A guide to preparing the transportation element of a local comprehensive plan

Transportation Planning resource guide

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March 2001
Wisconsin Department of Transportation
Division of Transportation Investment Management
Bureau of Planning

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www.dot.state.wi.us

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Dear Transportation Partner:

I am pleased to present to you the *Transportation Planning Resource Guide*.

This Guide was developed in response to the Comprehensive Planning Legislation passed under the 1999–2001 Wisconsin State Biennial budget. The Legislation requires that by January 1, 2010, all programs, actions and decisions of a community be consistent with the adopted local comprehensive plan. The purpose of this Guide is to provide you with basic transportation planning related information to help you develop the Transportation Element of your community's comprehensive plan. This Guide is designed to provide an understanding of the processes important to transportation planning.

The Guide was developed in partnership with a steering committee representing transportation, environmental and local government interests. The committee continually provided suggestions on means to improve the Guide and helped ensure that the Guide was designed to provide an understanding of the processes important to transportation planning.

In closing, I am confident the Guide will help you in preparing your community's Transportation Element.

Sincerely,

Kenneth J. Leonard

Kenneth J. Leonard
Chairperson of Steering Committee

Acknowledgments

This Guide was prepared by the Wisconsin Department of Transportation (WisDOT) in collaboration with a Steering Committee comprised of internal and external stakeholder interests.

It is the result of extensive writing efforts that involved numerous individuals throughout its development. Sincere appreciation is extended to the Steering Committee whose members are listed here, and to the individuals who participated at the Roundtable discussion. Additionally, special thanks goes to the WisDOT Transportation Districts, the Office of Policy and Budget, the Division of Transportation Infrastructure Development, and the Division of Transportation Investment Management for their review and input as the document was being developed.

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- the Office of Public Affairs for their assistance in developing the Guide; and
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Chapter 1

Introduction

Wisconsin's Comprehensive Planning Legislation

The Comprehensive Planning Legislation, passed under the 1999–2001 Wisconsin State Biennial budget, requires that by January 1, 2010, all programs, actions and decisions of a community be consistent with the adopted local comprehensive plan (§66.1001). In addition, the local plans are required to have at minimum a 20-year plan horizon and include, at a minimum, the nine elements identified by the statute (see Figure 1), to guide existing and future community development.

Competitive grant programs, with limited funding, are also defined under the legislation to help fund the development and adoption of local comprehensive plans.

Figure 1: Nine primary comprehensive plan elements

1. issues and opportunities;
2. intergovernmental;
3. land use;
4. utilities and community facilities;
5. economic development;
6. housing;
7. agricultural, natural, and cultural resources;
8. transportation; and,
9. implementation.

Figure 2: Transportation element (§66.1001(2)(c))

A compilation of objectives, policies, goals, maps and programs to guide the future development of the various modes of transportation, including highways, transit, transportation systems for persons with disabilities, bicycles, walking, railroads, air transportation, trucking and water transportation. The element shall compare the local governmental unit's objectives, policies, goals and programs to state and regional transportation plans. The element shall also identify highways within the local governmental unit by function and incorporate state, regional and other applicable transportation plans, including transportation corridor plans, county highway functional and jurisdictional studies, urban area and rural area transportation plans, airport master plans and rail plans that apply in the local governmental unit.

For more information on the Comprehensive Planning Legislation

The Department of Administration's Office of Land Information Services (OLIS) is responsible for providing technical information on the Comprehensive Planning Legislation, responding to related questions, and administering the competitive grant programs funded under the legislation. Additionally, OLIS can also provide information regarding comprehensive plans already completed by communities. Appendix 8 provides a brief list of a few communities who have developed their comprehensive plans. For questions you may contact 608.267.2707 or access information on the Internet at www.doa.state.wi.us/olis

In addition to OLIS, there are several other agencies that may be able to provide you with the information and technical guidance necessary to complete your transportation element. Several of these agencies are listed throughout this Guide, such as area Metropolitan Planning Organizations (MPOs) or Regional Planning Commissions (RPC), County agencies, and state agencies such as the Wisconsin Department of Transportation (WisDOT) and Wisconsin Department of Natural Resources (WisDNR). Appendix 4, the Resource Directory, provides detailed contact information for a variety of agencies and information references.

Purpose and recommended use of this Guide

The purpose of this Guide is to provide you with basic transportation planning related information needed to help you through the transportation planning process as you develop the Transportation Element of your community's comprehensive plan, and make decisions relative to transportation. The qualities and needs of your community will dictate which aspects of the planning process are most applicable. It may not be necessary to address everything outlined in this Guide in your transportation element.

Further, this Guide is not meant to replace the valuable information and resources available to you through the variety of agencies at the local, regional and state level. Although preparation of your transportation element may include referencing the information in this Guide, it should also include contacting your area MPO or RPC (Appendices 1 and 2 provide contact information), County Highway Commissioner, WisDOT and other agencies that may be impacted or may be able to provide assistance.

Both MPOs and RPCs develop long-range transportation plans that consider and incorporate the transportation needs of all of the communities located within their planning areas. Therefore, as you begin developing your transportation element, you should consider using the MPO or RPC plan as the framework for developing your transportation element, and comprehensive plan.

The transportation element within the context of the remaining elements

To begin drafting your transportation element, you must first be familiar with the statutory language of the element and its specific requirements. (See Figure 2).

Further, as you consider how to develop your local plan and address each of the elements in your local plan, you must understand that they are all interconnected. Oftentimes, your efforts to address one aspect of your community will impact other areas as well. Due to the interconnectivity of each of the nine elements, it is important to first define your community's overall vision by answering the question, "What do you want your community to look like over the next 20, 30 and 40 years?" (The Comprehensive Planning Legislation requires that a local comprehensive plan have, at a minimum, a 20-year planning horizon, however, as you consider your community's vision, goals, and objectives it may be beneficial to consider a 30- or 40-year planning horizon.)

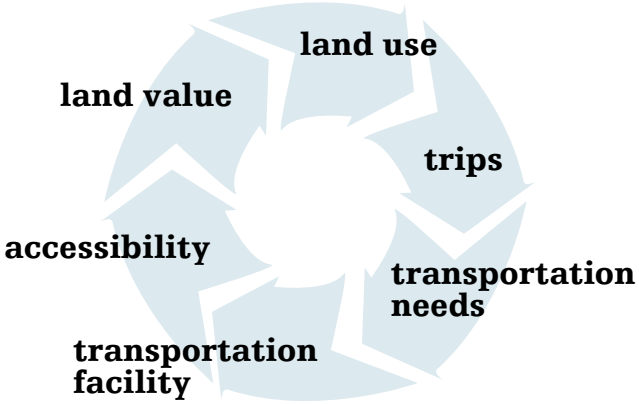
By developing your community's transportation policy direction within the context of the other elements (excluding implementation), you will be able to answer the question, "How can our transportation services and facilities be maintained and developed to achieve our community's overall vision?"

In order to answer this question, you need to consider your community's goals, objectives and subsequent policies for each of your plan's elements. As you define these aspects of your local plan, you need to look at how transportation may impact each of the goals and the decisions identified. The goals, objectives and policies outlined in your transportation element should focus on providing transportation choices that will most efficiently serve the selected adjacent land uses and needs within your community.

As you work to achieve this goal, you need to recognize that the land use decisions you make can and will influence transportation needs in your community. When making land use decisions, your community should determine how the land use decision will impact transportation and whether your community is willing and/or able to accept and/or address those impacts. (See Figure 3.) For example, the siting of a new industrial park within your community will impact traffic levels, particularly on those streets providing access to the site. This may result in needed modifications to existing transportation facilities to accommodate the increased traffic levels, and/or may require increased funding to maintain the existing facility.

Although transportation decisions can directly influence a community's growth, it is more beneficial to a community's future that it be used as a tool to accommodate planned growth. Although it is likely that you will develop each element separately, it is important that you identify and address the overlapping impacts between each of the elements. This is especially important as you develop your land use and transportation elements, as the decisions you make for each element will directly impact the other.

Figure 3: How transportation and land use decisions impact each other



Source: *Statewide Land Use Task Force Final Report* (Highway Research Board), 1993.

Chapter 2

Partners in development of your Transportation Element

Public participation is a crucial activity in transportation planning, and early and active public involvement is vital to conducting successful transportation planning. The public is increasingly being encouraged to get involved in public decision-making processes, including transportation planning, by providing more and more input into public processes and increasing their active participation.

This chapter discusses:

- the importance of public involvement;
- public involvement goals;
- transportation stakeholders;
- visioning; and
- incorporating public involvement in all phases of transportation planning.

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Why involve the public in transportation planning and decision-making?

