality, a plan required by the Federal Clean Air Act Amendments, it is anticipated that by 1996, only about 20 to 25 percent of the VOC emissions, which is what matters with regard to ozone formation in this part of the world, will come from the mobile-source sector. This amounts to a total of about 65 tons per day. By the year 2007, an important year under the Clean Air Act Amendments, the Department's plan anticipates a 75 percent reduction in VOC emissions from the transportation sector.

The Department of Natural Resources prepared the State implementation plan for air quality in two ways: assuming the presence, and then the absence, of the Employee Commute Options, or ECO, program. The ECO program made little difference in air quality under the two alternatives. The major factor in the anticipated attainment of the Clean Air Act's ozone standards is envisioned to be turnover in the overall vehicle fleet. Ozone levels will decrease as people replace older vehicles with new, cleaner ones. We will be financing the cleaning of our air in part through the purchase of new vehicles. Other key factors in this expected decrease include enhanced vehicle inspection and maintenance requirements, which the AAA basically supports, as well as the use of reformulated gasoline, which the AAA also basically supports, although not uncritically; some fine points are involved with regard to the issue of using reformulated gasoline.

All this means that the mobile-source sector, even assuming no TDM measures are implemented, will bear the greatest share of the responsibility for reducing ozone levels in the Region—a share proportionately well beyond the proportion of the overall problem that the sector creates.

In Wisconsin, particularly Southeastern Wisconsin, we might in fact be doing even more than we might be required to do under current Federal law. We have a transportation situation that could overwhelm any effort that we make on our own, including any TDM measures that we put in place. Let me cite the issue of global warming, which I will specifically address later, as an example. Mr. Kennedy stated that anything we do now regarding global warming ought to stand us in good stead later if and when Federal regulations on global warming are promulgated. These regulations may be even more stringent than anything the Clinton administration may propose to bring the United States into compliance with the Rio de Janeiro accord on global warming. I disagree with Mr. Kennedy on this. We in Wisconsin and in the Region could find ourselves in a "tight spot" by virtually doing too much unilaterally and too early to address a problem that requires a truly global approach and calls for at least a national response—if it really is a problem. We in Wisconsin and the Region could find ourselves being required, for example, to reduce emissions of carbon dioxide and methane by the same percentage everyone else in the United States may have to—despite the significant strides we have already made through our own efforts. We may not get any credit for such successful efforts. This has already happened to us in Wisconsin in some areas of environmental regulation.

As for traffic congestion, the proposed "medicine" of TDM measures may be worse than the "disease." This is not to say that Southeastern Wisconsin does not have a real problem with traffic congestion. Under the preliminary recommended regional transportation system plan, however, we can potentially make significant progress toward abating congestion without significant implementation of TDM measures.

Global warming is a serious issue that I will not dismiss. A majority of climatologists give credence to the concept of global warming based on the computer models they have constructed. However, global warming is not well evidenced by empirical data. A climatologist at the University of Wisconsin-Milwaukee, in fact, has found that polar ice-cap temperatures indicate a potential countervailing trend. As I stated earlier, if

global warming truly is a problem, the needed solutions should be at least national—and probably international—in scope. In this regard, the AAA would support, for instance, more stringent corporate average fuel economy, or CAFE, standards for vehicles nationally and worldwide.

If urban sprawl, which I consider the real crux of Mr. Kennedy's presentation, is indeed the major problem, then let us control land use directly. This is much easier said than done, but trying to control land use indirectly through TDM measures of various kinds is at least as difficult politically as any efforts to implement direct land use controls would be.

Finally, let me address the issues of externalities and of the burden that transportation places on the property tax. Externalities do exist in the transportation sector, but they also exist in every other sector of our economy—in agriculture, in the purchasing of groceries, and in the purchasing of spray paint, for example. Some of the claims regarding transportation-based externalities appear to be exaggerated. It is sometimes claimed, for example, that discouraging automobile use will require our having to accept a prescribed set of corollary changes that we would find very difficult to live with. Rather than such an all-or-nothing approach, a more appropriate measure of externalized costs would be marginal in nature. For example, we could ask: How many fewer police officers would we need if we abandoned the automobile in favor of some alternative mode of transportation? What is that alternative system? How much less snow plowing would be required? What local roads could we do without? What difference in personal-injury costs would we see under that alternative versus what we now have? Questions like these should be asked when we consider externalities. We must also keep in mind that automobile users do bear externality costs; many costs are merely shifted from one category to another, but that shifting does not change who pays those costs.

As far as property taxes and transportation are concerned, keep in mind that about 80 percent of the lane-miles in our transportation system serve a property-access function. I do not know exactly what the appropriate level of property taxation for transportation purposes is, but I suggest that there is an appropriate level. When someone talks about shifting transportation improvement costs from the property tax, that person is not necessarily talking about property-tax relief. That argument has been made extensively in other areas, including that of sales-tax issues. I will not belabor the point.

Basically, speaking for both the AAA and myself, some of the kinds of "fixes" that I would prefer include more stringent CAFE standards; alternative fuels; intelligent vehicle highway systems; more stringent land use controls; and remote sensing for pollution violations.

These issues merit full and open discussion. Thank you.

SESSION E

FOCUS ON TRANSPORTATION DEMAND MANAGEMENT MEASURES: COSTS, BENEFITS, AND PRACTICALITIES

Panelist: Peter W. Beitzel, Vice-President of International Trade, Transportation, and Business Development, Metropolitan Milwaukee Association of Commerce

Mr. Kennedy has made an excellent presentation. My job is to critique it; that generally means finding fault with it. I did not find much fault with it. I have several comments to make, however, only one of which can really be called a finding of fault. Given how the comments are being made by someone representing business to someone representing the environmental community, I think that shows how we have come a long way in trying to work together.

One of the problems in addressing the exodus of people from urban to suburban areas—a phenomenon often blamed on highway improvement—is that many people overlook other serious factors influencing this decentralization, such as higher urban taxation, higher crime rates, and poorer educational opportunities. It is admittedly impossible to address all of these factors at once, since the public facilities and services involved compete with transportation for public funding; we nonetheless should try to address them all.

As depressing as this reality may be, I experienced something that depressed me even more about two weeks ago during a trip to Japan. While there, I saw a new research and academic park under construction across the bay from Tokyo. This massive project dwarfs any comparable project undertaken in the United States. But what is truly incredible about this project is that it is not going to be connected to the transportation system by a rail line. It is going to be connected by highways. My reaction to the Japanese was, "You have a great system of railways in Japan. Why are you doing this?" They answered, "Highways are what people want. People want to get to places by automobile, not by rail." I found that answer amazing. While the United States has a tremendous way to go in educating its people regarding transportation choices alternative to the automobile, Japan, which has an outstanding multimodal transportation system, is embracing highways. I did not consider this to be good news.

Let me turn to my critique of Mr. Kennedy's presentation. Part C of his presentation, which begins on page 3 of his handout, discusses the issue of transportation costs. I agree with him in saying that we must educate the people regarding the true costs of automobile use. This "untold story" includes the facts about the amount of land used for roads—and how much of that land could be put to better use on property-tax rolls. This is an important issue which needs to be considered in planning and in urban development, but most people have no understanding of this issue.

On page 7 of his paper, Mr. Kennedy discusses "pay-as-you-drive" automobile insurance. Mr. Kennedy uses an annual driving-mileage figure of 10,000 miles in his example. Most people drive more miles each year than that. They also pay a good deal more for automobile insurance than the $300-per-year figure he uses. As for raising taxes or redirecting resources, most business people rarely support higher taxes. In the case of transportation, however, I think user fees have to be raised in some form. Our current transportation budget is not even adequate to maintain our current transportation system. I am not talking about the funding of major projects on the order of rebuilding the Marquette Interchange, or undertaking the East-West Corridor project; the basic transportation needs of the Region are underfunded. This means that from a political standpoint, it is difficult to redirect any existing transportation funds to transit—even though improved transit may be a worthy cause—because other elements of the transportation system are also underfunded.

The only aspect of Mr. Kennedy's paper with which I have any real disagreement is that which begins on page 12 of his handout. I seriously disagree with his message that carpooling is not good. Carpooling is an excellent transportation alternative for an urban area; more people should carpool, or at least seriously consider doing so. We could mitigate much of the traffic congestion in the Milwaukee metropolitan area if people carpooled at least once or twice a week. This does not mean that I support high-occupancy-vehicle lanes without qualification. In the Milwaukee metropolitan area, it may be a "tough sell" to get people to use such lanes to the extent where the expensive investment entailed in implementing them could be justified.

I enjoyed reading Mr. Kennedy's observations on telecommuting, compressed work weeks, and related measures, which begin on page 13 of his handout. Since I deal with major metropolitan Milwaukee businesses regarding the Employee Commute Options, or ECO, program, I am familiar with how telecommuting is proposed as an option in order to get people out of their daily commuting habit. But as a human being, I know that if I were at home on a Friday, for example, working at my computer for my employer, and I suddenly remembered during the morning that I needed to go somewhere, I would probably get in my car and drive there. I would also probably do the same later in the afternoon. I would therefore probably drive more on my telecommute day than I would on a day when I drove to my workplace. I therefore think that it is foolish to look to telecommuting to reduce travel demand. As for proposals for alternative work hours, I personally like the idea of having three days off every two weeks. Compressed work weeks, however, will not clean up the air.

We should emphasize public education of the kind Mr. Kennedy advocates, beginning on page 14 of his paper. As our experience with recycling shows, if people believe in and support an idea or a movement, they will change their behavior accordingly. Legislative mandates and government programs alone are not going to change people's attitudes, and those attitudes constitute what needs to change in this country. On June 18, 1994, The Milwaukee Journal published an opinion piece by Milwaukee County Treasurer Thomas Meaux endorsing the benefits of commuting to work by bicycle. Mr. Meaux, who chairs the SEWRPC Advisory Committee overseeing preparation of the regional bicycle and pedestrian plan, noted that access to shower facilities was among the problems he had to consider when he first thought about bicycling to work himself. As he wrote, once that and other problems were resolved, however, bicycling to work proved a viable and pleasurable choice. Not everyone who thinks about bicycling to work may have ready access to shower facilities, but stories like Mr. Meaux's need to be publicized so that other people ask themselves: "Instead of driving, can I bicycle? Can I walk? Can I carpool? Can I take a bus? If I can't take a bus, but if there is a route reasonably near the area of my intended destination, can I get them to modify the route so it is closer to that destination?" The Metropolitan Milwaukee Association of Commerce has been working with businesses in the 124th Street corridor which are considering undertaking a joint effort to fund the deficit which would arise from extending an existing bus line further into their industrial complexes. Efforts like these are what we have to start thinking of as a community. We have to educate the population about this.

Mr. Kennedy has my congratulations on his presentation.

SESSION E

FOCUS ON TRANSPORTATION DEMAND MANAGEMENT MEASURES: COSTS, BENEFITS, AND PRACTICALITIES

Panelist: Kenneth J. Leonard, Director, Bureau of Strategic Planning, Wisconsin Department of Transportation

Like my fellow reactor-panel members, I too think Mr. Kennedy did a good job with his presentation. I agree with him regarding the importance of transportation demand management, or TDM, especially in terms of the long run and in terms of including land use development, land use control, and transit measures as TDM measures. It is also important to consider TDM within the broader context of improvements in technology that may help to reduce both travel volumes and emissions levels. With respect to the purposes of TDM, we need to keep in mind that in addition to minimizing travel volumes and reducing emissions, we must also seek to maintain mobility; our economy depends upon effective, efficient transportation service.

What are some of the challenges, or problems, entailed in implementing TDM measures? Many demand-management measures address only work trips, which constitute only about 20 or 25 percent of total travel, so we also have to address nonwork trips. Many TDM measures do little to reduce emissions levels because while they may serve to reduce vehicle-miles of travel, they do not necessarily reduce the number of trips.

Two important long-run measures are land use design and land use control, both of which Mr. Kennedy addressed. We need land use design that is transit-, pedestrian-, and bicycle-friendly. Traditional neighborhoods with compact, mixed-use development patterns are desirable from a transportation standpoint, since such development patterns help reduce vehicle-miles of travel. But to accomplish this reduction through land use control and land use design measures, local units of government must not compete; rather, they must work more closely together. We also need more unity at the State level and more interaction between the State and local units of government.

The Wisconsin Department of Transportation has a number of programs which address TDM issues, including the Demand Management Grant program. Congestion Management Air Quality, or CMAQ, program funds can also be used for demand-management programs, and the use of CMAQ funds for such programs seems to be increasing. The Department also administers various rideshare assistance programs and a van-loan program.

As part of its efforts to develop TRANSLINKS 21, the statewide multimodal transportation plan, the Department undertook a study of the potential effects of pricing on travel demand. Both Mr. Kennedy and Mr. Stetenfeld are members of the advisory committee overseeing that study. The study is examining what the potential impacts of increasing the costs of automobile usage would be upon the volume of travel. That study, which is nearing completion, generally shows that any increase in the cost of using the automobile must be substantial if it is to result in significant reductions in vehicle-miles of travel and in the number of trips. One of the alternative plans prepared as part of the third-generation regional transportation system planning effort confirms this. Alternative Plan 1, as it is called, indicates that it would take a doubling of the perceived cost of automobile operation—from 5.5 cents per mile to 11 cents per mile—to secure a significant reduction in overall travel volume.

Of all the TDM measures and concepts Mr. Kennedy discussed in his presentation, I found the concepts of pedestrian- and transit-friendly development the most useful. Of all the pricing measures examined in this session, I find the parking proposals intriguing, especially proposals under which one would be required to pay for parking in a lump sum at, for example, monthly intervals so that one would notice the financial impact, as opposed to paying for parking in small, and perceivably insignificant, increments on an hourly or daily basis. To be successful in helping to attain regional transportation objectives, however, any such parking measure would need to be administered on a regional basis. The local units of government within Southeastern Wisconsin would need to work together to make such a measure successful. Businesses, of course, would be concerned about any parking measure which would force them to incur additional costs, thus making them less competitive.

Again, and in summary, I agree with Mr. Kennedy regarding the importance of TDM measures. If TDM measures are to be implemented successfully in the Region, however, local units of government within the Region need to work together and to work with the State level of government. They will also need to be more flexible and, probably, less independent.

Thank you.

MR. MARCHESE:

We have time for a few questions. If you have a question, please step to the microphone and state your name and your question. Questions and answers will be made a part of the official record.

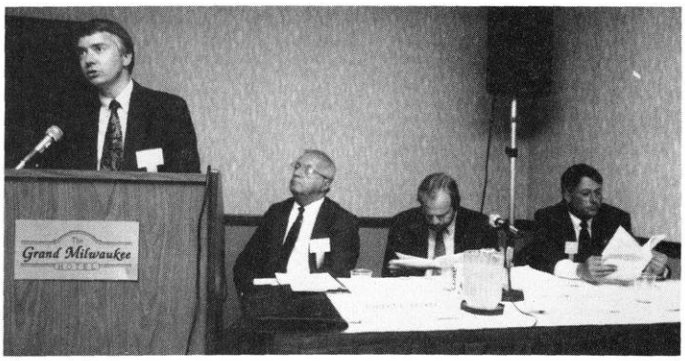
Are there any questions?

There being none, on behalf of our panel and myself, I would like to thank you for your attendance and attention.

SESSION F

FOCUS ON HIGHWAYS: DETAILS OF THE NEW SYSTEM PLAN

Presiding: Jean M. Jacobson, SEWRPC Commissioner



From left to right: Mr. Kenneth R. Yunker, Mr. Robert R. Packee, Mr. William Schaefer, and Mr. Frederick J. Patrie. Not shown: Mrs. Jean M. Jacobson and Mr. Donald R. Martinson.

Good afternoon. Welcome to Session F, entitled "Focus on Highways: Details of the New System Plan." My name is Jean M. Jacobson, and I am a SEWRPC Commissioner from Racine County. I am also SEWRPC's Secretary, as well as a Racine County Board Supervisor and a former Chairman of the County Board.

High-quality arterial streets and highways are essential to the social and economic vitality of Southeastern Wisconsin. The arterial streets and highways—and particularly the freeways—constitute the single most important element of the regional transportation system. They are essential to efficient commuting; to the movement of almost all goods; and to the delivery of almost all services within the Region, including bus transit service.

The 3,274-mile arterial street and highway system within the Region serves over five million person-trips on an average weekday—over 92 percent of all trips. The component freeways—comprising about 9 percent of the total arterial system—carry about 35 percent of all vehicle-miles of travel within the Region on an average weekday. The arterial street and highway system connects the major urban centers of the Region and provides essential linkages to national and international markets, and to agricultural areas which provide necessary food and fiber. This system also connects major manufacturing and commercial centers within the Region to the Port of Milwaukee, to General Mitchell International Airport, and to other important change-of-mode passenger and freight facilities. Commercial and industrial activities increasingly seek locations on or near regional freeways, and trends like "just-in-time" delivery of materials to manufacturing plants make good highway transportation essential.

This session will detail important arterial street and highway preservation, improvement, and expansion recommendations in the preliminary third-generation regional transportation system plan, and compare such recommendations to the jurisdictional highway system plans for the seven counties in the Region. Issues related to funding will also be addressed, as the need to reinvest in aging highway infrastructure has become increasingly pressing.

Participants in this session include: presenter Mr. Kenneth R. Yunker, Assistant Director, SEWRPC; panelists Mr. Robert R. Packee, District Director, Wisconsin Department of Transportation; Mr. Frederick J. Patrie, Director of Public Works, Kenosha County; and Mr. William Schaefer, Transportation and Land Use Specialist, Citizens for a Better Environment; and staff resource person Mr. Donald R. Martinson, Chief Transportation Planner, SEWRPC.

SESSION F

FOCUS ON HIGHWAYS: DETAILS OF THE NEW SYSTEM PLAN

Presenter: Kenneth R. Yunker, Assistant Director
Southeastern Wisconsin Regional Planning Commission

Since I presented a detailed overview of the arterial street and highway element of the preliminary third-generation regional transportation system plan during the late-morning plenary session, I will in this session present some additional information that was not presented this morning.

There are currently 3,274 miles of arterial streets and highways in the seven-county Southeastern Wisconsin Region. These arterial streets and highways, defined as those streets and highways whose principal function is to move traffic rather than to collect and distribute traffic and provide access to abutting property, represent about 29 percent of the total 11,200-mile street and highway system within the Region. This total system currently carries about 97 percent of total weekday travel within the Region, the remaining 3 percent being carried by public transit. Even assuming implementation of expanded transit, more transit-friendly future land use development patterns, travel demand management measures, and even a doubling of the perceived cost of automobile operation—equivalent to doubling the price of motor fuel—the Region's arterial streets and highways would still be required to carry about 95 percent of all travel in the Region. The remaining 5 percent would be carried by public transit and by the pedestrian and bicycle modes.

The preliminary recommended year 2010 arterial street and highway system for the Region totals 3,614 miles, an increase of 340 miles over the current arterial system. It is important to note that 212 of those additional 340 miles consist of existing facilities which today function largely as collector and distribution and land access facilities. As the areas those facilities serve are converted from rural to urban land uses, however, those facilities will be called upon to perform an arterial function. This does not mean that those facilities necessarily will require widening. The remainder of the 340-mile increase envisioned under the preliminary recommended plan involves 128 miles of new arterial facilities.

The preliminary plan recommendations for the arterial street and highway system can be divided into three categories: proposals for system expansion, or construction of new arterial facilities; proposals for system improvement, or the widening of existing facilities to provide additional traffic lanes or the provision of other significant improvements, as in the case of the proposed improvement of USH 41 in Washington County from expressway to freeway standards; and proposals involving system preservation, or the resurfacing and reconstruction of existing arterial street and highway facilities to the same capacity which those facilities have today. It is important to note that about 85 percent of the total planned arterial street and highway system is proposed for system preservation only.

Of the 128 miles of new arterial facilities envisioned under the system expansion element of the plan, 11 miles of those facilities, including the extension of the Lake Arterial—or Lake Parkway—from Carferry Drive to Layton Avenue, are either currently under construction or are programmed for construction in 1995. The total of 128 miles represents only about 3 percent of the total envisioned year 2010 arterial street and highway system.

The May-June 1994 issue of the Commission Newsletter summarizes the preliminary plan. It contains a series of maps setting forth the preliminary plan recommendations for the regional arterial street and highway system by county. By referring to these maps, one can easily identify the improvements recommended within a given county or municipality. Proposed new facilities are indicated in red on these maps.

I would like to highlight some of these proposed new facilities. To accommodate changing traffic patterns in Kenosha County, for instance, the plan proposes construction of a new interchange at IH 94 and CTH ML, as well as the relocation of part of CTH ML on a new alignment. In Milwaukee County, the plan proposes an extension of Puetz Road in the City of Franklin. As this area becomes fully developed, it will be necessary to provide a complete grid of arterial streets and highways to minimize indirection in travel. By providing for more direct travel in an area committed to urban development, arterial facilities can serve to reduce vehicle-miles of travel and air-pollutant emissions.

In Ozaukee County, the recommended new facilities include long-planned extensions of River Road. In Racine County, the plan carries forward long-standing recommendations regarding construction of the Burlington bypass facility. In Walworth County, the plan recommends the completion of the USH 12 Freeway, extending it from STH 67, near the geographic center of the County, northwest to the City of Whitewater.

In Washington County, the plan recommends the construction of new facilities in and near the Cities of Hartford and West Bend. These recommended new facilities will aid efforts to implement the adopted regional land use plan in these areas. That plan recommends that development be concentrated within planned sewer service areas, as opposed to being scattered throughout the landscape of outlying areas. Such concentrated development, of course, requires the development of an urban street system which will support that kind of development. This is an example of how the preliminary regional transportation system plan as a whole has been designed to serve and support the adopted regional land use plan.

With respect to the system improvement element of the preliminary regional transportation system plan, a total of 418 miles of facilities are proposed to be widened or otherwise significantly improved. Forty-seven miles of these facility improvements are either under construction today or are programmed for construction in 1995. The total of 418 miles represents about 12 percent of the total envisioned year 2010 arterial street and highway system for Southeastern Wisconsin.

The facilities proposed to be widened or otherwise improved to provide significant additional capacity are indicated in blue on the maps. Most of these proposed improvements are to be located within areas proposed for intensive urban development under the adopted regional land use plan. For example, in Kenosha County, the vast majority of the proposed arterial street and highway system improvements are to be located east of IH 94, where existing urban centers are located and where the adopted regional land use plan recommends that new urban development be concentrated. Similarly, in Milwaukee County, most of the recommended improvements are envisioned to be located in the northern portions of the Cities of Oak Creek and Franklin and in the historic Town of Granville area. These, again, are areas where the regional land use plan proposes that new urban development be concentrated, rather than being scattered throughout the Region in the form of isolated subdivisions. To support concentrated development in these areas, the existing street system, much of which is presently built to rural standards, needs to be upgraded to urban standards.

This concept is also reflected in the proposed improvements within Ozaukee County, which are to be located largely in the southern one-third of the County. This area, too, is generally proposed in the adopted regional land use plan for conversion from rural to urban land use. In Racine County, the preliminary regional transportation system plan proposes system improvements to link Burlington, an urban center in its own right, to the Milwaukee area. The plan also proposes improvements east of IH 94. In Walworth County, the plan supports the proposed concentration of urban development in and around the Whitewater, Elkhorn, Fontana-on-Geneva Lake, Williams Bay, and Lake Geneva areas through its recommendations regarding system improvements in those areas. In Washington County, the plan recommends system improvements in the Hartford and West Bend areas. In addition, the plan envisions facility improvements in the urbanizing Germantown area.

In Waukesha County, the plan concentrates recommended system improvements in and around the City of Waukesha and in the communities in the eastern one-third of the County, roughly between Waukesha and the Waukesha-Milwaukee county line. These areas have experienced significant increases in employment and household levels. Under the adopted regional land use plan, it is proposed that these areas, which are within planned sewer service areas and which can develop at densities which can viably support public transit service, continue to be developed. The land use plan recommends that development in Waukesha County be concentrated in these areas, as opposed to being scattered in the western portion of the County. The communities concerned can no longer rely on 22- or 24-foot-wide, two-lane, rural-cross-section roadways in the areas proposed for conversion to urban development, but will need to develop 48-foot-wide, four-lane undivided roadways in some areas, or twin 24-foot-wide facilities with a median if that type of facility is desired by a community. The median would provide a more aesthetic as well as safer roadway treatment. As elsewhere, the recommended improvements to the arterial street and highway system in Waukesha County illustrate the connection between the adopted regional land use plan and the arterial street and highway element of the proposed regional transportation system plan.

As I noted during the late-morning plenary session, the average annual cost of implementing the arterial street and highway component of the preliminary regional transportation system plan is estimated at $296 million in constant 1994 dollars. Of this total, $68 million is the estimated average annual operating cost for the arterial street and highway system. Operating costs include such activities as routine maintenance, snow and ice control, and the provision of street lighting and traffic signalization. The remaining $228 million is the estimated average annual capital cost of the arterial street and highway component of the plan.

Of this estimated $228 million average annual cost, about $156 million is envisioned to be required for system preservation. Significantly, of this $156 million, about $69 million is expected to be required, on an average annual basis over the 16-year plan implementation period from 1995 through 2010, to fund one of the most important projects proposed under the plan—the rehabilitation of the East-West Freeway. This project does not involve merely resurfacing of that facility, but its total reconstruction. The capacity of the facility would not change as a result of this project, but some of its geometric design and attendant safety problems would be remedied. This project is envisioned to encompass IH 94 from the Waukesha-Jefferson county line to the Marquette Interchange, as well as IH 794 in its entirety, from the Marquette Interchange to Carferry Drive via the Hoan Bridge.

While this system preservation project involves about 36 miles, or 1 percent of the 3,068 miles of arterial streets and highways recommended for preservation under the plan, the estimated $69 million average annual cost of this project constitutes 44 percent of the total estimated average annual cost of $156 million envisioned for system preservation. The remaining annual average system preservation cost of $87 million involves a total of 3,032 miles of facilities—84 percent of the envisioned year 2010 arterial street and highway system route-mileage, and 99 percent of the route-mileage recommended for preservation. In contrast to the envisioned system preservation costs involving the East-West Freeway and other arterial facilities in the Region, the plan envisions average annual costs of $50 million for arterial system improvements and $22 million for arterial system expansion. As these figures indicate, the East-West Freeway rehabilitation project indeed entails a significant cost which will have to be borne over the next 16 years.

As I have noted, only about 15 percent of the proposed year 2010 arterial street and highway system for Southeastern Wisconsin involves widened or otherwise significantly improved facilities or the construction of new facilities. Not every arterial facility in areas being converted from rural to urban land use is proposed for widening—only those where existing or anticipated traffic volumes indicate a need to provide additional traffic-carrying capacity. When people traveling on a given facility start to experience traffic congestion, they are quick to confirm what a technical engineering analysis would indicate—that that facility needs to be widened.

In preparing the preliminary recommended plan, highway improvement and expansion were considered as measures of last resort in addressing traffic congestion. Before any potential highway improvement or expansion projects were considered, the extent to which improved transit, travel demand management measures, and traffic management measures would reduce congestion was carefully considered. Only after doing so were highway improvement and expansion considered to address any residual traffic congestion.

Finally, I would like to note that some of the freeway and other highway improvement and expansion projects included in the plan may be subject to a new Federal requirement under which a major investment study, or MIS, must be performed as part of the implementation process for such projects. These studies are intended to focus on travel corridors, much as studies for proposed light-rail or commuter-rail facilities do. It is currently unclear from Federal regulations as to how many proposed facilities in the Region will be subject to the MIS requirement. The number of facilities subject to the MIS requirement will probably be lower than 10—perhaps five or fewer. The total incremental cost of the improvements involved might be less than $100 million, or less than about $5 million or $6 million annually, over the 16-year plan design period. This is therefore not considered to be a significant element of the arterial street and highway system element of the plan.

Thank you for your attention.

SESSION F

FOCUS ON HIGHWAYS: DETAILS OF THE NEW SYSTEM PLAN

Panelist: Robert R. Packee, District Director
Wisconsin Department of Transportation

Thank you for the opportunity to comment on the proposed new regional transportation system plan.

Let me preface my remarks here today by saying that the Wisconsin Department of Transportation has sat as a member of the Technical Advisory Committee and, as such, has advocated at a minimum preservation of our freeway system and minor improvements on our arterial system. We believe that increased transit service and usage is necessary, as evidenced by the Department leading and funding the East-West Corridor transit study, the intermodal terminal study for Milwaukee, and the high-speed-rail study—to name the more recent studies. The State has also increased funding of transit to nearly 50 percent in Milwaukee. In brief, the Department has supported a "balanced" transportation plan. But this is a regional plan, not a Department plan, and therefore it is the Region that must make the tough decisions and tough choices.

In an overview, we consider this plan to represent the most dramatic and drastic shift of transportation resources between modes that this Region has ever envisioned.

Because of that, I would like to point out some of the key consequences of this shift and then pose questions that the Region must answer.

1. This drastic shift in resources is a shift of funding away from highways and to transit. This shift takes the form of increasing transit funding from 32 percent of the total resources for transportation to nearly 40 percent. Included in the plan is an increase of 72 percent in transit vehicle-miles traveled. This is a tremendous increase considering that only 3 percent of regional trips are made by transit and even after the 72 percent increase, transit will still only carry 4 percent of the trips by the year 2010.

And as you heard today, there are some who feel transit funding should be increased to even more than 40 percent of the total funding proposed in the plan.

Question for the Region: Do 4 percent of the Region's trips merit nearly 40 percent of the total regional transportation funds? Is this a "balanced" transportation plan?

2. Transit advocates have pointed to the Clean Air Act and other environmental reasons for the needed increase in transit. They have also pointed to the glut, and therefore the low cost, of parking in downtown as one of the primary reasons for the failure of transit in Milwaukee. Within the last two months, the City of Milwaukee, very quietly, approved and started construction on a new, 500-stall parking structure in downtown. This action will only encourage more single-occupant vehicles, lower the price of downtown parking even further, and make transit less attractive. The environmental community has not raised a single objection to the City's action.

Question for the Region: How can increased transit be successful if Milwaukee continues to promote the glut of parking in downtown? Is the goal to increase transit for environmental reasons or is it for a passion for a light-rail system?

3. Under this plan, the Milwaukee freeway system will not be expanded for the next 16 years, outside of bringing one dilapidated facility—IH 43, from Bender Road to Brown Deer Road—up to standards. The plan shows preservation-only efforts on the system, which will be nearly 50 years old at the end of the planning period.

This system was designed in the 1950s and built in the 1960s to the standards of those days. Nearly weekly we see accidents which are evidence of the old designs, which don't provide much leeway for errant drivers. This plan will provide little change.

The freeway system is also carrying more traffic than envisioned in its design because numerous segments of the originally proposed system were demapped at the request of local governments and because of a higher growth rate in vehicle-miles driven in the last 30 years.

So, while some freeway maintenance will take place, it will simply replace, in kind, the system that existed in the 1960s.

This means that the 1.2 million customers—individuals, businesses, industries—that use the freeway system daily will see no improvements to the congestion on that system but will see a 29 percent increase in traffic by 2010. This means the 1.2 million frustrated customers become 1.56 million frustrated customers.

Question for the Region: How are the 1.56 million freeway customers being served by this plan?

4. The plan does not propose any arterial street widenings in the Milwaukee area from Layton Avenue to Mill Road and from Lake Michigan to the Milwaukee-Waukesha county line. This means that as the freeway traffic increases and motorists divert to surface streets, these streets will have to bear more of the traffic load, with attendant delays, accidents, noise, and air pollution.

Question for the Region: Is this area of Milwaukee County properly served in regard to arterial street improvements?

5. The plan has an annual funding deficit of $92 million. This translates to the equivalent of an 11-cents-per-gallon gas-tax increase for the Region. All of the county boards must approve this plan and the gas-tax increase. In light of the recent demise of the Regional Transportation Authority, primarily because of the funding issue, these approvals may be difficult to obtain. If increased funding is not approved, a drastic reduction in the improvements recommended in the plan will be necessary.

Question for the Region: Can the Region support a local 11-cents-per-gallon gas tax to pay for a plan that primarily only preserves the highway system, but provides a 72 percent increase in transit service, which service accounts for only 4 percent of the regional trips?

Over the next few months, during the public hearing process, the Region has to answer these questions. The challenge for SEWRPC will be to get comments, not just from the vocal minority interest groups, but to hear what the majority of the population wants with respect to a regional transportation system. I would suggest that more needs to be done to involve the users of the freeway system in that public hearing process than has been proposed. Historically, at public hearings that the Department has held, predominantly special-interest groups have appeared. I presume the same will be true of the SEWRPC hearings.

I propose that SEWRPC be more proactive and conduct surveys of the freeway users to get their input into this plan. Without that, full public participation will be flawed.

This is not an easy job, but probably the biggest challenge facing SEWRPC.

SESSION F

FOCUS ON HIGHWAYS: DETAILS OF THE NEW SYSTEM PLAN

Panelist: Frederick J. Patrie, Director of Public Works, Kenosha County

Having attended a significant number of the Commission's Regional Planning Conferences and Commission Advisory Committee meetings, I want to say that I continue to be impressed with the quality of the work of the Commission and its staff. Mr. Yunker has done an outstanding job, both this morning and in these afternoon sessions, of presenting a very complex set of issues. He and every other member of the Commission staff deserve our thanks for having done a most professional job.

As Mr. Packee has indicated, we are now at a point in time where we must make a decision. That decision involves how we, as a Region, will strike a balance between transit and highways, and between constituents and others who drive and constituents and others who want to change travel habits and behaviors in favor of greater use of mass transit. We will be required to strike this balance within the constraints of limited resources at the Federal and State levels, and the constraint of no additional funding capacity at the local level—by the latter, I mean through property taxes. Anyone who thinks that somewhere out there, at the local level, there is any capacity to raise property taxes to support any new transportation program, however well-intentioned that program may be, and regardless of whether it involves transit, freeways, or other highways or roads, is sadly mistaken.

Most people involved with transportation issues in this Region, particularly elected officials, know that there is no "wiggle room" left to raise property taxes any further for transportation purposes. This means that we must find alternative means to cover the $92 million average annual shortfall anticipated under the preliminary recommended regional transportation system plan, while at the same time delicately balancing the highway needs of the Region with the mass transit needs of the Region. Good highways are essential not only to the efficient movement of passenger automobiles, but to the movement of the trucks that transport the products and raw materials essential to the economy of the Region; good mass transit is essential to the efficient movement of people in the Region, especially in our growing urbanized areas.

Like my colleagues on this reactor panel, Mr. Packee and Mr. Schaefer, I serve on the SEWRPC Technical Coordinating and Advisory Committee which is overseeing preparation of the plan. A significant part of the work done by the Committee through the 15 meetings it has held prior to the presentation of the preliminary recommended plan at this Conference has involved the assessment of alternatives for potential inclusion in the plan. Mr. Packee has given you his perspectives; Mr. Schaefer, I am sure, will be giving you his environmentalist's perspective on the plan. From my perspective, I want to emphasize that we are examining alternatives which will ultimately have to "sell" to our constituents and community leaders, generally at the county and local levels.

As the Director of Public Works for Kenosha County, for example, I am sure that some Kenosha County residents, particularly those living west of IH 94, will, after reviewing the summary of the preliminary recommended plan set forth in the May-June 1994 issue of the Commission Newsletter, ask why the preliminary plan proposes the deletion of many previously recommended county trunk highway realignment and extension projects. My answer is that we on the Advisory Committee, in preparing the plan, carefully examined the existing and probable future transportation needs of the Region and its counties. Based upon that examination, we recommended the deletion of specific proposed projects in cases where existing facility alignments were found to be adequate to serve anticipated travel demand over the plan implementation period. If I were addressing, for example, members of the Kiwanis Club or the Chamber of Commerce from western Kenosha County, or people living in the newer areas of residential development in and near, for example, Twin Lakes or Silver Lake, regarding the preliminary plan, I am sure many of those people would express strong disagreement with the proposed deletions in Kenosha County.

As Mr. Packee has stated, however, the Committee's charge was to prepare a balanced plan. In addressing the transportation needs of Kenosha County, therefore, we had to consider the needs of the County as a whole, including the needs of that portion of the County east of IH 94, particularly those areas served by the

City of Kenosha transit system. In all cases, we realized that we could not postpone highway improvements in areas of the County where development is occurring, as in the case of, for example, the newly proposed widening of STH 83 in Kenosha County from STH 50 to the Wisconsin-Illinois state line.

My concerns regarding the preliminary plan, then, are probably different from those of Mr. Packee or Mr. Schaefer. I am concerned about what we will need to do if the additional transit ridership envisioned under the plan fails to materialize. Given how the Advisory Committee regarded highway improvement and expansion as last resorts for relieving the traffic congestion envisioned to remain after other options, such as transportation demand management measures and improved mass transit, were implemented, what will happen if those traffic congestion abatement measures envisioned under the plan do not materialize? Even assuming we do nothing to improve highways or transit in the Region—in other words, assuming we implement what the plan calls the "no-build" alternative—we will face an overall annual shortfall of about $8 million.

The plan which we on the Advisory Committee helped prepare, and which we propose that the Regional Planning Commission and the seven county boards of the Region consider for adoption, has involved a concerted effort to strike a balance between competing considerations. For example, while the plan proposes the deletion of some proposed county trunk highway projects in Kenosha County, it also proposes additional transit service in that County as well as in Racine County and elsewhere. It also proposes the provision of rapid transit service between the Kenosha, Racine, and Milwaukee urbanized areas which, it is hoped, will attract additional transit ridership.

This balanced approach to the transportation needs of the Region and its counties is one which we believe to be both good and workable. I agree, however, with Mr. Packee's recommendation that in addition to obtaining public testimony concerning the plan, SEWRPC should also conduct additional attitudinal surveys to obtain data from freeway users—the customers, if you will, of the Interstate and State trunk highway systems—as to their preferences relative to the alternative plans considered. These data might include background information on freeway users and would supplement the information SEWRPC has already obtained through its 1991 origin-destination survey.

Thank you for your attention.

SESSION F

FOCUS ON HIGHWAYS: DETAILS OF THE NEW SYSTEM PLAN

Panelist: William Schaefer, Transportation and Land Use Specialist
Citizens for a Better Environment

I appreciate this opportunity to comment on the preliminary regional transportation system plan. First, I have been favorably impressed by the process used by the Regional Planning Commission staff to develop the plan, including the analyses that were performed and the information that was prepared. This process included refinements to Commission travel simulation models, development of cost-benefit data, analyses of how implementation of the plan would affect accessibility in the Region, and a host of other analyses. If these aspects of the planning process are not unique to the Commission among metropolitan planning organizations in the United States, they are at least rare. The members of the Commission staff deserve a great deal of credit, particularly given the time constraints they were operating under. I would not want to have faced the tight deadlines and the tensions they have had to face over the last few months.

The overall levels of highway improvement and expansion proposed in the preliminary plan are clearly scaled down from the levels envisioned in the second-generation regional transportation system plan and the various county and local highway improvement plans that have been prepared in the past. This seems to be a reflection of the requirements of the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA, and the Clean Air Act Amendments, as well as the process that the Commission staff used in preparing the plan, which involved examining transit improvements and transportation demand management measures prior to examining highway capacity improvements as means of abating traffic congestion. This also seems to be a reflection of the fact that fiscal constraints were a major factor considered in the preparation of this plan as opposed to prior plans, which, in comparison, could be labeled "wish lists" or "Christmas tree lists" of projects. Many of the proposed improvements and proposed deletions of previously planned improvements stem from the fact that we simply cannot afford every possible improvement, or that we at least are unwilling to tax ourselves to pay for those improvements.

From the standpoint of funding, it is significant that the plan proposes a major increase in the proportion that transit projects comprise of the total transportation projects from that contained in the prior plan. We need to consider this proposed increase in the historical context of how modes of transportation alternative to the automobile have been neglected for decades. What we really need is a "catch-up" period during which we substantially increase our investment in providing people with transportation choices other than driving. In most cases, it is now very difficult to get from one place to another without an automobile. We at Citizens for a Better Environment welcome the idea of increasing funding for alternative modes of transportation.