Public involvement is important for a number of reasons:

- It opens up decision-making processes to everyone, including those who may be positively or negatively affected and those who traditionally have not participated in the process.
- It strengthens relationships between the providers and the users of a service.
- It supports and lends credibility to an agency's transportation decision-making process by engaging the public early and often.
- It serves as a venue for information exchange between transportation providers and users.

The importance of public involvement in transportation decision-making is reflected in federal and state legislation. In addition to public outreach efforts already conducted at all levels of government, Wisconsin's new Comprehensive Planning Legislation recognizes the significance and value of public participation. Figure 4 outlines the statutory requirements of public participation in preparing a local comprehensive plan (§66.1001(4)(a)).

What does public involvement seek to accomplish?

Public involvement includes a number of clearly defined goals. One goal of public involvement is **education.** Education is invaluable in fostering mutual understanding and seeking consensus. A well-informed public will likely understand the process better and as a result will feel more comfortable participating.

Additionally, a well-informed public will foster the success of your next goal—attaining **active participation** from the public. Achieving this goal of keeping the public informed, engaged, and interested will entail some effort on your part. You will not only need to inform and involve the public, but most importantly you will need to listen to and seriously consider the comments heard from members of the community.

Figure 4: Procedures for adopting comprehensive plans (§66.1001(4)(a))

The governing body of a local governmental unit shall adopt written procedures that are designed to foster public participation, including open discussion, communication programs, information services and public meetings for which advance notice has been provided, in every stage of the preparation of a comprehensive plan. The written procedures shall provide for wide distribution of proposed alternatives or amended elements of a comprehensive plan and shall provide an opportunity for written comments on the plan to be submitted by members of the public to the governing body and for the governing body to respond to such written comments.

A significant aspect of the plan development process includes determining how you will consider and/or incorporate the comments you receive from the public. For example, during WisDOT's state highway planning activities, the public's comments indicated that WisDOT needed to address

issues concerning local roads. In response, a discussion of this issue was included in the plan. A more recent example concerns WisDOT's state rail planning activities. In response to suggestions offered by stakeholders, additional passenger rail routes are being studied beyond the routes that have been proposed in the Midwest Regional Rail Initiative. Active participation will also require you to be prepared to respond to inquiries and/or comments from the public.

Another goal of your public involvement strategy should be to conduct an **extensive public outreach** effort. The first step in achieving this goal includes determining who you want and need to reach.

Publicity and promotion… is key to involving the total community for successful efforts.

North Central Regional Center for Rural Development, Transportation Action: A local input model to engage community transportation planning

Who are your transportation stakeholders?

There are a number of transportation stakeholders you should ensure are part of your comprehensive planning process. Stakeholders are generally defined as individuals, groups and/or entities having an interest in a specific activity. Stakeholders can include members of the general public such as individuals and/or groups who:

- are directly involved in transportation,
- depend upon the transportation system for the movement of goods and/or services,
- influence and/or carry out overall community design plans,
- are transportation professionals,
- are community decision-makers,
- use the transportation system for daily activities[i], and/or
- are impacted by transportation projects.

Specific stakeholders may include:

- Transportation planning/government decision-makers,
- RPCs (Appendix 1),
- MPOs (Appendix 2),
- Local businesses,
- Economic development agencies,
- Chambers of commerce,
- Environmental interests (e.g.,WisDNR),
- Interest and/or advocacy groups and associations,
- Transit agencies,
- Citizens, including those traditionally under-represented in transportation planning, such as minority, low-income groups, and people with disabilities,
- Wisconsin Native American Indian Tribes (as applicable),
- WisDOT, District Offices (Appendix 3), and
- Other county and state agencies.

Each of these potential stakeholders should be considered as potential partners in the development of your community's transportation element. Including these different interest groups early in the process will enable you to identify potential resources of information and data. Additionally, they will help to answer the question "how does our community fit into the region and the state?" and

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"how do the decisions we make affect them, and how do their decisions impact us?" (See Chapter 3 for more discussion.)

Some stakeholders may not always be apparent. After you have identified stakeholders you think should be involved, you should be prepared to expect additional stakeholder participation. Advertising your process using a variety of media available is one way that additional stakeholders can be identified. (See Appendix 6 for a brief list of media techniques.)

Partnering with your area MPO, RPC, and WisDOT

Metropolitan Planning Organizations and Regional Planning Commissions

Wisconsin has 11 Metropolitan Planning Organizations (MPOs) which are responsible for the long-range planning of the state's 14 urbanized areas. Some of the MPOs are located on the state's borders and therefore work with the neighboring state's planning agencies to resolve inter-state planning issues. Additionally, although the Dubuque MPO is primarily located in Iowa, the MPO is considered in the planning efforts for Wisconsin's southwest region. Appendix 2 provides general contact information and a map indicating the planning areas for each MPO.

MPOs are designated to prepare and adopt long-range transportation plans and improvement programs for their respective planning areas to meet Federal requirements and qualify for federal and state funding. Development of the transportation plans involves extensive efforts to inventory and analyze data to determine both short- and long-term transportation needs for the area. The plans developed by the agencies define the vision, goals, objectives and policies that will guide decision-making for the region. Therefore, if your community is located within an MPO planning area, it is important that you contact the MPO and invite them to participate in your transportation element development process (see Appendix 2 for contact information). It is also important that your transportation element be developed using the MPO's long-range plan as a framework. This will help ensure that both plans are coordinated and neither contradicts the other, especially if your community anticipates receiving Federal dollars for any of your transportation projects.

There are nine Regional Planning Commissions (RPCs) in Wisconsin. They are responsible for providing assistance to local governments within their planning areas on a variety of issues. These include: providing planning assistance on regional issues; assisting local governments responding to state and federal programs; drafting economic development and transportation plans; and conducting needs assessments, functional classification assessments, and corridor studies.

They are also responsible for developing long-range regional transportation and land use plans for their areas. If your community is located within a RPC planning area it is important that you contact the RPC and invite them to

participate in your comprehensive planning efforts. Appendix 1 provides general contact information and a map of each RPC's planning area in the state.

How does the Wisconsin Department of Transportation fit into your efforts?

The Wisconsin Department of Transportation (WisDOT) is primarily responsible for the short- and long-term transportation planning and programming for state transportation facilities. As you begin drafting your transportation element, you should contact your area Transportation District Office to discuss your plans (see Appendix 3 for contact information).

WisDOT can be a useful resource of information and data, specifically relating to functional classification of roads within your community, average daily travel (ADT), information on the review of land division proposals as defined under the Wisconsin Administrative Code TRANS 233, as well as corridor planning and access management. Additionally, WisDOT can also be an important resource for technical advice related to development issues within your community and how they might impact transportation. More importantly, if your land use decisions have the potential of either directly or indirectly impacting a state facility (e.g., state trunk highway), you should invite WisDOT to provide feedback on your proposed transportation and land use decisions. Although WisDOT may not have direct jurisdiction over development decisions within your community, they may be able to assist you in assessing the potential impacts and resulting needs of specific siting decisions, the possible ramifications of providing additional access onto a road, other issues that may need to be addressed, and potential strategies to address them.

As a stakeholder, you also have numerous opportunities to participate in WisDOT's planning efforts. These opportunities range from development of long-range statewide transportation plans, to providing input into the development of the 6-Year Highway Improvement Program, to specific project scoping and planning activities. In all of its planning efforts, WisDOT conducts outreach efforts that seek to involve the public and the broadest range of transportation stakeholders in the planning process. These efforts range from public listening sessions to formal public hearings, and are conducted throughout the entire planning process. Your area Transportation District office (see Appendix 3) can provide you with information regarding WisDOT's current planning efforts and how you can participate.

Including traditionally under-represented groups

As you conduct outreach to the various stakeholders in your community, you need to ensure that your efforts include groups who are traditionally under-represented in planning efforts. Generally, this may include: minority populations, low-income populations, the elderly and people with disabilities.

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Techniques for contacting and including traditionally under-represented groups may include:

- partnering with local church leaders and working with them to hold meetings and obtain feedback;
- holding meetings at community centers;
- setting up an information booth at a grocery store or area mall to provide information and obtain feedback; and/or
- holding meetings in convenient locations that offer a variety of transportation choices.

It may be difficult to encourage people within these groups to attend public meetings. For this reason, you may need to conduct public outreach activities specifically geared toward them. This may include conducting outreach efforts at non-traditional times of the day that are convenient for them, such as mornings or on weekends, and/or at non-traditional meeting locations such as community association sites, places of worship, and/or senior centers.