I would like to discuss the issues of land use and of how the preliminary plan deals with traffic congestion. The preliminary regional transportation system plan is based on the Commission's adopted design year 2010 regional land use plan and on the travel demand projected from that land use plan. However, the relationship between land use and transportation is not a linear relationship, but a circular one. Once any highway or other transportation project is constructed, that transportation project itself influences future land use. There needs to be further analysis of some of the highway projects that are proposed if we are to ensure that the urban-sprawl-inducing or other negative land use impacts of such projects are alleviated through such measures as land use controls prior to project implementation.

Plans are now being prepared or implemented in some corridors which are located on the fringes of the existing urbanized areas of the Region without what I would consider sufficiently detailed analysis of potential land use impacts. Many of the highway bypass facilities now being proposed near specific communities can have negative impacts on downtown areas and can contribute to "strip" commercial development in outlying areas if land use impacts are not properly controlled. The proposed improvements to STH 36 and STH 60 envisioned in the preliminary regional transportation system plan are examples, and by no means the only or the most significant examples, of proposed highway improvements which, in my estimation, may have significant adverse land use impacts which need further evaluation.

Another key aspect of highway improvements which I believe must be kept in mind involves how the improvement, for example, of a rural-cross-section, two-lane arterial highway serving a given community to an urban-cross-section, four-lane facility not only significantly increases the travel capacity of that highway, but significantly changes the character of that community.

With respect to the issue of dealing with traffic congestion, I find it notable that the plan does not always propose highway capacity improvements to alleviate clear cases of traffic congestion on specific facilities. The Milwaukee-area freeway system is an example of such facilities. Nonetheless, Citizens for a Better Environment still believes that the plan places too much emphasis on trying to eliminate traffic congestion rather than managing traffic congestion. The difference between these two concepts is not merely one of semantics. To illustrate this difference, let me first point out that the level-of-service standard which has been used as the goal for highways in the Region is known as Level of Service C. Level of Service C is generally defined as a level of service where traffic flows are stable. Under this level of service, while motorists do not find themselves forced to travel at speeds below posted speed limits, they do encounter restrictions in terms of being able to maneuver easily in traffic. Drivers, at this level of service, cannot rely on their cruise control, but must be mindful of other vehicles on the road.

The problem with having Level of Service C as a goal, in terms of traffic congestion, is that such a goal makes it very difficult, if not impossible, to control urban sprawl, to encourage people to use alternative modes of transportation, or to encourage them to travel, in some cases, at off-peak times. Much of the travel during peak commuting periods involves discretionary automobile trips for such purposes as shopping. If you have a moderate level of traffic congestion during short periods of the day when people are commuting to work, that congestion can provide an incentive for people to leave earlier or later, and to make some of those discretionary trips at other times of the day. This incentive can be beneficial in terms of attaining more efficient use of the existing highway system. By making full use of this incentive, one can reduce the need for expensive highway improvements. The $1.4 billion bill that all of us will share in paying for reconstruction of the Milwaukee-area freeway system is clear evidence of how expensive these highway improvements can be. As policy makers and the public review the preliminary plan, then, it is important that we identify, on a project-by-project basis, a specific level of service for each highway project proposed in the plan. In assessing these projects, we need to ask: Are there any site design or other land use measures that might alleviate some of the anticipated traffic congestion, or at least increase the level of service, for a given proposed facility? How many, and which, hours of the day will that facility be congested? People talk about traffic congestion levels as though they were consistent throughout the day on any given facility. However, in reality, traffic congestion usually exists for a very small part of the day on any facility, except in such places as Los Angeles or Chicago. In considering highway improvement projects, consideration must be given to the time of day of travel. Doing so could significantly affect some of the proposed highway improvement projects.

In any case, I believe we need to change how we generally view traffic congestion. It is not always undesirable. As I have stated, a moderate level of congestion can be desirable in that it can be used to encourage more efficient use of the highway system. We often justify new highway improvements on the ground that they will reduce travel time. In fact, estimated reductions in travel time were used in the cost-benefit analyses for the preliminary plan. Unfortunately, those anticipated reductions in travel time usually do not occur in reality. This is because as people move and live farther away from their jobs, they take longer trips and they take more trips, thus canceling out any potential savings in travel time arising from highway improvements. This is confirmed by how the Region, in recent years, has experienced significant increases in both the number of vehicle-trips and in the amount of land being converted from rural to urban uses. While the urban population of the Region increased by 47 percent between 1950 and 1985, the amount of land devoted to urban use increased by 227 percent during that same time period. We are obviously not using the land of the Region very efficiently. Further evidence that improved highways do not necessarily reduce travel time can be found in how people in cities in both the United States and Australia, whose transportation systems are markedly dominated by highways, experience travel times greater than those generally experienced in Europe, where traffic congestion levels are greater. We need to keep in mind that reducing traffic congestion does not necessarily result in reduced overall travel times.

We also need to reexamine the standards we use to decide whether or not a new highway facility needs to be constructed. Normally, we now consider mainly the level of service of the highway segment in question.

We should consider using alternative, or at least supplemental, standards in making these decisions. In other areas of the United States, for example, the level of service within a particular corridor or particular area is examined, not merely that on a given segment of highway. We should also consider assessing possible highway improvement projects in light of factors involving mobility other than through automobile travel, including safety, neighborhood amenities, and accessibility. Another alternative involves considering the level of service offered by alternative modes of transportation and the time differential between automobile and alternative modes for trips between given sets of origins and destinations. A good transit system, in some cases, can warrant allowing traffic congestion to reach higher levels than those now generally considered acceptable. Another possibility would be to require, in certain cases, that transit use, or, more importantly, average vehicle-occupancy rates, rise to a specified level within a given area before any proposal to construct a new or improve an existing highway facility would be implemented in that area. The fact that current average vehicle-occupancy rates in our Region are literally almost as low as they can get is a clear indication that we are not using our highway system efficiently.

The standards we use to judge the degree of success, or lack thereof, in implementing the third-generation regional transportation system plan need to include, for example, stated goals for reductions in vehicle-miles of travel, increases in vehicle-occupancy rates, and related criteria.

Finally, with regard to funding issues, Citizens for a Better Environment generally believes that any funds to be used for highway improvements should ideally come from the gasoline tax, because driving is currently underpriced, i.e., heavily subsidized.

If you have any questions, I will be happy to answer them. Thank you.

SESSION F QUESTION-AND-ANSWER SESSION

MRS. JACOBSON:

We will now open the floor to questions and comments about the preliminary regional transportation system plan. We ask anyone with a question or a comment to use the microphone we have provided. Please state your name and who you may represent. If you wish to address a question or comment to any specific member of the panel, please feel free to do so.

QUESTIONER (MS. HELENA VAN WINKLE):

My name is Helena Van Winkle, and I represent Graef, Anhalt, Schloemer & Associates, Inc. My question is for Mr. Packee. I agree strongly with him about the importance of public input. However, in the 1970s, despite how the public, through a referendum, expressed strong support for the continuation or expansion of the Milwaukee-area freeway system, the construction of that proposed system was halted. In light of how political leadership and other conditions change, what assurance do we have that public input regarding transportation issues will be followed this time?

MR. PACKEE:

As many people will indeed recall, the results of that 1970s referendum were overwhelmingly in favor of completing the then-planned Milwaukee-area freeway system. However, the politicians then went in the opposite direction and eliminated key segments of that proposed system. The failure to complete the system proposed in the 1970s is a major factor underlying the traffic congestion we in this Region face in the 1990s. The so-called demapping involved not only the then-proposed Park East and Park West Freeways and portions of the Stadium South and Stadium North Freeways in Milwaukee County, but also the proposed "ring" freeway in Milwaukee, Waukesha, and Ozaukee Counties. We now experience massive traffic congestion on Brown Deer and Good Hope Roads because those facilities must now carry traffic which had been planned to be carried on those now-demapped facilities. While construction of those facilities might have entailed a short-term loss of land to freeways, the congestion and related problems which affect urban streets due to the failure to construct those freeways are long-term problems which are not only becoming increasingly evident, but will continue to be problems for a long time to come. These problems are detrimental to the economic vitality of central Milwaukee County.

As far as the question of whether or not SEWRPC will heed public input in the planning process is concerned, the Commission has actively sought such input as an integral part of the process of preparing the third-generation regional transportation system plan. I am confident that if the public expressed strong sentiment in favor of placing more—or less—emphasis on highways, SEWRPC would listen, and this fact would be reflected in the final plan.

COMMENT (MR. JIM CARPENTER):

My name is Jim Carpenter, and I represent the New Transportation Alliance. I want to respond to a few of the comments Mr. Yunker made regarding the position paper which my organization has been distributing at this Conference. I did not write that position paper, but if I could have added my own points to it, I would have given more credit to SEWRPC for improving transit service in Southeastern Wisconsin and for proposing further improvements in that service. However, while the preliminary recommended plan proposes significant improvements in transit service, it also envisions an increase of nearly 30 percent in vehicle-miles of travel in the Region between 1991 and 2010. The number of households in the Region, meanwhile, is projected to increase by only about 15 percent between 1990 and 2010. Although projected growth in the number of households is a significant factor in determining projected travel volumes, these figures make it clear that growth in the number of households is not the primary cause of any increase in vehicle-miles of travel. We need to examine the issues of urban sprawl in the Region, and what we are going to do about urban sprawl.

Also, rather than polling freeway users, as Mr. Packee proposes, regarding transportation concerns, I think we should poll households. In the City of Milwaukee, 25 percent of the households do not own any

automobiles and another 40 percent own only one automobile. This means that 65 percent of the households in the City of Milwaukee are transit-dependent. To poll automobile users, rather than households, regarding transportation concerns would therefore be unfair.

In short, I think the preliminary recommended plan has many good aspects, but there is room for improvement. We should be fair in conducting any surveys. Thank you.

MR. YUNKER:

The preliminary recommended plan indeed does envision an increase of nearly 30 percent in average weekday vehicle-miles of travel in the Region between 1991 and 2010. This envisioned increase was projected as a result of the analyses that were performed as part of the planning effort. It is important, however, to remember the difference between a forecast of future growth in household and employment levels and plan proposals. The forecast increase in vehicle-miles of travel in essence says: "If this Region grows in terms of household and employment levels as we anticipate, and if we were able to spatially arrange that growth in accord with the adopted year 2010 regional land use plan, we may then anticipate about a 30 percent increase in vehicle-miles of travel between 1991 and 2010." About half of that anticipated increase would come from increased household and employment levels. About one-quarter of the increase would come from increased trip lengths. The remaining one-quarter would come from an expected continued decrease in the vehicle-occupancy rate within the Region.

In response to the suggestion that we might be able to stop the growth in vehicle-miles of travel by containing urban sprawl, it is again important to note that the projection of a 30 percent increase in vehicle-miles of travel assumes that the adopted regional land use plan will be implemented. Implementation of that plan entails a significant departure from current land use trends in the Region. The forecast increase in vehicle-miles of travel within the Region assumes, therefore, that urban sprawl will be substantially contained. It is important to remember in this respect, however, that development in areas of Milwaukee County such as the Cities of Oak Creek and Franklin does not constitute urban sprawl by any reasonable definition of that term.

One of the key objectives of the regional land use plan is to stabilize and revitalize the central cities and counties of the Region. While that plan does indeed envision increased urban development in the newer suburban areas immediately adjacent to, and contiguous with, the central cities and older suburbs, it also seeks to accommodate development and redevelopment in the older suburban rings and in the central cities themselves. The land use plan also envisions development in outlying urban centers of the Region, such as the Cities of Burlington, Port Washington, and West Bend. Urban sprawl, however, would be significantly contained under the regional land use plan.

MR. PACKEE:

The reason why I suggested surveying freeway users is because they are the people who make the overwhelming majority of the trips in the Region. Elected officials should be interested in a public opinion survey that focused on such a large segment of the total traveling public.

MR. CARPENTER:

The people using the freeways make more trips because they have access to a more convenient mode of travel than do those who need to make use of alternative modes.

COMMENT (MR. RICHARD J. BUTULA):

My name is Dick Butula. I am a retired City of Milwaukee Traffic Engineer, but I am speaking on my own behalf, not on behalf of the City of Milwaukee. I first want to elaborate upon Ms. Van Winkle's cogent comment regarding the freeway referendum. There were actually three freeway referenda conducted in the 1970s. The results of all three favored completion of the then-proposed Milwaukee-area freeway system.

Mr. Schaefer suggested that we tolerate a certain level of traffic congestion. I want to point out that while the morning and afternoon rush-hour periods, when traffic congestion peaks, do not constitute a large percentage of the day, that percentage is larger than the percentage of days of each year during which we experience significant ozone pollution. According to the news release which Wisconsin's Environmental Decade is distributing at this Conference, we experience an average of 13 to 18 days each year, or less than 5 percent of the days of the year, during which ozone pollution causes some healthy residents to experience mild to severe shortness of breath. This percentage is much lower than the percentage of time during which significant traffic congestion occurs.

One aspect of the preliminary recommended plan that I found disappointing was that the plan proposes the deletion of some previously planned highway-widening projects in some highly congested urban areas. Under the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA, we must seek to accommodate bicycle and pedestrian modes of travel. One of the best ways to accommodate pedestrian travel in an urban area involves providing safer pedestrian crossings through the construction of divided roadways. We now have many existing two- and four-lane undivided roadways which pedestrians find extremely difficult to cross, except at signalized intersections. Many of these intersections are spread at one-quarter-mile intervals, but many pedestrians, including children, cross these roadways at other locations. I think it is disappointing that some long-planned divided roadways are proposed to be eliminated under the preliminary plan.

MR. YUNKER:

The plan does recommend that additional traffic lanes not be provided on certain facilities. It would still be possible to reconstruct these facilities with a median while maintaining the existing number of traffic lanes to accommodate pedestrian movements and to provide safer, more aesthetically pleasing facilities. This would be consistent with and in conformance with the plan.

I want to clarify another aspect of the plan. The plan does incorporate the Wisconsin Department of Transportation's proposals to reconstruct the East-West Freeway. The cost estimate which I cited for this project—about $1.4 billion over the 16-year plan implementation period, or about $69 million annually—was provided by the Department. While this project would not involve the addition of any traffic lanes to the facility, it would eliminate a number of the geometric design problems to which Mr. Packee alluded, including a number of design problems at major interchanges in Milwaukee and Waukesha Counties.

MR. CARPENTER:

In response to Mr. Butula's comparison of the frequency of traffic congestion in the Region with that of ozone pollution, I wish to say that one of the main problems we have faced, and continue to face, in dealing with air quality problems related to transportation is that we focus almost solely upon the concept of increasing highway capacity and travel speeds in our efforts to solve those problems. The assumption behind this is that if automobiles can travel at higher speeds, they will run more efficiently and emit fewer pollutants. This assumption is fallacious in that it ignores two key considerations. First, if average traffic speeds are increased, pedestrian and bicycle travel is made significantly more difficult. Second, and more importantly, increasing average travel speeds engenders what is known as induced demand. In other words, if people, as a result of increased highway capacity, become able to travel, for example, 10 miles further than they previously were able to within a given period of time, they will regularly do so; they will also take more automobile trips. The "Los Angeles Syndrome" clearly proves that building additional highway facilities does not mitigate traffic congestion problems or the resulting air quality problems; it exacerbates them.

QUESTIONER (MR. LLOYD L. TURNER):

My name is Lloyd Turner. I am the Director of Public Works of the Village of Germantown. If citizens from the Village of Germantown area support implementation of a project which would involve improving a two-lane highway facility to a four-lane facility, but that project is not part of the plan, what are the chances of obtaining Federal funding for that project?

MR. YUNKER:

Any proposed project to add traffic lanes to an existing highway facility which does not appear on the final adopted plan would not be eligible to receive Federal funding, and perhaps would not be eligible to receive State funding, either. It will therefore be important that as the preliminary plan proceeds through the public review process, communities such as Germantown carefully review the plan and suggest changes for possible inclusion in the final recommended plan. The Commission staff would need the details, however, regarding any project proposed for such inclusion. The preliminary plan is to be submitted for public review and comment at a series of public hearings to be held in each of the seven counties of the Region; to each of the three Intergovernmental Coordinating and Advisory Committees on Transportation System Planning and Programming for the urbanized areas of the Region; and to each of the six active county jurisdictional highway system planning committees, including the committee for Washington County. If you wish to request a change in the preliminary plan, you may do so at any of the hearings, or by submitting your request in writing to the Commission offices by August 13, 1994.

QUESTIONER (MR. TIM BARRY):

My name is Tim Barry. I work at CH2M HILL. During his luncheon keynote address, Mr. Klauser briefly described the costs of traffic congestion in specific monetary terms. As Mr. Packee has noted, if we polled freeway users in the Region, we would be polling a group which constitutes a large percentage of the Region's population. My question in light of these comments, which I am addressing to Mr. Yunker, is this: Can we convert the operating criteria used to evaluate the plan and its recommendations into monetary terms which would help the large percentage of transportation "customers" that use the freeways better understand the plan?

MR. YUNKER:

It is indeed possible to convert estimated delays caused by traffic congestion within the Region into monetary terms, involving specific dollar values. It is possible to do this for the levels of traffic congestion in the Region estimated under both the preliminary recommended plan and the "no-build" alternative. Such analyses would show that implementation of the plan would reduce the monetary costs of traffic congestion in the Region. This cost reduction would mitigate the financial shortfall anticipated under the plan.

MR. BARRY:

In light of how implementation of the plan will help reduce accident exposure, particularly through the redesign and reconstruction of such accident-prone facilities as the Marquette Interchange, it might also be beneficial to factor in, again, in monetary terms, any reductions in traffic accidents which could be expected if the plan is implemented. This, too, would help the automobile-using segment of the population better understand the plan and its alternatives.

QUESTIONER (MR. MICHAEL MAIERLE):

My name is Mike Maierle; I am a planner with the Wisconsin Department of Transportation. However, I am not speaking in that capacity, but only on my own behalf. The plan contains many references to "arterial streets and highways." I am curious—which arterial facilities are "streets," and which ones are "highways"? I noticed, for example, that the plan proposes the widening of several arterial facilities between IH 94 and Racine, as well as between IH 94 and Kenosha. Should we be envisioning these facilities to be four-lane highways, with operating speeds of 45 to 55 miles per hour, or are they to be more like city streets, with operating speeds of 25 or 35 miles per hour? I ask this question because the plan maps which show existing 1991 and expected year 2010 congestion on the regional arterial street and highway system indicate that in some of the older urban areas of the Region, such as Racine or Kenosha or the older areas of Milwaukee, there are now and there are expected in the future to be relatively dense networks of arterial facilities which neither are nor will be congested; these facilities also now have and will continue to have lower operating speeds.

MR. YUNKER:

The terms "street" and "highway" can be, and are, used interchangeably in describing arterial facilities. Either term is acceptable when one describes a specific arterial facility; it is a matter of personal preference. No denoted or implied difference in arterial function exists between the two terms.

The spacing of the arterial streets and highways within a given area is a function of the density of existing and planned development in that area. Therefore, arterial facilities within the Milwaukee area are more closely spaced than are arterial facilities within Racine or Kenosha. Arterial spacing will be closer in an urban area than it would be in a rural area. The September-October 1993 issue of the Commission Newsletter, the first in a series of three issues focusing on the preparation of the third-generation regional transportation system plan, sets forth the objectives, principles, and specific standards used with regard to arterial street and highway spacing under various development densities.

MR. BARRY:

Do the arterial facilities which connect Racine and Kenosha with IH 94 and which are proposed for widening, then, serve adjacent local development? Would they therefore have lower operating speeds of, for example, 35 miles per hour, or would they be considered and treated as facilities expected to accommodate longer through trips with higher operating speeds?

MR. YUNKER:

While the plan does not recommend specific operating speeds for specific facilities, it does recommend specific design characteristics for specific arterial facilities. These design characteristics are clearly related to operating speeds. A facility that currently is, and is recommended to continue to be, a higher-speed rural facility is clearly different from a lower-speed urban facility whose capacity is controlled by and at intersections.

MRS. JACOBSON:

The proposed regional transportation system plan is at this time far from completed. We still await further information and input regarding the plan from the persons attending this session and this Conference, as well as from public officials and citizens from throughout the seven-county Region. I would like to thank our panelists for their input at this session.

We look forward to seeing all of you at future Regional Planning Conferences for years to come. Thank you.

SESSION G

FOCUS ON THE NEW STATE TRANSPORTATION
PLAN: ITS IMPLICATIONS FOR THE STATE AND REGION

Presiding: Duane H. Bluemke, SEWRPC Commissioner

From left to right: Mr. Randall E. Wade, Mr. Duane H. Bluemke, Mr. Benjamin J. Coopman, Mr. Philip J. Scherer, Mr. Marc S. Bentley, and Mr. Otto P. Dobnick

Good afternoon. My name is Duane Bluemke. I am a SEWRPC Commissioner from Waukesha County. I am also a businessman, the President and founder of U. S. Counseling Services, Inc., in Brookfield. In addition, I am President of Gibraltar Consultants, Ltd. This is Session G, "Focus on the New State Transportation Plan: Its Implications for the State and Region."

Coordination of transportation system planning between the State, regional, county, and local levels of government is essential to the attainment of a balanced, integrated, and workable regional transportation system. The new statewide transportation plan, known as TRANSLINKS 21, will focus on the movement of passengers and freight between the Southeastern Wisconsin Region and other regions throughout the State and Nation. Decisions and policies made and followed at the State level will affect the scale and timing of highway, railway, airport, and seaport development within the Region, as well as the availability of capital funds to implement regional transportation system plan recommendations.

This session will address the likely impacts of the State plan on development of the various modes of transportation in Southeastern Wisconsin. The session will also establish how the regional plan recommendations relate to the broader statewide context, providing for the movement of people and goods within the Region as a complement to such movement between regions of the State and Nation.

Participants in this session include: presenter Mr. Randall E. Wade, Chief, Statewide System Planning, Division of Planning and Budget, Wisconsin Department of Transportation; panelists Mr. Benjamin J. Coopman, Highway Commissioner, Walworth County; Mr. Philip J. Scherer, Executive Director, Transportation Development Association of Wisconsin; and Mr. Marc S. Bentley, Government Relations Director, Wisconsin Motor Carriers Association; and staff resource person Mr. Otto P. Dobnick, Principal Planner, Southeastern Wisconsin Regional Planning Commission.

SESSION G

FOCUS ON THE NEW STATE TRANSPORTATION PLAN: ITS IMPLICATIONS FOR THE STATE AND REGION

Presenter: Randall E. Wade, Chief, Statewide System Planning, Division of Planning and Budget, Wisconsin Department of Transportation

My presentation is intended to provide a brief overview of the intercity element of the TRANSLINKS 21 multimodal statewide transportation plan. I will also briefly discuss how TRANSLINKS 21 relates to the regional transportation system plan prepared by SEWRPC. The Wisconsin Department of Transportation is in the process of releasing its TRANSLINKS 21 alternatives. This presentation will serve as a preview of those alternatives.

How did we get to where we now are in the TRANSLINKS 21 planning process? In 1991, the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA, was enacted. ISTEA is unique in that it mandated, for the first time, that all States prepare a state transportation plan. Wisconsin has long engaged in statewide transportation planning, but in the wake of ISTEA, TRANSLINKS 21 marks the first time the State will have prepared a State transportation plan for all modes: highway, railway, airborne, and waterborne modes. It is important to understand that the intercity element of TRANSLINKS 21 is intended to be a point of departure for more detailed planning work by agencies like SEWRPC at the regional, county, and local levels. In preparing this element, the Department has shared information with the SEWRPC staff, and it will continue to do so on an ongoing basis as SEWRPC prepares a final recommended third-generation regional transportation system plan for consideration and adoption.

The TRANSLINKS 21 plan will have two elements: a passenger element and a freight element. The Department has developed separate data sets for each of the two elements. Its planning process considers each intercity passenger mode: automobile, intercity bus, passenger railway, air passenger, and passenger ferry modes. With respect to freight, the planning process considers motor carrier, railway freight train, air cargo, and waterborne modes.

The key characteristic of the TRANSLINKS 21 planning effort is that its orientation is multimodal. It addresses interactions among the various transportation modes. The plan explicitly addresses the effects which service improvements in one mode may have upon competing modes. The plan quantifies the diversion of passenger travel and freight commodity movements between modes.

The preliminary release of the Department's findings under the TRANSLINKS 21 planning process is scheduled for July 1994. The TRANSLINKS 21 plan will recommend shares of passenger travel and freight shipments for each mode. The plan will forecast levels of travel for each passenger mode, and of commodity shipments for each freight mode. This information will be used to describe a recommended statewide system for each mode and to identify the facility improvements which will be required in both the public and private sectors to maintain the functioning of the statewide transportation system at a specified level of service. While the TRANSLINKS 21 plan is a "sketch" planning effort, it will identify the costs associated with the required improvements.

The TRANSLINKS 21 planning process will involve the development of four different scenarios or alternatives. Alternative 1 will be related to current policies; basically, it will be a description of the status quo [see Figure G-1]. Alternative 2 will contemplate enhanced development of nonhighway modes and, perhaps, reduced funding for highway modes [see Figure G-2]. Alternative 3 will contemplate the provision of additional modal choices as well as enhanced funding for both highway and nonhighway modes [see Figure G-3]. Finally, Alternative 4, known as the "premium mobility" alternative, will envision higher levels of funding for all modes [see Figure G-4].

To evaluate the four alternative scenarios, the Department has developed several new tools. On the passenger side, it has developed an intercity transportation demand forecasting model with which it is possible to simulate the effects of the introduction of new modes into the overall transportation system as well as improvements to existing modes, assessing probable impacts of each mode on the others. It is possible, for example, to model the effects of the introduction of high-speed railway service and see what impacts such service will have on highway travel or air travel in the State. It is also possible to model the effects of

Figure G-1

Alternative #1: Maintaining Current Policies and Programs

Overview

Alternative #1 would continue WisDOT's current program directions and investment levels -- for all modes, with highways as the primary focus -- adjusted only for inflation.

Alternative #1 at a glance...

- Complete Corridors 2020 on schedule, with multi-lane Backbone routes (such as 10, 29, 41, 51, 53 and 151) in place by 2005. Make no changes in the anticipated major projects funding level between 2005-2020 until a congestion analysis is complete.
- Continue current state highway and bridge rehabilitation programs to meet emerging repair needs. Adequate funding would not be available to meet existing and emerging highway repair needs, or to redesign and reconstruct the freeways in Milwaukee County, producing rougher pavement and longer travel times by 2020.
- Continue current programs to maintain (snow plowing, weed control, signing, etc.) and enhance (wildflowers, scenic overlooks, historic markers, etc.) state highways.
- Support seven daily Amtrak round-trips from Milwaukee-Chicago, with no new service.
- Continue current airport improvement funding for runways, aprons, taxiways, navigational aids and other projects at commercial and general aviation airports.
- Maintain limited current levels of federal funding allocated to intercity bus service, which would be inadequate to prevent the continuing loss of service to some communities.
- Continue recently-increased freight rail programs to upgrade tracks and maintain service.
- Continue current state harbor programs to fund dock repairs, rehabilitation and dredging.
- Continue to pay the current inflation-adjusted share of public transit operating costs in 60 communities. This would not prevent declines in service in some areas.
- Provide limited funding to support and plan specialized transportation programs, such as lift-equipped van and shuttle services, for elderly and disabled citizens.
- Provide limited current programs for bicycle and pedestrian facilities.
- Continue WisDOT's current investment in local roads, adjusted for inflation.
- No increase in overall transportation revenues or user fees, except for inflation.
- No change in current funding: $30.1 billion, plus inflation, would be invested by 2020.

Alternative #1 would continue WisDOT's current program directions and investment levels -- for all modes, with highways as the primary focus-- adjusted only for inflation

Figure G-2

Alternative #2: Taking New Directions With Current Funding

Overview

Alternative #2 continues overall transportation investments at their current levels, with a significant shift in how funds are invested. State highway construction and expansion would be greatly scaled back to finance more extensive, attractive and convenient alternatives to driving.

Alternative #2 continues overall transportation investments at their current levels, with a significant shift in how funds are invested

Alternative #2 at a glance...

- Complete the Corridors 2020 Backbone network and all current legislatively-approved major highway projects over a 25-year period, instead of by 2005 as now planned. No additional highway expansions or other major highways will be constructed before 2020.
- Continue current highway rehabilitation, maintenance and enhancement efforts.
- Extend Amtrak to Madison and Green Bay, provide more frequent service on the existing Chicago-Milwaukee-Twin Cities route, and complement the service with feeder buses.
- Develop high speed rail linking Chicago-Milwaukee, with one-way trips under one hour.
- Construct a "core" light rail system in both Milwaukee and Madison, and provide two extensions to the Milwaukee system in future years.
- Increase state funding for transit to make targeted service improvements.
- Support frequent and convenient intercity bus service to key communities.
- Significantly increase specialized programs for elderly and disabled citizens to provide improved and affordable mobility, producing about two million more rides per year.
- Expand state funding for bicycle and pedestrian facilities statewide.
- Maintain state freight rail program funding to provide a competitive shipping option.
- Maintain existing state airport and harbor programs at their current levels.
- No increase in transportation user fees, except for inflation.
- No change in current funding: $30.1 billion, plus inflation, would be invested by 2020.
- In addition, special federal funding for light rail would total $1.135 billion over 25 years. Cost-sharing by Minnesota and Illinois for shared passenger rail initiatives would total $10.5 million and $250 million respectively, plus a 50% share of annual operations.

Figure G-3

Alternative #3: Better Transportation & More Choices

Overview

Alternative #3 would maintain and improve Wisconsin's transportation system, provide greater choice where most needed and cost-effective, and ensure that the system is well-integrated.

Alternative #3 at a glance...

- Complete the Corridors 2020 state highway network on schedule, with the multilane Backbone system and other current legislatively-approved projects in place by 2005.
- Expand state highway preservation funding to meet some, but not all emerging rehabilitation, safety, access and modernization needs. Existing needs would remain unmet.
- Rehabilitate and reconstruct the Milwaukee County freeways to original design standards.
- Extend Amtrak service to Madison and Green Bay, provide additional service on the Chicago-Milwaukee-Twin Cities route, institute Milwaukee-Chicago high speed rail service, and develop a "feeder bus" network to link other key communities to Amtrak.
- Increase state transit funding to support expanded and more frequent service, stabilized system financing, and a new Regional Transit Program to connect metro area centers.
- Expand intercity bus service to maintain and enhance service levels.
- Increase specialized transportation programs for elderly and disabled persons.
- Promote more non-stop air flights linking Wisconsin to all parts of the nation.
- Expand freight rail and harbor assistance programs to provide better shipping options.
- Expand funding for bicycle/pedestrian and travel demand management programs.
- Increase state funding for local road improvements.
- Total cost is about $35.5 billion over 25 years. Very gradual and stepped increases in the transportation budget could eventually produce this investment level by 2020. A wide range of transportation revenue options, including highway user fees, could be utilized.
- If fully financed by highway fees, user costs would increase gradually in a series of small steps over the 25-year period. By 2020, the average one-car household would pay $307 per year -- or about $62 more than it is currently paying -- in highway fees.
- In addition, special federal funds, and cost-sharing by Minnesota and Illinois for passenger rail initiatives would total $250 million, $10.5 million and $125 million respectively. Minnesota and Illinois would also pay a 50% share of annual operations.

Alternative #3 would maintain and improve Wisconsin's transportation system, provide greater choice where most needed and cost-effective, and ensure that the system is well-integrated

Figure G-4

Alternative #4: Paying for Premium Mobility

Overview

Alternative #4 would greatly improve our transportation system, offering premium mobility.

Alternative #4 at a glance...

Alternative #4 would greatly improve our transportation system, offering premium mobility

- Complete Corridors 2020 Backbones and approved major highway projects by 2005.
- Fully address all rehabilitation and improvement needs on the state highway system.
- Redesign, rehabilitate and reconstruct the Milwaukee County freeways for optimal service and improved traffic flow at key interchanges and throughout the system.
- Provide new funding to modernize interchanges, improve highway access to development, beautify scenic rural state highways and eliminate seasonal weight limits.
- Extend Amtrak across northern Wisconsin, provide more Milwaukee-Green Bay service, and develop high speed rail (Chicago-Milw.-Madison-Twin Cities), plus Alternative #3.
- Provide frequent and convenient intercity bus service and shelters in more communities.
- Expand transit programs of Alternative #3 and add light rail in Milwaukee and Madison.
- Increase specialized transportation to improve mobility for the elderly and disabled.
- Increase freight rail and harbor programs to provide competitive shipping options. Develop an "Essential Air Services" program and fund a parallel runway in Milwaukee.
- Significantly increase state funding for local road improvements.
- Total cost is about $40.3 billion over 25 years. Very gradual and stepped increases in the transportation budget could eventually produce this investment level by 2020. A wide range of transportation revenue options, including highway user fees, could be utilized.
- If fully financed by highway fees, user costs would increase gradually in a series of small steps over the 25-year period. By 2020, the average one-car household would pay $363 per year -- or about $118 more than it is currently paying -- in highway fees.
- Special federal funding for light rail would total $845 million over 25 years, with local funds paying 50% of the non-federal start-up ($245 million) and annual operating costs.
- Additional special federal funding would cover about $1 billion for new passenger rail initiatives. Costs for multi-state rail initiatives would be shared by Minnesota and Illinois, at $310.5 million and $125 million respectively, plus 50% of operations.

alternative fare levels and associated State subsidies to identify the probable impacts these factors have on travel by different modes.

On the freight side, the Department does not have as well-developed a model. What has been done with respect to intercity freight transportation involves the development of a statewide commodity-flow data base. After this data base was developed, the Department formed a "freight expert panel," with members representing each of the freight modes as well as important geographic subareas of the State. This panel was intended to help the Department assess the various alternatives and select a recommended plan.

With respect to the passenger modes, I will first discuss the intercity bus mode. This is a declining mode, with many route abandonments over the past decade, including a number of recent significant route abandonments. Nonetheless, the intercity bus mode is an essential mode. In the summer of 1993, the Department conducted a survey which found that about 20 percent of intercity bus riders surveyed would not have been able to take the trip they were taking if the intercity bus service involved had not been available. Intercity bus service is clearly essential for people without access to an automobile, people who cannot drive, people with lower incomes, and people who are elderly. Figure G-5 illustrates the current extent of intercity bus service in Wisconsin. As this map shows, the present network of intercity bus routes is a much more sparse network than the one that existed in the State in 1984. Several factors underlie this decline. Greyhound Lines, Inc., for example, now follows a corporate strategy under which that company will basically provide only interstate bus service, focusing its bus service on the Interstate highway system. Much of the more local intercity bus service, which historically was provided by nationwide companies like Greyhound Lines, Inc., will have to be provided by smaller, independent bus companies such as Scenic Trailways, Inc., which provides bus service to cities like Green Bay, Eau Claire, and La Crosse. Currently, the Department receives from the Federal government slightly more than $250,000 per year for use in providing grants to private companies to maintain intercity bus service to smaller communities throughout Wisconsin in situations where the private companies concerned would otherwise lose money. The Federal subsidy, however, covers only one-half of the operating losses of any given bus company; this program, therefore, does not constitute a long-term solution to the problem.

Figures G-6 and G-7 indicate the alternatives now being examined for the intercity bus company program. The "essential service program" envisioned under Alternatives 2, 3, and 4 would provide funding in partial support of the provision of intercity bus service to all communities within the State with populations of 5,000 or more persons. In urbanized areas with populations of 50,000 or more persons, and in certain other parts of the State, loans or grants would be provided to help build intermodal station facilities.

In examining the passenger railway mode under the TRANSLINKS 21 planning effort, the Department is examining both conventional railway service, with operating speeds of up to 79 miles per hour, as well as high-speed railway service, with operating speeds of 125 miles per hour or faster [see Figure G-8]. The first alternative passenger railway scenario being considered envisions only the maintenance of the existing passenger railway corridor service between Chicago and Milwaukee, currently seven daily round trips, as well as of the daily "Empire Builder" service between Chicago, Milwaukee, the Twin Cities, and the Pacific Northwest.

The second alternative being considered envisions the provision of at least two conventional-service round trips per day between Milwaukee and Green Bay and Milwaukee and Madison [see Figure G-9]. In addition, high-speed railway passenger service would be provided between Chicago and Milwaukee. Additional railway passenger service would also be provided between Milwaukee and the Twin Cities. The Department is also considering the provision of an intercity "feeder" bus service to provide passenger service between the railway corridors involved and other travel corridors in the State. This feeder bus service would be "pulsed" so that each bus involved would be ready for departure at the time any train arrived at the connecting station. Ideally, this feeder bus service would allow the intercity railway passenger service to develop over time in less populous corridors. Under the second alternative, this entire passenger railway-feeder bus system would be funded by the State, it being assumed that there would not be any Federal funding.

The third alternative being considered includes the service options envisioned under the second alternative, but with different cost-sharing arrangements [see Figure G-10]. It is envisioned that Federal funding would be provided in amounts matching State funding levels.