You may want to become familiar with the laws that govern/mandate government agencies to ensure that they do not discriminate against people within these groups. A few examples include the Americans with Disabilities Act of 1970 as amended (ADA), Title VI of the the Civil Rights Act which prohibits discrimination on the basis of race, color or national origin, and the Age Discrimination Act of 1975. The Civil Rights and Restoration Act of 1987 clarified the intent of Title VI to include all programs and activities of Federal-aid recipients, sub-recipients and contractors whether those programs and activities are federally funded or not.

Additionally, Environmental Justice, defined in the 1994 Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, further requires that any agency or governmental unit receiving federal funding ensure that their planning and programming efforts include outreach to minority and low-income populations. The Executive Order reinforces several existing laws including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended. Subsequent documents were published to summarize and expand upon the Executive Order, including: U.S. DOT's *DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations*, and the Federal Highway Administration's (FHWA) *FHWA Actions To Address Environmental Justice In Minority Populations And Low-Income Populations, 6640.23,* 1998. Finally, in 1999, the FHWA and the Federal Transit Administration (FTA) issued the document *Implementing Title VI Requirements in Metropolitan and Statewide Planning*. This document provides clarification for field offices on how to ensure that environmental justice is considered during current and future planning certification reviews.

As you consider how to identify and contact these different groups within your community, you should be familiar with the above documents. Additionally, when identifying low-income populations it may be helpful to reference the current poverty guidelines issued by the Department of Health and Human Services which can be requested directly from the agency or accessed via their web page at http://aspe.os.dhhs.gov/poverty/poverty.htm

Taken more broadly, environmental justice and the other laws governing inclusion of different groups into planning and programming, seeks to strengthen the decision-making process by considering the perspectives of all people. Therefore, even though you must follow these

requirements, incorporating the principles of environmental justice (see Figure 5) into your transportation element development efforts will help you make decisions that more equitably reflect the needs of all interests in your community.

Figure 5: Principles of environmental justice

- to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations;
- to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- to prevent the denial of, reduction in, or significant delay in the receipt of benefits to minority and low-income populations.

U.S. Department of Transportation
Federal Highway Administration
May 2000

How do you get started?

To begin your public involvement planning process, you may want to consider forming an advisory or steering committee to provide you with guidance and/or expertise throughout the development of your transportation element and local comprehensive plan. The committee will be key in developing and/or guiding your community's vision, purpose, objectives, expectations and schedule of your transportation element development effort (discussed further in Chapter 4, Community Transportation Planning). Because this type of committee will also permit you to forge partnerships with stakeholders, it is vital that committee membership include a wide range of backgrounds and interests.

There are many phases to a transportation planning process. Public involvement in one way or another should permeate each of these phases. You need to determine what level of public involvement you want to conduct during each phase of your transportation element development. However, bear in mind that successful results are gained from a thorough public involvement process—one that is implemented throughout the planning process.

As previously mentioned, the Comprehensive Planning Legislation (§66.1001(4)(a)) requires that your community adopt written procedures designed to foster public participation throughout the development of your local plan. Your procedures need to include development of communication plans and programs, and information services to provide numerous opportunities for open discussion. Part of this effort should include holding public meetings (with advance notice provided pursuant to state statute) in every stage of developing your comprehensive plan.

For example, during the development of your community's transportation vision, goals and objectives, your community may consider hosting several listening sessions to obtain the community's input and encourage early and active participation. The listening sessions may provide you with a better understanding of what the perspectives and concerns of the

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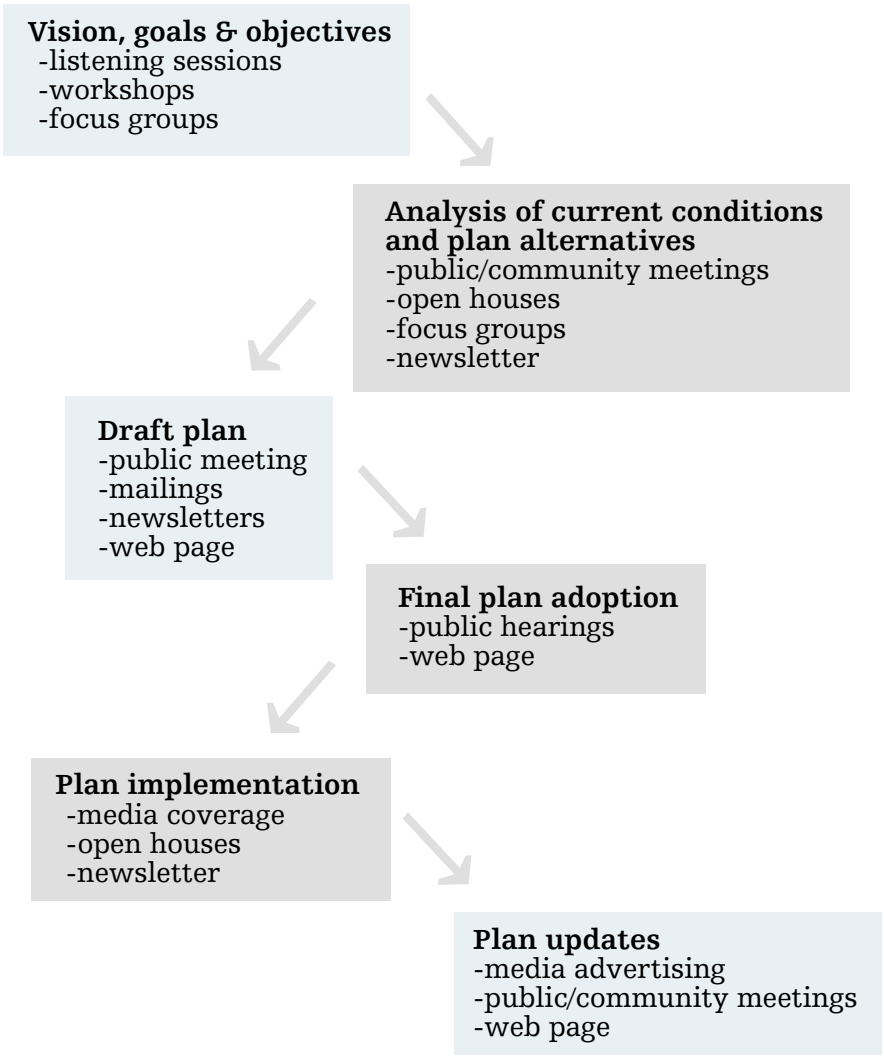
Examples of public outreach methods during your planning process



residents in your community are. Often you will find that by "canvassing" the members of your community—those actually affected by your transportation decisions—the effort will bring out issues that transportation professionals and other stakeholders may not have considered.

Although the Comprehensive Planning Legislation requires, at a minimum, one public hearing to formally adopt a local comprehensive plan (§66.1001(4)(a)), it is important to remember that a good public involvement process includes much more than simply holding a hearing. As emphasized throughout this section, a thorough public outreach effort is imperative. By including the public early and often, you are more likely to develop a plan that will be accepted by your community—an essential aspect of successful implementation.

It is to your benefit to capture the thoughts and issues that are on the minds of your community. The level of effort you invest in implementing a thorough public involvement strategy will pay off in the long run. The result of your hard work will be a well-informed, satisfied public that has been included in the decision-making process, and a community that has been planned in the manner that people in your community envisioned.

Endnotes

[i] *Transportation Action: A Local Input Model to Engage Community Transportation Planning,* North Central Regional Center for Rural Development, April 1996.

Chapter 3

Regional and state planning perspectives

Because your transportation system does not end at your community's borders, your efforts to develop your transportation element should include considering how your community's transportation decisions can and will impact neighboring communities, the region and the state.

This chapter describes:

- why it is important that your transportation element be coordinated with applicable adjacent community, regional and state level plans;
- potential regional and state transportation plans to review and incorporate;
- how to identify inconsistencies between plans; and
- what you should do if inconsistencies are found.

Notes

Coordinating, comparing, and incorporating regional and state perspectives

The decisions you make for your community's transportation system and adjacent land uses may have positive and negative impacts on neighboring communities, the region and the state. Similarly, the goals, objectives and activities identified in applicable plans developed at each of these levels may impact your community's transportation system. As a result, conflicts and contradictions between plans may develop. Therefore, as you draft your transportation element, your actions should include efforts to address and minimize conflicts and contradictions with other applicable plans.

Figure 6: Intergovernmental cooperation element (§66.1001(2)(g))

A compilation of objectives, policies, goals, maps and programs for joint planning and decision making with other jurisdictions, including school districts and adjacent local governmental units, for siting and building public facilities and sharing public services. The element shall analyze the relationship of the local governmental unit to school districts and adjacent local governmental units, and to the region, the state and other governmental units. The element shall incorporate any plans or agreements to which the local governmental unit is a party under ss. 66.0301, 66.0307 or 66.0309. The element shall identify existing or potential conflicts between the local governmental unit and other governmental units that are specified in this paragraph and describe processes to resolve such conflicts.

The legislation indicates that the transportation element "shall… incorporate state, regional, and other applicable transportation plans…" Therefore, in developing your transportation element you should identify the applicable plans at each level and incorporate the aspects of those plans into your element to ensure that no conflicts or inconsistencies exist that may hinder the implementation of goals and objectives at each level of planning within the state. Your efforts to accomplish this should be reflected in your outreach initiatives and inclusion of the various stakeholder groups discussed in Chapter 2, as well as in the development of your plan's Intergovernmental Cooperation Element. Figure 6 outlines the legislative requirements for developing that element.

Coordinating, comparing and incorporating regional and state perspectives into your planning process can include:

- establishing partnerships with transportation stakeholders and other government agencies;
- reviewing and comparing your transportation vision, goals, objectives and policies with applicable plans from adjacent communities, regional and state agencies; and
- incorporating, where applicable, aspects of other plans into your transportation element.

Partnering with transportation stakeholders from neighboring communities, regional and state level interests, such as your area MPO or RPC, County agency, adjacent Tribal governments and/or WisDOT will help ensure that your transportation element

reflects the aspects of other respective plans that can impact your transportation element.

As you work with neighboring communities, you may find it appropriate to develop a cooperative comprehensive plan that will meet both of your goals and objectives, and potentially result in mutually beneficial cost savings. Finally, your efforts to partner with different transportation stakeholders will not only benefit your local planning efforts, but also further enhance regional and state efforts to maintain and improve the connectivity of the transportation system.

For example, assume that your plan includes a proposal to include a bike route along the road connecting your community and the neighboring community. Your proposal requires that the shoulders of the road be expanded to provide a safe and viable route for bicyclists along the facility. However, the adjacent municipality has decided that the same road will provide service only to vehicles. Subsequently, the current design of the road through its municipal borders will remain the same. Although this inconsistency may not appear to harm either community's transportation planning efforts, the potential connectivity of the system will be jeopardized, potentially reducing the safety and attractiveness of the corridor for future bike travel. With coordination and planning, it is possible for both communities to address their needs, and meet their goals and objectives.

In addition to coordinating with the different transportation stakeholder interests, you will also need to compare your transportation element's goals, objectives and policies to the applicable regional and state level plans. For example, the transportation plans completed by your area's RPC or MPO and the state have identified the future location of a bypass route around your community. Although the initial agreements indicate your community's support for the bypass, it is not incorporated into your transportation element. If your community does not resolve this inconsistency early in the process, potential conflicts may delay decision-making efforts for all involved. Additionally, not addressing this issue may result in costly delays regarding land use and transportation decisions for your community and the region.

Similarly, assume that there is a state trunk highway running through your community. If one of the objectives of your transportation element includes allowing increased access to that facility to accommodate planned development, it is necessary that you ensure that your plans for increased access are consistent with other plans affecting that facility. Your planning process should include a review of applicable state and regional plans to identify and correct any inconsistencies between your transportation element and the applicable plans. For this example, the plans you may need to review include:

- WisDOT's Access Management System Plan;
- Wisconsin State Highway Plan 2020;
- Any relevant corridor planning studies conducted for the facility;

Partnering with other transportation stakeholders will help you to identify:

- potential inconsistencies or contradictions between plans;
- potential impacts of not addressing the inconsistency;
- available resources, data and other applicable information you may need; and
- whether it is possible to develop a cooperative plan with your neighboring community.

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- Any applicable county plans and the applicable MPO or RPC land use and transportation plans;
- Applicable Tribal Government plans for development within a region; and/or
- Adjacent local community plans.

If you do not conduct this review, your transportation element will not reflect state and/or regional policies or plans that manage or limit access along that particular state facility.

If your planning efforts do not attempt to minimize and/or eliminate inconsistencies between your transportation element and the regional and/or state plans, it is possible that you may jeopardize the successful implementation of your transportation element and overall local comprehensive plan.

Plans to compare and incorporate

There will likely be several types of plans you will need to consider as you develop your transportation element. These may include plans developed by a variety of planning agencies including the state, county, RPC or MPO. Figures 7 and 8 provide a few examples of plans you may want to consider as you develop your transportation element.

What you should do if inconsistencies are found

In order for you to develop a successful transportation element, you must go beyond simply acknowledging the existence of applicable state and regional plans, and ensure that your transportation element incorporates appropriate elements of both regional and state levels plans.

As you review the applicable plans and/or discuss your planning efforts with the specific agencies, you will need to consider:

- how your transportation element and policies "fit" with the plans and policies of the state, region, and neighboring communities? and,
- how their plans and policies impact your transportation element?

This can be accomplished by comparing the strategies your community has defined to meet the goals and objectives developed during your visioning process to those for the neighboring community, regional and state plans. As you conduct this comparison, look for:

- apparent contradictions between plans; and
- aspects of each plan that appear to be complementary.

Although it is not required by the Legislation, it is highly encouraged that if you find apparent contradictions, you address them as soon as possible. If you do not include the appropriate aspects of other plan(s), or contact the specific agency to address the differences, your transportation element's estimate of future needs and associated costs, and projections of potential impacts to your community's overall growth and development may be inaccurate.

State and regional plan development efforts include extensive outreach and review processes with stakeholders and community leaders. Therefore, any issues your community may have regarding aspects of a state or regional plan would likely be raised and resolved during those respective plan development efforts. However, if your community disagrees with an aspect of an existing state or regional plan and does not wish to reflect it in the local plan, it is important to contact and discuss your concerns with the appropriate agency. This will help both sides to understand and potentially resolve the differing perspectives and concerns. This is especially important for decisions specific to transportation corridors that are significant to the region and/or state.

Addressing and correcting contradictions between your transportation element and applicable state and regional plans is an essential part of the planning process.

Figure 7: Regional plans

- Applicable MPO or RPC Long-range Transportation and Land Use Plans;
- Transportation corridor plans;
- County highway functional and jurisdictional studies;
- Airport master plans (as applicable);
- Rail plans (as applicable);
- Harbor plans (as applicable);
- Bicycle Plans;
- County Access Plans;
- Other completed comprehensive plans (e.g. adjacent community plans);
- WisDNR State Trails Network Plan

Figure 8: Statewide plans & programs

Completed:

- Wisconsin State Highway Plan 2020;
- Wisconsin Bicycle Transportation Plan 2020;
- WisDOT Access Management System Plan;
- Wisconsin State Airport System Plan 2020;
- Translinks 21: A Multi-modal Transportation Plan for Wisconsin's 21st Century;
- 6-Year Highway Improvement Program;
- Statewide Transportation Improvement Program (STIP)

Scheduled for completion:

- Wisconsin Pedestrian Plan 2020 (2001)
- Wisconsin State Rail Plan 2020 (2002)
- Wisconsin State Transit Plan 2020 (2003)

Notes

Chapter

4

Local transportation planning

Developing a transportation element involves several steps, ranging from defining your transportation vision within the context of the remaining eight elements, to data collection, to analyzing existing and future needs.

This chapter describes how you can:

- define your community's transportation vision;
- establish goals and objectives to achieve that vision;
- conduct an inventory of your current transportation system;
- assess current and future needs of your transportation system; and
- consider needs assessments and accommodations for other transportation choices.

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Understanding a transportation system

The term "transportation system" is used to describe several different aspects of transportation, including the different:

- transportation options used to move people and products,
- levels of jurisdictional authority, and
- facilities that a user might access to begin, change or switch, and end a trip.

Figure 9: Transportation system

A transportation system includes:

- roads,
- transit services,
- rail services,
- bicycles lanes, paths, trails and accommodations,
- air travel,
- pedestrian accommodations and
- harbors.

When people hear the term "transportation system," they often think only of roads. While roads account for the majority of a transportation system, they are not the only component (see Figure 9). Broadly speaking, a transportation system can be defined as any means used to move people and/or products. Taken together, these individual transportation options create your community's transportation system. For this reason, it is critical that your transportation element address each of these choices, as applicable to your community.

Additionally, the term transportation system includes roads under different levels of jurisdictional authority (i.e., state, county and local). WisDOT has jurisdiction over all Interstate highways, U.S. highways and State highways. County governments are responsible for County Trunk highways. Local governments are responsible for local roads. If you have any questions regarding the jurisdictional authority of roads within your community, contact either your County Highway Commissioner or the WisDOT District office (see Appendix 3).