Figure G-5

INTERCITY BUS SERVICES IN WISCONSIN

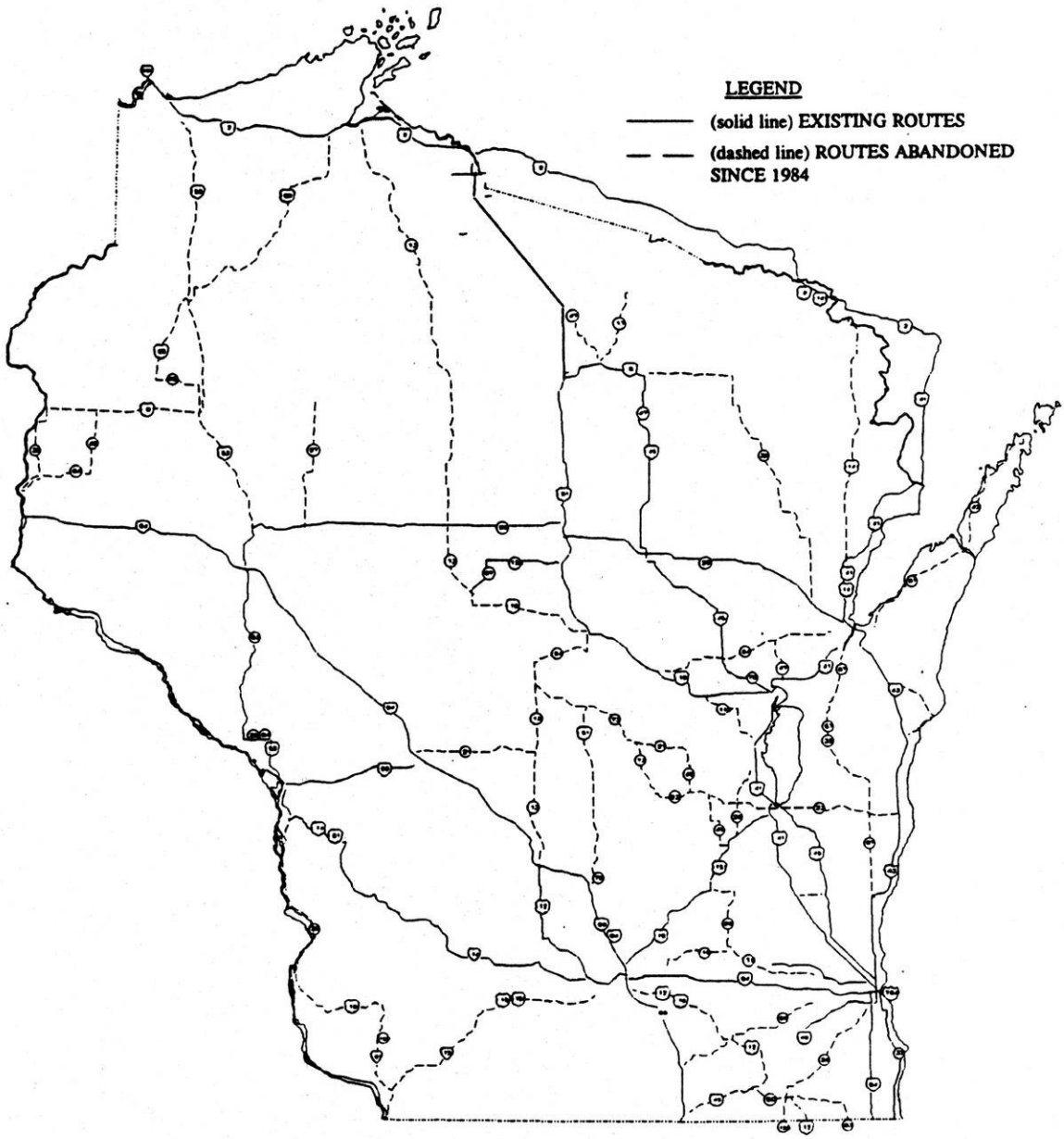


Figure G-6

TRANSLINKS 21 ALTERNATIVES: INTERCITY BUS TRANSPORTATION

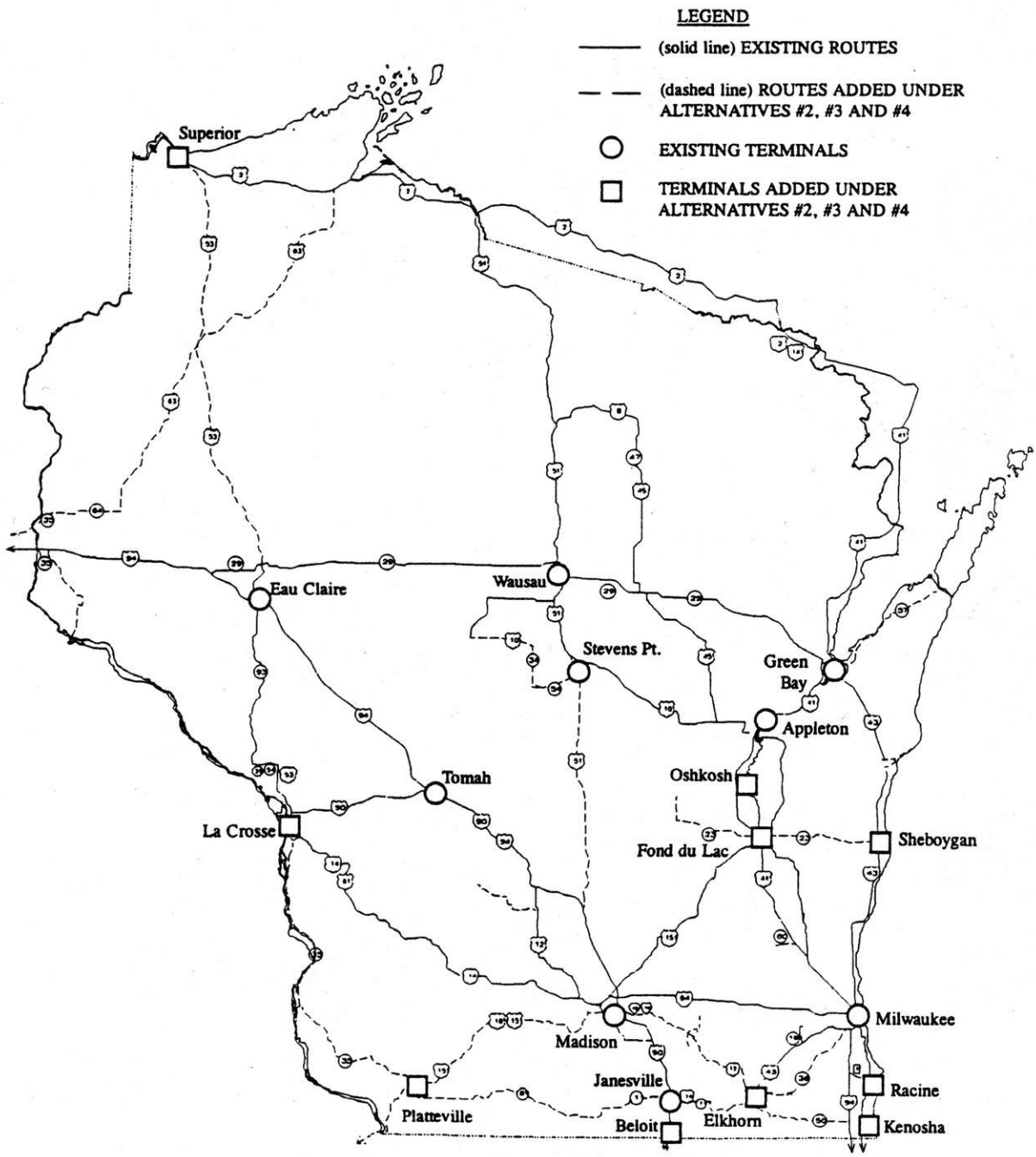


Figure G-7

SUMMARY OF TRANSLINKS 21 ALTERNATIVES: INTERCITY BUS TRANSPORTATION

ALTERNATIVE #1: Current policies

Continue to administer funds under Section 18 of the Federal Transit Act for certain money-losing routes.

(Program funded exclusively from federal sources)
No additional funds required

ALTERNATIVE #2: New directions

Initiate or restore essential bus service to communities with population of 5,000 or more (closely parallel to Corridors 2020).

Purchase buses and lease to operators to provide service under contract, and provide state or federal operational subsidies.

Construct intermodal and "open-access" terminals to facilitate connections.

Implement marketing efforts.

Total state 25-year cost: $110 million
Existing 25-year allocation: $0 million
Additional funds required: $110 million

ALTERNATIVE #3: More choices

Same actions as Alternative #2, but funding increases for annual operating support is phased-in over the 25-year time period, resulting in less immediate implementation of services.

Total state 25-year cost: $75 million
Existing 25-year allocation: $0 million
Additional funds required: $75 million

ALTERNATIVE #4: Premium mobility

Same actions as Alternative #3, with new routes and funding increases for annual operating support phased-in over the 25-year time period.

Also, expand service on new and existing routes, concentrating on routes over Corridor 2020 backbone highways.

Total state 25-year cost: $160 million
Existing 25-year allocation: $0 million
Additional funds required: $160 million

Figure G-8

SUMMARY OF TRANSLINKS 21 ALTERNATIVES: PASSENGER RAILWAY TRANSPORTATION

ALTERNATIVE #1: Current policies

Continue state support for the recently expanded Chicago-Milwaukee conventional rail service.

*Other source 25-year cost: $18.2 million**
Total Wis. 25-year cost: $17.5 million
*Wis. 25-year allocation: $17.5 million***
No additional Wis. funds required

ALTERNATIVE #2: New directions

Implement new conventional rail service to Green Bay and Madison, and add local conventional rail service for the Chicago-Milwaukee-Twin Cities corridor.

Initiate feeder bus services in key corridors.

Upgrade Chicago-Milwaukee corridor to high speed rail service.

-- All options funded without federal cost share; assumed MN share of Twin Cities service and IL share of high speed rail.

*Other source 25-year cost: $304 million**
Total Wis. 25-year cost: $545 million
*Wis. 25-year allocation: $67.5 million****
Additional Wis. funds required: $477.5 million

ALTERNATIVE #3: More choices

Implement new conventional rail service to Green Bay and Madison, and add local conventional rail service for the Chicago-Milwaukee-Twin Cities corridor.

Initiate feeder bus services in key corridors.

Upgrade Chicago-Milwaukee corridor to high speed rail service.

-- Some options funded with federal cost share; assumed MN share of Twin Cities service and IL share of high speed rail.

*Other source 25-year cost: $497 million**
Total Wis. 25-year cost: $371.5 million
*Wis. 25-year allocation: $67.5 million****
Additional Wis. funds required: $304 million

ALTERNATIVE #4: Premium mobility

Implement new conventional rail service to Green Bay and Madison, and from Appleton through Stevens Point to the Twin Cities.

Initiate feeder bus services in key corridors.

Upgrade Chicago-Milwaukee corridor to high speed rail service.

Initially add local conventional service in the Chicago-Milwaukee-Twin Cities corridor, and then upgrade to high speed rail service with direct route through Madison.

-- Some options funded with federal cost share; assumed MN share of Twin Cities services, and IL share of high speed rail.

*Other source 25-year cost: $957 million**
Total Wis. 25-year cost: $934.5 million
*Wis. 25-year allocation: $67.5 million****
Additional Wis. funds required: $867 million

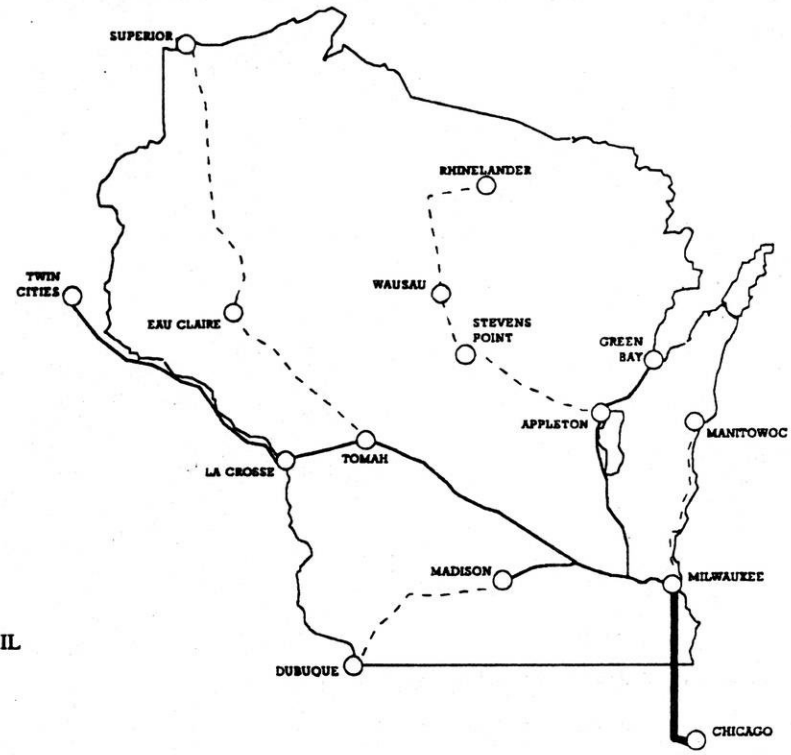
* Assumed federal, Illinois and/or Minnesota cost shares

** does not include $50 million in bonding authority for Green Bay and Madison service

*** includes $50 million in bonding authority for Green Bay and Madison service

Figure G-9

PASSENGER RAILWAY SYSTEM ENVISIONED UNDER SECOND TRANSLINKS 21 ALTERNATIVE



LEGEND

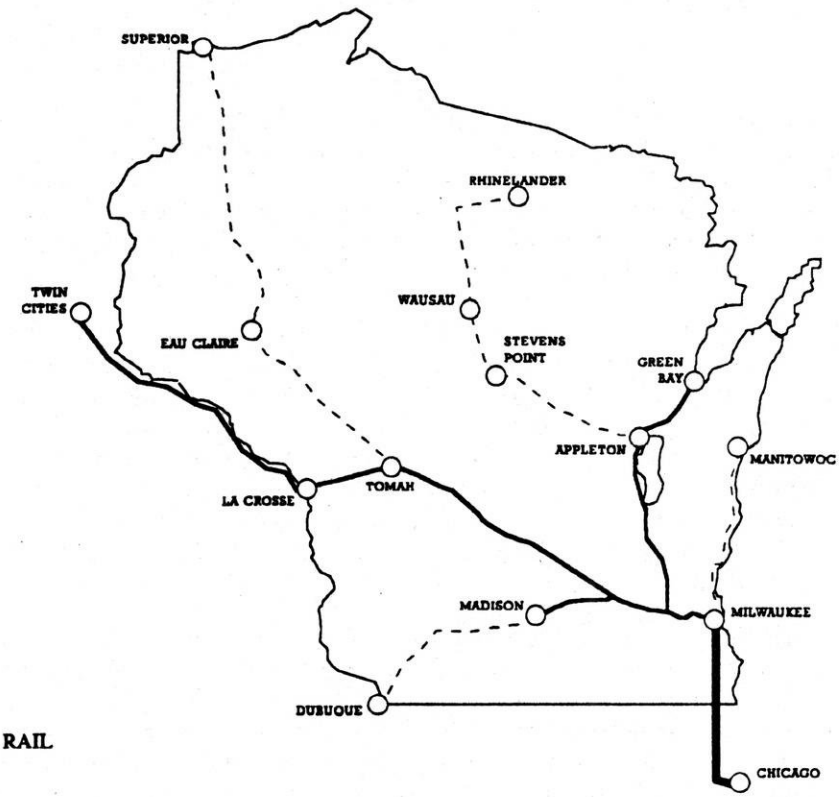
(thin solid line) CONVENTIONAL RAIL

(thin dashed line) FEEDER BUS

(thick solid line) HIGH SPEED RAIL

Figure G-10

PASSENGER RAILWAY SYSTEM ENVISIONED UNDER THIRD TRANSLINKS 21 ALTERNATIVE



LEGEND

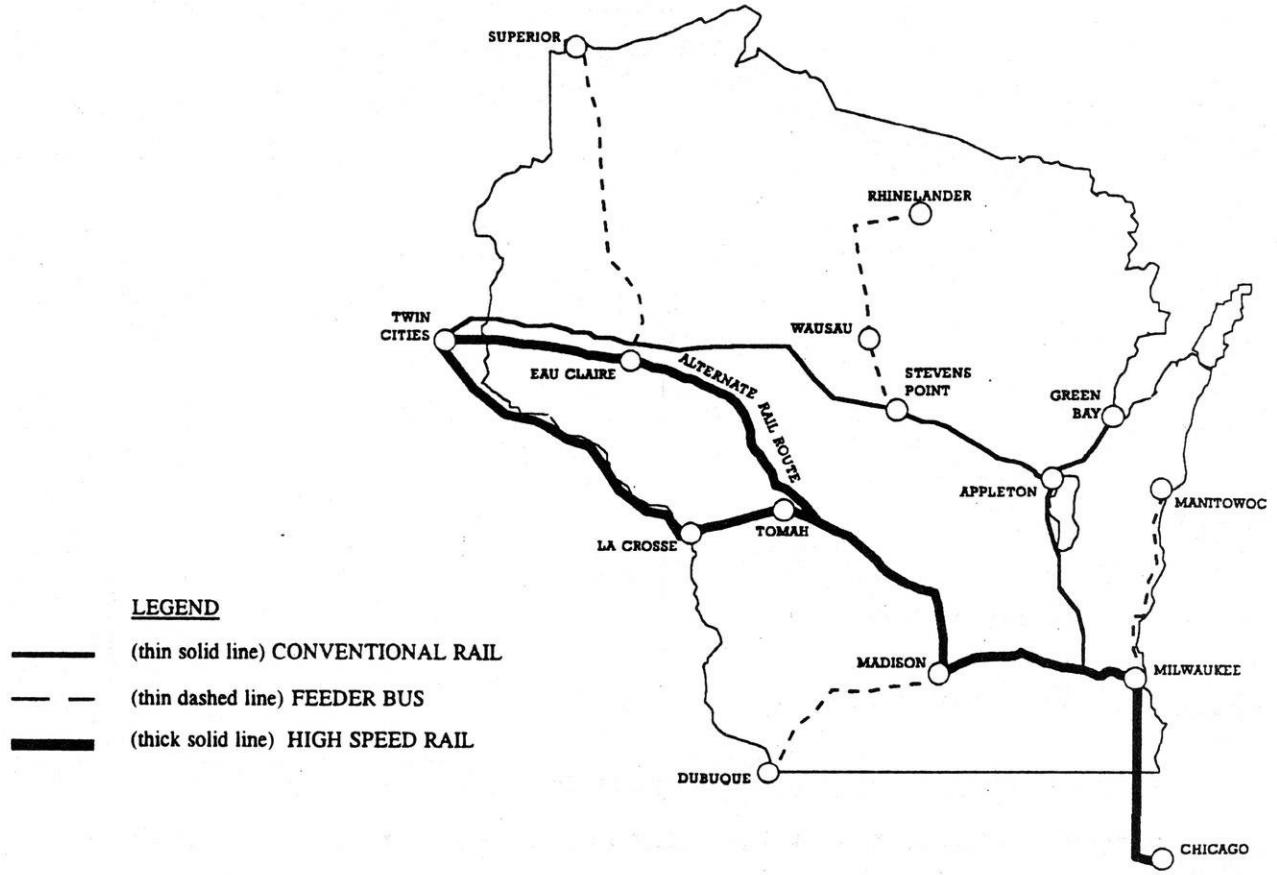
(thin solid line) CONVENTIONAL RAIL

(thin dashed line) FEEDER BUS

(thick solid line) HIGH SPEED RAIL

Figure G-11

PASSENGER RAILWAY SYSTEM ENVISIONED UNDER FOURTH TRANSLINKS 21 ALTERNATIVE



The fourth alternative being considered, the "premium mobility" alternative, envisions the provision of high-speed railway passenger train service from Milwaukee, through Madison, with a downtown terminal in Madison, and then to the Twin Cities by either a northern or southern route [see Figure G-11]. Regardless of which route would be used, this service would involve operating speeds of 125 miles per hour or more and up to 12 trains per day. Given such a high level of service, it is likely that there would be some diversion of passengers from the air mode.

With regard to air passenger and air cargo service, the Department recognizes the increasing importance of the air mode to regional and local economic development. As part of the TRANSLINKS 21 multimodal planning effort, the Department is conducting a statewide air cargo study to identify, for the first time, air cargo facilities and improvement needs on a statewide basis. While Wisconsin has over 700 aircraft-landing facilities—including private, public, law-enforcement-agency, and military facilities—relatively few of these facilities handle air cargo shipments or offer scheduled commercial air passenger service [see Figure G-12]. An important focus of the air cargo study will be on the air cargo activities at Milwaukee County General Mitchell International Airport, which now generates nearly 80 percent of all the air cargo activity in the State of Wisconsin.

One of the problems the Department has observed at other airports throughout the State is the loss of connecting air passenger service to major "hubs" such as Chicago-O'Hare International Airport. There has been a substantial reduction in connecting service to cities like Green Bay, Eau Claire, and La Crosse, for example, as national airlines refocus resources on more productive, larger-volume national routes. One of the air passenger service scenarios being considered in the planning effort focuses on examining various potential State policies which would increase connecting service to all airports in the State. It may be desirable for

Figure G-12

WISCONSIN AIRPORTS WITH AIR CARGO OR SCHEDULED AIR PASSENGER SERVICE

Wisconsin to lobby the Federal government to increase the number of commuter "slots" at Chicago-O'Hare and other major "hubs" in order to ensure that smaller Wisconsin cities, such as Green Bay and other cities of comparable size, do not suffer significant losses in air transportation service.

In Southeastern Wisconsin, the sole locally based national air carrier—Midwest Express Airlines, Inc.—has been trying, with the support of Governor Thompson, to increase the availability of slots at major hubs, such as Washington National and La Guardia Airports. The TRANSLINKS 21 planning process seeks to address both of these air passenger access issues.

Figure G-13 summarizes the proposals being considered under the four TRANSLINKS 21 alternatives for air passenger and air cargo transportation.

Figure G-13

SUMMARY OF TRANSLINKS 21 ALTERNATIVES: AIR PASSENGER AND AIR CARGO TRANSPORTATION

ALTERNATIVE #1: Current policies

Continue the state aid program for airports at present funding levels and with present project eligibility; continue to administer the federal Airport Improvement Program.

Federal 25-year AIP funds: $600 million
Wisconsin 25-year costs: $260 million
Existing Wis. 25-year funds: $260 million
No additional funds required

ALTERNATIVE #2: New directions

Continue the state aid program for airports at present funding levels and with present project eligibility; continue to administer the federal Airport Improvement Program.

Federal 25-year AIP funds: $600 million
Wisconsin 25-year costs: $260 million
Existing Wis. 25-year funds: $260 million
No additional funds required

ALTERNATIVE #3: More choices

Expand funding for the state aid program for airports to include facilities and equipment for air cargo services.

Undertake a number of other initiatives to improve air passenger and cargo transportation.

Continue to administer the federal Airport Improvement Program.

Federal 25-year AIP funds: $600 million
Wisconsin 25-year costs: $285 million
Existing Wis. 25-year funds: $260 million
Additional Wis. funds required: $25 million

ALTERNATIVE #4: Premium mobility

Expand funding for the state aid program for airports to include facilities and equipment for air cargo services.

Implement an essential passenger service program for state airports.

Construct a parallel runway at GMIA.

Construct an air/high speed rail intermodal terminal at GMIA.

Undertake a number of other initiatives to improve air passenger and cargo transportation.

Continue to administer the federal Airport Improvement Program.

Federal 25-year AIP funds: $600 million
Wisconsin 25-year costs: $401.6 million
Existing Wis. 25-year funds: $260 million
Additional Wis. funds required: $141.6 million

Like the air cargo industry, the freight railway industry has proven to be a State and national "success story" in recent years. The level of freight railway shipments has increased over the past several years, and is forecast to continue to increase. Wisconsin is served by three Class I railway companies: the Chicago & North Western Transportation Company; the Burlington Northern Railroad Company; and the CP Rail System. Wisconsin has also received improved service from short-line and regional railway companies, such as the Wisconsin Central Transportation Corporation and the Wisconsin & Southern Railroad Company. The latter means that the era of State railway transportation planning focused on the maintenance of service in the face of proposed route abandonments is ending. The State is beginning an era of planning focused on increasing the efficiency of the existing operating railways. The Wisconsin Central Ltd., a subsidiary of the Wisconsin Central Transportation Corporation, is a good example of how short-line railways are "filling the gaps" left by the decline or demise of larger railway companies and has become a nationally known example of successful short-line railway operation.

Figure G-14

WISCONSIN'S RAILWAY SYSTEM: 1994

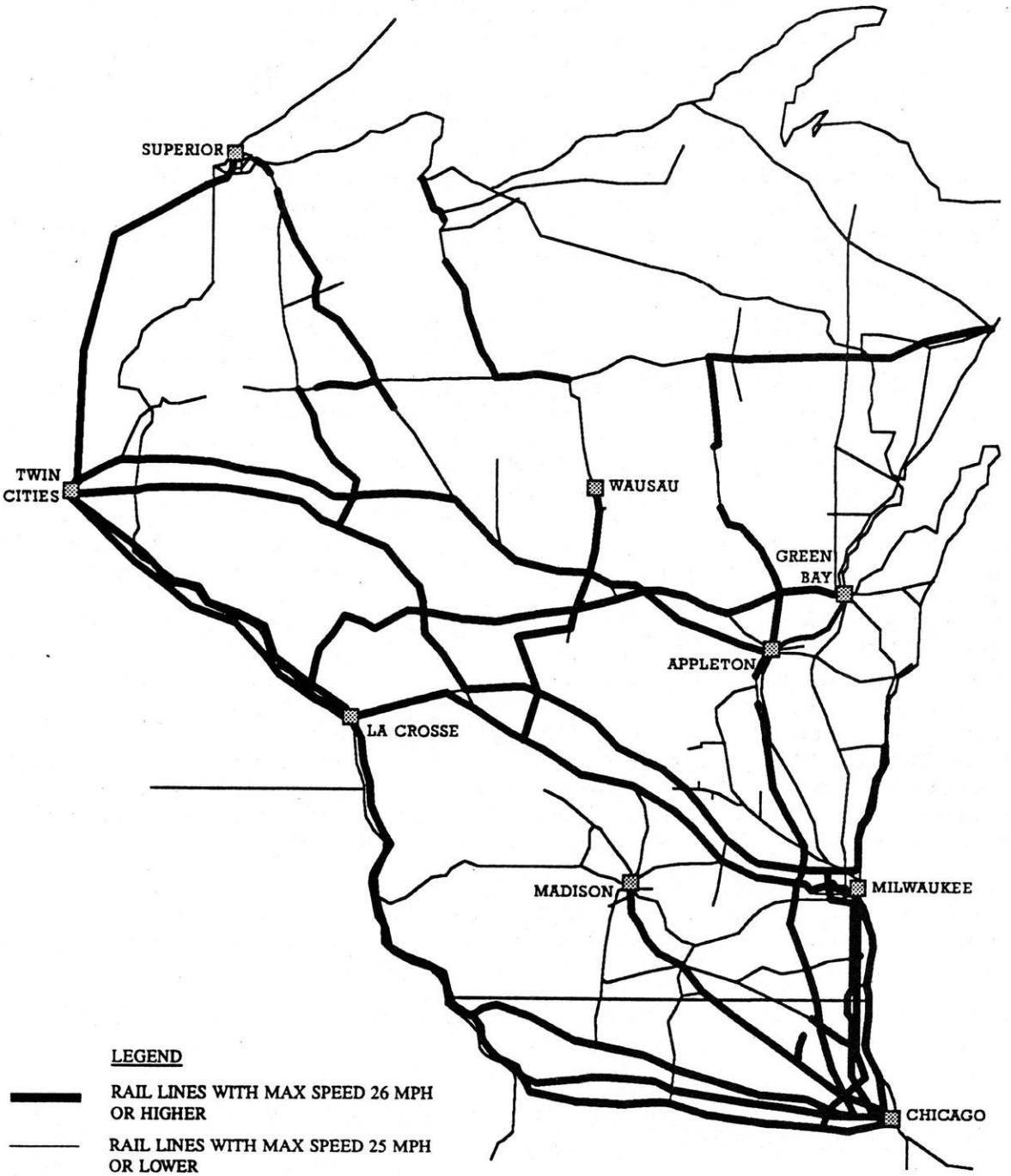


Figure G-14 shows Wisconsin's current railway system.

The other railway success story is that of the formation of intermodal railway-trucking partnerships with major trucking companies, such as Schneider National Carriers, Inc., headquartered in Green Bay. In this type of transportation service, intermodal shipping containers are loaded on trucks for delivery to intermodal terminals in cities like Green Bay and Chicago. There, the containers are loaded on trains for long-haul transportation to destinations like Los Angeles, Montreal, and New York City. Intermodal service offers convenience and savings to shippers; increased revenue to railway companies; and a solution for trucking companies currently facing shortages of qualified long-haul truck drivers.

Figure G-15 graphically summarizes the basic elements of the TRANSLINKS 21 freight railway scenario. Under this scenario, the Department has identified railway lines which need to be upgraded to provide a high level of uninterrupted service in major corridors in the northern parts of the State. Allowable track speeds for trains operating in these corridors are recommended to be increased from 25 miles per hour to 40 miles per hour. Other railway segments, for example, the segment from Green Bay to Neenah and Milwaukee, are envisioned to be improved so that they can accommodate high-speed intermodal traffic. The scenario also suggests providing additional funding for intermodal facility improvements at existing intermodal transfer sites, for example, at Green Bay and Milwaukee, and perhaps also at new sites as shown in Figure G-16. In addition, under the railway freight scenario, potential highway grade crossing improvements are being examined. The need for these improvements is driven by the 60 to 80 percent increase in railway activity being forecast under this scenario. Figure G-17 summarizes the proposals under the four TRANSLINKS 21 alternatives for railway freight transportation.

In the area of waterborne freight transportation, the TRANSLINKS 21 effort is focusing on what the Department calls Wisconsin's "gateway" ports: Milwaukee, Green Bay, and Superior on the Great Lakes, and La Crosse and Prairie du Chien on the Mississippi River [see Figure G-18]. The TRANSLINKS 21 waterborne freight scenario envisions a modest expansion of the State program which provides funding for port improvements. The scenario also envisions the provision of improved highway access and improved railway access to the ports. This is essential to the success of these intermodal facilities. Figure G-19 summarizes the proposals for waterborne freight transportation under the four TRANSLINKS 21 alternatives.

I would like to close my presentation by describing the TRANSLINKS 21 highway scenario. Wisconsin's highways, in serving both the automobile and truck modes, carry the vast majority of the State's passenger movements and freight shipments. The State's Corridors 2020 system plan envisions and encompasses a 3,600-mile system of four-lane "backbone" highway routes and improved two-lane connector routes as shown in Figure G-20. The Corridors 2020 plan was first announced by Governor Thompson in 1988, and its implementation is scheduled to be completed by 2005. Under the TRANSLINKS 21 effort, the Department is reexamining the highway system envisioned under Corridors 2020 to ensure that the kinds of improvements being planned under that effort remain feasible and viable. It is expected that the TRANSLINKS 21 update of Corridors 2020 will continue to confirm the need for these envisioned highway improvements. In addition, the TRANSLINKS 21 analysis identified over 1,000 miles of highways subject to potential congestion problems after the year 2005, as well as significant rehabilitation and preservation needs associated with the current State trunk highway system.

Under the first alternative being considered under TRANSLINKS 21, the Corridors 2020 plan would be fully implemented by 2005. A Federally mandated congestion management system would address future congestion-related highway expansion needs with a report scheduled for completion in the spring of 1996. Highway preservation activities would continue at existing levels.

Under the second alternative being considered, the highway program would be scaled back and the scheduled date of completion of the "backbone" highway system recommended in Corridors 2020 would be changed from 2005 to 2020.

Under the third alternative being considered, highway funding levels would be increased, and the Corridors 2020 plan would be implemented by 2005, and highway preservation and rehabilitation activities would be increased.

Under the fourth alternative being considered, highway funding would be increased even further, so that all highway system preservation and rehabilitation needs would be addressed through the year 2020.

In concluding my presentation on the intercity elements of the TRANSLINKS 21 plan, I wish to note that more detailed information on the TRANSLINKS 21 planning scenarios will be provided at a series of public information forums to be held throughout the State during the summer of 1994. This information will also be directly available from the Department's Office of Public Affairs.

Thank you.

Figure G-15

POTENTIAL RAILWAY-LINE UPGRADES UNDER TRANSLINKS 21 ALTERNATIVES 2, 3, AND 4

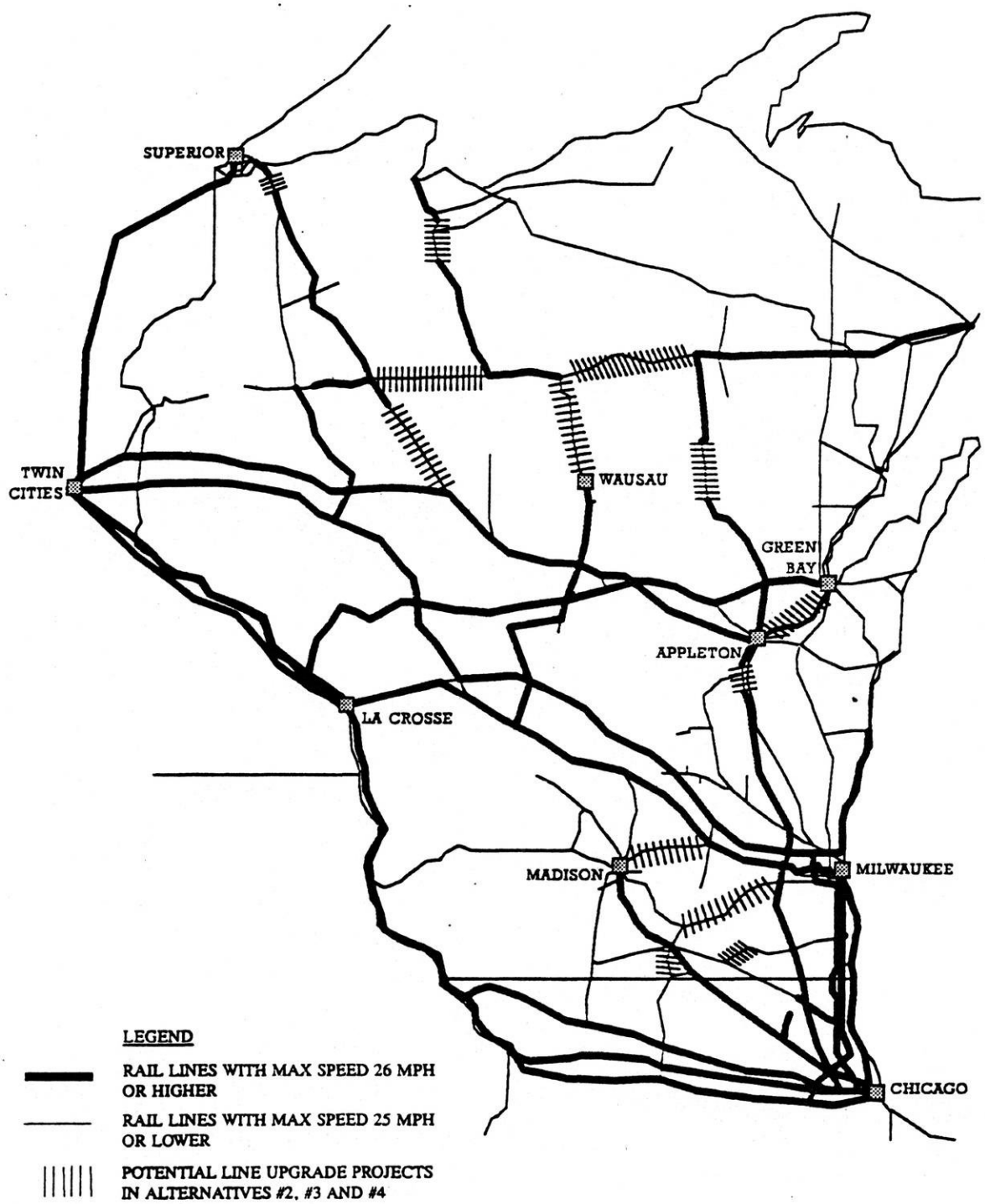


Figure G-16

EXISTING AND ENVISIONED FUTURE INTERMODAL TERMINALS AND TRAFFIC CORRIDORS

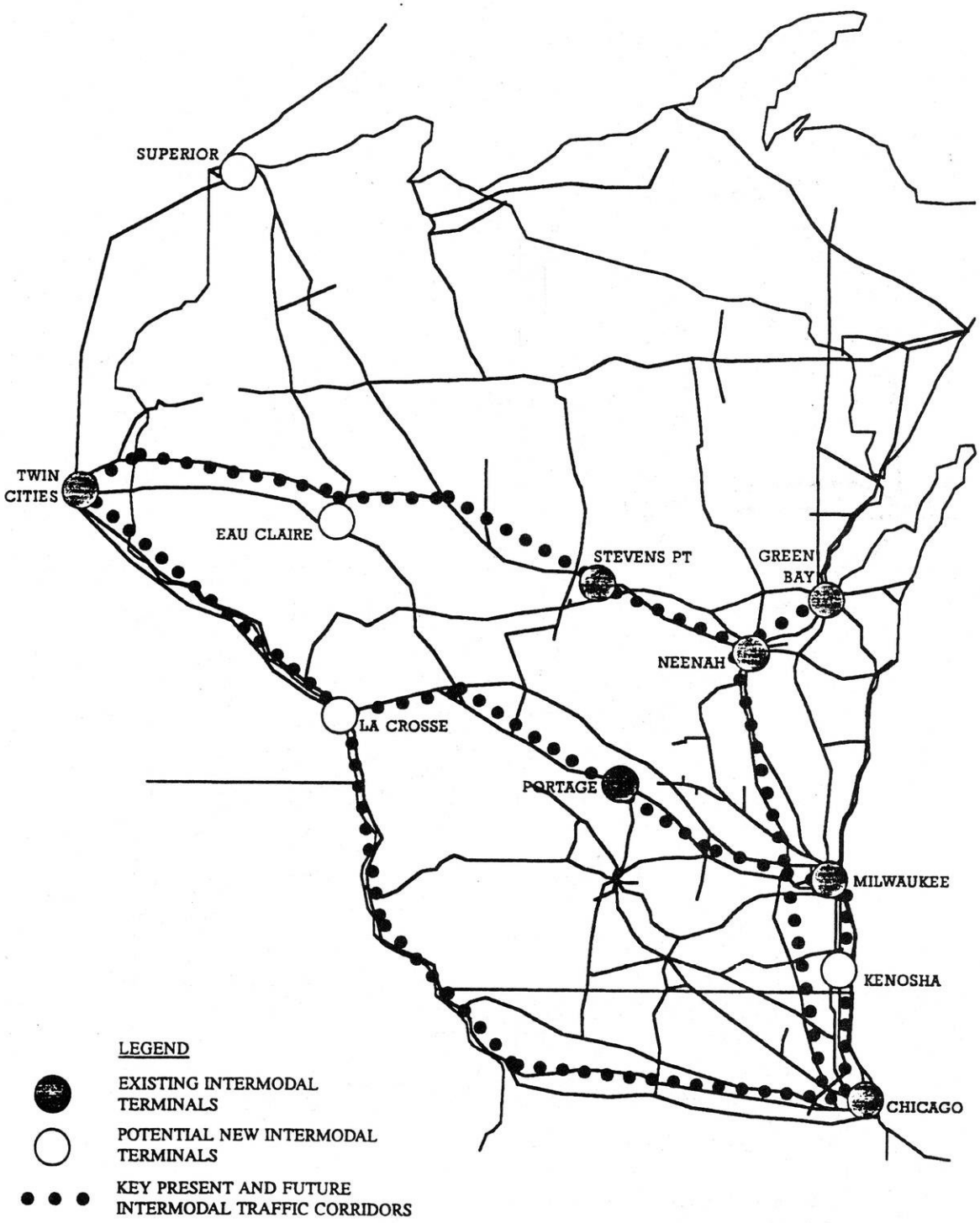


Figure G-17

SUMMARY OF TRANSLINKS 21 ALTERNATIVES: RAILWAY FREIGHT TRANSPORTATION

ALTERNATIVE #1: Current policies

Continue existing rail assistance programs at current funding level to provide assistance for preservation or enhancement related projects.

Total state 25-year cost: $250 million
Existing 25-year allocation: $250 million
No additional funds required

ALTERNATIVE #2: New directions

Continue existing rail assistance programs at current funding level to provide assistance for preservation or enhancement related projects.

Total state 25-year cost: $250 million
Existing 25-year allocation: $250 million
No additional funds required

ALTERNATIVE #3: More choices

Expand funding for state rail assistance programs and refocus priorities on projects relating to intermodal services.

Continue to maintain eligibility for other types of infrastructure improvements as in Alternatives #1 and #2.

Total state 25-year cost: $437.5 million
Existing 25-year allocation: $250 million
Additional funds required: $187.5 million

ALTERNATIVE #4: Premium mobility

Expand funding for state rail assistance programs beyond the level of Alternative #3.

Continue to focus priorities on projects relating to intermodal services as in Alternative #3.

Expand eligibility to include purchase of certain types of equipment, and for infrastructure improvements needed to facilitate operation of certain types of equipment.

Continue to maintain eligibility for other types of projects as in Alternatives #1, #2 and #3.