Although your community may not have direct jurisdictional authority over a specific highway, the decisions you make regarding development around that highway will impact the amount and type of traffic using the facility. In addition, the extent to which the local street system can accommodate local travel will directly impact the amount of traffic that is diverted onto state and/or county facilities.

It is also important to understand that trips on a transportation system can involve facilities under multiple jurisdictions. For example, a person traveling from home to work may need to travel from a local street to a state highway where the person then boards a bus operated by a county transit system. Similarly, a trip to the mall may include using a local street, and connecting with a county highway to access the facility. For this reason, you need to consider how the decisions your community makes regarding development will impact travel on the various components of the transportation system.

As you develop your transportation element, you should consider:

- how decisions made by your community may impact other transportation systems, and

- how decisions made by other entities may impact your transportation system.

In developing your transportation element, you need to focus on those aspects of the transportation system over which you have direct responsibility. However, sometimes you will have to respond to changes in transportation facilities over which you have no control since they can impact your transportation system. For example, a new or expanded rail facility in a neighboring community may result in increased truck travel through your community. This increased travel can greatly impact your community's road system.

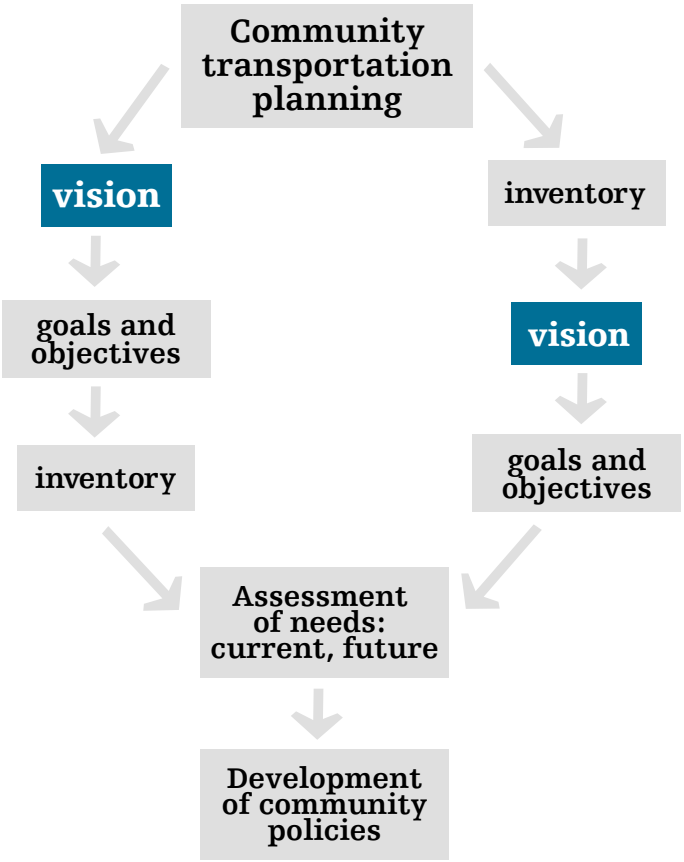
This example also highlights the need for your transportation element to incorporate all transportation options available to the members of your community. As described above, a transportation system may consist of several transportation choices and thereby provide several options to complete the same trip. For example, a transportation system that offers a variety of choices allows a person the choice to drive, walk, bike or use transit to complete their trips.

Your community's Transportation Element

Because the transportation element is meant to guide your future transportation decisions, the element should include:

- a transportation vision;
- goals and objectives;
- an analysis and identification of existing and future needs (note: you will need to examine trends in such areas as demographics, economic development and land use changes in addition to transportation);
- policies and recommendations (to guide you when making decisions regarding transportation, such as, whether to accommodate future trips or not); and
- implementation strategies.

Figure 10: Approaches to conducting your visioning process



Developing a vision

Once your community has developed its overall vision, you should develop your community's transportation vision. It is important to understand that land use

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and transportation are closely related. Land use decisions will directly influence the decisions your community makes regarding transportation. Conversely, transportation decisions will directly influence the decisions your community makes regarding land use. Therefore, as you develop your community's transportation vision you should at least consider, if not develop, your land use vision. This will enable you to develop a transportation element that reflects your community's future goals and land use vision.

Your transportation vision will help guide the transportation planning process. Generally, the visioning process will address the overall question of "what do you want your community's transportation system to look like in 20 years?"

In addition, the visioning process may address other questions such as:

- How will future growth impact your community's transportation system?
- What do you like best about your community's current transportation system?
- What do you dislike about your community's transportation system?
- What transportation areas can be improved?

You may choose to do the visioning process either before or after identifying your community's transportation needs. (See Figure 10.) When a visioning process is completed after a needs inventory, the decision-making process is more informed because you have a better understanding of what is currently available and what may need to be improved. However, completing a visioning process after a needs inventory may also limit identifying unique solutions to problems because you may feel constrained to work with what you currently have. On the other hand, a visioning process conducted before a needs inventory may result in many ideas. However, these ideas may not address current needs. There is no "right" time to conduct the visioning process, therefore, you should conduct the visioning process whenever you believe you are ready.

You can achieve your community's transportation vision by:

- bringing together community members who represent a broad range of interests,
- working together with neighboring communities that your transportation vision may impact or entities responsible for particular types of transportation,
- understanding how different types of transportation interact with each other, and
- understanding how different transportation choices positively and negatively impact your community.

Publications to guide you through the visioning process include:

Building Our Future: A Guide to Community Visioning. University of Wisconsin-Extension, 2000.

Towards Managing Growth in Washington: A Guide to Community Visioning. State of Washington, Department of Community Development, Growth Management Division, October 1991.

Developing goals and objectives

After creating your vision statement, you are ready to develop goals and objectives to achieve your vision. Figure 11 describes the differences between goals and objectives. Remember that you should develop your goals and objectives so they are consistent with:

- your community's transportation vision, and
- the goals and objectives identified in the other elements of your community's comprehensive plan.

It is important to develop goals and objectives that are realistic. Keep in mind your community's funding constraints.

Figure 11: Goals vs. objectives

Goals	Objectives
Broad	Narrow
General	Precise
Intangible	Tangible
Abstract	Concrete

Example

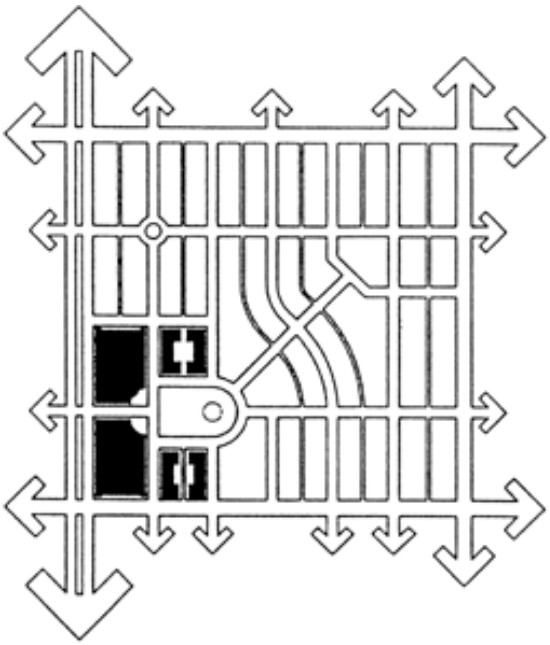
Goal: To improve transportation safety.

Objective: Develop a transportation system that reduces the number of conflict points.

Potential areas for which to develop goals and objectives may include:

- **Providing transportation choices:**
  What transportation choices are available? Are the different transportation choices conveniently interconnected? How do the types of transportation interrelate with each other?

Figure 12: Example of a well-connected local street grid system



This grid-system pattern promotes pedestrian and bike use, while reducing auto congestion by offering motorists more route options.

Diagram courtesy of Citizens for a Better Environment

- **Maintenance and improvements:**
  How will the current transportation system be maintained and improved? How will deterioration be addressed as the system ages?
- **Enhancing and improving the local street connectivity:**
  What are existing street patterns? Do the patterns promote pedestrian and bicycle travel? Do the street patterns accommodate safe traffic flow? Are there any gaps in connections between transportation choices? (See Figure 12.)
- **Safety:**
  How will transportation safety be maintained and improved?