Total state 25-year cost: $500 million
Existing 25-year allocation: $250 million
Additional funds required: $250 million

Figure G-18

WISCONSIN'S PORTS

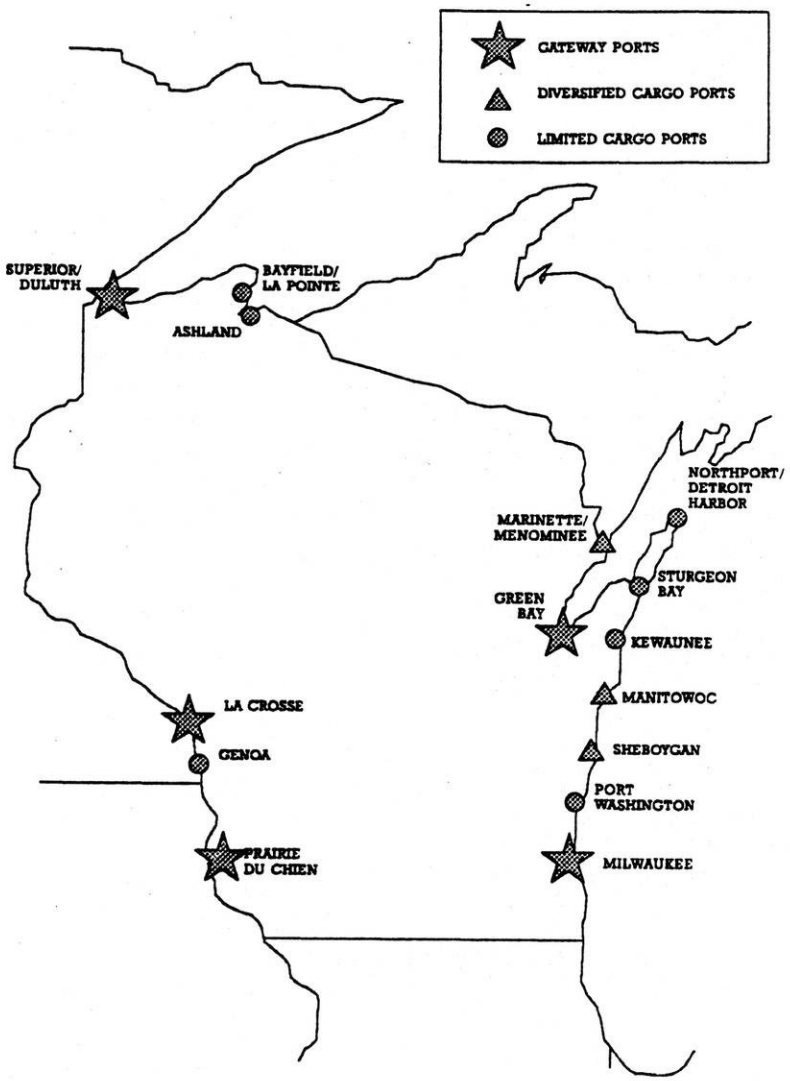


Figure G-19

SUMMARY OF TRANSLINKS 21 ALTERNATIVES: WATERBORNE FREIGHT TRANSPORTATION

ALTERNATIVE #1: Current policies

Continue the Harbor Assistance Program at current levels of funding and with current project eligibility requirements.

Total state 25-year cost: $50 million
Existing 25-year allocation: $50 million
No additional funds required

ALTERNATIVE #2: New directions

Continue the Harbor Assistance Program at current levels of funding and with current project eligibility requirements.

Total state 25-year cost: $50 million
Existing 25-year allocation: $50 million
No additional funds required

ALTERNATIVE #3: More choices

Continue the Harbor Assistance Program at expanded funding levels, but maintain present project eligibility requirements.

Use highway program to improve highway access to Gateway ports.

Use rail program to improve rail access to ports.

Seek to resolve dredge disposal issues.

Work for service improvements.

Total state 25-year cost: $95 million
Existing 25-year allocation: $50 million
Additional funds required: $45 million

ALTERNATIVE #4: Premium mobility

Expand funding and project eligibility for Harbor Assistance Program beyond the levels of Alternative #3.

Use highway program to improve highway access to all ports.

Use rail program funds to improve rail access to ports, possibly through purchase of rail rights-of-way.

Seek to resolve dredge disposal issues.

Work for service improvements.

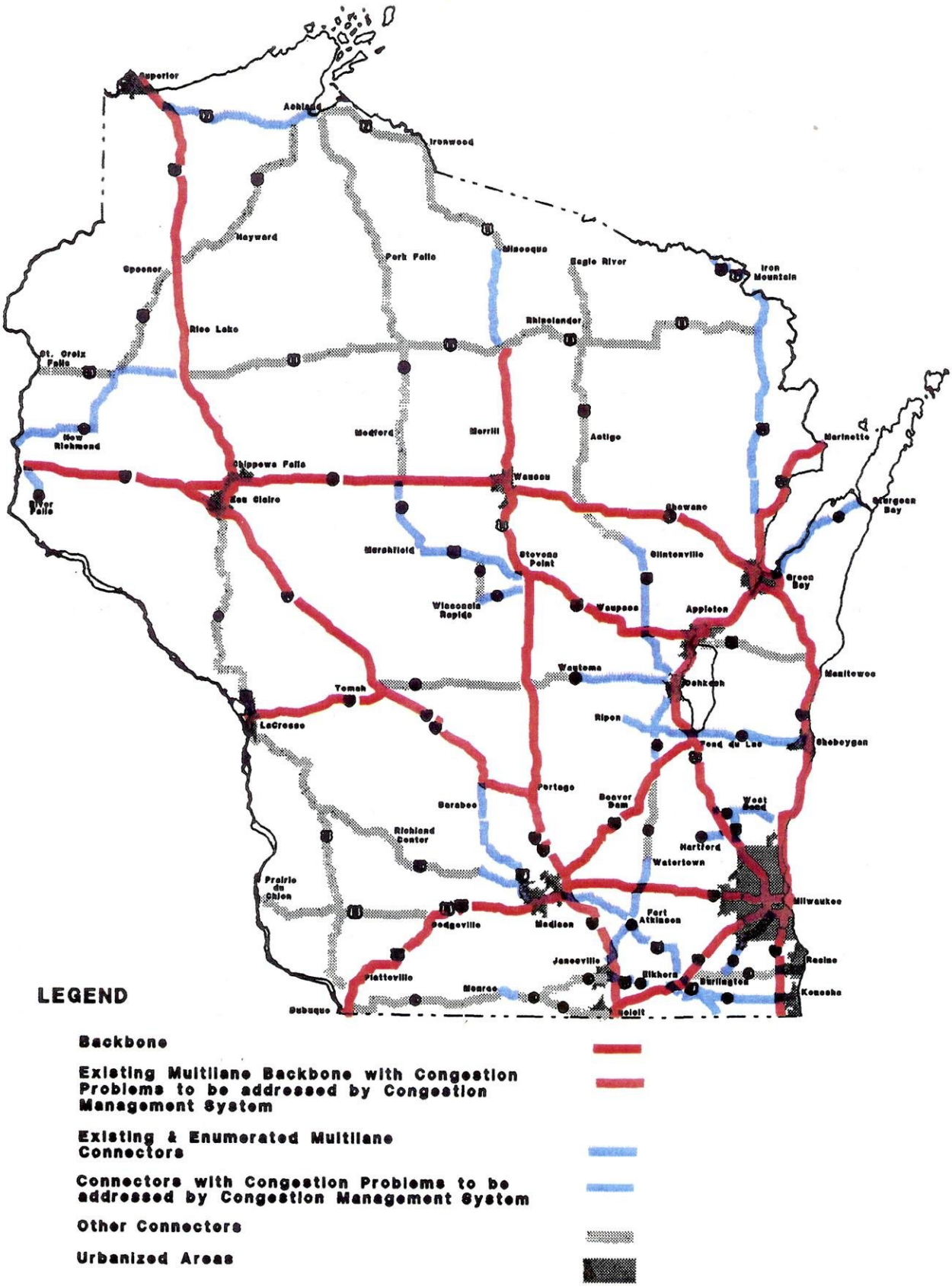
Implement marketing strategies.

Work to improve lock and dam systems.

Total state 25-year cost: $110 million
Existing 25-year allocation: $50 million
Additional funds required: $60 million

Figure G-20

THE CORRIDORS 2020 PLAN: JUNE 1994



LEGEND

- **Backbone**
- **Existing Multilane Backbone with Congestion Problems to be addressed by Congestion Management System**
- **Existing & Enumerated Multilane Connectors**
- **Connectors with Congestion Problems to be addressed by Congestion Management System**
- **Other Connectors**
- **Urbanized Areas**

SESSION G

FOCUS ON THE NEW STATE TRANSPORTATION PLAN: ITS IMPLICATIONS FOR THE STATE AND REGION

Panelist: Benjamin J. Coopman, Highway Commissioner, Walworth County

As might be expected, my perspective on TRANSLINKS 21, and on transportation issues generally, is often different from Mr. Wade's. As a county-level highway official, I seek to bring a county-level, or local-level, perspective into the decision-making process.

Walworth County, in contrast to more urbanized counties within the State and the Southeastern Wisconsin Region, is a county with a population of about 79,200. Its largest municipality, the City of Whitewater, has a population of about 10,500. The County therefore does not have any truly major population centers. Our needs, therefore, are different from those of more densely populated counties. From my perspective, I want to do all I can to ensure that the TRANSLINKS 21 planning process, the alternatives now proposed as part of that process, and the final recommendations and outcomes of that process meet the transportation objectives and needs we face at the county and local level. In attempting to meet State and Federal transportation objectives, such as those set forth in the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA, we must not ignore county and local transportation concerns. What may make sense solely with reference to ISTEA may not make sense for Walworth County. I want to make sure that the statewide transportation plan that emerges from Dane County takes into account the perspective of such "outstate" counties as Walworth County.

We in Walworth County believe that county trunk highways meet a significant portion of the overall highway needs of the State. In Walworth County, for example, county trunk highway mileage almost equals State trunk highway mileage. Long-distance truck drivers often use our county trunk highways as "feeders" for the State trunk and Interstate highway systems. Those drivers operate their 65-foot-long trucks at speeds of 55 miles per hour on our county trunk highways. We find it very difficult to maintain our county trunk highway system, given this continued abuse placed upon that system by some elements of the trucking industry.

In assessing the four alternatives being considered under TRANSLINKS 21, I proceed from an assumption that any good transportation system requires a good highway system for its foundation. Without an adequate highway system—including an adequate county trunk highway system—the remaining modes of transportation being contemplated in the TRANSLINKS 21 effort will not function effectively. Each of the four alternatives, in my opinion, shortchanges county and local highways with respect to needed resources. If the transportation system to be proposed under TRANSLINKS 21 is to be truly statewide and multimodal in nature, the State needs to give an adequate level of support to county and local highways as well as transit, rail, and harbor facilities, for example. We understand that TRANSLINKS 21 has multiple goals, but we are concerned that the county and local point of view is being underrepresented in the TRANSLINKS 21 proposals before us.

While the alternative proposals do mention the possibility of increased levels of State funding of the Local Road Improvement Program—for counties, known as the County Highway Improvement Program, or CHIP—we at county and local levels know that this program has been initially underfunded. While the size of the proposed State "pie" for the program may at first seem large, it is important to remember that given the large number of counties and municipalities among which the "pie" is to be divided, the "pieces of the pie" involved will still be rather small.

The TRANSLINKS 21 plan alternatives do not envision any new major funding sources for transportation purposes other than highway user fees. The counties, under these alternatives, would be forced to place more of the burden of maintaining their highways upon the property tax. It is necessary to reexamine the funding mechanisms we use to finance county and local highways. We should consider other user-based revenue sources. Such potential sources were briefly considered in the Region in 1990, when the formation of a permanent Regional Transportation Authority, or RTA, was proposed by the Regional Planning Commission. The counties of the Region at that time were not supportive of the new funding mechanisms proposed under

the RTA effort. However, I believe that sentiment regarding the RTA concept has probably changed since that time, and that perhaps the RTA concept should be revisited.

The TRANSLINKS 21 alternatives also raise the possibility that air quality might be used as a criterion to measure the effectiveness of transportation projects. Many of us from the less urban counties, such as Walworth County, are quite concerned about this possibility. I suspect that this is the case in any "outstate" county where air quality is not a major issue. We are concerned about the possibility that proposed transportation projects in these counties could be adversely affected by inequitable application of clean-air standards. Transportation proposals in Walworth County could, for example, be delayed or forced to be modified or dropped due to the spread of pollutant emissions originating in adjacent, or even nonadjacent, counties over which Walworth County has no control. Despite the fact that Walworth County would have no control over such emissions, the County could suffer adverse consequences.

We hope that the final statewide transportation plan prepared under the TRANSLINKS 21 effort adequately addresses the needs and concerns of counties and other local units of government and the issue of fairness in allocating available resources, as well as other crucial issues. County and local highway systems must not be forced to carry burdens which are properly the responsibility of the State. If the "transportation partnership" envisioned under TRANSLINKS 21 is to involve true partnership among the parties involved, counties and other local units of government must be fairly treated and funded under the State transportation plan.

Thank you.

SESSION G

FOCUS ON THE NEW STATE TRANSPORTATION PLAN: ITS IMPLICATIONS FOR THE STATE AND REGION

Panelist: Philip J. Scherer, Executive Director
Transportation Development Association of Wisconsin

In commenting upon the TRANSLINKS 21 planning effort, I want to focus upon the process rather than the products. Based on what I have seen regarding that process so far, I have two basic reactions. My first one, I admit, is, "Ho-hum!" My second one is, "That would be great!"

Let me explain my first reaction. SEWRPC's first-generation regional transportation system plan was adopted in 1966, the year before I began my career in planning with the City of Racine. As the figure and explanatory caption which appear on pages 28 and 29 of the May-June 1994 issue of the Commission Newsletter indicate, that 1966 plan was the first in an ongoing and interrelated series of transportation planning efforts undertaken at the regional, State, and local levels over the past 25 to 30 years. In short, we in Wisconsin and in the Southeastern Wisconsin Region have been engaged in detailed, cyclical planning efforts involving multiple levels of government for a long time, long before such efforts were undertaken in most other parts of the United States. We were involved in such planning efforts and were taking them seriously long before it became fashionable to do so. In short, as I like to say, we were "country" before "country" was "in."

Therefore, when I say that my reaction to TRANSLINKS 21 is "Ho-hum," I mean it in a very positive manner, in the sense that in this Region and State, TRANSLINKS 21 is simply the latest link in an ongoing process which, to us, is neither new nor unusual. Both the Wisconsin Department of Transportation and SEWRPC are viewed on a nationwide basis as models with respect to the transportation planning process.

While ongoing, cyclical, and comprehensive transportation planning efforts of the kind required under the Federal Intermodal Surface Transportation Efficiency Act, or ISTEA, might be new and unusual in many other areas of the United States, they are well established here and have long been familiar to those of us who are involved with transportation issues in Wisconsin and, certainly, in the Region. As Mr. Jackson stated this morning when he discussed the formulation of ISTEA, many of the planning concepts underlying and used in ISTEA are similar to those which we in Southeastern Wisconsin have been using for years. In fact, when I first read about ISTEA and how it would be interpreted and implemented, my reaction was, "This is exactly what we are doing in this Region." In other words, "There is nothing new to us in this. Ho-hum."

Let me cite some specific examples of the transportation planning efforts with which we in this State and Region have long been familiar. I remember the preparation of the first State airport system plan in 1976, as well as the preparation of the second such plan in 1986. A third State airport system plan is now being prepared. The Commission is currently reevaluating and revising the regional airport system plan. This revised, third-generation plan is intended to be incorporated into the updated State airport system plan. In light of how SEWRPC's first-generation regional airport system plan was completed in 1975 and adopted in 1976, it is evident that the Commission has long played an important role in an area of transportation system planning which is still relatively new to many other areas of the country. The Commission has long participated in railway planning within the Region; the State has been preparing statewide railway plans for about 20 years. Of course, the Commission, the Wisconsin Department of Transportation, and other concerned levels and agencies of government have been preparing highway plans, literally, for decades. In 1986 and 1987, a statewide study was performed to assess the status of and the needs regarding local collector and arterial streets. A similar study was performed in 1988 with respect to town roads in the State.

The concept of multimodal transportation planning, too, is nothing new in Wisconsin. The State's first multimodal transportation plan was prepared back in 1978. I could cite many other State, regional, county, and local efforts—Mobility 2000, Metro 2020, and others—but my basic point in mentioning studies like these is that these types of transportation planning efforts have long been part of "business as usual" in Wisconsin. ISTEA, therefore, might have "awakened the sleeping giant" elsewhere, but not here. Indeed, then, "ho-hum" can be good.

My second comment applies to the Department's ongoing efforts to review and improve transportation planning processes in the State. Whether these processes involve statewide planning for highways, airports,

railways, or other forms of transportation, these efforts have yielded improvements in each succeeding plan produced by those processes. Comprehensive plans are followed by even more comprehensive plans, especially in this Region thanks to similar review and improvement efforts undertaken by the Commission. This is a continuing process.

I am therefore pleased with what I see emerging from the TRANSLINKS 21 process to date. This planning effort, too, incorporates improvements over previous statewide transportation planning efforts. For many years, transportation planning efforts attempted integration with land use planning efforts. However, we have not been as successful at this in the past as we had wished. SEWRPC can be proud of its efforts to integrate transportation and land use planning. The TRANSLINKS 21 process has included a concerted effort to integrate transportation and land use considerations.

We also need, as Mr. Wade stated, to examine the various modes of transportation in a more integrated manner. Transportation modes should not be assessed in isolation, but in terms of their interrelationships. Most of the plans prepared at the State level in the past focused only on one mode: highways, railways, or airports. The process under which the TRANSLINKS 21 plan is being prepared is probably one of the best in terms of efforts to integrate those and other transportation modes.

As Mr. Wade pointed out, TRANSLINKS 21, for example, has included detailed examinations of railway freight and air freight transportation. Having myself been active for many years in efforts to improve freight transportation in Wisconsin, I am gratified to know that the TRANSLINKS 21 effort has sought input from those who use the freight transportation system and those who provide its services. It is important that such people be involved in planning efforts. Given that the public at large will be paying for the implementation of any resulting plan, it is also important to try to increase public involvement in planning efforts. TRANSLINKS 21 has clearly included extensive efforts to solicit and obtain public input through the forums which have been and will be held throughout the State. The Department seems well aware of the fact that active efforts to seek input from both concerned interest groups and from citizens at large is a key aspect of an effective planning process. This input is critical to developing a workable solution to the transportation problems facing the State.

It is a challenge to get citizens as well as business and industry truly involved in a major planning effort. But this, too, has long been an accustomed aspect of transportation planning efforts in our State and in the Southeastern Wisconsin Region.

Both TRANSLINKS 21 and SEWRPC's third-generation regional transportation system planning effort, therefore, are "business as usual," but what is "business as usual" in this State and Region is highly desirable. We in Wisconsin and in the Southeastern Wisconsin Region have been national leaders in transportation planning and we have continually improved the process with each succeeding effort. It has taken hard work to ensure that statewide, regional, and local transportation plans complement, rather than contradict, each other, but the results have proven the value of the efforts. Of course, we should continue to seek to improve the process and its products. This is important to our efforts to develop a more environmentally sensitive transportation system. Both TRANSLINKS 21 and SEWRPC's preliminary plan will help us to do this.

I am certainly in favor of soliciting input into these planning efforts from those who use the system and from those who depend on the system for their livelihoods. In this respect, too, the TRANSLINKS 21 effort is going very well.

We often hear that the transportation planning process involves "making tough choices." As planners, engineers, and other professionals dealing with transportation issues know, however, the real "tough choices" are often not conceptual, but financial. If, for example, we fully believe that transportation needs can be met by a particular mode or set of modes—a railway system, an airport system, or a highway system—and if we set forth how we believe those needs can best be met in Hurley or Hayward or in Milwaukee or Waukesha County, can we really say that we are making the truly tough choices? Decisions also must be made as to how limited transportation funds will be spent. Would a given amount of money be better spent on local road systems, or on a railway system? Should those funds go to Northern Wisconsin or to Southeastern Wisconsin? What we often describe as "making tough choices," therefore, does not involve the really tough choices. The really tough choices involve how to find the dollars needed to implement the projects we may recommend as needed.

I will leave you with that thought. Thank you.

SESSION G

FOCUS ON THE NEW STATE TRANSPORTATION PLAN: ITS IMPLICATIONS FOR THE STATE AND REGION

Panelist: Marc S. Bentley, Government Relations Director
Wisconsin Motor Carriers Association

I would first like to address some issues pertaining to two major pieces of Federal legislation affecting transportation and to one program in Wisconsin which is significantly affected by, and which is being implemented at least partially in response to, that legislation.

The 1990 Clean Air Act Amendments (CAAA) and the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) are designed to improve air quality while continuing to provide a strong and efficient transportation system. I will attempt to look at the trends in air quality and the relationship between mobility and air quality, and the investment being made by traditional transportation sources in complying with these Federal mandates.

It is important to understand the impact CAAA and ISTEA will have on our State. ISTEA complements CAAA by giving increased decision-making power to urban areas on how to spend Federal transportation dollars. ISTEA and CAAA also take funds away for roads and bridges for mass transit, air quality enhancements, and nonhighway projects. When we develop a transportation plan for Wisconsin under TRANSLINKS 21, these mandates and costs on traditional modes of transportation must not be ignored.

A new era in transportation and air quality was ushered in by CAAA and ISTEA. In tandem, the two laws require the Nation to adopt policies that will allow it to meet air quality goals for pollutants such as carbon monoxide, ozone, and particulate matter. Under CAAA, the State must implement a number of transportation-related programs in order to achieve legally required improvements in air quality by the year 2007. These programs could have a dramatic impact on Wisconsin's economy.

It is important to recognize the full extent of the investments we will have to make in programs under CAAA in this effort to improve air quality. One example of these programs is the Employee Commute Options, or ECO, program. Under this program, any employer with 100 or more employees will be required to undertake measures designed to increase average vehicle occupancy for work-related trips by at least 25 percent. The estimated total cost to Wisconsin businesses of complying with this program is $100 million.

Another program, the Clean Fuel Fleet program, is designed to promote the use of "clean," alternative fuels by trucking-industry fleets. Any fleet with 10 or more vehicles having a single, central fuel source will be required to comply with the purchasing requirements set forth under this program. After 1998, 50 percent of the new vehicles purchased for covered trucking fleets must be alternative-fuel vehicles. The total cost to the trucking industry of compliance with this program aside, that cost to just one company which is a member of the Wisconsin Motor Carriers Association will total $10.8 million. Under another program, all diesel trucks were required to be operated using a low-sulfur diesel fuel starting October 1, 1993. This requirement has cost the trucking industry from four to seven cents per gallon of diesel fuel used. The overall cost of this requirement will run into thousands of dollars.

In summary, while these improvements contribute to improved air quality, our transportation policy is still being driven by the belief that future highway travel increases will result in increases in highway pollution. This is simply false. The U. S. Environmental Protection Agency has indicated that highway air pollution will continue to decline despite expected increases in vehicle-miles traveled. The transportation sector that consists of cars, buses, and trucks has been responsible for achieving one-half of the mandated levels of emissions reductions in the State and Nation. The costs of the measures needed to achieve these reductions will run into millions of dollars. Because of these commitments to improved tail-pipe emissions standards, emissions from automobiles and trucks will, by the year 2007, be reduced by 75 percent from 1990 levels. Even with an annual growth rate of 2 percent, this accounts for approximately 15 to 20 percent of all Wisconsin's ozone-forming emissions. The air quality benefits gained under CAAA and ISTEA and the investments made by transportation sources must be recognized in order to properly evaluate our transportation needs under the statewide TRANSLINKS 21 planning program.

This brings me to TRANSLINKS 21, the effort to create a State transportation plan for the 21st century. The stated goal of TRANSLINKS 21 is to shape a transportation system for our State that maintains and improves the quality of our highway system while offering realistic and feasible alternatives to automobile driving.

The TRANSLINKS 21 effort has included the examination of proposals for an increase in the motor-fuel tax of $1.10 per gallon; increases in vehicle-registration fees; initiation of "pay-as-you-drive" automobile insurance; increases in daily parking fees; implementation of employee parking cash-out programs; an increase in the waiver fee under the State vehicle inspection and maintenance program; and other pricing options. The argument used in support of these proposals is that the monies raised from their implementation will be used to fund a massive investment in alternative modes of transportation. But we need to consider the trade-off involved in making such an investment; we can devote only so much public and private resources to such purposes before we start to hurt the economic health of our State.

In light of the environmental gains and the enormous costs anticipated under CAAA and ISTEA by our various modes of transportation, I ask that we be both careful and fiscally responsible as we shape a new transportation plan for the State of Wisconsin. Our transportation decisions must be based on market demands. Levels of ridership and revenues generated by each transportation-mode option considered must be analyzed before any actual investments are made. Forcing people out of their automobiles by making them pay more for driving in order to enable massive investments in new transit alternatives is not the answer. Greater investments in nonhighway modes of transportation will not in themselves change travel behavior, and may carry unjustifiable or unforeseen costs.

We must always consider the trade-offs involved with any given transportation choice. For example, increased reliance on freight and other modes can reduce energy consumption and emissions levels, but can also result in more land use problems. Increased investments in railway systems may result in merely shifting bus passengers to rail transit, with no gains in overall transit ridership, while costing the citizens of this State millions of dollars.

In considering potential transportation system alternatives, then, the TRANSLINKS 21 effort should proceed from the sound premise of building upon the transportation system that we already have in place. Our State's transportation system must be one that takes into consideration what is good for the State of Wisconsin and what is the most cost-effective way to approach our transportation needs and options.

The trucking industry is a key element of our State's economy. This industry is crucial in the provision of services to residents of Wisconsin and other States, as well as the means by which we transport goods to markets within the State. The term "the transportation industry" implies the existence of the historic relationship between our public infrastructure of roads and highways, which our trucking industry both uses and helps sustain. Our public infrastructure and our trucking industry, in turn, are not only crucial to one another, but to the effective functioning of our economy. It is also important to remember that the trucking industry employs approximately 63 percent of the total number of people employed in the transportation sector in Wisconsin. Trucking is Wisconsin's largest transportation subsection in the TRANSLINKS 21 plan. It is important that we have a good highway system to move products more efficiently. Because of the close relationship trucking plays in creating and maintaining a strong economy, it is imperative that we build on improving our highway system. This will encourage continued growth and strength in our manufacturing and agricultural sectors, which, in turn, play key roles in the vitality of the trucking industry. Because of the competition facing industry, service—the effective meeting of the demands of "just-in-time" manufacturing and of tighter shipping schedules for raw materials, parts, and finished products—will be more important than ever as we enter the next century.

In conclusion, sound air quality and mobility can coincide without being compromised. The key to balancing mobility needs with economic and environmental considerations must include an evaluation of the gains we have made and will make in air quality under CAAA and ISTEA. Cars and trucks are cleaner today because engines and fuels are cleaner. Because this trend will continue under both of these laws, our TRANSLINKS 21 policy should focus our transportation needs on building and improving the transportation network we have in place. In doing so, it will help us balance our long-term environmental and transportation needs without hurting our State's economy.

Thank you.

SESSION G QUESTION-AND-ANSWER SESSION

MR. BLUEMKE:

We welcome your questions and comments. If you wish to ask a question or make a comment, please do so at the microphone we have provided.

QUESTION:

I was under the impression that the Wisconsin Department of Transportation and SEWRPC were in complete agreement regarding transportation needs and recommendations. Mr. Wade, however, seemed to be referring to an alternative to SEWRPC's proposed plan. What did he mean by that?

MR. BLUEMKE:

I have a personal comment. Even though TRANSLINKS 21 and the preliminary recommended regional transportation system plan may differ in some respects, I do not think that signifies the existence of any major conflict between the two planning efforts. SEWRPC's charge includes the preparation of transportation plans for the seven-county Southeastern Wisconsin Region, and those plans, by definition, must include recommendations regarding transportation connections to the rest of the State as well as to the Nation. Of course, this raises concerns about continuity. Mr. Wade, do you wish to comment on that?

MR. WADE:

In examining the issue of intercity connections, the Wisconsin Department of Transportation, in preparing the TRANSLINKS 21 alternatives, developed separate data sets and alternative proposals for intercity freight and passenger transportation. Depending on which of these intercity transportation alternatives is finally adopted, some modification in some aspects of the SEWRPC plan may be warranted. Different or improved intraregional intermodal connections may be necessary under, for example, an interregional plan based on high-speed rail. Nevertheless, I think that what we are contemplating under almost any of the interregional alternatives will be quite compatible with the SEWRPC plan. Ultimately, both planning efforts are seeking to address the same set of issues. Both efforts involve examining various transportation alternatives and potential funding arrangements to provide answers to the question: "What is the most efficient way of providing both interregional and intraregional transportation?"

QUESTIONER (WAUKESHA COUNTY BOARD SUPERVISOR CHERI A. FREDERICK):

My name is Cheri Frederick. I am a member of the Waukesha County Board of Supervisors. Mr. Coopman described the unsuccessful effort to create a Regional Transportation Authority, or RTA, and suggested that the concept be revisited. One of the ideas that was put forth during the effort to create an RTA in the Southeastern Wisconsin Region was the need for the State to offer opportunities to form regional transportation authorities throughout the State. One of the problems which became evident during the effort to create a permanent RTA in this Region involved the proposal to raise gasoline taxes to finance the RTA, particularly with respect to the problems such an increase would create for gasoline dealers on the periphery of the Region. I therefore want to ask Mr. Bluemke and any other policy makers and administrators at this session what they think the probability might be of the State considering and enacting a statewide increase in the gasoline tax to be dedicated to funding RTA programs not only in this Region, but elsewhere in Wisconsin.

MR. BLUEMKE:

It is extremely difficult to get agreement on any kind of tax in a local area; it is probably even more difficult to arrive at any such agreement at a seven-county, regional level or at the State level. I would hope that as we continue our ongoing regional and State transportation system planning programs, we might arrive at a point in time when the RTA concept will be reexamined. By that time, political sentiment might have changed enough to make it easier to agree on an RTA funding mechanism.

MR. WADE:

The RTA concept indeed has been proposed for areas in this State outside Southeastern Wisconsin, including the Fox River Valley and Dane County areas, both of which have a large number of local units of government facing increasingly complex transportation problems. The Duluth-Superior area is another area for which an RTA has been proposed. The Southeastern Wisconsin Region, meanwhile, is one of the largest urbanized areas in the United States without some form of RTA.

QUESTIONER (WAUKESHA COUNTY BOARD SUPERVISOR WALTER KOLB):

My name is Walter Kolb. Like Ms. Frederick, I am a member of the Waukesha County Board. If another attempt is made to form an RTA in Southeastern Wisconsin, could that attempt face the same kind of criticism which has been leveled at the Milwaukee Metropolitan Sewerage District—namely, that Milwaukee County would control the RTA while, by the same token, Waukesha County and the other counties of the Region would be putting more money into the RTA than they would necessarily be getting from it?

MR. COOPMAN:

The key aspect of the RTA issue is not so much the question of whether or not to establish an RTA as it is the question as to which type of funding mechanism should be used to support the RTA. Rather than debate whether or not a new RTA effort should be statewide or regional, we need to examine increases in vehicle-registration fees, increases in the gasoline tax, increases in the sales tax, and other potential funding mechanisms, many of which were studied by the RTA Study Committee and by the Regional Planning Commission as part of the RTA effort undertaken in 1990. Once the difficult issue of funding is resolved, we can then better decide the issue of the RTA itself.

MR. BLUEMKE:

I have a comment to which I hope Mr. Dobnick can respond. I do not believe that SEWRPC feels that Milwaukee County would exercise disproportionate control over or gain disproportionate benefits from an RTA.

MR. DOBNICK:

The Regional Planning Commission's RTA Study Committee, as well as the RTA Board created by the State Legislature, went to great lengths in structuring the RTA proposal to allay concerns on the part of outlying counties that Milwaukee County would dominate the RTA. For example, the proposed 11-member Board would have had no more than four members from Milwaukee County. In addition, the revenue allocation proposal would have ensured to each county the return of at least 98 percent of the money raised in the county.

COMMENT (MR. WILLIAM BLACK):

I am William Black. I live in Waukesha County. If an RTA is to be created and is to function effectively in this Region, we need to acknowledge that the first RTA proposal did not successfully address certain concerns of the counties. People need to work together toward devising a new proposal for a workable, functioning RTA. In light of how we routinely construct and maintain State trunk highways in one area of the State with the help of funding from other parts of the State, we should not hesitate to consider dedicating State funds to RTA programs in the Region and elsewhere in Wisconsin. If this were done, I think the RTA concept could be successfully implemented.

QUESTIONER (MR. DAN DUPIES):

My name is Dan Dupies, and my question is for Mr. Wade. Under the TRANSLINKS 21 alternatives, a large portion of the State, encompassing more than one-half of its total area, will not have any railway passenger service. Given how this northern portion of the State is a well-known and well-used recreational area with strong future potential, is there any possibility that railway passenger service could be extended to link such

places in Northern Wisconsin as Eagle River and Minocqua with each other and with the southern portion of the State?

MR. WADE:

The TRANSLINKS 21 alternatives envision the provision of "feeder" bus service to connect such places with each other and with the rest of the State. The philosophy of the Wisconsin Department of Transportation in preparing these proposals for the "outstate" areas, pending the more precise determination of transportation demands in specific outstate areas, envisions "feeder" bus service, offering a basic, initial level of transit service. If, over time, demand levels for this feeder bus service warrant, we could, in the future, explore the possibility of providing railway passenger service to and in these areas. At this time, however, these outstate areas do not have population and travel-demand levels sufficient to warrant providing such service. Tourism and recreational markets are seasonal in nature, and these markets operate in a manner different from steadier urban markets. Tourist areas are therefore particularly difficult to serve with "pure" railway passenger service unless those areas have some other form of steady, substantial demand for such service. The Department therefore envisions its responsibility to such outstate areas at this time in terms of seeking the provision of feeder bus service. Of course, that service will provide connections to all other modes of transportation in the State, including highways and major railway passenger routes.

MR. BLUEMKE:

On behalf of both the Commission and the University of Wisconsin-Extension, I would like to thank both the panelists and the audience participants in this session for sharing their views with us.

SESSION H

FOCUS ON URBAN SPRAWL: PROSPECTS FOR IMPLEMENTING THE REGIONAL LAND USE PLAN

Presiding: Patricia A. Strachota, SEWRPC Commissioner

From left to right: Mr. Philip C. Evenson, Mr. Brian B. Burke, Mr. Arnold L. Clement, Ms. Sandra K. Beaupré, Mr. Richard W. Cutler, and Ms. Patricia A. Strachota

Good afternoon. Welcome to Session H, entitled "Focus on Urban Sprawl: Prospects for Implementing the Regional Land Use Plan." My name is Patricia Strachota. I am a SEWRPC Commissioner from Washington County. I am also a member of the Washington County Board of Supervisors.

The adopted regional land use plan calls for a relatively compact settlement pattern with new development occurring within and adjacent to existing urban centers. The plan recommends that growth occur in areas having soils that are suitable for urban use; that are not subject to special hazards, such as flooding; and that can be readily provided with public sanitary sewer, water supply, and mass transit services. The plan also recommends preserving in essentially natural condition the environmental corridors of the Region—the linear areas containing the best remaining elements of the natural resource base, including the surface waters and associated floodlands and wetlands, the woodlands, and the key wildlife habitat. It further recommends the preservation in agricultural use of the Region's remaining prime farmland.

This vision for the future of Southeastern Wisconsin—adopted by all seven county boards in the Region—is threatened by the continued dispersion of urban development at densities which cannot be efficiently or effectively provided with essential facilities and services. The effects of urban sprawl on transportation within the Region cannot be dismissed. Indeed, it has long been recognized by the Commission that land use determines the magnitude and spatial distribution of travel demand and the ability of various transportation modes to efficiently and effectively serve that demand. Urban sprawl has stressed the capacity of suburban surface arterials; made public transit impractical in most newly developing areas; fostered longer trips and almost total dependence on the automobile; and left underutilized significant capital investment in established urban centers.

Recognizing the above impacts on the transportation system, this session will address the specific actions a Commission Advisory Committee has proposed to strengthen implementation of the adopted regional land use plan. The discussion will focus on recommended actions by State, county, and local units of government that can help make the vision for the Region a reality.

Participants in this session include: presenter Mr. Richard W. Cutler, Chairman, SEWRPC Technical and Intergovernmental Advisory Committee on Regional Land Use Plan Implementation; panelists Ms. Sandra K. Beaupré, Chief, Urban Transportation Strategies Section, Wisconsin Department of Transportation; Mr. Arnold L. Clement, Planning and Development Director, Racine County; and Mr. Brian B. Burke, State Senator, District 3, Milwaukee; and staff resource person Mr. Philip C. Evenson, Assistant Director, SEWRPC.

SESSION H

FOCUS ON URBAN SPRAWL: PROSPECTS FOR IMPLEMENTING THE REGIONAL LAND USE PLAN

Presenter: Richard W. Cutler, Chairman
SEWRPC Technical and Intergovernmental Advisory
Committee on Regional Land Use Plan Implementation

My presentation might well be entitled "The Holy Grail Mission, or Urban Sprawl as a Regional Land Use Problem: Causes, and Are There Cures?" To establish a common ground, I will first discuss some aspects of land use trends and land use planning efforts in Southeastern Wisconsin with which many if not all of you are familiar. I will then discuss some aspects of those topics of which you might not be aware.

Since World War II, Americans have moved outward from the central cities to the suburbs, and then more recently, from both to the open areas beyond. Not surprisingly, this private migration has had enormous public consequences, such as the expensive construction of infrastructure in outlying areas, while existing schools, arterial streets, sewerage, water supply, and other public facilities in central urban areas have been left underutilized. By 1990, the Wisconsin Department of Transportation began to wonder what proportion of the overall demand for it to widen and improve highways was the result of excessive or avoidable urban sprawl. By 1992, the Department financed a study by SEWRPC to measure the extent of, and to identify the causes of, and potential cures for, the assumed excessive urban sprawl. The Department selected SEWRPC to perform this study for two reasons. First, the Commission has an excellent reputation in the State and nationally for the quality of its research, documentation, and coordinated land use and transportation planning. Second, and perhaps most importantly, the Region covered by SEWRPC was the only region in Wisconsin where one could measure the current extent of urban sprawl against a very specific, earlier advisory regional land use plan. Any attempt to assess the extent of urban sprawl anywhere else in Wisconsin would have no such starting benchmark from which what actually occurred could be measured against what was recommended to occur.

To guide the conduct of the study, SEWRPC created a 25-member Advisory Committee consisting of public officials and private-sector experts. Each of the seven counties of Southeastern Wisconsin was represented by at least two individuals on this Committee. Its findings and recommendations are set forth in SEWRPC Memorandum Report No. 68, entitled Regional Land Use Plan Implementation in Southeastern Wisconsin: Status and Needs, dated May 1993.

The Committee found that by 1985, there had been nearly perfect compliance with the recommendations contained in the second-generation, base year 1970, design year 2000 advisory regional land use plan with regard to the location of major State highways, regional shopping and industrial centers, State and county parks, and residential development within sewered areas. This high level of compliance and coordination generally stemmed from the fact that institutional implementers, such as the parties which finance and build regional shopping centers, the Wisconsin Department of Transportation, and county park and planning commissions, used the same locational factors used by SEWRPC in the design of the regional land use plan to govern their siting decisions. Furthermore, they regarded SEWRPC's research underlying its siting recommendations as objective and accurate.

Outside the sewered areas of the Region, on the other hand, zoning authorities in many cases, and individuals in most cases, responded to the plan in a manner quite different from that of the institutional implementers. By 1985, for example, only about 56 percent of the prime agricultural land in the Region recommended in the regional land use plan to be protected by exclusive agricultural zoning was in fact so zoned. The plan envisioned that about 1.5 percent of the prime agricultural lands in the Region as of 1970 would be lost to development by 1985. In fact, about 8 percent of the remaining prime agricultural lands in the Region, more than five times the amount anticipated to be lost, was lost to development by 1985. In other terms, about 75 square miles more prime agricultural land than planned were lost over the 15-year period studied.

In the countryside, beyond the areas of the Region which could feasibly be served by sewers, there were growing deviations from the plan recommendation that development occur in compact areas contiguous to and outward from the existing urban centers. While only about 5 percent more land than the amount planned was converted from rural to urban use between 1970 and 1985, one significant finding of the regional land use plan implementation study merits quotation. It appears on page 78 of the study report. It reads: "Only about one-half of the new urban residential development is taking place in the areas recommended in the regional plan so as to provide a more compact, contiguous, and efficient urban development pattern. Moreover, the findings indicate that much of the new residential development is occurring at low density, rather than in the recommended medium density where essential sewer and water supply, and, potentially, mass transit services can be efficiently and effectively provided. The findings also indicate that less than one-half of the new urban development is being provided with public sanitary sewer and water supply services."