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- **Economic development:** How can the transportation system enhance economic development? How will economic development impact the transportation system?
- **Environment:** How will changes to the transportation system impact the preservation/protection of environmental resources, such as water quality and air quality?
- **Aesthetics:** How do transportation facilities affect the aesthetics of your community?
- **Public involvement:** How will the public be included in the transportation decision-making process?
- **Accessibility:** How will accessibility to the transportation system be maintained and/or improved for users of the system?
- **Efficiency:** How will you ensure that the decisions you make for your transportation system preserve the existing facilities and potentially reduce the need for expansion or realignment?
- **Land use:** What steps will be taken to ensure that transportation decisions and land use decisions are compatible?
- **Cost:** How will the associated costs of the transportation element be addressed? How can the costs be minimized to most efficiently use public funds over both the short and long-term?

Conducting an inventory of your community's transportation system

Conducting an inventory of your community's transportation system is crucial to identifying current and future needs. As you begin this process, it is important to note that this is separate from the inventory and certification process conducted by WisDOT in cooperation with communities.

Information about your community may be available from:

- your area RPC or MPO,
- your county planning agency,
- neighboring communities, and/or
- the WisDOT District Office (see Appendix 3 for a complete contact list)

The inventory process involves three steps:

1. Identifying what types of transportation are present in your community.
2. Consideration of regional transportation services that may impact your community's transportation system.
3. Gathering data.

First, you need to identify what types of transportation are present in your community. When developing your inventory, it is important to include all types of transportation present in your community. You should not only consider the road network, but also include pedestrian and bicycle accommodations, port facilities, airports, transit service and rail lines. Since communities have unique needs and characteristics, your community may not have all of these

Table 1: Things to consider when conducting your transportation system inventory

Mode	Things to consider
Roads & hwys	- Maps identifying: Road network Key traffic generators Crash locations - Roadway condition - Mileage by functional classification - Opportunities to develop links/transfers to other transportation choices - Average daily traffic - Parking availability - Number of crashes by type (property, injury, fatality) - Condition of bridges and structures - Maintenance and improvement history - Roadway characteristics (width, number of lanes, divided, auxiliary lanes, etc.)
Rail	- Maps identifying the location of: Railroad tracks Location and type of highway-rail crossings (e.g., lights, gates, crossbucks) Intermodal connections - Number of highway-rail crossings - Type of service (i.e., freight, passenger) - Track mileage in the community - Frequency/number of trains traveling through the community - Types of crossing protection - Number of rail/highway crashes - Opportunities to develop links/transfers to other transportation choices
Transit	- Map identifying transit routes - Area of service (i.e., regional, local) - Ridership - Site design/building orientation - Frequency of service - Type(s) of service (e.g., shared ride taxi, bus) - Service hours (e.g. nights, weekends) - Opportunities to develop links/ transfers to other transportation choices
Harbors	- Maps identifying the location of: Harbor(s)/port facilities Intermodal connections Marinas, boat ramps, and ferry docks - Types and tonnage of commodities shipped - Length of the shipping season - Number of ships annually using the harbor - Opportunities to develop links/ transfers to other transportation choices
Airports	- Map showing location of airport(s) serving the community (including noise contours if available) - Type of airport(s) (e.g., general aviation, commercial service, public or private, military, reliever) - Opportunities to develop links/transfers to other transportation choices - Airport classification (air carrier, transport corporate, general utility, etc.) - Description of airport(s): runway length(s), activity levels, based aircraft, enplanements, cargo (for commercial service airports) - Additional considerations: current zoning ordinances (e.g., height limitations zoning ordinances; land use zoning ordinances) - Approach clearance considerations
Bicycles	- Map identifying: Bike accommodations by type (e.g. multi-use paths, dedicated bike lanes) Crash locations and total number Bike routes Over/under passes - Percentage of population that bikes - Number of bicycle crashes - Suitability of current roads for bicycling - Generators of bicycle trips - Barriers to bicycling - Opportunities to develop links/transfers to other transportation choices
Pedestrian	- Map identifying: Pedestrian facilities (e.g. overpasses, multi-use paths, worn paths, crosswalks, signals, sidewalk network) Crash locations - Total miles of sidewalks - Opportunities to develop links/ transfers to other transportation choices - General condition of sidewalks - Percentage of population that walks - Number of pedestrian crashes - Site design/building orientation - Barriers such as rivers, highways, freeways - Street crossing problems - School route barriers

Table 2: Types of information, example uses and potential sources

Type of information	Sources
Demographic (e.g., population, age, income, minority)	-Local/county planning office -County Land Information Office -Area MPO or RPC -Wisconsin Department of Administration -U.S. Census Bureau
Economic development (e.g., tourism, business development)	-Local chamber of commerce -Local/county planning office -Community economic development groups -County Land Information Office -University of Wisconsin–Extension -Wisconsin Department of Commerce
Environment (e.g., air quality, water quality, noise, endangered species, historic places)	-Local/county planning office -County Land Information Office -University of Wisconsin–Extension -Wisconsin Department of Natural Resources -State Historical Society -U.S. Environmental Protection Agency -U.S. Fish and Wildlife -Army Corp of Engineers -Federal Aviation Administration/ Airports District Office
Land use and zoning (e.g., agriculture, residential, commercial)	-Local/county planning office -Adjacent community local land use and comprehensive plans -County Land Information Office -RPC/MPO -Wisconsin Department of Agriculture, Trade and Consumer Protection -Wisconsin Department of Commerce -Wisconsin Department of Revenue -Wisconsin Department of Natural Resources
Transportation (e.g., average daily traffic, road functional classifications, performance measures)	-Local public works/transportation office -County highway department -Transit operators -RPC/MPO -Railroad companies -Harbor commissions -Airport Owners -WisDOT -Office of the Commissioner of Railroads -Federal Highway Administration (FHWA) -Federal Aviation Administration/ Airports District Office

different types of transportation. However, remember to think broadly when developing your inventory because there are times when a particular type of transportation may not be readily apparent. For example, even if your community does not have sidewalks, it does not mean that an inventory of pedestrian accommodations should not be conducted. Instead of sidewalks, your inventory may include assessing the availability of walking paths, and paved and unpaved shoulders.

Second, you need to consider regional services that may impact your community's transportation system. For example, your community may not have an airport, but it may be served by a regional airport. Your inventory should reflect how your community's transportation system is impacted by these regional services.

Third, you need to gather a variety of data regarding transportation, demographics, land use, economic development, environmental issues, etc. Maps and numbers are key to preparing an inventory. You need to know where facilities are located, how many users the facility has, how large the facility is, and other similar information. Table 1 provides a partial listing of items to consider including in your community's transportation system inventory. Remember—since no two communities are alike, all of the items listed in the table may not apply to your community.

In addition to gathering data about your community's transportation system, you should also consider the information identified in the other elements of your comprehensive plan (e.g., housing,

land use, economic development, etc.). Each of these elements includes relevant information that can help you develop your transportation element. It is also important to consult with adjacent communities regarding their planning efforts. This exchange of information and ideas may simplify your inventory efforts and help you to better understand the neighboring community's long-range planning initiatives.

In addition to data available from WisDOT, MPOs, RPCs, and possibly neighboring communities, there are numerous other sources of information available (see Table 2 and Appendix 4).

Additional notes regarding Geographic Information Systems (GIS)

As planning moves into the 21st century, efforts to inventory and map various impacts to a community, such as current and future land use and/or a community's transportation system, will increasingly rely on mapping software such as the Geographic Information Systems (GIS). GIS is computer software that can assemble, store, manipulate and display geographic information. For example, a GIS system may store information related to the locations of streets, railroad lines, water bodies, wetlands, types of land uses or political boundaries. Basically any information that refers to a geographic location can be stored on a GIS system.

GIS software is capable of performing analyses that can greatly aid the planning process. For example, suppose that you want to know how many bicycle crashes have occurred along a specific street over the last five years. You could review files from the last five years, however, this process would be rather time-consuming. On the other hand, if you had a GIS system that contained data related to the location of streets and the location of bicycle crashes, the system could quickly identify how many crashes occurred along the street within the past five years. In addition, the system could identify each of these locations on a printable map.

Numerous governmental agencies are making GIS information available. Examples of these agencies include the local, county and regional planning offices, County Land Information Offices, Wisconsin Department of Natural Resources, WisDOT, Office of Land Information Services (DOA), U.S. Geological Survey, and the U.S. Census Bureau (see Appendix 4 for contact information).

The potential uses of GIS are limitless. When preparing your transportation element, you may want to consider using GIS to store and analyze data. This may reduce the time and resources needed to update your plan. In addition, the GIS information may be useful to other local agencies such as public works departments, emergency personnel, and economic development offices.

Additional notes for conducting an inventory of your local road system

Roads are typically the largest component of transportation systems. The comprehensive planning legislation requires

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Table 3: Urban and rural functional classification system

Classification	Description
Urban (Roads within urban areas—i.e., places of 5,000 population or more)	
Principal arterials	Serve longer intra-urban trips and traffic traveling through urban areas. They carry high traffic volumes and provide links to major activity centers. The urban principal arterials are connected to the system of rural principals and minor arterials. Urban principal arterials are subdivided into 1) Interstate highways, 2) other freeways, and 3) other principal arterials.
Minor arterials	Provide intra-community continuity and service to trips of moderate length, with more emphasis on land access than principal arterials. The minor arterial system interconnects with the urban arterial system and provides system connections to the rural collectors.
Collectors	Provide both land access service and traffic circulation within residential neighborhoods, commercial areas, and industrial areas. These facilities collect traffic from the local streets in residential neighborhoods and channel it onto the arterial system. In the central business district, and in other areas of like development and traffic density, the collector system may include the street grid which forms the basic unit for traffic circulation.
Local streets	Comprise all facilities not on one of the higher systems. They primarily provide direct access to adjacent land and access to higher order systems. Local streets offer the lowest level of mobility, and through-traffic movement on this system is usually discouraged.
Rural (All roads outside of urban areas)	
Principal arterials	Serve interstate and interregional trips. These routes generally serve all urban areas greater than 5,000 population. The rural principal arterials are further subdivided into 1) Interstate highways and 2) other principal arterials.
Minor arterials	In conjunction with the principal arterials, they serve cities, large communities, and other major traffic generators providing intra-regional and inter-area traffic movements.
Major collectors	Provide service to moderate sized communities and other intra-area traffic generators, and link those generators to nearby larger population centers or higher function routes.
Minor collectors	Collect traffic from local roads, and provide links to all remaining smaller communities, locally important traffic generators, and higher function roads. All developed areas should be within a reasonable distance of a collector road.
Local roads	Provide access to adjacent land and provide for travel over relatively short distances. All roads not classified as arterials or collectors are local function roads.

Source: Wisconsin Department of Transportation,
Facilities Development Manual, Procedure 4-1-15.

communities to identify roads by function. A functional classification system groups streets and highways into classes according to the character of service they provide. This character of service ranges from providing a high degree of travel mobility to providing land access functions.

Most public roads in Wisconsin have been classified according to their function. You can obtain functional classification, mileage data, and hard copy maps of the classification of your community's roads by contacting your WisDOT District office (See Appendix 3 for contact information). Even though your community may include roads that are not classified with WisDOT, you should identify them and include any future planning proposals in your transportation element.

The current functional classification system consists of five classifications that are divided into rural and urban categories (see Table 3). Functional classifications are used to determine eligibility for federal aid. When seeking state funding for transportation projects you will need to contact your area Transportation District office (Appendix 3) to determine what standards may need to be met to qualify for funding. For example, an urban principal arterial would have to be designed to higher standards than a local street since the arterial would carry higher volumes of traffic.

In addition to identifying the functional classification and mileage of your community's road network, you should also determine the physical condition of your roads and bridges.

Photo: WisDOT

Example of a poor pavement condition that should be noted when conducting your pavement condition analysis.

An accurate assessment of your community's pavement maintenance and improvement needs is dependent on a good understanding of pavement conditions on your streets and highways. WisDOT maintains pavement ratings for State Trunk and Connecting Highways, and counties are responsible for assessing the condition of their highways.

There are several pavement condition rating systems available for you to use to evaluate pavements on roads under your jurisdiction. The one most commonly used by communities in Wisconsin is PASER (Pavement Surface Evaluation and Rating). PASER is a simple method of rating asphalt and concrete roads on a scale of 1 to 10 and gravel roads on a scale of 1 to 5, based on visual inspection. PASER manuals and a video explain how and why roads deteriorate, and describe proper repair and replacement techniques.

PASER ratings can be put into PASERWARE, an easy-to-use

Photo by Kurt Miller, WisDOT

This worn path is an example of a need within a community, that should be identified during the needs analysis process.

pavement management software. PASERWARE helps you inventory your roads, and keep track of their PASER ratings and maintenance histories. It also helps you prioritize road maintenance and improvement needs, calculate project costs, evaluate the consequences of alternative budgets and project selection strategies, and communicate those consequences to the public and local officials. Both PASER and PASERWARE are available from the University of Wisconsin's Transportation Information Center at no charge. The Center also offers free training courses at various locations around the state. (Call 1.800.442.4615 for more information.)

PCI (Pavement Condition Index) is another rating system used by some Wisconsin municipalities. It is also a visual rating tool, but is a more sophisticated and time-intensive system that requires detailed identification and measurement of the various types of pavement distress. It produces ratings that range from 0 to 100 (0 being the worst and 100 the best). While it is more expensive to use this system, PCI ratings can provide more detailed information for use in the development of capital improvement and maintenance programs.

WisDOT is currently working in cooperation with local governments to develop a local roads database (Wisconsin Information System for Local Roads, WISLR) which will include comprehensive data on all roads under county and local jurisdiction. Wisconsin legislation requires that local governments collect and submit condition ratings for all local roads by the end of 2001. The majority

of communities will submit PASER ratings as described above. However, PCI ratings are also acceptable, and other rating methods may be used if approved by WisDOT. In order to achieve statewide consistency, all ratings will be converted to the PASER scale of 1 to 10. When completed, the database will provide a comprehensive roadway inventory that can be mapped using GIS software. (See GIS discussion in this chapter.)

In addition to looking at the physical condition of your roadways, it is important that you also assess whether they have adequate traffic-carrying capacity and are designed for safe and efficient travel. Questions you should ask include:

- Is traffic flowing smoothly or are the roads congested? Do increased traffic levels occur at all times or in predictable cycles (i.e., seasonal, daily, AM or PM peak hours)?
- What are the geometric conditions of the roadway (i.e., road width, presence of shoulders and their widths, curvatures, passing opportunities, what is the type of cross-section—urban with curb and gutter, or rural with no curb and gutter)?

Assessing current and future needs

After creating an inventory of your current transportation system and gathering the variety of related information, you are ready to identify your community's current and projected needs.

In analyzing the current and future needs of your transportation system, you should not limit your analysis to only those aspects of the transportation system for which you have direct responsibility. Instead, you should also consider all types of transportation (e.g., walking, bicycling, rail, air, harbors, transit). In addressing those transportation services over which your community does not have direct responsibility, you should determine if the current service(s) is meeting your community's needs. In addition, you should refer to available plans for those transportation services to determine if/how their future plans will:

- meet your community's future needs, and
- impact your community's transportation system.

For example, if the regional airport facility is planning to expand the level of freight service it offers, it will likely result in additional truck traffic. Although you have no control over the airport's decisions, you will need to consider the possible impacts on your community. Will this additional traffic impact traffic flow and roadway conditions in your community? If yes, what will the impacts be, and how will your community address those impacts? What will the environmental impacts of increased freight traffic be to the surrounding neighborhood? How much public outreach should the community conduct to obtain the feedback necessary to make decisions that meet the community's needs?

Similarly, does the regional airport meet your community's needs in regards to passenger air service? Are a sufficient number of flights provided? Do the flights

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Photo: Kurt Miller, WisDOT

Example of a curb cut design along a pedestrian facility that provides improved accessibility for pedestrians using the facility.

service several different cities, or are the majority of flights to a particular destination? If the flights are to a particular destination, does this impact the number of community residents who choose to fly?

In addition to addressing each type of transportation (as applicable to your community) individually, you should also address the interrelationships between:

- the different modes in your community's transportation system, and
- your community's transportation system and the transportation systems of the state, region and neighboring communities.

Questions to consider may include:

- Do interrelationships exist between the different types of transportation? If yes, what are the interrelationships and where do they exist? If no, how can they be established?
- How does the state's, and/or county's, and/or neighboring community's transportation system impact your community's transportation system? Also, how can safety be maintained or improved on these systems?

Finally, you should document your analysis and any assumptions you used. For example, if some of your projected future needs are based on the assumption of a 1% increase in population, this assumption should be stated in your Issues and Opportunities (§66.1001 (2)(a)) and Transportation Elements. Additionally, when completing your analyses, you should try to use information that is measurable (quantitative), such as measuring the number of people using the transit system in your community, or the number of vehicles traveling along a stretch or road, rather than speculative/non-measurable (qualitative). However, as discussed previously, when you measure the pavement condition in your community, a visual assessment is sufficient to meet the needs outlined in state statute.

Current needs

The assessment of your transportation system's current needs is related to the inventory informa-

tion you gathered. You need to define the point at which an existing or forecasted transportation need warrants an improvement. For example, if your inventory identified a roadway segment with severe congestion, you have a current need to address traffic flow along this roadway either by making the existing roadway operate more efficiently, by adding lanes to increase its capacity, or by reducing traffic on the roadway. For example, if the congestion is due to a number of employees having the same work hours, you may want to work with the employers and ask if they would be willing to stagger their employee's work hours. Or, if your inventory identified a highway-rail crossing that has had a greater number of crashes over the last five years than other crossings in your community, you may have identified a potential safety improvement need.