One of the major questions our Committee asked, in light of this, was, "Why this deviation, having quantified it as large?" The answer was that there were many reasons underlying this deviation. Changes in technology, legislation, and political will, as well as accelerating social and economic trends, all played their part. At first, in the 1970s, the atmosphere for successful plan implementation was favorable. Elected members of county boards, many of whom were farmers, paid greater deference to the recommendation of that time which stated that septic tanks could not function and should not be placed in areas covered by unsuitable soils. County supervisors often knew that to be true from personal experience. County sanitary codes in the six outlying counties of the Region therefore tended to prohibit the use of septic tanks in areas identified on SEWRPC soil maps as having soils unsuited to the use of septic-tank systems. One developer complained to SEWRPC Executive Director Kurt W. Bauer, "Your soil maps are ruining my practice."

Then, the University of Wisconsin developed the "mound" sewage-disposal system. This system enabled builders and developers to place good soil on top of bad soil to a measurable depth, thus making it possible to install septic-tank systems which would treat waste in such areas as well as they would in areas where natural soils were suitable for septic-tank systems. Almost simultaneously, in 1971, the Wisconsin Legislature repealed the legal power of counties and municipalities to enact sanitary codes with provisions more stringent than those contained in the State plumbing code. With the sweep of a pen, the six county sanitary codes were rendered null and void.

To compound matters, in the late 1980s and early 1990s, the Wisconsin Department of Industry, Labor and Human Relations, which enforces the State sanitary code, relaxed restrictions on the siting of new septic tanks. These restrictions had set forth criteria regarding steepness of slope and depth of natural soil between the underlying rock formation or water table.

Meanwhile, significant numbers of individuals decided to move to the country. They were motivated by many factors, including lower prices for gasoline and land in outlying areas; sometimes, the desire to live closer to jobs located in outlying suburban areas or the country; and, often, the fear of drugs or violence in the more densely populated areas which they were leaving. In no sense did they pay attention to the recommendations of the regional land use plan, of which they were usually totally unaware. Furthermore, many, but not all, local communities, as well as a significant number of county and State officials, began to perceive development as a desirable end in itself. This was because development was assumed to increase the tax base of a community, without any apparent regard for how unplanned, uncontrolled development might actually be more costly to taxpayers than the recommended plan alternatives of channeled or managed growth. The consequences of the resulting outward urban sprawl were compounded in cases where the site of such development deserved preservation in its own right, as in the case of prime agricultural land, or of upland portions of environmental corridors, where intensive development could destroy woodlands and the associated flora and fauna as well as the natural beauty of the landscape.

The Advisory Committee therefore recommended actions aimed at mitigating urban sprawl. First, the Committee recommended that the Legislature formulate and adopt a comprehensive State policy favoring and promoting more compact, efficient urban development and requiring various State agencies, whose policies have sometimes been in conflict with each other, to reflect that policy in their regulations and enforcement activities. Second, the Committee recommended that the Legislature require that decisions as to the siting of private sewage-disposal systems conform to the State water quality management plan adopted

by the Wisconsin Department of Natural Resources (DNR). That plan includes the water quality management plan for the Region, an important element of which is the regional land use plan. The State septic-tank-siting policies are now in complete disharmony with the State and regional water quality management plans. In Southeastern Wisconsin, the regional water quality management plan was drafted by SEWRPC and approved by the DNR as furthering the requirements of the Federal Clean Water Act. The plan requires, importantly, that septic tanks in unsewerable areas be limited in number to no more than one septic tank per five acres of land. Third, the Committee recommended that the Legislature require joint State-local zoning to protect the upland portions of environmental corridors by establishing a minimum density for development in woodland areas identified as environmental corridors, following the politically successful model of joint State-local zoning of floodlands. Under that program, stringent State regulations were promulgated in order to establish standards to which all municipalities must adhere.

Fourth, the Committee recommended that the Wisconsin Department of Agriculture, Trade and Consumer Protection evaluate the effectiveness of the Wisconsin Farmland Preservation Program and make any necessary or desirable modifications thereto, seeking appropriate legislative changes where necessary. These modifications should include requiring that county farmland preservation programs be updated and recertified periodically; requiring that all farmland preservation zoning actions and tax-credit decisions be directly related to such plans; and the adoption of a less inclusive definition of prime farmlands so that the program focuses on truly large blocks of such land not needed for urban development. The Committee, after meeting with State officials in early 1993, dropped a preliminary recommendation for a joint State-county-local exclusive agricultural zoning partnership, in part because of the then-apparent possibility that the Legislature would change the method for assessing and taxing farmland in a way that would make retaining farmlands more attractive to farmers.

A fifth Committee recommendation was not as directly related to urban sprawl, but is nevertheless important. The Committee recommended that the public and private sectors jointly undertake a study of job decentralization and investigate potential actions to modify and partly counteract the powerful trend involving the movement of jobs from older, central-city locations to outlying areas.

Between December 1992 and May 1993, Committee members presented the preliminary Committee recommendations to, and discussed them with, the Secretaries and senior staff of six key State agencies. The responses received from the agencies varied. The Department of Industry, Labor and Human Relations (DILHR) opposed the preliminary recommendations presented to it. While DILHR conceded that urban sprawl might pose problems, it suggested that local governments could, through zoning, limit the density of development and control the problem. DILHR saw no responsibility on its own part for fueling urban sprawl through its continuing relaxation of sanitary-code requirements regarding the design and installation of septic tanks and holding tanks. The Wisconsin Department of Agriculture, Trade and Consumer Protection expressed concern that farmers might object to the proposed strengthening of the Wisconsin Farmland Preservation Act and that, therefore, the Legislature might not be willing to strengthen the program. That Department was correct with respect to the latter; the Legislature had radically weakened the farmland preservation program in 1992 by allowing farmers who contracted under the program to keep their farmlands in exclusive agricultural use to stipulate that their respective contracts would be terminated upon their deaths. This enormous "loophole" makes it difficult to keep a given large area in exclusive agricultural use.

The DNR expressed support for the Committee's recommendation with regard to protecting the upland environmental corridors, but thought it unwise to propose legislation giving it new powers in that regard without a greater show of support for State involvement in the protection of such corridors by town governments whose jurisdictions included the woodland areas affected. The DNR maintained its position on this matter, notwithstanding the politically successful precedent of legislation giving the DNR the power to establish stringent minimum zoning standards for counties and municipalities to apply to Wisconsin's floodlands and shorelands.

The DNR and the Wisconsin Department of Transportation (DOT) were sympathetic to the Committee's recommendation that concerned State agencies undertake an interagency examination of land use-related policies and practices at the State level; and, possibly, develop a comprehensive State land use policy with regard to both urban and rural development. Their support for this recommendation stemmed largely from

their perception that the State agencies concerned had varying policies and philosophies which needed reconciliation. Representatives of both Departments assured me that while progress with regard to this issue had been slow—sometimes, they said, "glacially" slow—both the legislative and executive branches of the State government were becoming more aware of the need to reexamine the problems pertaining to land use and land use policies, especially between State agencies, but also between the State and county and local governments.

Madison is now rife with reports that Governor Thompson will appoint an interagency land use task force consisting of the Secretaries of the four or five State agencies which are most concerned with and affected by land use and development. If these reports are true, the establishment of such a task force would be an important, constructive step. I would hope to be able to appear before such a task force and vigorously advocate the recognition of the land use problems found to exist under the regional land use plan implementation study. I would also urge the enactment of State legislation along the lines of the Committee's recommendations.

This raises certain fundamental philosophical questions. What should be the role of the State, the Region, and the county and local governments in channeling growth by good planning so as to avoid costly future infrastructure demands, to protect the environment from unnecessary damage, to avoid water pollution, and to attain other desirable objectives? The traditional and historically sound division of labor among governmental units and agencies has been increasingly challenged by various forces, including DILHR's quest for the "magic black box"—or perfect computerized septic tank—as well as the apparent readiness in some quarters of government, at the State, county, and local levels, to accept almost any development anywhere without regard to its impact on the community or whether the location of such development is rational. In this respect, another cause of urban sprawl and its undesirable consequences is the decline in the expertise, experience, and willpower required at the county and local levels to follow a land use plan and zone land wisely.

In addressing these issues, some basic questions must be debated and resolved. First, does the State need a comprehensive, statewide land use policy with regard to urban and rural development? In my opinion, the answer is "yes." Second, does the State need to require that all local zoning authorities develop comprehensive land use plans and adhere to those plans until and unless they are modified after careful review? My answer is, "Possibly, but this approach should be examined and adopted with great care, lest as many new problems are created as are solved." This issue is explored in "The Quiet Revolution Revisited: A Quarter Century of Progress," an article by David L. Callies which appeared in the spring 1994 issue of The Urban Lawyer, a periodical published by the Section of State and Local Government Law of the American Bar Association. This article reports a growing shift in governmental regulation of land use from the local governments back to the States pursuant to legislation enacted in 19 States. This approach to land use issues requires sophisticated, experienced input in order to be successful. Third, and finally, does the State need to set minimum standards to which local governments must adhere with respect to performing certain specific functions, such as preserving prime agricultural farmland; preserving the upland portions of environmental corridors; or protecting the countryside from overly dense development through, perhaps, requiring or encouraging clustered subdivisions? My answer is, "Yes, yes, yes."

But is anyone listening? Must Wisconsin experience the tragic consequences of a lack of planning as has, for example, Florida, before it musters the willpower to enact solutions which, unfortunately, are often too late in coming?

Thank you.

SESSION H

FOCUS ON URBAN SPRAWL: PROSPECTS FOR
IMPLEMENTING THE REGIONAL LAND USE PLAN

Panelist: Sandra K. Beaupré, Chief, Urban Transportation Strategies Section,
Wisconsin Department of Transportation

As the Chief of the Urban Transportation Strategies Section of the Wisconsin Department of Transportation, I must admit that I have the advantage of heading one of the few sections of the Department whose functions were not specifically addressed in the regional land use plan implementation study. It is therefore easy for me to say, "Yes, all these study recommendations should be implemented." I followed the activities of the SEWRPC Technical and Intergovernmental Advisory Committee on Regional Land Use Plan Implementation very closely, and the Department has supported many of the recommendations that were made by that Committee. The Department, through its Statewide Land Use Task Force, conducted a transportation-land use study during the same time period—in 1992—in which the Committee, which Mr. Cutler chaired, was meeting. The Department study identified issues and recommendations that were largely consistent with the recommendations made by the Advisory Committee.

I find it interesting that Mr. Cutler, in his presentation at this session, stated that within the sewered areas of the Region, there had been a high degree of compliance with the second-generation regional land use plan. He noted that the high level of coordination stemmed from the actions of parties he described as "institutional implementers." These actions, including the actions of the Department of Transportation, were entirely consistent with the land use plan. Mr. Cutler, importantly, also noted that in many cases, local zoning authorities and private individuals outside the sewered areas were not acting in a manner consistent with the recommendations of the regional land use plan. This continues to be a key aspect of the problem of regional land use plan implementation, as well as the key aspect of the current controversy in the State of Wisconsin regarding land use and land use policies.

My only complaint regarding the recommendations of the Commission Advisory Committee is that its recommendations, in my opinion, focused too exclusively on the Legislature and the State as sources of solutions to problems in implementing the plan. As indicated at Session A of this Conference, the involvement of local government is critical to solving these problems. I do not believe that there is any significant support on a statewide basis for having State government regulate and otherwise intervene in the land use decisions of individual parties. The land use-related problems being experienced in the areas of the State that are experiencing rapid growth do not stem from any lack of sound land use plans in place for those areas; they stem from the fact that those plans are not being implemented. This is the case, not only in Southeastern Wisconsin, but in Dane County, the Fox Valley Cities, and elsewhere.

While we at the Wisconsin Department of Transportation understand that State transportation decisions—that is, decisions regarding the construction and improvement of highways and transit systems—affect short- and long-term land use, our experience over the last 20 years indicates and confirms that local land use decisions—decisions regarding the location, the density, and the design of development—are literally what is driving the demand for, and the type of, the transportation systems that the Department is now being asked to provide. This raises a question: if individuals desire to make independent choices regarding land use that run contrary to the recommendations of what is widely considered to be the best land use planning in the country—as is truly the case in Southeastern Wisconsin—how do we resolve the resulting problems? In conducting its statewide transportation-land use study, the Department has considered many possible recommendations. We must now confront some basic, values-laden questions. Should the State become involved in land use planning? If it does, should the State attempt to resolve land use-related problems through the provision of incentives, education, guidance, and funds, or should the State resolve these problems through the promulgation and enforcement of regulations, standards, and controls upon individual decision making? Based upon the public comments the Department has received, there is no general public consensus today regarding an answer to these questions. At this time, the Department is attempting to bring about change through use of the former approach.

Mr. Cutler asked, in essence, "What should the role of the State be?" The Department is asking that same question as part of its TRANSLINKS 21 statewide multimodal transportation planning process. The Department has circulated a paper which specifically explores its role with regard to land use planning. I invite everyone attending this session to comment on that paper; the Department is seeking public input.

While most of the regional land use plan implementation study recommendations which Mr. Cutler highlighted in his presentation are not within the scope of the programmatic responsibilities of the Department of Transportation, I would like to comment on some of the more general recommendations made by his Committee. The Committee recommended, for example, that the Legislature formulate a State policy that promotes compact, efficient urban development. The Department definitely agrees with that recommendation, a recommendation which was also made by the Department's Statewide Land Use Task Force. The Department finds it increasingly difficult to continue to provide efficient transportation services to areas of low-density, scattered development. However, this policy must be developed with the input and support of the State agencies that are responsible for implementing State programs at the local level and, even more importantly, with the input and support of local government agencies and officials. Their involvement is critical.

The Department also agrees with the Committee's recommendation that a study be conducted through a joint public-private partnership to examine and propose potential remedies for the serious problem of job and housing decentralization in our central cities. Of course, the Department supports the Committee's recommendation regarding an interagency effort to examine State land use policy. This recommendation was also made by the Department's Statewide Land Use Task Force. The Department's efforts toward attaining this objective, in terms of staff commitment over the past year, I would argue, have not simply been, as Mr. Cutler put it, "sympathetic." Admittedly, progress toward this objective, as he noted, has been "glacially" slow. However, as most of us in State government know, the issue of State land use policy is highly controversial throughout the State. The State government proceeds very slowly when there does not appear to be a public consensus regarding a given issue. In the "outstate" areas of Wisconsin, there has been strong, vocal public opposition to the idea that the State should become involved in land use planning. It should therefore not be surprising that we are proceeding slowly and cautiously on this issue at the State level.

The Department of Transportation, however, is not merely passively and quietly awaiting the creation of an interagency study group. Rather, it has played a leadership role in efforts at the State level to create such a group, and has also taken other actions which I consider important to note. For example, the Department has provided $100,000 to Dane County for a study of plan implementation techniques relative to implementing the existing land use plans in the towns that are affected by the STH 12 project between Sauk City and Madison. In addition, the Department has offered financial assistance to St. Croix County in its effort to develop a countywide land use plan—not a transportation plan, but a land use plan. Two years ago, the Department would not have participated in activities like these.

The Department is also providing $300,000 to the Dane County Regional Planning Commission for consultant services with regard to Vision 2020, an effort to develop a combined land use and transportation plan for that County. The Department finds real value in having an adopted land use plan in place when it engages in planning for transportation projects to serve the mobility needs of the communities involved.

In closing, I would like to offer some assurance to all who are growing increasingly impatient with regard to the degree and rate of progress being made by State government with regard to land use policy. There is probably no one in State government at this time who is as frustrated over this as is the staff of the Department of Transportation. However, I am hopeful that we will see some constructive progress soon and will be moving toward an objective which I am certain everyone attending this session believes to be in the interest of the State.

Thank you very much.

SESSION H

FOCUS ON URBAN SPRAWL: PROSPECTS FOR
IMPLEMENTING THE REGIONAL LAND USE PLAN

Panelist: Arnold L. Clement, Planning and Development Director, Racine County

My mission here is to react to Mr. Cutler's presentation. I served as the Chairman of the SEWRPC Technical Coordinating and Advisory Committee which guided the preparation of the current, design year 2010 regional land use plan. In preparing that plan, the members of that Committee had to address questions regarding plan implementation. The Committee asked, "What kinds of successes and failures have been experienced since the beginning of the regional land use planning efforts in Southeastern Wisconsin?" That was the genesis of the SEWRPC Technical and Intergovernmental Advisory Committee on Regional Land Use Plan Implementation which Mr. Cutler chaired. As a member of that Committee, I was directly involved in the preparation of the regional land use plan implementation study report. My reaction, therefore, is—as might be expected—that the recommendations of that Committee are well founded. I agree with them wholeheartedly. However, I would like to expand upon Mr. Cutler's remarks and provide some recommendations of my own.

Let me begin by expressing my contention that in the preparation of all three regional land use plans—the design year 1990, design year 2000, and design year 2010 plans—for Southeastern Wisconsin, the goals and objectives of the plans have never gained a strong consensus among the municipalities in the Region. The planning process has mainly been "top-down" rather than "bottom-up" in nature. In other words, the process used by the Commission, a good process, begins with the preparation of the plan by the Commission. The Commission, after seeking public input, adopts the plan and then transmits it to the counties and municipalities of the Region for their consideration and adoption. If officials in a given county so desire, Commission staff will address the county board or other officials regarding the plan. The county board then typically adopts the plan as a guide, the word "guide" being given special emphasis.

County adoption of the plan is only one step in the overall plan implementation process. Seldom, if ever, have the towns within the Region—key parties in the implementation process—been involved in efforts to further understanding of the plan. It has therefore been difficult to obtain any overall consensus from the towns regarding the regional land use plans. Rarely have town officials requested meetings with Commission staff at which those officials could have been provided with input and direction regarding the plans. When such meetings have been held, most town officials attending these meetings did not perceive, for example, the preservation of agricultural land as a significant concern, since the earlier regional land use plans indicated that the soils throughout much of Southeastern Wisconsin were incapable of supporting onsite sewage-disposal systems.

Many people who came to the town-level meetings in the 1960s and 1970s were openly antagonistic. For example, some town officials would ask, "Why should we implement the plan? Why should we worry about farmland preservation? Why should we zone farmland for exclusive agricultural use? For the most part, the soils are so bad that no one can build houses on the lands concerned in any case." They would state that in their opinion, the Wisconsin Farmland Preservation Program was woefully inadequate, and would ask, "Why should we bother with farmland preservation? Let's leave the agricultural land zoned as it now is; this will allow both agricultural use and residential development." Farmers who came to the meetings would say that the Wisconsin Farmland Preservation Program did not meet the needs of farmers within the Region. "We're from urban areas," they would say. "We raise cash crops. While traditional, family-owned farms might be desirable to preserve, we, from an economic standpoint, do not want to become involved with the program. Why should we give up our rights to sell some of our farmland for development if we see a need to do so?"

Given such a lack of consensus, it is easy to understand why local zoning decisions in the Region have not always been consistent with the recommendations of the regional land use plan. To understand the zoning process at the county level, it is important to understand that the term "county zoning" is a misnomer in this State. Under Wisconsin law, what is often called "county zoning" is actually county-town zoning, except in cases where a county allows towns within its boundaries to enact their own zoning ordinances, the latter

being known as town-county zoning. Once the county in question enacts its own zoning ordinance, however, the county assumes a role in regional land use plan implementation as important as the role played by any town within its boundaries. In fact, both the county and the town involved must agree on any proposed zoning change or conditional use before any such proposal can be implemented. The only real difference, however, between county-town zoning and town-county zoning involves which level of government administers the zoning ordinance. Under county-town zoning, the county employs the board of adjustments, the attorneys, and the other staff responsible for administering such day-to-day zoning matters as the issuance of permits and citations for violations. Under town-county zoning, the town involved performs those tasks; it must then, for example, have a staff, formulate and implement an ordinance, and administer the ordinance.

At the county level, generally, the majority of county planning and development committee members has historically consisted of county supervisors who represent rural areas, most of which are located within towns. These county supervisors are concerned about their constituents, and therefore often make planning and development decisions in accord with their constituents' wishes. These supervisors often also lobby their fellow county board members in an effort to secure zoning and land use decisions and policies along the same lines. I am not being negative about this; I am describing it as a fact of political life.

One of the concerns which the Advisory Committee on Regional Land Use Plan Implementation had to address was the lack of, or differences in, land use policies among State agencies, particularly the Wisconsin Department of Transportation, or WisDOT, and the Department of Natural Resources, or DNR. Individual subunits within these two agencies have different missions, which, when viewed in the context of the "big picture" of land use planning, appear to conflict with one another, even within a single given department. For example, Racine County might be working with WisDOT's planning subunit in reviewing a proposed subdivision in an effort to set standards for the location of streets within the subdivision so as to eliminate direct access to a State trunk highway adjoining the subdivision. We would be doing this in an effort to maintain and ultimately improve the traffic-carrying capacity of that highway. Meanwhile, however, a State right-of-way official may be issuing driveway permits for individual homes to be located along both sides of the highway. In other words, while Racine County, with the assistance and support of WisDOT's planning subunit, is telling property owners and developers that they should consolidate access points to lessen impacts on the major arterial highway system in order to maintain its carrying capacity, WisDOT's local right-of-way agent may be counteracting this effort by approving individual access permits.

Another example of conflicting policies and practices involves the DNR, where one subunit has issued approvals for locating a solid-waste composting site within 150 feet of the shoreline of Lake Michigan, but the DNR subunit responsible for floodplain and shoreland management is unaware that a site application was submitted and approved. These conflicts create serious problems, since local decision makers believe a statement from representatives of a State agency is "gospel." Confusion arises when these local decision makers receive a conflicting message from other representatives of the same State agency or of other State agencies. As a result of this confusion, local officials often "throw up their hands" and, over staff objections, approve a questionable zoning proposal out of frustration.

I would like to quote a newspaper article published in the Milwaukee Sentinel on October 18, 1967. The article, by Ralph Dannheisser, is entitled "Suburban Sprawl Is Criticized."

It describes how Peter Hall, a professor at the London School of Economics and Political Science and a planning adviser to the British government, told an international "Future of the Cities" conference that, in the words of the article, "the progressive population movement to the suburbs has become a clear trend both in North America and in Europe."

The article continues as follows:

> Europe's move to the suburbs will occur within flexible regional planning guidelines, emphasizing higher residential densities, the preservation of existing urban centers and development of strong mass transportation links, he predicted.

> The United States, on the other hand, is likely to see the growth of "vast, low density, multinuclear suburbs, owing little or nothing to past urban forms, and linked together by cross currents of automobile traffic," Hall said.
>
> The American approach . . . "throws overboard many notions dear to city planners—above all, the idea that there is a virtue in tight, well defined towns," he said.

What Professor Hall, according to the article, appeared to be saying is that urban sprawl is inevitable in the United States and is unlikely to be controlled. As a professional planner, I am not yet ready to "throw in the towel" and concede that urban sprawl cannot be controlled. I perceive that within the towns in Racine County and elsewhere in Southeastern Wisconsin, there is a growing concern regarding the amount of urban-sprawl-type growth that has taken place and the effect which that growth is having on our infrastructure, our natural resource base, and the quality of life. There is a growing desire on the part of these towns to control this growth and to direct it to the areas recommended under the adopted regional land use plan, areas where urban services can be feasibly and economically provided.

I would like to quote from another newspaper article from 1967—one which appeared in The Milwaukee Journal on February 24 of that year. In this article, Paul G. Hayes wrote as follows about the first-generation, design year 1990 regional land use plan:

> Urban sprawl is an old and tiresome story now. Its effects are as well known here as the fact that there is no fishing left in the lower Milwaukee [R]iver, that the unfinished East-West [F]reeway already is often choked with traffic, that septic tank effluent [flows] in some Mequon ditches.
>
> Allowed to run its own course, sprawl has shown that it can destroy as well as strengthen cities. They rot from the inside, fall apart at the seams and flow formlessly over the countryside.
>
> They do so without regard to health, stability, beauty, resources, clean water, pure air, efficiency, convenience or economy.
>
> Tiresome as the subject has become, sprawl has yet to be tamed. While it allows individual standards of living to rise, it continues to violate good sense.
>
> Another 25 years of it in [S]outheastern Wisconsin, [SEWRPC] planners said, can result in "irreparable damage to the land and water resources . . . mounting problems of traffic congestion, air and water pollution, inadequate drainage, widespread and costly flooding and inadequate sewerage and water supply systems, schools, parks and other public utilities." . . .
>
> Briefly, [the first-generation regional land use plan] would allow past growth trends to continue but control them. Soils and sewers would be the most important controls, the planners said.
>
> The plan would ban the construction of homes served by septic systems on soils poorly suited for septic systems—about [49 percent] of the [R]egion's area. It proposed, instead, that virtually all new developments be served immediately by public sewers.

Under this plan, virtually all new residential development in the Region was recommended to be guided into existing and proposed sewer service areas.

As Mr. Cutler has indicated, however, what has actually happened since 1967 in this Region and State has proven significantly different from what was then proposed. The soil controls then envisioned to be implemented have been negated. Significantly, and alarmingly, the Wisconsin Department of Industry, Labor and Human Relations, or DILHR, has gone in the opposite direction, saying, in essence, that if technology enables us to put people on the moon, technology should also enable us to do anything with the soils of the Region and State that we choose and, at the same time, to retain a clean environment. This philosophy resulted in the demise of soils-based land use controls. I believe that the demise of these controls was a major

factor behind the demise of any hope which existed for successful implementation of the first-generation regional land use plan. It was also the major factor behind the urban sprawl we now face.

Urban sprawl is not limited to the Southeastern Wisconsin Region. It is occurring across this State and Nation. There are areas in Northern Wisconsin surrounding lakes with surface water areas of only 100 or 200 acres where residential subdivisions of 100 to 200 homes each are being constructed, all using onsite sewage-disposal systems. These isolated areas of residential development are sometimes located 20 miles away from any other developed areas. This phenomenon, of course, has serious implications for the precious water resources of this State. "Strip" commercial development is running rampant along our highways, and industrial and commercial development is occurring in areas which lack proper infrastructure.

As planners, we do the best we can with the resources that we have at our disposal to provide guidance and direction to prevent such development from occurring. However, the efforts of planners are not enough. Land use issues must be addressed in a holistic, coordinated manner by the State. I believe that the State of Wisconsin, with leadership from the Governor, needs to create a land use "vision plan" along the lines of the TRANSLINKS 21 multimodal transportation planning process. State agency policies would be coordinated according to this vision. Within the context of that State vision for land use, each region would have a more detailed vision; and each county, town, city, and village would have even more detailed visions.

An extensive educational program will be needed to implement this concept at all levels of government within the State. Greater emphasis must be given to plan implementation at the local level by SEWRPC and by the counties of the Region. With respect to the county-town zoning relationship, which I do not believe will change, I recommend that county planning and development committees be composed of members from urban areas. This, I believe, would bring greater objectivity to bear upon the decisions of those committees, thus better carrying out the original intent of the Wisconsin Statutes—that such committees provide a true check and balance in the zoning-decision process.

Thank you.

SESSION H

FOCUS ON URBAN SPRAWL: PROSPECTS FOR
IMPLEMENTING THE REGIONAL LAND USE PLAN

Panelist: Brian B. Burke, State Senator, District 3, Milwaukee

Let me begin by expressing my agreement with everything Mr. Cutler had to say. To hear his remarks was more than a little like finding the Holy Grail. I appreciate this opportunity to talk about my favorite subject and top legislative priority: land use, and, more specifically, the need to confront the destructive nature of unconsolidated low-density exurban development.

I want to share with you a few highlights of a recently released Wisconsin Department of Natural Resources, or DNR, report on land use, as well as the major aspects of a comprehensive legislative proposal which I intend to introduce in the next session of the Legislature.

Underpinning all my comments are two basic tenets: first, growth is not always good; in fact, it can have enormous and undesirable direct and indirect costs to society; second, and corollary to my first tenet, State, regional, and local planning has become a necessity in the 1990s.

Mr. Cutler has done a fine job of discussing the deleterious economic, environmental, and social effects of urban sprawl. Clearly, land is not just a commodity; it is also a resource that should be managed wisely. The approach to land use problems which I advocate is not purely regulatory, nor is it "draconian." It is important, rather, to internalize the costs of urban sprawl and then rely on market forces to help control it. One of the more effective ways to accomplish this objective is to stop the subsidization of the automobile.

Further, I commend Mr. Cutler for his work in leading SEWRPC's Advisory Committee on Regional Land Use Plan Implementation. This Committee's final report contains many thoughtful recommendations for State and local policy makers.

The Committee's findings clearly show that the current voluntary regional planning process is having too little positive effect on private land use decisions. Upland areas in environmental corridors are being destroyed; less than one-half of new urban residential development is occurring in recommended areas; prime agricultural land is being converted daily to other uses; and the increased use of septic-tank and "mound" sewage-disposal systems is permitting people to move farther and farther into the countryside, leaving central-city infrastructure needlessly underutilized and abandoned.

THE DNR DRAFT LAND USE REPORT

Many of the SEWRPC Advisory Committee's findings and recommended actions have been echoed and expanded upon in a recently released DNR draft report entitled Land Use in Wisconsin: A Draft Report of the DNR Task Force. This report summarizes potential actions which the DNR hopes to initiate to improve its decision-making process and to develop partnerships to address land use impacts.

The DNR's vision for Wisconsin, as stated in the report, is a "landscape for Wisconsin that provides healthy ecosystems, a healthy economy, and high quality living today and into the future." This is sometimes called "sustainable development."

According to the report, the DNR will attempt to foster a common understanding among DNR staff, other State agency staff, legislators, local officials, and the general public regarding the importance of sound land use planning and management. Implementation of this educational initiative will include, among other things, the development of an awareness and training program for DNR staff, as well as a cooperative program with other agencies and local governments to share information on environmental issues and land use planning.

The DNR, using a term used by Mr. Clement, also advocates a more holistic approach to protect farmlands and sensitive environmental systems, respond to central-city problems, contain urban sprawl, maintain existing infrastructure, and meet other challenges created by today's dominant suburban landscape. By

bringing together an entire set of land use-related tools inside and outside the DNR—such as information, education, regulation, incentives, and leadership—into a unified strategy, the DNR seeks to assure that the responsibility of improving land use decisions will not fall disproportionately upon any one action or initiative.

Specifically, the report recommends that environmental corridor protection be incorporated in DNR planning, permit reviews, and policies; that ecological diversity be considered in purchasing and management decisions; and that efforts to restore contaminated urban lands to productive use be increased.

With respect to contaminated urban lands and urban infill, I wish to note that perhaps the most significant legislation enacted during the last session of the Legislature was not the purported property-tax-relief plan passed in March 1994, but the Land Recycling Act, a package or series of incentives to encourage and allow the reuse of contaminated, historically industrial lands in central-city areas as well as in contiguous suburbs. This Act is intended to promote urban infilling, which, in turn, provides a level of development density needed for the viable provision of mass transit service, as well as for the preservation of prime agricultural land. The number of objectives served by this legislation encouraged the development of a strong consensus toward its enactment.

Under the rubric of holistic management, the draft land use report suggests a reworking of a memorandum of understanding between the DNR and the Wisconsin Department of Industry, Labor and Human Relations, or DILHR, relating to onsite sewage-disposal systems; requiring cross-compliance among State departmental programs; and adoption of a State land use policy.

In the process of producing this report, DNR subunits identified 73 different DNR activities and programs related in some manner to land use. The report proposes six specific actions to promote or leverage better local land use decisions through DNR grant and loan programs. Nine actions are recommended to change or better coordinate various regulatory policies and programs. The DNR intends to circulate this draft report for public comment and reaction.

Overall, the DNR's objectives and proposed actions represent a serious, introspective effort to increase sensitivity to land use issues throughout that agency. Other State agencies would be well advised to undertake a similar review of their relevant programs and practices.

This is especially true with regard to DILHR. I am frustrated with DILHR's actions, and its lack of action, with regard to land use policy issues. As Mr. Cutler noted, DILHR perceives no responsibility for its role in fueling urban sprawl through its loosening of sanitary code provisions and other requirements pertaining to the design and siting of septic-tank and holding-tank systems. During a March 1994 Assembly committee hearing, in fact, DILHR indicated that it did not consider itself a land use agency. This is unfortunate, since every major agency in State government, even the Wisconsin Department of Transportation, has, to at least some extent, evolved into a land use agency. DILHR needs to follow the example of the DNR and engage in serious self-appraisal of how its activities affect land use.

The DNR, obviously, cannot do everything on its own. I am convinced that more ambitious statewide action is necessary. It is unlikely, under the present administration, that any other State agency will be similarly motivated without legislative guidance. I intend to introduce a proposal with respect to this before the Legislature in 1995.

LEGISLATIVE LAND USE GUIDANCE

State Policy

Statewide land use controls can protect resources of more than local concern, and can manage growth that promises to have more than a local impact. Preserving Wisconsin's natural character is important not only for environmental and aesthetic reasons; it also makes sense economically. In fact, as a recent study by Stephen Meyer, of the Massachusetts Institute of Technology, indicates, States with stringent environmental regulations perform economically as well as, or better than, States with minimal environmental regulations. Comprehensive planning and management can hold back the forces that make a mockery of urban vitality and turn countrysides into clutter.

Someone once stated that "confidence" is defined as that uplifting feeling one has before one truly understands a given situation. That may be the case here, but I firmly believe the time is at hand to give some serious thought to what kind of growth will provide lasting benefits to all segments of society.

Following the recommendations of SEWRPC, DNR, the Wisconsin Department of Transportation's Statewide Land Use Task Force, and the Southeastern Wisconsin Dialogue Group on Ozone and Climate Change, I propose to create a statewide policy discouraging low-density, discontinuous development patterns outside of urban boundaries. It is comforting to know that the Department of Transportation, or WisDOT, does not merely endorse such a policy, but was the first State agency to propose it.

At present, Wisconsin has no statewide policy favoring and promoting compact, efficient urban development, nor do the Wisconsin Statutes distinguish clearly between urban and sound rural expansion. What presently occupies this void is a State acquiescence in scattered, diffused growth at and beyond the urban fringes. Each new increment of urban sprawl increases regional infrastructure costs, depletes urban tax bases, and frustrates farmland preservation efforts. I particularly agree with Mr. Cutler's remarks with regard to farmland preservation.

Statewide planning standards, including, but not limited to, standards related to urban infill and mixed-use development that makes public transit feasible; farmland and forestry preservation; environmental resource quality enhancement; creation of new and preservation of existing pedestrian-friendly neighborhoods; and citizen involvement, must guide all relevant decision making by State agencies.

Regional Growth Management

Efforts to restrict urban sprawl, preserve agricultural land, and protect environmental resources through State and local planning are not likely to be effective unless rigorously designed and administered. Concomitant market-based growth management options will also be needed to create an integrated system of planning decisions and regulations that knit communities together rather than tear them apart.

Advisory in nature, the regional master plans have only been marginally successful in controlling growth in this State. Nevertheless, the State's nine regional planning commissions are the logical choice to implement any type of mandatory planning effort. Anchored by a comprehensive State land use policy and statutory planning standards, the regional planning commissions will be required to revamp their regional master plans accordingly. In the case of counties not covered by a regional planning commission, that requirement can be delegated to the county. Once completed and approved by a statewide planning coordination council composed of various agency representatives, each regional plan will control affirmative local planning and zoning obligations within that region. Each regional planning commission will review local efforts for consistency with its regional plan.

A tight link between each regional master plan and local zoning ordinances is envisioned, with variances granted only sparingly in hardship situations. All land within the State would be classified as either urban or rural; rural land would be further subclassified as agricultural or conservation land. Permanent urban growth boundaries, as well as stringent limits on public and private sewage-treatment systems, will be established and enforced through the regional planning commission review process.

Weak and ineffective regional growth management solves no problems and runs the risk of actually exacerbating low-density, discontiguous sprawl. With a clearly articulated showing of public benefit, this comprehensive regulatory scheme should pass judicial muster and increase the economic and social vitality of Wisconsin's urban and rural regions for many years to come.

Transportation

Insatiable in its demand for space and ruthlessly efficient as a destroyer of communities, the automobile has thrived under decades of subsidies and other "auto-centric" policies at every level of government. In fact, the automobile has been subsidized more than any other form of transportation. A morass of asphalt and concrete is the legacy of our current transportation policies.

Many people view transportation-land use issues in terms of the classic chicken-egg question: does land use determine transportation, or does transportation determine land use? When I consider all the four-lane highways which have been constructed and the sprawl-marked development that springs up at the

intersections of these highways, however, I am reminded of the film Field of Dreams: "If you build it, they will come." According to the September-October 1993 issue (Vol. 33, No. 5) of the Commission Newsletter, on an average weekday in 1991, nearly 4.9 million vehicle-trips were made in Southeastern Wisconsin, resulting in 33 million vehicle-miles of travel. The number of average weekday person-trips made within the Region increased by 56 percent between 1963 and 1991.

Transportation systems planning cannot occur in a vacuum. It plainly affects, and is affected by, local land use patterns. A consistency of effort is required for any land use plan to succeed.

In conjunction with the proposed State policy and planning standards, WisDOT will be directed, under this proposal, to comply with regional and county master plans. WisDOT would also be required to significantly readjust its spending priorities and begin to emphasize true multimodal options. Monetary commitments will have to shift from construction of new to maintenance of existing roadways. This would be a clear departure from the adversarial relationship which has existed between WisDOT and environmental groups. I believe that WisDOT, from the top of the agency down, has had far too close a relationship with contractors and has been unreceptive to environmental groups and urban interests.

Property-Tax Impact Statements

A long-held tenet of community economic development holds that growth will benefit all residents. Growth and development are supposed to bring new jobs, better housing and transportation, improved services, an expanded tax base, and lower taxes. To the contrary, however, property owners in communities experiencing growth have known for a long time that taxes in such communities rarely decrease. Rather, they have seen a steady, and in many instances a marked, increase in property taxes during and following periods of sustained growth. The issues of the costs of growth and who pays those costs were explored in detail by David G. Hinds, Director of the Local Government Center, University of Wisconsin-Extension, at the 16th Regional Planning Conference, co-sponsored by SEWRPC and the UW-Extension in 1992.

As populations shift away from cities and into outlying areas, urban residents and suburbanites alike face increasing property-tax burdens. Decreasing tax bases and increasing infrastructure needs fuel the drive for additional funds.

With this in mind, I suggest that all development proposals that will generate over 500 average weekday person-trips, as determined by WisDOT, should be required to undergo a property-tax impact evaluation process.

A property-tax impact statement would need to be completed by a regional planning commission or county. Its preparation would be financed by the developer. The statewide planning coordination council would judge the adequacy and accuracy of the statement in accord with standardized criteria.

While not binding in any manner, the property-tax impact statement should be made publicly available and considered within the local permit review process. It is expected that the impact statement for any given development proposal would be completed quickly to avoid negative effects on the development and approval process.

CONCLUSION

Exurban sprawl repudiates heritage, traditions, and culture. It is, in effect, a welfare program for land speculators and developers. It provides no lasting benefits to society.

State intervention is needed on several fronts to address this problem. The State must act decisively because of the relative lack of planning at the local level, the apathy of many State agencies, and the general disregard of the regional and statewide implications of unplanned land use decision making.

SEWRPC's recommendations are a good starting point, but a more ambitious legislative agenda is sorely needed. Some would ask: can we afford to do this? The more appropriate question is: can we afford not to?

Thank you very much.

SESSION H QUESTION-AND-ANSWER SESSION

MS. STRACHOTA:

We are now at the question-and-answer period. If you have a question or a comment, please use the microphone that has been provided.

QUESTION:

My question is for Senator Burke. Given the current State administration's emphasis on economic development, has there been any type of dialogue between the Wisconsin Department of Development and other State agencies or the regional planning commissions regarding land use issues and whether the siting of new development would be consistent with the recommendations of adopted regional land use plans?

MR. BURKE:

Your question raises an important issue. Obviously, the Department of Development, which provides, and, in fact, subsidizes, business operations in this State, must recognize that it, too, is a land use agency. The Department should no longer continue to promote development, or bring in industries and locate their facilities, in areas that are not provided or planned to be provided with essential urban services, including mass transit services. The Department must consider land use issues and promote more efficient urban transportation systems.

COMMENT:

It has been good to hear how the participants in this session have addressed the issues relating to land use and urban sprawl, but the people who most need to hear this discussion are not at this Conference. As important as it is to present the concepts underlying the regional land use plan to the public at meetings such as this in an effort to gain acceptance at the local level, we need to deal with the reality of public perceptions and attitudes. We must recognize the problems involved in attempting to convince exurban and rural landowners of the value of these concepts. We must deal, for example, with people who work on their land on a daily basis—the farmers who have been "scratching" their land for their livelihoods, rely on their land to fund their retirement, and want to be free to sell it when and as they wish. Given this, when we try to "sell" the concept that urban sprawl is a critical problem, or even an evil, which must be abated, it is important that we specifically define the problem. When I have talked with my constituents about the importance of ending this problem, many say, "What problem? Our taxes are lower than those in more concentrated urban areas. We've preserved more environmental features than urban residents have. We have quieter neighborhoods, lower property taxes, and sounder investments in our properties. What have we done wrong?"

We therefore need to specifically define what we, as a society, have actually done wrong with regard to past development. Many suburban and exurban residents perceive their areas as much more desirable than the urban areas from which they have moved. Crime rates are significantly lower in suburban and exurban areas than they are in central-city areas. Suburban and exurban residents therefore often perceive any effort to stop urban sprawl as potentially meaning higher crime rates, worsened pollution, loss of environmental corridor and other open lands, and denser neighborhoods, none of which, of course, these residents consider desirable. It is therefore extremely difficult to "sell" concepts regarding the desirability of controlling or stopping urban sprawl to a public that does not perceive the existence of a problem.

MR. CUTLER:

The perception you describe exists in some geographic areas of the Region, but not in others. Residents in some outlying areas do indeed perceive things exactly as you describe. But in many areas which have actually experienced uncontrolled development for a while and have begun to suffer its consequences, the residents there—as Mr. Clement noted with regard to Racine County—have begun to want to restore their communities to the rural areas that they were when those residents first moved there. In other words, they do not want any further influx of development, and they do not like urban sprawl.

In the outlying areas of the Region, this means that there are now conflicting opinions with regard to these issues. Many local units of government in these areas have had policies which tended to relax restrictions upon, and to encourage, development. But some other local units of government have turned toward the opposite direction. They do not want any more urban development, and are seeking help either from the county or the Regional Planning Commission in finding ways to slow down the growth.

You are correct in noting that before a problem can be addressed and solved, people need to perceive that there indeed is a problem. The best place to start efforts to get people to recognize the problem—if there is a geographic place to start—would probably be within the towns themselves. It may be desirable to tell town officials and residents about—for example—how it is in their self-interest to preserve their woodlands, which are now often a magnet for development, but will cease to be a magnet if developers chop up those woodlands to the point where they cease to be attractive. Some developers—such as Mr. Ronald P. Siepmann, an outstandingly progressive developer who served with me on SEWRPC's Advisory Committee on Regional Land Use Plan Implementation—are now developing subdivisions next to woodlands, but not in them, preserving the five-acre-per-lot minimum recommended for such areas by SEWRPC and with which the Wisconsin Department of Natural Resources is very sympathetic.

Of all the Committee's recommendations which will require legislation to implement, I predict that the first such recommendation that will be implemented will be the one pertaining to the protection of the environmental corridors. This will occur because it is not feasible for one town to differ from other surrounding towns with regard to policies concerning the protection and preservation of those corridors, because those corridors are interconnected. Like rivers, environmental corridors do not respect town boundaries. Just as the failure of one town to properly deal with floodland areas might result in harm to other towns, the failure of one town to properly protect the environmental corridors within its boundaries can result in harm, ultimately, to residents of neighboring towns.

QUESTION:

This Conference has focused upon the preliminary regional transportation system plan and the recommendations which SEWRPC is making through it to the citizens of the Region. In this session, we have extensively discussed urban sprawl. I am concerned about the fact that, with all due regard to the roles of State agencies other than the Department of Transportation—or WisDOT—including those of the Department of Industry, Labor and Human Relations, which I think was presented correctly in terms of the problems being fostered by its policies regarding septic-tank regulation—we did not sufficiently focus upon the role played by some State-level transportation decisions in creating and sustaining urban sprawl. Many citizens are concerned about the fact that WisDOT, whose biennial budget is now approximately $3 billion, spends about 90 percent—some people say about 92 percent—of that budget on automobile-oriented projects and activities, as opposed to projects and activities that would provide true transportation options for all citizens. I am therefore wondering if Ms. Beaupré would address this issue in terms of any changes which might be coming with regard to WisDOT's current heavy emphasis on the automobile as the primary, if not sole, mode of transportation. I am asking about not only changes which might someday be implemented under TRANSLINKS 21, but any changes we could expect to see in the upcoming WisDOT budget that would signify policy changes that would help reduce, rather than continue, urban sprawl.

MS. BEAUPRÉ:

I am lucky enough not to be directly involved in the budget process. However, the TRANSLINKS 21 planning process will play a key role in determining the direction of the Department's next biennial budget. The Department will be announcing its TRANSLINKS 21 alternatives and soliciting public comment and input regarding those alternatives in a series of public forums to be held throughout the State beginning in July 1994. The Department will make extensive use of the TRANSLINKS 21 alternatives and the public reaction to them in its biennial budget development process.

As repeatedly emphasized throughout this Conference, the preliminary regional transportation system plan now being considered is based upon, and is designed to serve and support, the adopted regional land use plan. With regard to the issue of what will or should happen to the Region's transportation system given certain

land use choices, it is important to note that many of those land use choices are reflected in the regional land use plan, which has been adopted by all seven counties of the Region. We might want to debate the nature of the connection between land use and transportation, but, like the Regional Planning Commission, the Department must deal with the fact that we now have an adopted regional plan whose recommended land use pattern needs to be served by transportation facilities, even though it appears that a significant number of people in the Region may not support the recommendations of the regional land use plan. I therefore think the central issue involves the regional land use plan and what happens with efforts to implement it; that is what is driving the current regional transportation system planning effort.

MR. EVENSON:

All of the regional transportation system plans, including the preliminary, third-generation plan being considered at this Conference, have been based upon a collectively agreed-upon regional land use plan. As I noted during the late-morning plenary session, the planning process is cyclical in nature. The Commission and the Commission staff have proceeded on the assumption that there is a consensus on the adopted, design year 2010 regional land use plan. If there is indeed a great deal of dissatisfaction regarding that plan—a situation not indicated by the county board approvals of the plan—that dissatisfaction will be taken into account and reflected in the next round of planning by the Commission. The regional transportation system plan must be based on the adopted regional land use plan to move forward. After the Commission adopts the third-generation regional transportation system plan, it will begin a period of more detailed planning efforts, both for transportation facilities and for land use-related matters. In fact, the Commission is already engaged in such efforts. For example, the Commission has already begun to work with a number of towns in preparing more detailed land use plans for them. The Commission is now also working with Waukesha County to prepare a detailed county-level development plan.

This newest cycle of detailed land use planning will ultimately be reflected in a fourth-generation regional land use plan, just as the highway and transit proposals which emerge from current corridor studies will be reflected in the next generation of regional-level transportation planning. It is important to view the land use-transportation planning process as both integrated and continuous. All of us in Southeastern Wisconsin need to work together continuously to improve that process and achieve a consensus as best we can as time goes on.

MS. STRACHOTA:

Please be sure to complete your Conference evaluation forms before you leave. I would like to thank you all for coming.

APPENDICES

Appendix A

COMMISSION ANNOUNCEMENTS OF AND MATERIAL DISTRIBUTED AT 17TH REGIONAL PLANNING CONFERENCE

Appendix A-1

COMMISSION LETTERS OF NOTIFICATION REGARDING 17TH REGIONAL PLANNING CONFERENCE

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
916 N. EAST AVENUE • P.O. BOX 1607 • WAUKESHA, WISCONSIN 53187-1607 • TELEPHONE (414) 547-6721 TELECOPIER (414) 547-1103
Serving the Counties of KENOSHA MILWAUKEE OZAUKEE RACINE WALWORTH WASHINGTON WAUKESHA

January 28, 1994

To: Parties Interested in Regional Transportation System Planning

Dear Sir or Madam:

You should have recently received a copy of the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Newsletter. This publication announces the initiation of work on the preparation of a new transportation system plan for the seven-county Southeastern Wisconsin Region; contains an overview of the current status of the regional transportation system; and presents information on travel habits and patterns in the Region. The Newsletter has been sent to you in the belief that you may have an interest in the regional transportation planning process--a process that will influence not only the development of the transportation system within the Region, but ultimately the land use pattern, economy, and overall quality of life within the Region.

In the coming months, there will be other Commission Newsletter issues that focus on the transportation planning process and on the new regional transportation system plan. Enclosed with this letter you will find a prepaid postcard for use in indicating your interest in receiving additional material from the Commission. By checking the appropriate box on the postcard and returning it to us, you may choose to receive all future issues of the Commission Newsletter, which is published six times per year; to receive only those Commission Newsletters that focus on transportation planning and development, as well as other transportation related materials; or you may choose to receive no additional materials at all from the Commission. We would very much appreciate your returning the card to us. If you do not return the card, we will assume that you have no interest in receiving any materials and, accordingly, remove your name from the mailing list.

The Commission is very much interested in broadening public understanding and involvement in the preparation of the new transportation system plan. Thus, we welcome any questions or comments you may have. Please feel free to contact the Commission staff at (414) 547-6721, or to write us at the above address.

Thank you for your attention to this matter. Again, please feel free to contact us with any specific interests or for further information.

Very truly yours,

David B. Falstad
Chairman

DBF/GKK/rj
Enclosure
Korb.ltr

RESPONSE TO INQUIRY ABOUT RECEIVING COMMISSION NEWSLETTERS AND OTHER MATERIALS

[ ] Please place my name on the list to receive all Commission Newsletters and other public information materials

[ ] Please place my name on the list to receive only transportation related Newsletters and public information materials

[ ] Please remove my name from your mailing list. I do not wish to receive any additional materials

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
916 N. EAST AVENUE • P.O. BOX 1607 • WAUKESHA, WISCONSIN 53187-1607 • TELEPHONE (414) 547-6721 TELECOPIER (414) 547-1103
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April 5, 1994

To: New Transportation Alliance Members of Southeastern Wisconsin Interested in Regional Transportation System Planning

Dear Sir or Madam:

As suggested to us by the leadership of the New Transportation Alliance, we are providing to you herewith two items for your information: 1) a copy of the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Newsletter; and 2) an announcement of the 17th Regional Planning Conference, scheduled to be held on June 27, 1994, in Milwaukee.

The Newsletter discusses the preparation of a new transportation system plan for the seven-county Southeastern Wisconsin Region; contains an overview of the current status of the regional transportation system; and presents information on travel habits and patterns in the Region. The Conference will provide a forum for public review of a preliminary draft of the new transportation system plan.

These materials are being provided to you in the hope that you will have an interest in the regional transportation planning process--a process that will influence not only the development of the transportation system within the Region--but ultimately the land use pattern, economy, and overall quality of life--for many years to come.

In the coming months, there will be other Commission materials and events that focus on the transportation planning process and on the new regional transportation system plan. Enclosed with this letter you will also find a prepaid postcard for use in indicating your interest level. By checking the appropriate box on the postcard and returning it to us, you may choose to receive all future issues of the Commission Newsletter, which is published six times per year; to receive only those Commission Newsletters that focus on regional transportation planning, as well as other transportation-related announcements and materials; or to receive no additional materials at all from the Commission. We would appreciate your returning the card to us. If you do not return the card we will assume that you have no interest in receiving further materials and, accordingly, remove your name from the mailing list.

The Commission is very interested in broadening public understanding of, and involvement in, the preparation of the new transportation system plan. Thus, we welcome any questions or comments you may have. Please feel free to contact the Commission staff at (414) 547-6721, or to write us at the above address.

Thank you for your attention to this matter.

Very truly yours,

David B. Falstad
Chairman

DBF/GKK/ib
Enclosures
a:Korb.ltr

NOTE: Conference announcement reproduced as Appendix A-1. Postcard reproduced with preceding letter.

COPY

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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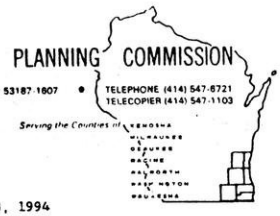

May 3, 1994

TO: Local Elected Officials in Southeastern Wisconsin,
Care of City, Village, and Town Clerks

Dear Local Official:

As you may know, the Southeastern Wisconsin Regional Planning Commission is in the process of preparing a new long-range transportation system plan for the seven-county Southeastern Wisconsin Region. The purpose of this letter is to inform your local governing body and any related commissions and committees you might deem appropriate of the options to become updated or involved. Perhaps your officials will feel that their current level of exposure to this planning program is sufficient, or that the items summarized below will offer sufficient opportunity. If not, however, the Commission staff stands ready to provide a local briefing.

Volume 33, No. 5 of the SEWRPC Newsletter was distributed in January 1994 to local officials and other key interested parties throughout the Region. That publication discusses the initiation of work on the new long-range transportation plan; contains an overview of the current status of the regional transportation system; and presents information on travel habits and patterns. Prior to distribution, the Commission's public involvement mailing list was augmented substantially. Nevertheless, if anyone is not receiving the SEWRPC Newsletter and feels that they should, we would appreciate being informed.

Persons on the public involvement mailing list--both traditional recipients and recent additions--will also be receiving other transportation-related materials and announcements. Enclosed is one such piece pertaining to the 17th Regional Planning Conference scheduled for June 27, 1994, in Milwaukee.

As the announcement indicates, the conference constitutes a major event for public review of a preliminary draft of the new regional transportation system plan. Other public informational meetings are also being planned prior to the conference. These will help explain, in more localized terms, the findings of the long-range transportation planning process and any preliminary recommendations, as well as offer opportunities to comment. Following the conference, a series of more formal public meetings/hearings will be held around the Region to provide further information and solicit additional comments.

Overseeing the entire long-range transportation system planning program is the Regional Planning Commission itself. The Commission consists of 21 members, three from each of the seven member counties. Mr. Leon T. Dreger and Ms. Sheila M. Siegler represent Kenosha County on the Regional Planning Commission. A third Kenosha County seat on the Commission is currently vacant.

Assisting the Commission in this planning program by providing immediate guidance is the SEWRPC Technical Coordinating and Advisory Committee on Regional Transportation System Planning. That committee is meeting regularly, with the agendas, minutes, attendance, and all other matters of business open to the public. We are pleased to have Mr. Joseph McCarthy, representing the City of Kenosha, serving upon this committee. Similarly, helping to provide guidance is the Commission's Technical and Citizen Advisory Committee on Regional Bicycle and Pedestrian Facilities Planning. We are pleased to have Mr. Randal LeClaire, representing the City of Kenosha, serving on this committee.

Finally, the Commission will soon be forming a Citizen Advisory Committee on Regional Transportation System Planning, staffed under interagency contract by the University of Wisconsin-Extension. This committee, we hope, will provide additional valuable input regarding public preferences and information needs, and insights regarding the prospective implementability of plan recommendations and alternatives. We would also hope, through this Citizen Advisory Committee, to inform and involve constituencies that may not traditionally have participated in such planning programs. If you know of someone who might be appropriate for this committee, we would appreciate having their name forwarded to us for consideration.

The Commission is very interested in broadening public understanding and involvement in the preparation of the new transportation system plan, as we hope the above helps indicate. Thus, we welcome any questions or comments you may have; and again, our staff would be pleased to arrange for a local briefing if your officials would find it beneficial.

Please feel free to contact the Commission by calling (414) 547-6721, or to write us at the above address.

Thank you for your attention and consideration.

Sincerely,

Kurt W. Bauer
Executive Director

KWB/GKK/hh
enclosure
d15\offl-cc.ltr
cc: SEWRPC Commissioners
Regional Transportation System Planning Committee Members
Regional Bicycle and Pedestrian Facilities Planning Committee Members

. Copies of this letter, modified only with respect to the listing of the Commissioners representing each county of the Region and with respect to any city, village, or town representatives serving on the two advisory committees involved, have been sent to city, village, and town clerks throughout the Region.

NOTE: Conference announcement reproduced as Appendix A-3.

Appendix A-2

COMMISSION NEWS RELEASE NO. 94-3

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
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News Release

June 21, 1994
Release No. 94-3

FOR IMMEDIATE RELEASE

For more information,
contact Kurt W. Bauer,
Executive Director, at
(414) 547-6721

NEW REGIONAL TRANSPORTATION SYSTEM PLAN TO BEGIN PUBLIC REVIEW PROCESS AT JUNE 27 REGIONAL PLANNING CONFERENCE IN MILWAUKEE

A proposed new, third-generation regional transportation system plan for the seven-county Southeastern Wisconsin Region will be presented to the public at a daylong Regional Planning Conference to be held on June 27, 1994, at The Grand Milwaukee Hotel, 4747 S. Howell Avenue, Milwaukee. The conference is being co-sponsored by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), which prepared the plan, and the University of Wisconsin-Extension. The conference registration fee is $20.00. The conference will mark the beginning of a summer-long series of public informational meetings and hearings at which interested citizens will have the opportunity to review and comment upon the preliminary proposed plan. Once completed, the final plan will serve as an important guide to transportation system development within the Region to the year 2010.

The plan is intended to update and extend the currently adopted regional transportation system plan, which has a design year of 2000 and was adopted by SEWRPC in 1978. The SEWRPC was created in 1960 pursuant to State law to provide the areawide planning needed to promote the sound development of the Southeastern Wisconsin Region. The agency is responsible for, among other things, areawide transportation, environmental, and land use planning. The Region consists of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties.

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In addition to being presented at the conference, the new plan is summarized in the May-June 1994 issue of the Commission Newsletter. Copies of this issue of the Newsletter, the last in a series of three issues describing the planning process, will be sent to over 2,300 citizens and organizations throughout Southeastern Wisconsin, including elected and appointed officials, transportation engineers and planning professionals, transportation advocates, and interested private citizens. This Newsletter is expected to be available to the public on June 25, and at the June 27 conference. SEWRPC will provide a copy of the Commission Newsletter to any interested citizen upon request.

The new plan is designed to provide the Region with an integrated, multimodal transportation system that will effectively serve and promote desirable regional land use patterns, as such patterns are set forth in the SEWRPC regional land use plan adopted in 1992. The new regional transportation plan has been designed to serve the future travel demands anticipated under the regional land use plan by calling for the development of highway and transit facilities to serve those areas of the Region where land use development is recommended to occur. This is intended to encourage compact, centralized, and economical land use development in the Region, as opposed to areawide urban sprawl.

The plan also seeks to minimize capital investment in highway facilities, and treats highway capacity expansion as a measure of last resort in addressing traffic congestion problems. Under the plan, the regional arterial street and highway system, which in 1991 totaled 3,274 route-miles, is recommended to be expanded to a total of 3,614 route-miles, or by about 10 percent, by the year 2010. This is recommended to be done through a combination of construction of new arterials and highways and widening and preservation of existing ones. The plan will provide the facilities needed to meet anticipated future travel demand in the Region at an adequate level of service, thus abating traffic congestion, reducing travel time and costs, and reducing accident exposure. If the plan recommendations are fully implemented, the percentage of arterial street and

-more-

highway facilities in the Region considered to be operating under congested traffic conditions, now about 12 percent of all such facilities, is expected to be reduced to about 5 percent by the year 2010. Under a "no-build" scenario, that percentage is expected to increase to about 20 percent.

The plan is designed to provide for a balanced transportation system, including both highway and public transit facilities. For an increased proportion of the Region's population, the plan would enable trips to be made by either automobile or transit, thus enhancing choice in trip making. The plan seeks to reverse the historic and continuing decline in transit use in the Region by providing a system of rapid transit, express transit, paratransit, and conventional local transit facilities and services. While less than 5 percent of total travel demand in the Region is now, and may in the future be expected to be, accommodated by public transit, the plan strongly emphasizes transit, proposing that 37 percent of the total financial resources for transportation be allocated to transit, and that overall transit system capacity be expanded by 72 percent, while highway system capacity would be expanded by only 17 percent.

The plan is designed to meet environmental concerns by providing for reductions in energy consumption and air pollutant emission levels in comparison with those anticipated under a "no-build" scenario. Because the new regional transportation plan is designed to be compatible with and to support the adopted regional land use plan, the transportation plan will promote the preservation of primary environmental corridor lands, wetlands, and prime agricultural lands within the Region, anticipating a loss of less than 0.3 percent of all such lands as a result of highway and transit facility construction proposed under the plan. The new plan also supports the land use plan objectives of discouraging further urban sprawl and decentralization of jobs in the Region.

The plan emphasizes the importance of proper maintenance of the Region's existing transit and arterial street and highway infrastructure. The plan provides for the rehabilitation and renewal of the existing greater-Milwaukee-area freeway

-more-

system, which now carries far more traffic than its current design allows it to carry safely, and much of which is now structurally obsolete and increasingly dangerous. To address this serious problem facing the "backbone" of the Region's arterial street and highway system, the plan recommends the redesign and reconstruction of the Marquette, Stadium, and Zoo Interchanges, the replacement of bridges, and the performance of major pavement and bridge maintenance. The plan also provides for the needed resurfacing and reconstruction of county and local arterials in the Region, which have been neglected in recent years, with current levels of maintenance proving inadequate to maintain current pavement conditions into the future.

The plan also accommodates many long-planned and needed improvements of the Region's public transit and arterial street and highway systems. Under the plan, rapid transit service, measured in terms of average weekday vehicle-miles of service, would be increased by nearly 400 percent. Such service would be provided over a 16-mile busway in the main east-west travel corridor of the Region, and potentially over 36 additional miles of busways in other travel corridors. Express transit service, measured in terms of average weekday vehicle-miles of service, would be increased by over 500 percent. Such service would be provided over 15 miles of light railway in the main east-west and northeast travel corridors of the Region, and potentially over 35 additional miles of light railway or exclusive bus lanes in other travel corridors. Conventional local transit service, measured in terms of average weekday vehicle-miles of service, would be increased by about 28 percent. As noted above, overall transit service in the Region would, by the year 2010, be increased by about 72 percent.

The new plan is also designed to be financially realistic and achievable in light of existing financial considerations and constraints facing the Region and its citizens. The balancing of costs and benefits associated with the plan and its implementation was done only after careful consideration and rejection of several potential alternative plans, one of which envisioned the equivalent of a motor

-more-

fuel tax increase of $1.10 per gallon in order to discourage automobile use. This alternative was rejected, in part, because of the improbability of its implementation in the near future.

In contrast, the costs of implementing the recommended plan have been estimated as requiring only the equivalent of a relatively modest increase in the price of motor fuel in the Region--an increase of 11 cents per gallon, from the current estimated $1.10 per gallon to $1.21 per gallon. In terms of total automobile operating costs, this translates to an increase from 28.0 cents per mile to 28.5 cents per mile. This modest increase is estimated to be sufficient to implement the necessary maintenance and long-planned improvement of the public transit and county and local arterial street systems of the Region, and to provide the funding necessary for the essential major rehabilitation of the area's freeway system, much of which is now near the end of its physical and economic life.

The Commission will in the near future announce the times and places of the public informational meetings and hearings designed to give interested citizens an opportunity to find out more about and comment on the proposed new plan. Based upon comments and concerns which may be raised regarding the plan during the public review process, the plan is subject to potential modification prior to its consideration and expected adoption by the Regional Planning Commission. If public reaction to the preliminary recommended plan indicates significant opposition to the increased revenues and expenditures proposed for implementation of plan recommendations, those revenues and expenditures, as well as specific transportation system improvements proposed in the plan, may be scaled back.

Anyone interested in finding out more about the June 27 conference, the proposed new regional transportation system plan, or other SEWRPC programs is encouraged to contact:

Southeastern Wisconsin Regional Planning Commission
916 N. East Avenue
P. O. Box 1607

-more-

Waukesha, Wisconsin 53187-1607
Telephone: (414) 547-6721
Telecopier: (414) 547-1103

* * *

[A copy of the June 27 Regional Planning Conference brochure, which describes conference details and lists conference participants, is enclosed.]

NOTE: Conference brochure reproduced as Appendix A-4.

Appendix A-3

ANNOUNCEMENT OF 17TH REGIONAL PLANNING CONFERENCE

ANNOUNCING

THE 17TH REGIONAL PLANNING CONFERENCE

"A NEW TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN"

Sponsored by the
SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION
and
UNIVERSITY OF WISCONSIN-EXTENSION

Monday, June 27, 1994

The Grand Milwaukee Hotel
4747 S. Howell Avenue
Milwaukee, Wisconsin

The Commission and UW-Extension cordially invite you to attend a one-day conference focusing on the important topic of a new long-range transportation system plan for the seven-county Southeastern Wisconsin Region. Socio-economic trends since 1978, the time at which the Commission completed its year 2000 regional transportation system plan, have resulted in greater trip lengths, declining ridesharing and transit use, increasing highway traffic, and more severe traffic congestion. These changing conditions, coupled with the Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991, underscore the need for the preparation of a new regional transportation system plan at this time.

The 17th Regional Planning Conference will provide a forum for public review of a preliminary draft of the new transportation system plan. The new plan, presently under preparation, will help guide transportation system development in the Region through the year 2010. Since the Commission and UW-Extension are very much interested in broadening public understanding and involvement in the plan preparation process, the Conference has been structured to provide both a broad regional context and the opportunity for localized review preparatory to public hearings on the plan.

Opening plenary sessions will review the current status of the regional transportation system; present information on travel habits and patterns in the Region; identify the proposed transportation system development objectives; and describe proposed alternative plans and the preliminary recommended plan selected for public review. **Concurrent sessions** will examine in greater detail various facets of the regional transportation system planning process and background on the preliminary recommended plan. Included will be sessions which discuss potential impacts of the transportation system plan upon such things as land use and environmental quality. **County review and comment sessions** concluding the day's events will provide an opportunity for important local questions and answers. Detailed maps and materials, with staff available, will lend themselves to "open-house" types of discussion.

We hope you will attend what promises to be an important conference event. The planning process under consideration will influence not only the development of the transportation system within Southeastern Wisconsin, but ultimately the land use pattern, economy, and overall quality of life as well.

WHO SHOULD ATTEND?

The 17th Regional Planning Conference should be of interest to local elected and appointed officials; citizens concerned with transportation, land use, and environmental issues; planners and engineers; business and industry representatives; land developers; and others concerned about transportation issues in Southeastern Wisconsin.

REGISTRATION FEE

$20.00—includes coffee and rolls, luncheon, and a copy of the Conference proceedings. A half-day fee of $10.00 is available for persons unable to attend the luncheon.

SET ASIDE JUNE 27, 1994

Registration at 8:00 a.m.—Sessions ending around 4:00 p.m.

ADDITIONAL INFORMATION

A brochure, including session descriptions, a detailed agenda, and registration materials, will be mailed in early May.

Public transportation to the Conference site is available, and persons with special needs are encouraged to contact us so that appropriate arrangements can be made.

Questions may be directed to Gary K. Korb, UW-Extension working with SEWRPC, Telephone (414) 547-6721.

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WAUKESHA WIS

17TH REGIONAL PLANNING CONFERENCE 1994

A NEW TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN

MONDAY, JUNE 27, 1994
GRAND MILWAUKEE HOTEL
4747 S. HOWELL AVENUE
MILWAUKEE, WISCONSIN

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
KENOSHA · MILWAUKEE · OZAUKEE · WAUKESHA · WASHINGTON · WALWORTH · RACINE

COMMISSION OFFICES:
COURTHOUSE
WEST, EAST AVENUE
WAUKESHA, WISCONSIN 53187-1607
KURT W. BAUER
EXECUTIVE DIRECTOR

Sponsored by the
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
and
UNIVERSITY OF WISCONSIN-EXTENSION

A NEW TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN

Background

The Southeastern Wisconsin Region has witnessed many changes since the adoption of the current regional transportation system plan in 1978. Among these changes are significant increases in employment and households, despite little population growth; more two-job households, despite declining household size; declining costs of automobile use, with increasing vehicle ownership both per capita and per household; and continuing decentralization of urban development, including jobs as well as of residences, fostering auto dependency. The effects of these and other socio-economic trends have included longer trips, declining ride-sharing and transit use, increasing highway traffic and congestion, and greater pollutant emissions and motor fuel consumption.

The 17th Regional Planning Conference will provide a forum for public review of a preliminary draft of the new regional transportation system plan. The new plan will help guide transportation system development in the Region through the year 2010. Since the Commission and UW-Extension are very much interested in broadening public understanding and involvement in the plan preparation process, the Conference has been structured to provide both a broad regional context and the opportunity for localized review preparatory to public information meetings/hearings on the plan. Brief descriptions of important Conference components follow.

Welcome and Conference Introduction

The stage for the day's events will be set by Commission Chairman David B. Falstad. Mr. Falstad, an attorney, represents Racine County on the Commission.

Morning Plenary Sessions

Two morning plenary sessions will be held separated by a brief coffee break. The first will be an overview of transportation planning and programming issues from a national viewpoint. Leading this session as presenter will be Mr. Lowell B. Jackson, Vice President of Transportation/Structures, Greenhorne & O'Mara, Inc., a national consulting firm, located in Greenbelt, Maryland. Mr. Jackson is well known to Wisconsinites for his many years of public service to the State, notably including Secretary of the Wisconsin Department of Transportation from 1979 to 1981, and again from 1983 to 1986.

The late morning plenary session will feature Commission staff presentations related to the preparation of a new year 2010 Regional Transportation System Plan. Included will be an overview of recommendations for transportation demand management, highway and mass transit improvements, and bicycle and pedestrian way improvements. These presentations will review the current status of the regional transportation system; present information on travel habits and patterns in the Region; identify the proposed transportation system development objectives; and describe proposed alternative plans and the preliminary recommended plan selected for public review.

Luncheon Program

The keynote luncheon address will be given by Mr. James R. Klauser, Secretary of the Wisconsin Department of Administration. Mr. Klauser is Governor Tommy G. Thompson's chief advisor on fiscal and policy matters and is a well-recognized figure in State government. He is expected to bring his years of budgeting and policy experience to bear, placing vital transportation improvement needs for Southeastern Wisconsin alongside the many other pressing public concerns.

Afternoon Concurrent Sessions

The concurrent sessions will examine in greater detail various facets of the regional transportation system planning process, its relationship to other types of planning, and important considerations for implementing the preliminary recommended plan. A division of the concurrent sessions into early—and late—afternoon blocks allows participants, if they wish, to "track through" various combinations of sessions that provide parallel treatment of topics, such as land use, transit/highways, and environmental quality. The format for these sessions will involve a formal presentation, followed by comments from a reaction panel. Afterward, audience participants will be invited to join in with questions and comments.

Focus on Land Use Site Design: The Potential to Influence Travel Demand

Conventional approaches to land development within much of the United States, including Southeastern Wisconsin, have generally promoted large, single-use activity centers—office parks, shopping centers, and residential areas. It has been generally recognized that conventional development practices lead to automobile dependence, and to increased air quality and traffic congestion problems.

Sound site design techniques and land use regulation are means to achieve more compact and integrated communities that promote the use of transit, bicycles, and walking as alternatives to automobile travel. This session will explore the potentials and practicalities of implementing such techniques and regulations within the Southeastern Wisconsin Region.

Focus on Public Transit: Details of the New System Plan

A sound transportation system for any large metropolitan area must include an effective urban public transit system. This system must at a minimum be integrated with the arterial street and highway system, function to relieve traffic congestion during peak periods of travel, and provide transportation service to individuals who cannot make use of private automobiles. Investment in public transit may be a means of achieving other social, environmental, and economic goals as well—including providing better access to jobs for the poor, ensuring access to jobs and services for the elderly and disabled, reducing motor fuel consumption, improving air quality, and shaping urban land use development. If society's almost total reliance on the automobile for personal transportation is to be reduced, a transit system that provides a viable alternative to the automobile must be provided.

This session will address the full range of potential public transit improvements envisioned for the Southeastern Wisconsin Region, from rapid commuter railway service linking outlying urban centers to downtown Milwaukee, to local bus service meeting everyday needs of urban residents in many communities.

Focus on Financing: Paying for the Plan

Historically, one of the basic impediments to the implementation of transportation system plans involved inadequate funding, particularly for county and local arterial streets and highways and for transit. New Federal regulations now require that before long-range transportation plans are adopted they must be demonstrated to be financially feasible; that is, implementation of the plan must cost only as much as the public can and is willing to pay. Accordingly, the vision for the future transportation system in the Southeastern Wisconsin Region must be constrained by projected revenue availability given society's many competing demands for funds.

This session will discuss the revenues anticipated to be made available through typical Federal, State, and local transportation funding sources. It will also explore public willingness to provide new sources of funding for the construction, maintenance, and operation of highway and transit improvements not covered by these sources.

Focus on Clean Air: The Role of Transportation

The Federal Clean Air Act Amendments of 1990 require that, in areas where the Federally established ambient air quality standards are not met, transportation and air quality management planning must be integrated. The seven counties of Southeastern Wisconsin do not meet the national standards for air quality with respect to ozone. On this basis, Federal law mandates that the new transportation system plan for the Region be in conformance with the State air quality management plan. That plan is to be designed by the Wisconsin Department of Natural Resources to reduce pollutant emissions and achieve national ambient air quality standards.

This session will explore the technical and procedural links between air quality and transportation in the Region, including plan recommendations. Addressed will be the relative contribution of transportation within the Region to air quality problems; the potential for transportation control measures, including policies to increase automobile operating costs, to reduce motor vehicle emissions; the potential for technological innovations and stricter tailpipe standards to reduce vehicle emissions; and the transportation-related consequences for the Region of not meeting the conformity requirements of the Clean Air Act Amendments.

Focus on Travel Demand Management:
Costs, Benefits, and Practicalities

Travel demand management refers to measures intended to reduce or eliminate automobile trips—especially single occupant trips—or to shift travel to alternative times and routes. The intent of such measures is to reduce traffic congestion, air pollution, and motor fuel consumption. A travel demand management program may thus increase the cost of automobile travel, control the supply and cost of parking, facilitate telecommuting and work schedule changes, and promote better land use site design.

While such measures—especially pricing—have been shown to affect travel demand, public resistance to their implementation has often been strong. Proponents of increasing the cost of automobile operation contend that pricing measures are justified since they make apparent the costs that are typically "hidden." A sound pricing strategy would, for example, reduce transportation-related property taxes as automobile operating costs—"highway user costs"—are increased. Opponents of measures to increase the perceived costs of automobile operation contend that affected areas could be disadvantaged economically; and that the individual freedom permitted by automobile use could be compromised, affecting particularly lower income residents. This session will explore the public and private costs and benefits related to travel demand management, seeking to assess the practicality of implementing such measures within the Region.

Focus on Highways: Details of the New System Plan

High quality arterial streets and highways are essential to the social and economic vitality of Southeastern Wisconsin. The arterial streets and highways—and particularly the freeways—constitute the singularly most important element of the regional transportation system. They are essential to efficient commuting; to the movement of almost all goods; and to the delivery of almost all services within the Region, including bus transit service.

The 3,274-mile arterial street and highway system within the Region serves over 5 million person trips on an average weekday—over 92 percent of all trips. The component freeways—comprising about 9 percent of the total arterial system—carry about 35 percent of all vehicle miles of travel within the Region on an average weekday. The arterial street and highway system connects the major urban centers of the Region and provides essential linkages to national and international markets, and to agricultural areas which provide necessary food and fibre. This system also connects major manufacturing and commercial centers within the Region to the Port of Milwaukee, to General Mitchell International Airport, and to other important change of mode passenger and freight facilities. Commercial and industrial activities increasingly seek locations on or near regional freeways, and trends like "just in time" delivery of materials to manufacturing plants make good highway transportation essential.

This session will detail important arterial street and highway preservation, improvement, and expansion recommendations in the proposed new regional transportation system plan, and compare such recommendations to the jurisdictional highway system plans for the seven counties in the Region. Issues related to funding will also be addressed as the need to reinvest in aging highway infrastructure becomes increasingly pressing.

Focus on the New State Transportation Plan:
Its Implications for the State and Region

Coordination of transportation system planning between the State, regional, county, and local levels of government is essential to the attainment of a balanced, integrated, and workable regional transportation system. The new statewide transportation plan, known as Translinks-21, will focus on the movement of passengers and freight between the Southeastern Wisconsin Region and other regions throughout the State and Nation. Decisions and policies made and followed at the State level will affect the scale and timing of highway, railway, airport, and seaport development within the Region, as well as the availability of capital funds to implement regional transportation system plan recommendations.

This session will address the likely impacts of the State plan on development of the various modes of transportation in Southeastern Wisconsin. The session will also establish how the regional plan recommendations fit into the broader statewide context, providing for the movement of people and goods within the Region, as a complement to such movement between regions of the State and Nation.

Focus on Urban Sprawl: Prospects for Implementing the Regional Land Use Plan

The adopted regional land use plan calls for a relatively compact settlement pattern with new development occurring within and adjacent to existing urban centers. The plan recommends that growth occur in areas having soils suitable for urban use; that are not subject to special hazards, such as flooding; and that can be readily provided with public sanitary sewer, water supply, and mass transit services. The plan also recommends preserving in essentially natural condition the environmental corridors of the Region—the linear areas containing the best remaining elements of the natural resource base, including the surface waters and associated floodlands and wetlands, the woodlands, and the key wildlife habitat. It further recommends the preservation in agricultural use of the Region's remaining prime farmland.

This vision for the future of Southeastern Wisconsin—adopted by all seven County Boards in the Region—is threatened by the continued dispersion of urban development at densities which cannot be efficiently or effectively provided with essential facilities and services. The effects of urban sprawl on transportation within the Region cannot be dismissed. Indeed, it has long been recognized by the Commission that land use determines the magnitude and spatial distribution of travel demand and the ability of various transportation modes to efficiently and effectively serve that demand. Urban sprawl has stressed the capacity of suburban surface arterials; made public transit impractical in most newly developing areas; fostered longer trips and almost total dependence on the automobile; and left under utilized significant capital investment in established urban centers.

Recognizing the above impacts on the transportation system, this session will address the specific actions a Commission Advisory Committee has proposed to strengthen implementation of the adopted regional land use plan. The discussion will focus on recommended actions by State, county, and local units of government that can help make the vision for the Region a reality.

Open House Session

During the afternoon portion of the program, a room will be set aside for an "open house" session. Commission staff will be present along with detailed maps and other exhibits pertaining to the long-range transportation planning process. This will provide an opportunity for individuals to interact with staff on an informal basis throughout the afternoon, to review various recommendations as they relate to the local and regional level, and to offer comments. Any and all comments offered during the open house—as well as those provided to staff during or at the conclusion of formal sessions—are welcome. They will be given the same due consideration as testimony, for example, recorded during subsequent public information meetings/hearings.

Who Should Attend?

The 17th Regional Planning Conference should be of interest to local elected and appointed officials; citizens concerned with transportation, land use, and environmental issues; planners and engineers; business and industry representatives; land developers; and others concerned about transportation issues in Southeastern Wisconsin.

Registration Fee/Conference Proceedings

$20.00—includes coffee and rolls, luncheon, and a copy of the Conference proceedings. A half-day fee of $10.00 is available for persons unable to attend the luncheon. Please make check payable to the Southeastern Wisconsin Regional Planning Commission. Multiple registrants may be processed on a single registration form (back page of brochure).

Some Registration Suggestions

Please register as soon as possible before June 22, 1994, indicating a choice of concurrent sessions so that room space can be properly allocated. The registration form seeks a first and second choice for each concurrent session; however, every effort will be made to accommodate your preference. Thus, while walk-ins will be accepted at the door, pre-registration is highly encouraged.

As noted previously, there is some pairing among concurrent sessions between the early and late afternoon time slots. Nevertheless, participants are free to select the combination of sessions providing greatest interest. Recognizing that breadth of interest may exceed personal ability to attend sessions, the Conference Proceedings will document the entire day's events for future reference.

Other Information

Persons with special needs are encouraged to contact the Commission offices in advance so that appropriate arrangements can be made. Affected may be such considerations as site access and/or mobility at the Conference, materials review or interpretation during sessions, or active participation, including the submission of comments. Please also feel free to indicate on the registration form whether special dietary or any other needs exist.

Public transportation access to the vicinity of the Conference site is available. (Please see location map.)

Questions?

Please contact the Commission offices:

Conference program—Mr. Gary K. Korb, UW-Extension Regional Planning Educator
General questions—Ms. Luella M. Fredrickson, Registrar
916 N. East Avenue
P. O. Box 1607
Waukesha, WI 53187-1607

Telephone: (414) 547-6721
Telecopier: (414) 547-1103

A NEW TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN

8:00 - 9:00 **REGISTRATION**

- Continental breakfast and informal discussion

9:00 - 9:15 **WELCOME AND INTRODUCTION**

- **Mr. David B. Falstad**, Chairman, SEWRPC

9:15 - 10:00 **EARLY MORNING PLENARY SESSION**

- Transportation Planning and Programming Issues—A National Viewpoint

  Mr. Lowell B. Jackson, Vice President, Transportation/Structures, Greenhorne & O'Mara, Inc.

- Questions and Answers

10:00 - 10:15 **COFFEE BREAK**

10:15 - 11:30 **LATE MORNING PLENARY SESSION**

- Overview of the Transportation System Planning Process and Alternatives Considered

  Mr. Philip C. Evenson, Assistant Director, SEWRPC

- Overview of the New Regional Transportation System Plan: Preliminary Demand Management, Transit, and Highway Recommendations

  Mr. Kenneth R. Yunker, Assistant Director, SEWRPC

- Overview of the New Regional Transportation System Plan: Preliminary Bicycle and Pedestrian Recommendations

  Ms. Nancy A. Holguin, Transportation Planner, SEWRPC

11:45 - 1:00 **LUNCHEON PROGRAM**

- Keynote address by **Mr. James R. Klauser**, Secretary, Wisconsin Department of Administration

1:15 - 2:30 **EARLY AFTERNOON CONCURRENT SESSIONS —PARTICIPANTS SELECT A, B, C, or D**

Session A—Focus on Land Use Site Design: The Potential to Influence Travel Demand

Mr. Anthony F. Balestrieri, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Edward A. Beimborn**, Professor of Civil Engineering, University of Wisconsin-Milwaukee
- Reactor Panel: **Mr. Harlan E. Clinkenbeard**, Administrator/Planner, Town of Pewaukee

  Mr. Patrick J. Meehan, President, Meehan & Company, Inc., Franklin

  Mr. J. Michael Mooney, Mooney LeSage Group, Brookfield
- Staff: Mr. Dan A. Wilson, Community Resource Development Agent, University of Wisconsin-Extension, Washington County

Questions and Answers

Session B—Focus on Public Transit: Details of the New System Plan

Mr. Paul G. Vrakas, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Kenneth R. Yunker**, Assistant Director, SEWRPC
- Reactor Panel: **Mr. Lawrence J. Kenny**, Supervisor, Milwaukee County

  Mr. Robert L. Turner, Alderman, City of Racine; State Representative, 61st District

  Mr. James A. Beckwith, Chief of Transit System Development, Wisconsin Department of Transportation
- Staff: Mr. Albert A. Beck, Principal Planner, SEWRPC

Questions and Answers

Session C—Focus on Financing: Paying for the Plan

Mrs. Sheila M. Siegler, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Patrick Marchese**, P.E., Foth & Van Dyke, Milwaukee; SEWRPC Commissioner
- Reactor Panel **Mr. Roger L. Schrantz**, Administrator, Division of Planning and Budget, Wisconsin Department of Transportation

  Ms. Kathryn C. Bloomberg, Mayor, City of Brookfield

  Mr. Kenneth S. Kinney, Strategic Planning Director, City of Milwaukee
- Staff: Mr. Philip C. Evenson, Assistant Director, SEWRPC

Questions and Answers

Session D—Focus on Clean Air: The Role of Transportation

Mr. Daniel S. Schmidt, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Donald F. Theiler**, Director, Bureau of Air Management, Wisconsin Department of Natural Resources
- Reactor Panel: **Mr. John B. Torinus**, Chief Executive Officer, Serigraph, Inc., West Bend

  Ms. Susan Mudd, State Director, Citizens for a Better Environment

  Ms. Lynne B. Judd, Chief, Environmental Strategies Section, Bureau of Strategic Planning, Wisconsin Department of Transportation
- Staff: Mr. Donald R. Martinson, Chief Transportation Planner, SEWRPC

Questions and Answers

2:30 - 2:45 **SODA/JUICE BREAK**

2:45 - 4:00 **LATE AFTERNOON CONCURRENT SESSIONS —PARTICIPANTS SELECT E, F, G, or H**

Session E—Focus on Transportation Demand Management Measures: Costs, Benefits, and Practicalities

Mr. Daniel J. Diliberti, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Rob Kennedy**, State Coordinator, New Transportation Alliance
- Reactor Panel: **Mr. Ernest Stetenfeld**, Director of Public and Government Relations, Wisconsin Division, American Automobile Association

  Mr. Peter W. Beitzel, Vice President of International Trade, Transportation, and Business Development, Milwaukee Metropolitan Association of Commerce

  Mr. Kenneth J. Leonard, Director, Bureau of Strategic Planning, Wisconsin Department of Transportation
- Staff: Mr. Wayne H. Faust, Community Resource Development Agent, University of Wisconsin-Extension, Waukesha County

Questions and Answers

Session F—Focus on Highways: Details of the New System Plan

Mrs. Jean M. Jacobson, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Kenneth R. Yunker**, Assistant Director, SEWRPC
- Reactor Panel: **Mr. Robert R. Packee**, District Director, Wisconsin Department of Transportation

  Mr. Frederick J. Patrie, Director of Public Works, Kenosha County

  Mr. William Schaefer, Transportation and Land Use Specialist, Citizens for a Better Environment
- Staff: Mr. Donald R. Martinson, Chief Transportation Planner, SEWRPC

Questions and Answers

Session G—Focus on the New State Transportation Plan: Its Implications for the State and Region

Mr. Duane H. Bluemke, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Randall E. Wade**, Chief, Statewide System Planning, Division of Planning and Budget, Wisconsin Department of Transportation
- Reactor Panel: **Mr. Benjamin J. Coopman**, Highway Commissioner, Walworth County

  Mr. Philip J. Scherer, Executive Director, Transportation Development Association of Wisconsin

  Mr. Marc S. Bentley, Government Relations Director, Wisconsin Motor Carriers Association
- Staff: Mr. Otto P. Dobnick, Principal Planner, SEWRPC

Questions and Answers

Session H—Focus on Urban Sprawl: Prospects for Implementing the Regional Land Use Plan

Ms. Patricia A. Strachota, SEWRPC Commissioner, Presiding

- Presenter: **Mr. Richard W. Cutler**, Chairman, SEWRPC Technical and Intergovernmental Advisory Committee on Regional Land Use Plan Implementation
- Reactor Panel: **Ms. Sandra K. Beaupré**, Chief, Urban Transportation Strategies Section, Wisconsin Department of Transportation

  Mr. Arnold L. Clement, Planning and Development Director, Racine County

  Mr. Brian B. Burke, State Senator, District 3, Milwaukee
- Staff: Mr. Philip C. Evenson, Assistant Director, SEWRPC

Questions and Answers

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

The Commission was established in 1960 under Section 66.945 of the Wisconsin Statutes as the official areawide planning agency for the seven-county Region comprised of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties. These seven counties have an area of 2,689 square miles, or about 5 percent of the area of the State, and a resident population of about 1.9 million persons, or about 37 percent of the population of the State. The counties provide about one million jobs, or about 39 percent of the total employment in Wisconsin. They contain real property worth about $70.9 billion as measured in equalized valuation, or 41 percent of the tangible wealth in the State. There are 154 general-purpose local units of government in the Region—all participating members in the Commission's work.

The Commission consists of 21 members, three from each of the seven member counties. One Commissioner from each county is appointed by the County Board and is an elected County Board Supervisor. The remaining two are appointed by the Governor, one from a list prepared by the County Board. The Commission is assisted in its work by 28 advisory committees of elected and appointed public officials and interested citizens, with a combined membership of nearly 600 persons.

The areawide planning which the Commission was created to perform has become increasingly accepted as a necessary government function in the large metropolitan regions of the United States. This acceptance is based on a growing awareness that issues of physical and economic development and of environmental impacts transcend the geographic limits and fiscal capabilities of local units of government—and that sound resolution of associated problems requires the cooperation of all units and agencies of government, and private interests as well. A regional basis is necessary to provide a meaningful technical approach to the proper planning and design of highway and transit, sewerage and water supply, and park and open space facilities. Such a basis is also essential to provide a sound approach to the resolution of such environmental problems as flooding, air and water pollution, natural resource base deterioration, and changing land use.

Private as well as public interests are vitally affected by these kinds of areawide problems and by the proposed solutions. It appears neither desirable nor possible for any one level or agency of government to impose the decisions required to resolve these kinds of problems. Such decisions can better come from a consensus among the public and private interests concerned, based on a common interest in the welfare of the entire Region. Regional planning is essential to promote this consensus and the necessary cooperation among urban and rural; local, State, and Federal; and public and private interests. In this light, regional planning is not a substitute for Federal, State, or local public planning or for private planning. Rather, regional planning is a vital supplement to such planning.

The work of the Regional Planning Commission is entirely advisory in nature. Therefore, the regional planning program in Southeastern Wisconsin has emphasized the promotion of close cooperation among the various governmental agencies concerned with land use development and with the provision of supporting public services. The Commission believes that the highest form of areawide planning combines accurate data and competent technical work with the active participation of knowledgeable and concerned public officials and private citizens. In this way, the formulation of plans also addresses clearly identified needs and problems. Such planning is intended to lead not only to a more efficient regional development pattern but also to a more desirable environment in which to live and work.

COMMISSION MEMBERS

KENOSHA COUNTY
Leon T. Dreger
Sheila M. Siegler

MILWAUKEE COUNTY
Daniel J. Diliberti
William Ryan Drew
Patrick Marchese

OZAUKEE COUNTY
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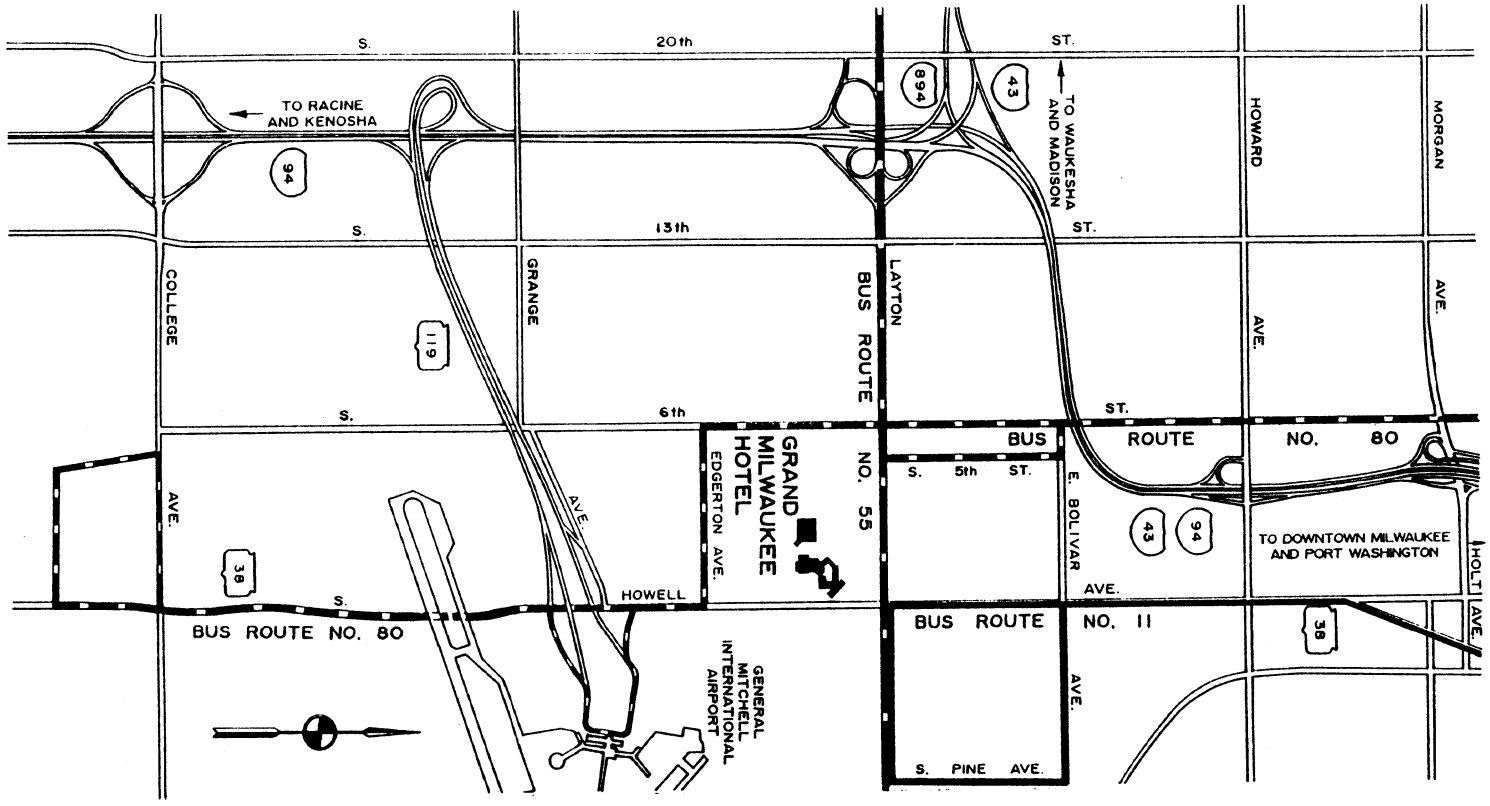
WALWORTH COUNTY
John D. Ames
Anthony F. Balestrieri
Allen L. Morrison, Vice-Chairman

WASHINGTON COUNTY
Daniel S. Schmidt
Patricia A. Strachota
Frank F. Uttech

WAUKESHA COUNTY
Duane H. Bluemke
Robert F. Hamilton
Paul G. Vrakas

LOCATION MAP



Personal Record of Concurrent Session Choices: 1:15 p.m. ____A ____B ____C ____D; 2:45 p.m. ____E ____F ____G ____H

REGISTRATION FORM

Please complete this form indicating choice of sessions, and return it by June 22, 1994, to:

17th REGIONAL
PLANNING
CONFERENCE
June 27, 1994

CONFERENCE REGISTRAR
Southeastern Wisconsin Regional Planning Commission
Old Courthouse, P. O. Box 1607
Waukesha, Wisconsin 53187-1607
FAX (414) 547-1103

$20 REGISTRATION FEE
(Includes refreshment breaks, luncheon, and a copy of the conference proceedings)

Concurrent Sessions

Here and above, please indicate your first and second choices for each time slot (1 = preferred session, 2 = second choice)

Early Afternoon (1:15-2:30 p.m.)

____ A. Land Use Site Design
____ B. Public Transit Details
____ C. Financing the Plan
____ D. Clean Air and Transportation

Late Afternoon (2:45-4:00 p.m.)

____ E. Transportation Demand Management Measures
____ F. Highway Details
____ G. State Transportation Plan
____ H. Urban Sprawl/Regional Land Use Plan

NAME _____ PHONE _____

ADDRESS _____ CITY/STATE _____

ORGANIZATION _____ SPECIAL NEEDS _____

PLEASE MAKE CHECK PAYABLE TO: Southeastern Wisconsin Regional Planning Commission.

Appendix A-5

CONFERENCE COMMENTS/QUESTIONS FORM

PLAN COMMENTS OR QUESTIONS
17TH REGIONAL PLANNING CONFERENCE

"A New Transportation System Plan for Southeastern Wisconsin"

Monday, June 27, 1994
Milwaukee, Wisconsin

Name	Affiliation	Mailing Address

If you have a comment or question regarding the preliminary recommended Year 2010 Regional Transportation System Plan that you wish to submit in writing, please feel free to do so today or via mail. Written comments may be recorded on the back of this sheet, with any attached pages as necessary, and taken to the "open house" located in Directors Room 1, or given to Southeastern Wisconsin Regional Planning Commission staff.

Additional comments will be accepted during any one of the county-by-county public meetings/hearings held during July and early August 1994; or, they may be submitted through August 13, 1994, to the Commission offices, 916 N. East Avenue, P.O. Box 1607, Waukesha, Wisconsin 53187-1607; telephone (414) 547-6721, FAX (414) 547-1103.

Thank you.

Appendix B

OPINION/EDITORIAL PIECES, NEWS ARTICLES, AND OTHER MATERIALS CONCERNING 17TH REGIONAL PLANNING CONFERENCE AND RELATED ISSUES

Appendix B-1

OPINION/EDITORIAL PIECES

Traffic, pollution ills call for effective mass transit

Gasoline at $2.20 a gallon?

Well, that's certainly one way to get people's attention. We suspect more people are aware of the Southeastern Wisconsin Regional Planning Commission after that jolt than ever before.

That $2.20 gasoline is one of the postulated alternative ways to get people to drive less and use public transportation more in southeastern Wisconsin. It's all tied to the federal government's efforts to combat air pollution in this area.

Serious discussion of various approaches to that task will begin later this month at a regional planning conference in Milwaukee and again in public hearings through the summer.

The realistic proposals are not as alarming as $2.20-per-gallon gasoline, however.

Other ideas include a 10-cent per gallon increase coupled with expanded and improved roads throughout the area. In addition, bus services would be expanded 10 percent throughout the area and fares would be capped.

Several things about this admittedly speculative series of proposals bother us:

■ Once again, it appears we are going to rely exclusively on concrete and blacktop to solve traffic congestion problems. Nowhere do we hear anyone suggesting areawide light rail transit.

■ If bus service is to be expanded by 10 percent for Racine, where does it take us? Considering the limited transportation choices between Racine and Milwaukee and Racine and Kenosha, a 10 percent improvement is next to nothing.

■ What genuinely serious alternatives does government intend to offer when $2.20 — or even $1.20-per-gallon — gas prices make someone think seriously of leaving the car at home? Many people work in Milwaukee and Kenosha and at present there are literally no convenient or cost-effective alternatives to driving to work.

Of course, we're dealing with government here and government is notorious for deciding what we must do while abdicating any responsibility for helping us figure out how do it.

All of this, we should emphasize, is far in the future and completely open to alteration.

But for the most part, we have heard little in discussions of transportation planning that will be of any discernible benefit to Racine area residents.

The Journal Times (Racine)
June 16, 1994

Other views

Capitol week

STEVEN WALTERS
Madison Bureau

DOT secretary: Some Milwaukee-area officials will have to wait a long time before their private and public wishes that State Transportation Secretary Charles H. Thompson find other work are fulfilled.

Thompson is one of the longest and deepest friends Gov. Thompson has. Although the two aren't related, they might as well be; they are that close.

■ Since loyalty is Job One in Gov. Thompson's book, one observer noted, "Chuck Thompson can serve in the cabinet as long as Chuck Thompson wants to serve."

Maybe Charles Thompson has been too close to road builders who help pave the governor's reelection effort with donations. And maybe the former restaurant and tourism-business operator isn't the smoothest administrator in state government.

But the memory scrapbooks of Charles Thompson and Tommy Thompson go back to the governor's Assembly races of the 1960s, '70s and '80s, and the 1986, '90 and '94 campaigns for governor.

Since loyalty is Job One in Gov. Thompson's book, one observer noted, "Chuck Thompson can serve in the cabinet as long as Chuck Thompson wants to serve."

Besides, Charles Thompson no longer will be the only one to spell out the tough, costly Milwaukee-area freeway improvements that must be decided in about two years.

Administration Secretary James R. Klauser — not Charles Thompson — will speak to the transportation-minded Southeast Wisconsin Regional Planning Commission at noon June 27.

Klauser's speech shows that, in the freeway-options swamp, Charles Thompson is not alone.

Excerpt from article entitled: "4 races likely to decide who controls State Senate," Milwaukee Sentinel, May 30, 1994

Transit plan widens options for region

By Dave Backmann
Staff Writer

MILWAUKEE — Widening a portion of Highway 50 to six lanes, linking Kenosha and Racine with an express bus and encouraging more Kenoshans to pedal bicycles for routine, short trips, all are advocated in a long-range, regional transportation plan unveiled here Monday.

The plan developed by the Southeastern Wisconsin Regional Planning Commission also allows for future studies of extending Metra commuter rail service from Kenosha to Milwaukee.

Costing an estimated $473 million annually from 1995 until the year 2010, the federally mandated plan calls for a balanced expansion of roads and public transit systems in the seven-county region.

TRANSPORTATION plan encourages more bicycle riding. Story, page **3**

SEWRPC planners estimate a $92 million annual shortfall in funding the plan.

Phillip C. Evenson, a SEWRPC assistant director, said one way of making up the shortfall would be to increase the state tax on gasoline by 11 cents, to 34.1 cents. Increasing vehicle registration fees or creating a wheel tax are other funding options, he said.

Opponents attacked the plan, made public at the Milwaukee Grand Hotel, by saying more attention

SEE PLAN

Public comment

Opportunities for public comment on a proposed long-range, regional transportation plan include:

- **A public hearing at 7 p.m. July 13 at the Municipal Building, 625 52nd St.**
- **Hearings are planned in Racine, Washington, Ozaukee, Walworth, Waukesha and Milwaukee counties.**
- **This fall when the City Council, County Board and town and village boards from all Kenosha County municipalities debate the plan.**

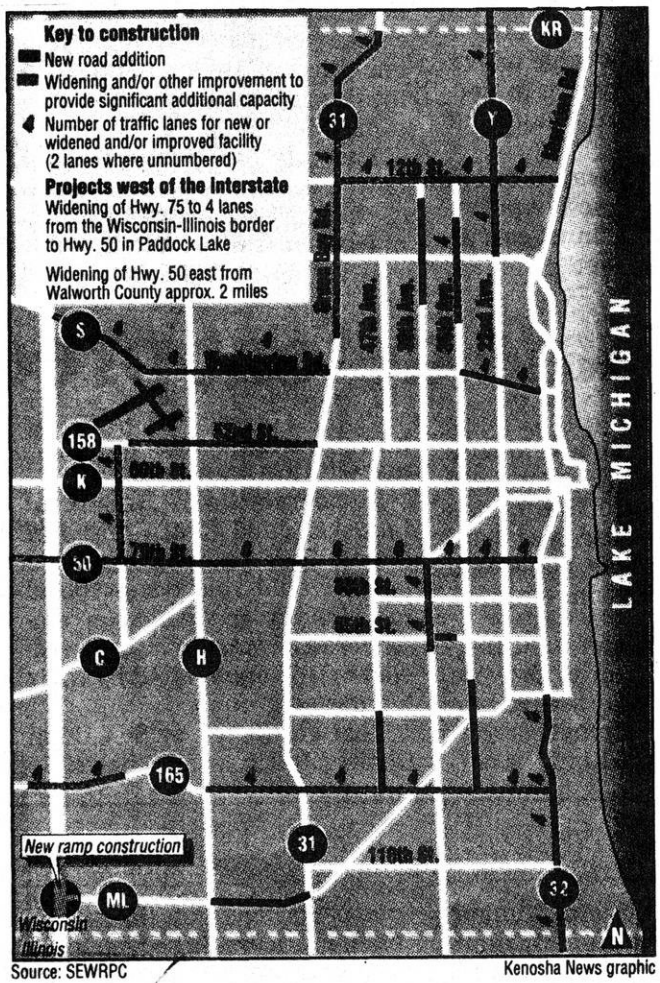
■ Plan

CONTINUED FROM 1

should be paid to expanding mass transit services and less to road building.

"The plan will do nothing to reverse the trend of urban sprawl, the migration of jobs and population from urban centers and the environmental degradation caused by current land use trends," said Robert Bauman, chairman of the Southeast Wisconsin's New Transportation Alliance.

In response to the criticism, another SEWRPC assistant director, Kenneth Yunker, said the plan breathes new life into what has become a dying regional transit system. Yunker said the plan additionally aims to reduce Volatile Organic Compound emissions from cars by 4 percent on summer weekdays by curbing the growth of driving. VOCs lead to the formation of ozone, a main ingredient in air pollution.



Source: SEWRPC

Kenosha News graphic

Kenosha News
June 28, 1994

Public hearings on the SEWRPC plan are planned in each of the seven counties including a hearing July 13 at the Municipal Building, 625 52nd St. Each county in the region has representatives on the SEWRPC board.

A SEWRPC advisory committee is expected to modify the transportation plan based on comments from those hearings.

The County Board, City Council and town and village boards will be asked to approve the plan sometime this fall. State Department of Transportation approval also is required.

A number of arterial roads and streets in Kenosha County are earmarked for expansion under the plan, including:

- Widen Highway 50 from four lanes to six from 39th Avenue to I-94.
- Extend 39th Avenue north from 24th Street to link up with Highway E.
- Build 85th Street between 39th and 30th avenues.
- Extend Cooper Road from 93rd Street to Highway 165.
- Connect highways H and 31 by building the southern leg of Highway ML eastward.
- Widen Highway 83 from two lanes to four from Highway 50 south to the state line.

The express bus service would operate between Kenosha and Racine at all times. A connection to the Racine bus system from Kenosha now can be made only at the University of Wisconsin-Parkside when school is in session.

Transportation plan encourages bicycle use

MILWAUKEE — Encouraging people to ride bicycles for routine short trips is part of the regional transportation plan introduced here Monday.

Nancy Holguin, a Southeastern Wisconsin Regional Planning Commission transportation planner, said the plan emphasizes non-recreational biking as a means of transportation. A goal of the plan is to create safe paths for bicyclists.

More people riding bicycles would reduce both air pollution and traffic congestion.

The plan recommends marking about 100 miles of bicycle ways throughout Kenosha County. About 32 miles of that total are to be located off-street, in natural areas or utility corridors. About nine miles of the 32 already have been developed.

About 68 miles of on-street routes are to be marked for bike use. Seven miles of that total have been developed.

The plan provides for bike access to major activity centers: Petrifying Springs and Pleasant Prairie parks; the Kenosha Transit Center; the Factory Outlet Centre in Bristol; LakeView Corporate Park; Gateway Technical College and to the Kenosha central business district.

Kenosha News
June 28, 1994

Transportation

Klauser urges more cooperation in metropolitan area

Regional conference displays ideas for transit's future

By PHIL NERO
of The Journal staff

On the surface it was a conference to unveil three preliminary long-range transportation plans for southeastern Wisconsin, but there was clearly an undercurrent by transit activists seeking less highway construction for the region.

In the middle of it all was James Klauser, Gov. Tommy G. Thompson's chief aide, urging greater cooperation on all issues of regional importance.

"The best plan does not yet exist," Klauser told the audience of several hundred at the 17th Regional Planning Conference at the Grand Milwaukee Hotel on Monday.

Klauser was the keynote luncheon speaker. He called not only for a consensus on transportation issues, but also an end to the bickering between the City of Milwaukee and the suburbs about sewer rates the Milwaukee Metropolitan Sewerage District charges suburban customers.

Klauser said the ongoing feud, the so-called sewer wars, was undermining cooperation on regional issues.

He urged officials to "raise the white flag" and take advantage of federal money available for transit. At another point he urged officials to be flexible.

At times it was unclear if Klauser was referring to a specific corridor study examining options for transit between Waukesha and Milwaukee Counties, or the broader 15-year transportation plans covering all methods of transportation in the seven-county region.

Regardless, Klauser's message was the same: cooperate.

On display at the conference were three 15-year plans developed by the Southeastern Wisconsin Regional Planning Commission.

The advisory plans address long-term transportation needs in the seven southeastern Wisconsin counties of Milwaukee, Waukesha, Kenosha, Racine, Ozaukee, Washington and Walworth.

Among other things, the plan the commission supports would increase transit service by 72% by 2010, expand regional highways and arterials by 17%, build a roadway for buses and car pool vehicles between Milwaukee and Waukesha and raise the gas tax at least 10 cents a gallon to pay for transportation improvements.

The other plans are similar, varying predominantly in the amount of transit service offered or in the gasoline price increases to deter driving.

The New Transportation Alliance, a grass-roots transit organization that supports light rail, distributed an analysis that said the commission's preferred plan lacked vision.

Ken Yunker, commission assistant director, was perturbed by the handout and criticized it during his morning presentation.

Wisconsin's Environmental Decade said the plan would contribute to air pollution and called for more dramatic changes.

Citizens for a Better Environment said the ultimate plan should include:

- Bus service with no more than a 10-minute wait on major routes during peak travel time.
- A commitment to light rail in Milwaukee and Waukesha and commuter rail lines between Milwaukee, Racine and Kenosha.
- No new or wider highways that cause sprawl.
- Organizing new development along transit lines.
- A gasoline tax increase to discourage driving and offer property tax relief.

Later in the morning, Yunker discussed the commission plan with Bill Schaefer, staff attorney for Citizens for a Better Environment. Schaefer believes the commission is too quick to expand roads to reduce congestion, which in turn encourages urban sprawl.

Yunker and Schaefer agreed to discuss the roads that Citizens for a Better Environment find troublesome.

"The dialogue has just begun," Yunker said. A series of seven public hearings on the 15-year plans will begin July 11 in West Bend and conclude on Aug. 3 in Milwaukee. Opinion at the hearings will help shape the final commission recommendation expected in the fall.

The Milwaukee Journal
June 28, 1994

Klauser urges cooperation to avoid 'transportation wars'

By KENNETH R. LAMKE
Sentinel staff writer

James R. Klauser warned local government officials Monday they could be headed for a period of "transportation wars" similar to the "sewer wars" that have pitted the Milwaukee sewerage district against some suburbs for more than a decade.

A regional cooperative approach is critical in transportation planning, the secretary of the State Department of Administration said at a Southeastern Wisconsin Regional Planning Commission conference at the Grand Milwaukee Hotel, 4747 S. Howell Ave.

"At least in part of this region, you don't get very good grades as far as communities' regional cooperation," Klauser told about 500 people at the conference.

"The last time the state and federal government were involved in spending hundreds of millions of dollars on construction improvements, we wound up with the sewer wars," he said, referring to the legal battle between the Milwaukee Metropolitan Sewerage District and some suburbs over sewer funding.

"We cannot have transportation wars," Klauser said.

"Maybe some of the controversy and the confrontation (on transportation planning) is at this time premature and pointless," Klauser said.

"Maybe it's time for the white flags to go up, and let's figure out what we're doing," he said.

Klauser did not single out any communities, officials or topics in his reference to confrontation.

"The last time the state and federal government were involved in spending hundreds of millions of dollars on construction improvements, we wound up with the sewer wars."

— JAMES R. KLAUSER
state administration secretary

Many communities voted against creating a regional transportation authority to oversee new transportation developments, and the idea died. Some suburbs have voiced opposition to a light rail system planned primarily for Milwaukee. And most recently, neighbors along a proposed busway route parallel to Interstate 94 have vocally objected to it.

Klauser said several hundred million dollars of federal money is available for highway and mass transit improvements.

But, he said, "at the state level, no decisions have been made . . . relative to the best approach to take, whether these involve light rail, bus lanes or the third option — which today I would have to say has the most public support — basically a no-build scenario, or maintaining what we have."

Klauser said, "There must first be a clearer definition of what the problem is. There, we may be ahead of the public. We must define what problem we are solving so there can be public support."

Klauser described the transportation problem as primarily an economic one.

Saying that economic interdependence will increase in southeastern Wisconsin, Klauser said that "if we can get passenger vehicles off the freeway, we increase its commercial capacity. So there's great wisdom in attempting to do that, I think."

Klauser said the environment is of lesser concern because of the improvements that have already been made in air quality.

While there were 409 tons of toxic emissions a day in the region in 1990, the total is scheduled to decline to 234 tons a day by the year 2007 under current policies, he said.

Klauser said mass transit improvements would have a "marginal effect" on air quality "because so much has already been done."

The secretary reiterated that the transportation options being presented by government agencies are only that.

Milwaukee Sentinel
June 28, 1994

Transit plan rapped

MILWAUKEE — Transit activists say a new long-term transportation plan favored by regional planners lacks vision, panders to political pressure and will worsen urban sprawl.

The proposal was among three being discussed by the Southeastern Wisconsin Regional Planning Commission, which held a regional planning conference here Monday.

The proposals address long-term transportation needs in Milwaukee, Waukesha, Kenosha, Racine, Ozaukee, Washington and Walworth counties.

The plan preferred by commission officials and opposed by the New Transportation Alliance, a local grass-roots group that supports light rail, would:

- Increase transit service 50 percent by 2010 at a 3 percent annual rate.
- Expand regional highways and arterials by 10 percent with about 529 miles of road improvements, including expanding some high ways and arterials from two to four lanes.
- Manage motor vehicle traffic by a variety of methods including special car pool and bus lanes, staggered working hours and parking restrictions.
- Increase the gasoline tax by at least 10 cents a gallon to pay for transportation improvements.

The Journal Times (Racine)
June 28, 1994

Officials: Cooperation key to transportation plan

Public hearings will be held this summer

By Lisa Marinelli
Freeman Staff
and Associated Press

WAUKESHA — Residents of southeastern Wisconsin and local officials must set aside differences to avoid transportation headaches in the future, local officials say.

If not, the area could be plagued with increasing congestion, deteriorating roads and decreasing reliance on mass transit — a situation the Southeastern Wisconsin Regional Planning Commission hopes to avoid.

"It's absolutely critical that at some point people in the region and those of us charged with providing political leadership recognize that what they put together is the best plan we can collectively agree upon for the region," Brookfield Mayor Kathryn C. Bloomberg said today.

"There may be issues in the plan I might not support wholeheartedly but it's the best plan we can all agree upon," she said.

Bloomberg was one of dozens of state and local officials who attended a daylong conference Monday in Milwaukee at which SEWRPC presented its regional transportation plan for the year 2010.

The $4.87 billion plan recommends changes, such as improving public transit and maintaining and improving streets and highways, for a seven-county region that includes Waukesha County.

Cooperation was the message delivered by state Secretary of Administration James Klauser.

"We cannot have transportation wars," Klauser said. "Maybe some of the controversy and the confrontation is at this time premature and pointless.

"Maybe it's time for the white flags to go up, and let's figure out what we're doing." he said.

Education and public hearings will be the key to obtaining that cooperation, county supervisor and SEWRPC commission member Paul Vrakas said.

"Once we get the information out on why certain things are needed, consent will be readily brought about," he said.

SEWRPC will hold local hearings throughout the summer in the seven-county region. The tentative Waukesha County date is July 28.

When the public hearings end, a SEWRPC advisory committee will review the comments and revise the plan. The plan will then be sent to local, state and federal agencies and units of government for adoption.

☐ Transportation Plan Highlights

Here are the Waukesha County highlights of the Southeastern Wisconsin Regional Planning Commission transportation plan for the year 2010.

- Complete the Highway 16 bypass around Oconomowoc.
- Create an interchange on Interstate 94 at Calhoun Road in Brookfield.
- Resurface I-94 from the Marquette interchange in Milwaukee to Goerke's Corners.
- Widen Main Street in Waukesha from two lanes to four between Hartwell Avenue and Moreland Boulevard.
- Widen I-94 from four lanes to six between Highway G and Highway 16.
- Widen Meadowbrook Road from two lanes to four from Northview Road to I-94.

The Freeman (Waukesha)
June 28, 1994

Transportation

Transit plan lacks vision, critics say

Proposal is among 3 presented by regional planning commission

By PHIL NERO
of The Journal staff

Transit activists say a new long-term transportation plan favored by regional planners lacks vision, panders to political pressure and will increase urban sprawl.

The plan is one of three that were to be presented by the Southeastern Wisconsin Regional Planning Commission at a daylong regional planning conference on Monday.

"We challenge the assumption that this plan should be politically restrained," said Robert Bauman, chairman of the New Transportation Alliance. The group is a local grass-roots transit organization that supports light rail.

"If they can't provide vision, what planning agency can?" said Jim Carpenter, alliance managing coordinator. "They should be pushing the envelope, not worrying about politics."

The plans address long-term transportation needs in the seven southeastern Wisconsin counties of Milwaukee, Waukesha, Kenosha, Racine, Ozaukee, Washington and Walworth.

Though the plans are advisory, local governments risk losing future federal money if they don't follow the plan that's eventually adopted.

The plan preferred by commission officials, among other things, would:

- Increase transit service by 50% by 2010 at a 3% annual rate.
- Expand regional highways and arterials by 10% with about 529 miles of road improvements, including expanding some highways and arterials from two to four lanes.
- Manage motor vehicle traffic by a variety of methods including special car pool and bus lanes, staggered working hours and parking restrictions.
- Build a special road for buses and car pool vehicles, known as a busway, between Milwaukee and Waukesha.
- Increase the gasoline tax by at least 10 cents a gallon to pay for transportation improvements.

The other plans are similar, varying predominantly in the amount of transit service offered or by including an attempt to deter driving with a dramatic bump in gasoline prices.

AGENCY DEFENDS PLAN

"I would disagree [with the charge] that the preferred plan is not a visionary plan," said Ken Yunker, regional planning commission assistant director. "The plan proposes a substantial departure from current trends, which has seen a decline in transit service over the past 10 years."

He said some highway and arterial expansion was necessary.

All the proposals assume only 10% of the trips taken within the region can be by a method of tr nsportation other than the car, Yunker said.

"The plan proposes initially a bus-based transit system which can be incrementally improved to include light rail," he said.

He said that doubling the price of gasoline would not significantly deter driving and that commission members were reluctant to endorse a plan containing the strategy, for lack of political support.

"Why should SEWRPC be making those political decisions?" said Bauman, of the New Transportation Alliance. "This plan is status quo. It expands highways and will create more sprawl."

Jay Warner, an alliance volunteer consultant and a Milwaukee School of Engineering associate professor, said, "I think there is a constituency for transit that [the commission's] projections do not pick up on and don't pay attention to."

Yunker disagreed and thinks any plan must come from a realistic perspective.

The Milwaukee Journal
June 27, 1994

Getting around in the year 2010

SEWRPC to unveil seven-county regional transportation plan

By Lisa Marinelli
Freeman Staff

WAUKESHA — In 16 years, Waukesha County residents might be able to get off Interstate 94 at Calhoun Road.

They might ride on an express busway from Waukesha to jobs in Milwaukee.

They might even transfer to a light rail line once they get to Milwaukee County.

Those are a few of the proposals outlined in a Southeastern Wisconsin Regional Planning Commission transportation report to be released Monday. The report details recommended changes to the transportation system for seven counties of southeastern Wisconsin through the year 2010.

"Congestion levels have been increasing," said Kenneth R. Yunker, an assistant director of SEWRPC. "This has been occurring because there simply are not adequate revenues to maintain existing service."

The plan will be used by the state Department of Transportation and local officials to coordinate improvements in the transportation system of the seven counties.

Johnson

Today, for example, the East-West Corridor is clogged for five hours each day with rush hour traffic. If current trends continue, and no improvements are made, the freeways will be jammed with rush hour traffic for nine hours each day.

Updating the transportation system to avoid that is critical, said Richard A. Bolte, transportation director for Waukesha County.

"I think the ultimate thing that happens is a deterioration in the quality of life," Bolte said. "If choices in transportation aren't there, it diminishes options for places to live, expand jobs and provide opportunity to citizens. We're poorer for it in the overall sense."

The SEWRPC plan contains three elements: managing the flow of traffic better, improving public transit, and maintaining and improving streets and highways.

It incorporates work done by the DOT East-West Corridor Committee, which has developed several alternatives to easing congestion on I-94.

The $4.87 billion plan would be paid for with federal, state and local money. The annual capital and operating cost is estimated at $473 million.

SEWRPC estimates that $381 million of the annual costs would be paid using existing federal, state and local contributions. That leaves a deficit of $92 million annually.

That would be equivalent to an 11 cent per gallon increase in the cost of gasoline, Yunker said.

"The most pressing need is to find an alternative to property tax to fund transportation for both highways and mass transit," said Robert Johnson, coordinator for Waukesha Metro Transit, who also served on an advisory committee for the SEWRPC plan.

"Most other large urban areas in the country have been able to do this," he said. "For some reason, here it's been taking a much longer time."

Possible methods of payment include a wheel tax, a higher registration fee or gas tax, he said.

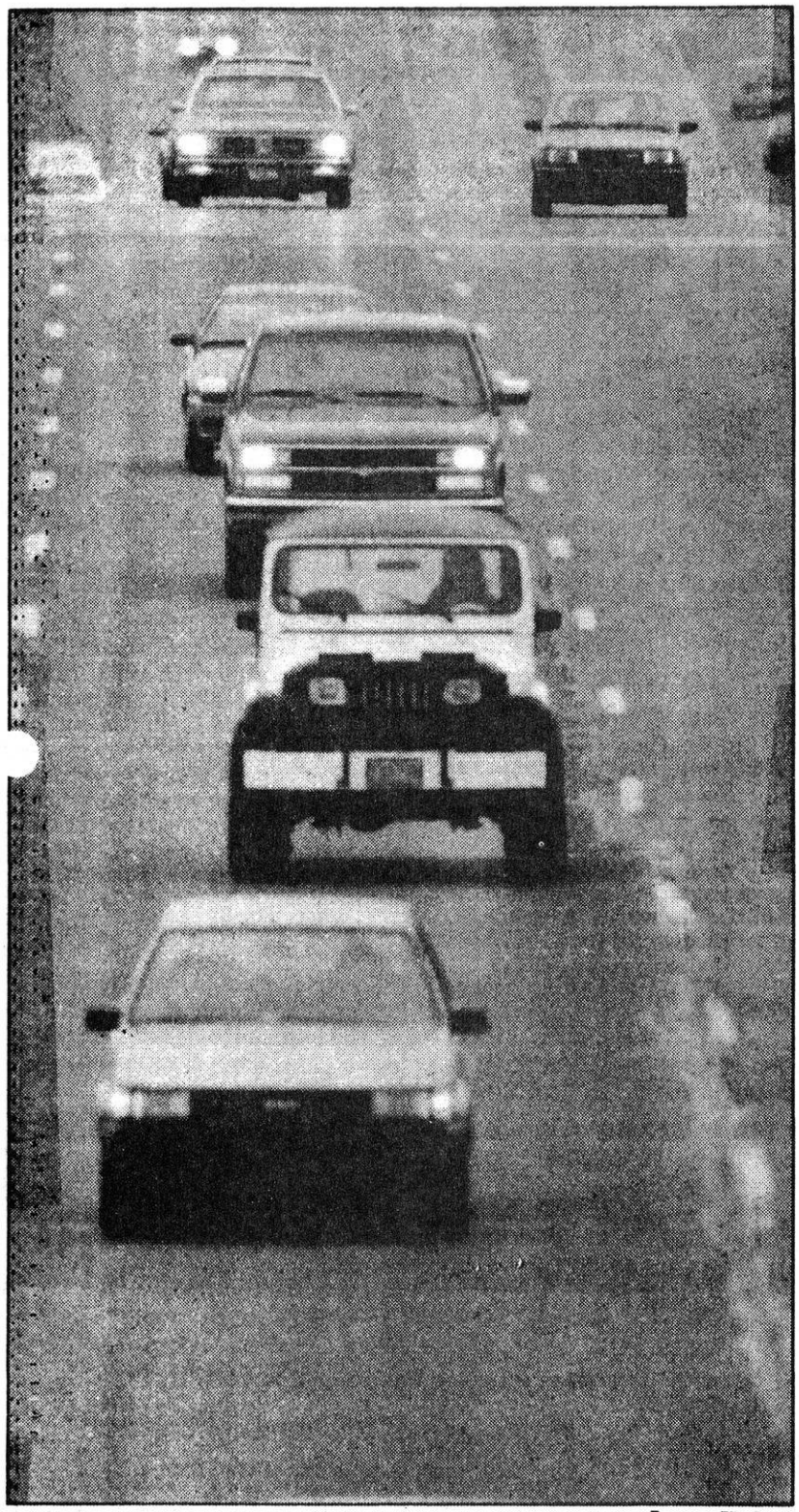
SEWRPC's most recent regionwide transportation plan was adopted in 1978.

The new plan was developed after SEWRPC surveyed more than 17,000 households in the region. The survey results detailed travel habits and patterns. The commission also analyzed trends in population and land use.

SEWRPC will present the plan to local and state officials at a daylong conference Monday at the Grand Hotel in Milwaukee. The public will have a chance to comment at local hearings. The tentative date for Waukesha County's is July 28.

After the public hearings and comment from local officials, a SEWRPC advisory committee will review the comments and revise the plan. The plan then will be sent to local, state and federal agencies and units of government for adoption.

The Freeman (Waukesha)
June 25, 1994



Freeman File Photo

▲ regional transportation system plan, to be unveiled Monday by the Southeastern Wisconsin Regional Planning Commission, includes proposals to ease congestion on freeways. The plan, which covers the seven counties of southeastern Wisconsin, is expected to respond to growth expected through the year 2010.

Plan includes many changes for Waukesha County

WAUKESHA — Here are some of the highlights of the Southeastern Wisconsin Regional Planning Commission's Transportation System Plan for the year 2010.

■ Better communication with drivers through electronic signs along the highway, and by using the radio and ramp meters.

The goal is to keep traffic moving at least 35 miles an hour on all freeways during peak travel periods. A central traffic management center is proposed to collect travel data and adjust operations through ramp meters and signs.

■ Promote car pooling, ridesharing, public transit and bicycle use.

■ Develop better public transportation. The plan includes 28 bus routes, which would serve several communities including Mukwonago, Waukesha and Oconomowoc. The plan also calls for extensions of local bus routes in Waukesha.

Light rail is proposed from the Milwaukee central business district to the Milwaukee Regional Medical Complex, the University of Wisconsin-Milwaukee and Glendale. Additional routes would be considered to the southeast, southwest and northwest sides of Milwaukee County.

■ Improve highways and heavily traveled streets. The plan treats expanding highways as a last resort.

Under the plan, heavily traveled streets and the highway system would increase to 3,614 miles from the 3,274 miles it totaled in 1991.

Specific improvements in Waukesha County include completing a Highway 16 bypass around Oconomowoc, creating an Interstate 94 interchange at Calhoun Road and resurfacing I-94 from the Marquette Interchange to Goerke's Corners.

Other Waukesha County improvements include widening Main Street from two lanes to four between Hartwell Avenue and Moreland Boulevard, widening I-94 from four lanes to six between Highway G and Highway 16, and widening Meadowbrook Road from two lanes to four from Northview Road to I-94.

■ Preserve wetlands, environmental corridors and agricultural lands. Less than three-tenths of 1 percent of the existing total would be lost under the plan. Using more public transportation would also decrease the amount of harmful chemicals that vehicles emit.

— Lisa Marinelli

The Freeman (Waukesha)
June 25, 1994

Putting the future of transportation on the table

SWRPC will present regional plan 'to focus discussion'; critics question limited funds, use of taxes

By Paul Holley

A proposed 15-year regional transportation plan includes a 72 percent increase in public transit service partially funded by an 11-cent per gallon hike in motor fuel taxes.

But critics say that's not enough to address southeastern Wisconsin's transportation needs in the year 2010.

Like most public policy debates, the transportation proposal centers around the allocation of limited resources. Among other likely issues are highway and mass transit locations and how to pay for the improvements.

The discussion starts in earnest June 27 at the Southeastern Wisconsin Regional Planning Commission (SWRPC) 17th Regional Planning Conference. The plan, accompanied by large color maps, then will travel to public meetings in Milwaukee, Waukesha, Ozaukee, Racine, Kenosha, Washington and Walworth counties this summer.

> *"Plans mean nothing at all unless the funding is there."*
>
> **— Tom Kujawa**

SWRPC intends to adopt a regional transportation plan in September and forward it to the state Department of Transportation for inclusion in a statewide plan that is due by year-end. The state and regional plans are intended to serve as blueprints for future transportation projects.

The regional transportation plan — the third to be developed by SWRPC since the 1960s — is based on the region's land-use plan. It assumes that the region's population will climb by 6 percent and job growth will hit 11 percent by the year 2010.

"This preliminary plan is intended to focus public discussion," said Ken Yunker, SWRPC assistant director.

His Waukesha-based agency led a 34-member advisory committee that chose the plan from among three alternatives.

Change in the trend

The committee's preferred alternative boosts the availability of mass transit, improves some highways and ultimately could cost $473 million a year. The committee turned down a "no build" alternative and a "demand management" plan that would double automobile operating costs and significantly increase present mass transit systems.

"The alternative we chose requires a balance between various modes of transportation and demand management," said Patrick Marchese, advisory committee chairman and a project manager at Foth & Van Dyke Engineers/Architects, Milwaukee.

Among other things, the plan gradually would change the present financial resource split — in which highways are favored by 75 percent to 25 percent - to 65 percent highways and 35 percent transit.

"It's a very substantial change in the trend," Yunker said.

Since the last regional transportation plan was adopted in 1978, transit money and ridership has declined steadily.

The selected alternative doesn't go far enough, said Bill Schaefer, Citizens for a Better Environment staff attorney and an advisory committee member. He cast the only vote against the plan.

"We're underpaying the cost of driving. It's being subsidized by property taxes and other things," he said. "If driving costs you 5 cents a mile and the parking is free, you're not going to persuade people to take transit."

The demand management alternative, which the committee rejected, would boost fuel and parking costs from an estimated 5.5 cents per mile to 11 cents per mile. The tax increase, estimated by SWRPC at the equivalent of $1.10 per gallon, would pay for a 124 percent increase in the number of miles traveled by mass transit vehicles.

Political realities

The huge jump in estimated fuel costs —and no significant reduction in automobile traffic — pushed the committee to pick a politically safer alternative.

"It's a political hot potato. Everybody remembers that huge fight in Congress over the 4-cent federal gas tax," said committee member Ed Beimborn, a civil engineering professor and director of the University of Wisconsin-Milwaukee's Center for Urban Transportation Studies.

There also was a fear of making southeast Wisconsin a fuel tax island that would hurt the area competitively, said committee member Tom Howells, president of the Wisconsin Motor Carriers Association, Madison.

"I think it's fine to sit around in a room and plan, but sometimes you have to talk about the political realities of raising taxes," he said.

Wisconsin truckers who use diesel fuel currently pay a 24.4 cents per gallon in federal tax and 23.1 cents in state tax. The last tax increase came in November 1993.

Yet, even the more modest recommendation requires some sort of tax increase. Committee members also concede that transportation funding sources must be addressed.

SWRPC documents show a $92 million annual shortfall to cover the proposed highway and transit improvements. It would take a 11-cent per gallon fuel tax increase to make up the difference.

"I think the pricing issue has to be visited," Beimborn said. "It may not go anywhere but it has to come up."

The inevitable

Higher fuel taxes, or some sort of road user fees, appear inevitable, said Marchese.

"You've got to get these dollars off the property tax rolls," he said. "The state, counties and municipalities have to develop a dedicated funding source. You've got to get these folks together in a room and they've got to work something out."

Highway and transit funding will be a "source of constant discussion," said Tom Kujawa, Milwaukee County Transit System managing director.

"It falls back to the bottom line. What kind of funding is available," he said. "Plans mean nothing at all unless the funding is there."

Meanwhile, Schaefer of Citizens for a Better Environment said his organization and the New Transportation Alliance will push for shifting transportation costs from property taxes to fuel taxes.

The two groups plan to issue a critique of the plan, Schaefer said.

Despite the expected controversy, Kujawa thinks the committee acted wisely.

"I don't think everybody was happy with everything in the plan. Perhaps that's the sign of a good plan," he said.

On the road

The preliminary 2010 Regional Transportation Plan, to be reviewed this summer, includes:

- A 72 percent increase in mileage covered by mass transit vehicles throughout the seven-county region;
- Extension of freeway flyer service from downtown Milwaukee to Racine, Kenosha, Mukwonago, Waukesha and Oconomowoc;
- Creation of 12 express bus routes arranged in a grid pattern in Milwaukee County;
- Widening 406 miles of highway;
- Constructing 123 miles of highway;
- And developing transportation system management measures, including curb parking restrictions on 446 miles of street; coordinated areawide promotion of ride-sharing, transit use and bicycling; and an automatic system giving buses and high-occupancy vehicles preferential access to freeways.

The Business Journal (Milwaukee)
June 18, 1994

Transit plan may curb auto travel

MILWAUKEE (AP) — Raising the price of gasoline to $2.20 a gallon and regulating freeway travel are among the proposals being considered for improving transportation in southeastern Wisconsin, including Kenosha.

The Southeastern Wisconsin Regional Planning Commission is considering several alternatives in reaction to new regulations that tie federal highway money to adoption — and completion — of transit plans.

"I've observed in the last 10 years a 100 percent increase in talk of transit. Unfortunately, there has been a 10 percent drop in service," said Ken Yunker, commission assistant director.

But that trend could end.

About 50 percent of county and local roads are financed by property taxes, so plans commonly are dropped to keep tax rates in line.

But now, with the emphasis on reducing air pollution and connecting different modes of transportation, Washington has said it will force states and municipalities to stick to all elements of their plans, including the parts financed by property taxes.

"At some point in time, the automobile is going to have to be made to bear more of its real costs," commission director Kurt Bauer said.

One proposal headed for public hearings recommends increasing the price of gasoline to about $2.20 a gallon to discourage driving, with a portion of the tax increase going for road construction. Basic bus fares would be rolled back to $1.

Another proposal takes a more traditional approach that includes traffic management efforts such as regulating freeway travel with designated car pool and bus lanes, staggered work hours and parking restrictions on main streets during peak travel times.

The plan would increase transit service by 50 percent by 2010, commission officials said. Buses in the region traveled 21 million miles in 1980, but only 19 million miles by 1993. The region covers Milwaukee, Waukesha, Ozaukee, Washington, Racine, Kenosha and Walworth counties.

The proposals will be discussed at the 17th Annual Regional Planning Conference on June 27 in Milwaukee and at a series of public hearings through the summer.

The commission expects to adopt a regional plan in September.

Kenosha News
June 15, 1994

$2.20 a gallon gas proposed

Associated Press

Raising the price of gasoline to $2.20 a gallon and regulating freeway travel are among the proposals being considered for improving transportation in southeastern Wisconsin.

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One proposal headed for public hearings recommends increasing the price of gasoline to about $2.20 a gallon to discourage driving, with a portion of the tax increase going for road construction. Basic bus fares would be rolled back to $1.

Planning officials acknowledged getting big gasoline price increases approved would be difficult.

"You don't consider as you drive the car that every 40,000 miles I'll have to repair the brakes and maybe the muffler at the same time," Yunker said. "People react to gasoline prices."

Another proposal takes a more traditional approach that includes traffic management efforts such as regulating freeway travel with designated car pool and bus lanes, staggered work hours and parking restrictions on main streets during peak travel times.

The plan would increase transit service by 50 percent by 2010, commission officials said. The basic bus fare would remain $1.25.

Buses in the region traveled 21 million miles in 1980, but only 19 million miles by 1993. The region covers Milwaukee, Racine, Waukesha, Ozaukee, Washington, Kenosha and Walworth counties.

The commission's recommended alternative seeks an additional 10-percent increase in local transit service in the most urbanized areas of Milwaukee, Racine, Kenosha and Waukesha counties. The plan would carry a 10-cent increase in the gasoline tax.

All proposals recommend expanding local highways and arterial roads by about 10 percent. There are 3,600 miles of highways in the region, 300 of them expressways.

"Highways have to be part of a balanced plan," Yunker said. "If we're going to address congestion, we need to significantly improve highways."

The proposals will be discussed at the 17th Annual Regional Planning Conference on June 27 in Milwaukee and at a series of public hearings through the summer.

The commission expects to adopt a regional plan in September.

The Journal Times (Racine)
June 15, 1994

Transportation

Federal government adds teeth to plans boosting transit service

By PHIL NERO
of The Journal staff

Transit service would improve dramatically in seven southeastern Wisconsin counties by 2010 under three proposals developed by the Southeastern Wisconsin Regional Planning Commission.

And new federal regulations have been designed that will force states to follow through on what is adopted, leading the way to improved local roads and transit service, commission officials say.

In the past, state highway and interstate projects had a far greater rate of completion than those involving county and local roads, despite the regional transportation plans in 1966 and 1978 by the commission.

"I've observed in the last 10 years a 100% increase in talk of transit. Unfortunately, there has been a 10% drop in service," said Ken Yunker, commission assistant director.

But that trend could end.

State highways and interstates are paid for by dedicated sources such as the state and federal gasoline tax, and license and registration fees, so they don't affect property taxes.

For county and local roads, however, about 50% of the money comes from the property tax, so plans commonly are dropped to keep tax rates in line. Similar considerations afflict transit service.

But now, with the emphasis on reducing air pollution and connecting different modes of transportation, Washington has added a twist to the flow of federal highway money.

Periodic review of long-range transportation plans will force states and localities to stick to all elements of their plans, including the politically difficult parts financed by property taxes. In southeastern Wisconsin, that includes the $11 million local share of the Milwaukee County Transit System budget.

Officials likely will be forced to find new sources of money, perhaps an additional gasoline tax, to pay local shares of projects they would have ignored in the past.

Alternatives to Automobiles

The region covers Milwaukee, Waukesha, Ozaukee, Washington, Racine, Kenosha and Walworth Counties. About 95% of the transit bus service in the seven-county region is in Milwaukee County. Buses traveled a total 21 million miles in 1980, but only 19 million miles by 1993.

Commission Director Kurt Bauer said: "At some point in time, the automobile is going to have to be made to bear more of its real costs."

Alternative 1: One of the three proposals headed for public hearings takes an aggressive approach in that direction by recommending a tax to increase the price of gasoline to about $2.20 a gallon to discourage driving. Only a small portion of the increase would go for road construction.

The proposal also would divert at least 90 cents of the proposed price increase to offset other driving costs, such as insurance premiums. Basic bus fares would be rolled back to $1. Transit service would increase 6% at year and double by 2010 under the alternative.

The plan envisions a need to dampen the demand for automobile travel by dramatically increasing the perceived cost of driving, something Yunker says must be done at the pumps.

"You don't consider as you drive the car that every 40,000 miles I'll have to repair the brakes and maybe the muffler at the same time," Yunker said. "People react to gasoline prices."

However, planning officials acknowledged getting big gasoline price increases approved would be difficult.

Alternative 3: Another proposal, Alternative 3 (Alternative 2 was eliminated) takes a more traditional approach. Like the other plan, it includes traffic management efforts such as regulating freeway travel with designated car pool and bus lanes, staggered work hours and parking restrictions on main streets during peak travel times.

The key difference between the proposals is that Alternative 3 doesn't attempt to discourage driving with a major bump in gas prices. Still, the plan would increase transit service by 50%, commission officials say, at a 3% annual rate. The basic bus fare would remain $1.25.

Recommended Alternative: The final proposal, the commission's recommended alternative, is similar to Alternative 3, but seeks an additional 10% increase in local transit service in the most urbanized areas of Milwaukee, Kenosha, Racine and Waukesha Counties during peak travel periods. The plan also would carry a 10-cent increase in the gasoline tax.

The proposals will be discussed at the 17th Annual Re-

Please see **Projects**

Projects

gional Planning Conference on June 27 at the Grand Milwaukee Hotel, 4747 S. Howell Ave. A series of public hearings will continue through the summer. The commission expects to adopt a regional plan in September that reflects public comments.

All proposals recommend expanding local highways and arterials by about 10%, with 493 miles of improvements in Alternative 1, compared with 529 miles in Alternative 3 and the recommended alternative.

"Highways have to be part of a balanced plan," Yunker said. "If we're going to address congestion, we need to significantly improve highways."

Freeway improvements would be limited to special lanes for buses and car pool vehicles in areas where they are studied and approved.

There are 3,600 miles of highways in the region, 300 of them interstates. If nothing is done beyond maintaining existing highways, 700 miles would be categorized as congested by 2010, compared with the current 400 miles classified as congested.

All proposals would reduce congestion highway miles to about 200. Increasing gasoline prices to $2.20 a gallon could reduce air pollution an additional 10% if it slowed the growth rate in highway use.

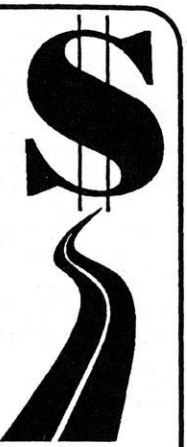
The degree to which significantly increasing gasoline prices would curb urban sprawl could not be projected, say officials, who shied away from the pricing strategy because they see little chance for legislative approval.

Annual construction and operating expenses under the various proposals range from $460 million to $546 million — about 35% of it on transit — and would require a gasoline tax increase of 10 to 20 cents a gallon. This is part of, not in addition to, the tax increases mentioned above.

The Milwaukee Journal
June 13, 1994

MATERIALS DISTRIBUTED BY CITIZENS FOR A BETTER ENVIRONMENT, NEW TRANSPORTATION ALLIANCE, AND WISCONSIN'S ENVIRONMENTAL DECADE AT 17TH REGIONAL PLANNING CONFERENCE

Balanced Transportation Pricing: Using the Market to Reduce Driving



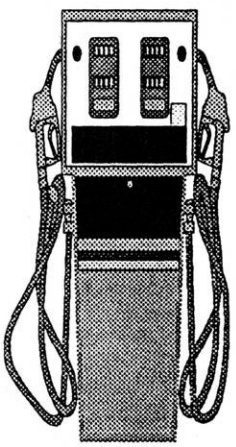
The Dilemma:

1. Automobile subsidies and cheap gasoline are causing pollution, congestion, sprawl, and urban decline. Research shows that reducing auto-driving subsidies can reduce driving by 12-18%.
2. Nobody wants to make life, including driving, more expensive.

The Answer:

1. Pay-as-you-drive (PAYD) insurance and "cash-out" parking that "unbundles" the cost of driving without raising the actual cost.
2. Higher user fees (e.g. gas taxes) to provide property tax relief.

CBE's Alternative #1 PLUS:



SEWRPC'S Alternative #1 proposes raising the cost of driving by 1.10 per gallon of gasoline. Although this increase would reduce driving by 14%, this kind of cost increase is not practical for now. Unbundling auto costs without increasing them works like this:

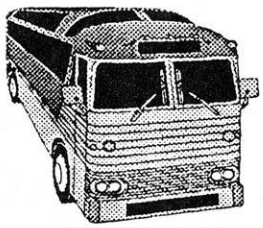
- Instead of paying $300 per year insurance by mail, drivers would pay at the gas pump at the rate of about 60¢ gallon (10,000 miles/year.)
- Instead of costing themselves or their employers $20-40/month in parking subsidies, drivers would have the "cash-out" option of getting that subsidy back in the form of cash or transit passes. (This could be the equivalent of 50-95¢ gallon for those who use it.)
- Instead of subsidizing 70-80% of the cost of local roads with their property taxes, drivers would pay a few cent¢ more per gallon of gasoline--part of which would go towards making transit convenient to a majority of us.

CBE also believes:

- that state user fees should be increased to provide local property tax relief.
- that transit projects should get the same federal and state support as highways.

Citizens for a Better Environment, 647 W. Virginia, Milwaukee, WI 53204 (414)271-7280

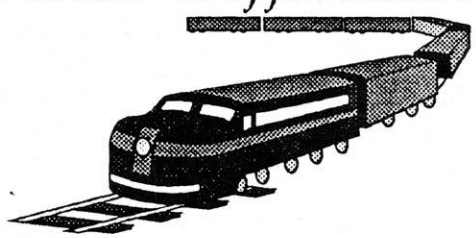
Which Transportation Plan is cleaner, conserves land, and takes you where you're going?



SEWRPC's Preliminary Plan	**Won't stop the "Los Angeles syndrome":** • only 4% less vehicle miles travelled (VMT) than doing nothing • even more urban sprawl from new, wider roads • reduced portion of trips made by transit to central Milwaukee • less than 1/4 Milw. transit riders will be within 45 min. of work
SEWRPC's Alternative #1	**Big improvement:** • 14% less vehicle miles travelled (VMT) due to gas pricing change • boosts transit portion of central Milwaukee trips to 15% • puts half of Milw. transit riders within 45 minutes of work • 22% less congestion than Preliminary Plan **But not enough:** • still too many new and wider roads • buses still to infrequent on trunk lines and other lines • no commitment to commuter rail to Racine & Milwaukee • keeps plans for unpopular busway
CBE's Alternative #1 *PLUS*	**All of the Improvements in Alt. #1 *PLUS:*** • no more than a 10-minute wait on major bus lines • commitment to light rail, not a busway • commitment to Kenosha commuter rail to Racine/Milwaukee • no new, wider arterials/highways that cause sprawl • specific proposals for transit/pedestrian-oriented development • pay-as-you-drive transportation pricing & property tax relief

Check the Alternative #1 PLUS Difference!

- ☑ *Cleaner Air*
- ☑ *Conserves Land, Energy*
- ☑ *Convenient Transit*
- ☑ *Congestion Relief*



Citizens for a Better Environment, 647 W. Virginia, Milwaukee, WI 53204 (414)271-7280

Compare the Differences:

*CBE's **Alternative #1 PLUS** is based on SEWERPC's Alternative #1, a big improvement over the Preliminary Recommended Plan. NOTE: SE Wisconsin's population is expected to increase only 6% by 2010.*

Performance Characteristic	Alternative #1	Preliminary SEWRPC Plan
Daily Vehicle Miles Travelled (VMT)	16% more than now (38.4 mil. miles)	30% more than now[1] (42.8 mil. miles)
Congested Roads	131 miles	168 miles
Motor Fuel Used	412 mil. gallons	454 mil. gallons
Emissions: *VOCs*	25.6 tons	28.6 tons
NOx	71.3	79.1
CO	211.5	237.8
Land Lost for Facilities: *-Wetlands & Woods*	432 acres	475 acres
-Prime Agric.	1,039 acres	1,644 acres
Land Lost to Sprawl	less acres	thousands of acres more.
New Lane Miles for Arterials/Highways	15.6% increase[2]	16.4% increase
Transit Passenger Miles	1,275,900 miles/day	903,400 miles/day
Transit Route Miles	4,190	3,460
% Who Can Get to Work on Transit w/n 45 minutes:		
-Milwaukee	48%	25%[3]
-Racine	81%	71%
-Kenosha	91%	59%
Total Annual Cost	$546 million[4]	$520 million

[1]NOTE: Population will increase only 6% and this VMT is only 4% less than the "no-build alternative".
[2]CBE recommends less new lane miles compared to Alternative #1 to save money and reduce sprawl effects.
[3]An estimated 20% increase over Alternative #3, the basis for the preliminary recommended plan.
[4]CBE's *Alternative #1 Plus* Plan proposes a reduction in construction of new and wider roads that would result in a total cost significantly less than that shown here for Alternative #1. (Constant, 1994 dollars.)

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ANALYSIS

OF THE

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION'S

REGIONAL TRANSPORTATION SYSTEM PLAN

June 17, 1994

SEWRPC has proposed a Regional Transportation System Plan ("Plan") for Southeastern Wisconsin. The Plan represents one of three alternative plans considered. In theory, the Plan represents a blue print for the future development and operation of the transportation system in Southeastern Wisconsin. While the Plan is not self-actualizing, it does represent a vision for the future and suggests how the community should allocate scarce public resources. Accordingly, the Plan is an important public policy document.

1. HIGHWAY INFRASTRUCTURE.

The Plan recommends the construction of 124 route-miles of new highways and arterial roads and the widening of 410 route-miles of highway and arterial roads over the next fifteen years. These projects will provide an additional 2,000 lane-miles of highway and arterial road capacity. These projects represent a 19.6% increase in highway and arterial road capacity. For example, virtually every arterial road in eastern Waukesha County is earmarked for widening during this period.

SEWRPC envisions that vehicle-miles of travel will increase 30% and fuel consumption will increase 26.4% over the next 15 years while population increases only 5.6%. In reality this forecast is very conservative since SEWRPC's modeling does not take into consideration the impact of "induced travel" such as additional trips created by increased urban sprawl. As discussed below in connection with pricing, the Plan does not attempt to retard the growth in auto usage.

The Plan contemplates a suburban landscape crisscrossed by four lane arterials. It is well known that expanding highway capacity encourages and facilitates urban sprawl and the resultant environmental degradation and social costs. In the long run, additional capacity merely increases congestion thereby creating demand for still more expansion in the future. The net result is that the community will become more dependent on the automobile.

Road builders and developers should be very happy with this Plan.

2. CONGESTION.

The Plan does address congestion. The Plan envisions a 56% reduction in congestion from the base year of 1991. However, the solution to congestion is expanding highway capacity. Again, it is well established that expanded capacity is not a solution to congestion in the long run.

3. MASS TRANSIT.

The Plan claims that transit service will expand by approximately 50% over the next fifteen years. Most of this expansion will occur in the form of expanded bus service. Light rail and commuter rail are given brief mention as possible alternatives to express bus service in Milwaukee County and rapid bus service to outlying communities, respectively.

The Plan envisions that transit's share of the regional travel market will remain at 3.1%. However, the Plan envisions that transit's share of trips to the Milwaukee central business district will actually decline from 13% to 11%.

Significantly, after deducting the bus service improvements contemplated by the East-West Corridor Study, very little expansion will occur in other parts of region. For example, the Plan projects that an additional 140 buses will be required to support expanded service in the entire region. However, the east-west corridor improvements alone will require from 172 (TSM alternative) to 114 (Alternative 5) additional buses. The recommended locally preferred alternative in the east-west corridor contemplates 133 additional buses. SEWRPC's Plan seems inconsistent with Wis DOT's planning in the east-west corridor.

The Plan also calls for 52 miles of exclusive busways, although the Plan indicates that busways may also accommodate HOV's. In light of the strong opposition to busways in Milwaukee County and the substantial body of academic and technical literature that discredits the effectiveness of busways, especially mixed use busways, it is questionable whether SEWRPC is serious about transit.

Light rail is considered as a substitute for certain express bus routes in Milwaukee County. Rapid light rail or light rail service to suburban locations is not contemplated. SEWRPC appears to be operating in a vacuum. There is already substantial public opposition to express

light rail on Milwaukee's east side. Rapid light rail is preferred. Furthermore, a substantial body of technical and academic literature, not to mention the example of rapid light rail systems in other cities such as St. Louis, suggests that SEWRPC is going in the wrong direction by emphasizing express light rail. There is no discussion of the many excellant railroad rights-of-way that are available for rapid light rail service. Any light rail service will operate on city streets. Apparently SEWRPC prefers to operate in a theoretical paradigm that ignores reality, the technical literature and the lessons of other communities.

Finally, in light of the substantial increase in highway and arterial road capacity and the continued urban sprawl that such expansion will encourage and facilitate, the improvements in transit service contemplated under the Plan will be difficult to implement. Most of the expanded bus service will occur in low density areas and densities in those areas already served by transit will continue to decline. This will adversely impact the cost-effectiveness of transit service and will require increasing levels of local subsidy. Accordingly, unless an alternative funding source for mass transit is found, such as higher gas taxes, the burden will fall on property taxes. Since SEWRPC is reluctant to recommend higher gas taxes and since higher property taxes for transit is unrealistic, the proposed transit improvements will be in serious jeopardy. As with prior SEWRPC long range plans, the highways will get built while transit improvements will be largely ignored.

4. PRICING

The Plan envisions that the "perceived cost of driving" will increase only 9% over the next 15 years. This is the equivalent of a 10 cent increase in the gas tax. SEWRPC concludes that this level of price increase will not affect driving behavior. Under Alternative Plan 1, SEWRPC recommended and assumed a 100% increase in the "perceived cost of driving" (equivalent to a $1.10 increase in gas taxes). SEWRPC concluded that a price increase of this magnitude would alter auto usage in favor of transit, but this alternative plan was rejected for political reasons.

SEWRPC's discussion of auto pricing is completely misdirected. The discussion of auto pricing totally ignores the fact that automobile and highway infrastructure is subsidized by other taxes such as the property tax. Their analysis also ignores the other external costs of auto usage such as the environmental costs and opportunity costs. SEWRPC views "pricing measures" solely as a means of altering transportation behavior. They fail to recognize that highway users are getting a free lunch and

that the type of price increase envisioned under alternative 1 is actually reducing a subsidy, not adding an artificial cost for the purpose of altering behavior. In fact, by shifting more of the cost burden of automobile and highway infrastructure to users, property taxes could be reduced and the other external costs associated with automobile use could be reduced.

If this community continues to subsidize driving, we will never address the profound social and economic problems that subsidized highway travel has created in the first place. If SEWRPC, as a professional planning agency, cannot confront the issue of highway subsidies and highway pricing, how can we expect elected officials and the public to address this issue. We will never achieve a balanced transportation system, reduce urban sprawl and reverse the drain of jobs and wealth from the central cities, if we continue to subsidize automobile and highway infrastructure.

5. **EVALUATION CRITERIA**.

SEWRPC states that the Plan was chosen over a more aggressive alternative (alternative 1) because the advisory committee was afraid to confront the pricing issue (i.e. suggest increases in the cost of driving). It is reasonable to question whether a professional planning agency should be driven by political considerations in the first place. But even if we assume that political considerations are relevant, the Plan does not measure up under SEWRPC's own criteria.

SEWRPC has developed nine objectives to be met by the regional transportation system plan. These benchmarks are as follows:

Efficiently Serve Regional Land Use Pattern

Minimize Cost and Energy Utilization

Provide a Multimodal Transportation System

Minimize Disruption

Facilitate Movement Between Component Parts of the Region

Reduce Accident Exposure

Minimize Energy Consumed

Facilitate Linked Tripmaking

Overall, alternative 1, which was rejected by SEWRPC, was more successful in meeting these objectives than alternative 3, which is recommended by SEWRPC. One need look no further than SEWRPC's evaluation criteria to demonstrate the inadequacy of the Plan.

CONCLUSION.

SEWRPC's long range planning process offers an opportunity to address fundamental problems, anticipate the future impact of current trends and reverse generations of public policy that have brought our urban areas to the verge of economic and social collapse. Unfortunately, the Plan fails to recognize the connection between transportation policy and urban decline and seeks only to preserve the status quo. The Plan does little to address the problems of mobility for transit dependent citizens, access to jobs in suburban areas for central city residents, and the need for economic development and revitalization in urban areas. The Plan will do nothing to reverse the trend of urban sprawl, the migration of jobs and population from urban centers and the environmental degradation caused by current land use trends.

In short, the Plan is short sighted, lacks vision, and is anti-urban, anti-city and anti-Milwaukee County. Furthermore, the region as a whole will suffer from the continued decline of central cities and the external costs attributable to automobile and highway infrastructure and urban sprawl. The Plan does not shift priorities or set a new course toward a more balanced transportation system. Finally, the Plan fails to confront the fundamental issue of highway subsidies and pricing and perpetuates the myth that freeways are free.

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For Immediate Release
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SEWRPC Plans for More Auto Related Pollution

Citing major health and environmental problems related to automobiles, Wisconsin's Environmental Decade is calling on the Southeast Wisconsin Regional Planning Commission to scrap its recommended long range transportation plan in favor of more dramatic changes in the transportation system.

"Southeast Wisconsin is in the midst of a health crisis caused by auto related air pollution," says Decade Associate Director Sam Gieryn. "Over half of the toxic air pollution in the region comes from motor vehicle emissions."

The AMERICAN LUNG ASSOCIATION has calculated that Americans spend $40 billion a year on health care for air pollution related illnesses.

ASTHMA hospitalization rates for Milwaukee, Racine and Kenosha Counties far exceed the state average. For children under 15 living in western Milwaukee County, the asthma hospitalization rate for children under 15 is 7 times higher than the state average, according to Jay Goldring, a toxicologist with the Wisconsin Division of Health and Social Services. The occurrence of asthmatic episodes has been associated with exposure to particulates and sulphur dioxide, both constituents of motor vehicle exhaust. Over the last 20 years, the number of people with asthma has risen by 40% nationally, paralleling a steep rise in auto use.

-more-

CANCER effects have recently been found in populations where particle pollution concentrations are less than one third the federal standard. One study by a top EPA scientist concluded that 60,000 Americans dieeach year from breathing air that met federal standards for particulates. Motor vehicles, especially diesel powered vehicles, are a major source of the fine particulates that are most readily absorbed in the lungs.

OZONE pollution causes mild to severe shortness of breath in over 250,000 healthy eastern Wisconsin residents, an average of 13-18 days per year, according to the DOH. Chronic exposure to ozone pollution can result in permanent lung damage and lung disease. Children, the elderly and those with respiratory conditions are most susceptible. Because motor vehicles produce two important parts of the ozone recipe, VOCs and nitrogen oxides, in the same location, their total contribution to ground level ozone has been estimated at 60%.

FATALITIES from traffic accidents continue to be a major health issue. In 1993 166 people were killed and 2,512 people received incapacitating injuries in the seven county area. Area residents drive over 33 million miles per day. Despite our best efforts, human error will continue to create tragedies as long as the current individual based transportation system remains in effect.

The Southeast Wisconsin Regional Planning Commission (SEWRPC) has made a preliminary recommendation for little or no significant changes in the transportation system over the next 15 years.

Southeast Wisconsin is expected to have 6% population growth in by the year 2010. Yet SEWRPC is planning for a 30% growth in driving, a 16% growth in arterial lane miles, 26% growth in energy used, and fewer trips to downtown Milwaukee by transit. SEWRPC plans even call for lower urban densities, that is, urban sprawl!

"What kind of transportation planning is that?", Gieryn asks. "Their recommended plan is not significantly different in results from a do nothing "no build" alternative in terms of air pollution, energy use or affect on land use. It's really not a plan, but an acceptance of current trends. The only significant achievement in the plan is a temporary reduction in traffic congestion, through highway and arterial expansion. But why spend the money when we know the additional capacity will simply fill up?"

-more-

Recommended Plan 3 calls for a 30% increase in vehicle travel, a figure that alarms environmentalists. Unfortunately, their projection of "only 30%" growth in vehicle travel is based on the assumption that local communities will fully implement their current Regional Land Use Plan, a dangerous assumption considering the fact that it has never come close to happening in the past and is not likely to happen in the future. "Without regional land use controls, travel growth induced by SEWRPC's highway expansion plans is more likely to be in the 40% range," said Gieryn.

SEWRPC is claiming reductions in air pollutants as a measure of success in their planning effort. Yet the vast majority of the reductions are derived from the improvements in vehicle technology required under the State Air Quality Implementation Plan. Whether those technologies will achieve the reductions SEWRPC claims is matter of speculation, but in any case the SEWRPC plan itself works counter to state efforts. The increased driving induced by SEWRPC's road building plans will eventually offset the technological gains.

"Plus - even if new technologies do address ozone pollution, they do little about some of the other important pollutants, like carbon dioxide, which is the main cause of global warming," says Gieryn. "People need to understand that ozone is not our only travel related pollution problem. Driving creates a wide array of pollution, including pollution of our water with heavy metals from tire tread and engine wear, with oils and other engine liquids that must go somewhere after use and often leak from vehicles, and the vast amount of pollution that occurs during the manufacture and disposal of vehicles and highways. These problems will only get worse under the SEWRPC plan because we're driving more and building more roads."

SEWRPC's Plan is Anything But Comprehensive

The Intersurface Transportation Efficiency Act (ISTEA) gave a charge to SEWRPC to consider a comprehensive plan including land use controls, pricing strategies and improved public transportation in order to lessen southeast Wisconsin's dependence on personal auto use and its severe air quality problems.

"SEWRPC includes no mention of land use measures like urban growth boundaries, transit oriented development or mixed use development which are so necessary to lessen driving needs. They propose no mechanisms to reduce frivolous driving. Their effort to utilize public transportation is nothing near what's needed to reverse years of auto oriented planning and development.

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