The majority of your inventory research and needs assessments may have already been completed by county, regional and/or state agencies. Therefore as you begin this process consider contacting the applicable agencies identified in the Resource Directory (Appendix 4) to discuss your efforts.

When assessing the current needs of your transportation system, you should consider such items as:

- **Condition of the transportation system:** What is the condition of the existing system? Are improvements needed (e.g., repaving, reconstruction, etc.—refer back to your pavement analysis and use of PASER or the PCI index discussed in this chapter)?
- **Capacity:** Are any areas of the system experiencing traffic volumes that exceed the system's design?
- **Traffic flow:** Does traffic flow smoothly? Are there engineering improvements that could improve traffic flow (e.g., coordinating traffic signals, installing traffic control devices, and realigning intersections)?
- **Traffic calming:** Would any neighborhoods of your community benefit from traffic calming measures such as extending curbs, adding medians, and installing mini-roundabouts? Where are these areas located? Why would these areas benefit from traffic calming measures?
- **Safety:** Do any areas of your transportation system experience high crash rates as compared with the rest of the system? What may be some of the reasons? What strategies may improve safety?
- **Accessibility:** Is the transportation system accessible to all potential users? Does it reflect the Americans with Disabilities Act (ADA) guidelines? (See Appendix 4 for contact/Internet information.) (Note: Accessibility includes access for all persons regardless of race, income, disability, and age; and includes access for residential areas and businesses.)
- **Other modal considerations:** Does the system accommodate non-auto users such as transit

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Pedestrian and bicycle resources:

Wisconsin Pedestrian Planning Guidance—Guidelines for Metropolitan Planning Organizations & Communities in Planning & Developing Pedestrian Facilities, Translinks 21, WisDOT, 1993. (http://www.dot.state.wi.us/dtim/bop/ped_design.htm)

Wisconsin State Pedestrian Plan 2020, WisDOT, tentative release date 2001. (http://www.dot.state.wi.us/dtim/bop/planning-index.htm)

Wisconsin Bicycle Planning Guidance—Guidelines for Metropolitan Planning Organizations & Communities in Planning & Developing Bicycle Facilities, Translinks 21, WisDOT, 1993. (http://www.dot.state.wi.us/dtim/bop/planning-transl.htm)

Wisconsin State Bicycle Plan 2020, WisDOT, 1999 (http://www.dot.state.wi.us/dtim/bop/planning-index.htm)

Guide for the Development of Bicycle Facilities, American Association of State Highway and Transportation Officials, 1999. (http://www.aashto.org)

riders, bicyclists and pedestrians? Are adequate facilities available for these users? Are the facilities in sufficiently good condition? What, if any, facilities (e.g., additional transit routes, sidewalks, bike lanes, etc.) are lacking?

When identifying current needs, you should also determine if these needs are the result of temporary fluctuations in traffic volumes such as rush hour or seasonal variations. For example, a particular road in your community may be adequate to carry traffic volumes from November to May, but may have high traffic volumes in June to October due to an influx of tourists. Or the road may be adequate at all times except from 7:00–9:00 A.M. and 4:00–6:00 P.M. on weekdays when the rush hour traffic occurs. You will need to decide if the facility should be improved to handle the peak traffic volumes or if the road should simply handle the average traffic volumes it experiences.

Future needs

The inventory will also provide a base for addressing the future needs of your transportation system. Assessing future needs involves looking at how well the system is operating today, and projecting what must be done to ensure adequate operation in the future. The other elements (e.g., land use, economic development, housing) that you have developed for your comprehensive plan will help you identify future travel needs that your transportation system will have to meet. Important factors to consider include such things as:

- planned development (e.g., residential, commercial, etc.);
- trends in demographics, traffic flow, development patterns and economic development; and
- actions of neighboring communities, the region or the state, including new developments and transportation projects.

When considering these factors, you need to determine how they will influence your transportation system's:

- condition,
- traffic volumes,
- capacity needs,
- safety,
- accessibility, and
- other modal considerations.

For example, if your community's population has been growing at a consistent rate and future projections continue to show an increase, this will result in more users of your transportation system. You need to determine what changes and/or additional facilities may be needed to accommodate the additional users. For example, will more parking be needed? Will additional bikeways need to be constructed? Should new transit service be started or additional transit routes be added? Will new arterial and collector streets be needed to serve the new development associated with the growing population? Will there be a need for separated crossings (e.g., overpasses/underpasses for bicyclists, pedestrians or vehicles) for heavily traveled facilities such as freeways or rail lines?

Needs assessments and accommodations for other transportation choices

As you consider your community's needs, you also need to address how to promote and maintain the connectivity and viability of your transportation system. Part of this effort should include decisions regarding how to accommodate other transportation users and facilities such as bicycles, pedestrians, and transit. Additionally, decisions to address transportation along a roadway will also impact parking needs, therefore, your assessments should include how or whether to incorporate parking management options into your decisions. Those efforts should focus on all aspects of your community. For example, sidewalks or bike paths located along one segment of a street that abruptly end do not provide a continuous system for the user, and may undermine your efforts to provide greater pedestrian and bike access.

There are several additional techniques that your community can use when planning for the preservation, enhancement and/or connectivity of a corridor. These strategies may include:

- Providing and/or improving transit service;
- Reducing travel demand by placing services closer to users;
- Providing accommodations for bike and pedestrian travel; and
- Managing parking along the facility. (Note: It is important that decisions to limit parking reflect the area business needs.)

It is important to understand, however, that although you may incorporate these initiatives into your planning efforts, it may not reduce vehicle travel demand.

Transit service

There are a variety of transit services that your community can use to preserve the corridor and potentially reduce reliance on single occupancy motor vehicles. These may include providing:

- shared ride taxi services;
- paratransit[ii] services for the elderly and disabled;
- inter-city bus service; and
- intra-city bus service.

If your community decides to provide and/or enhance transit services within your area, you should consider the location and accessibility of the transit stops for potential users. By providing transit services where appropriate, and pedestrian accessible stops at reasonable intervals within and between community centers, you can improve existing services and potentially provide a more convenient and efficient service to the users of your transportation facilities.

Transportation demand management

Transportation Demand Management (TDM) is one of several measures that can be used to help address congestion and air quality issues in an area TDM measures include the use of incentives, disincentives, and market devices to shift travel to non-motorized or higher-occupancy transportation choices, reduce or eliminate the need to travel, and/or shift travel onto less congested routes. Examples of TDM strategies may

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Photo by Kurt Miller, WisDOT

Example of a road that provides transportation facilities for bicyclists, pedestrians and motorists.

include providing or enhancing services for transit, walking, biking, and/or providing ride-sharing opportunities. It may also include incentives to employers to provide alternative work schedules through staggered work hours, flextime, and compressed work weeks. Another TDM method is to allow employees to telecommute from home or an alternative work site to minimize the amount they have to travel.

Bike and pedestrian accommodations

By providing bike and pedestrian accommodations along the facility, corridor users will have other transportation choices which may potentially reduce vehicular travel demand on the corridor. Bike accommodations may include marked facilities such as bike lanes on the roadway, and wider outside lanes. In rural areas they may include paved shoulders. Pedestrian accommodations may include sidewalks in urban areas, or generally wide shoulders in rural areas.

Guidelines to accommodate pedestrians

- **Sidewalks** should be located on both sides of urban and suburban streets, especially arterial and collector streets.
- **Shoulders** may be used in rural areas, but are not considered a walkway as defined by Wisconsin State Statute. Therefore, short segments of sidewalks may need to be installed in developed portions of rural areas.
- The **width of roadways and intersections** should be considered for their "barrier impact" on pedestrian crossing times and overall crossing difficulty. The narrower the roadway or intersection, the easier it is to cross. Enhancements such as medians or splinter islands should be considered for multi-lane roads.

Guidelines to accommodate bicyclists

- Arterial and collector streets should include bike lanes or wide curbside or parking lanes whenever possible. These roadways provide key access for bicyclists and help move bicyclists over barriers such as freeways, rivers and rail lines.
- Most neighborhood streets with existing low speeds and auto volumes generally do not require bike lanes or other special accommodations, as they already provide good bicycle access.
- Bicycle or multi-use paths are best located adjacent to rivers and lakes or within green-ways or abandoned rail line corridors so that crossing conflicts are minimized.

Parking management options

Managing the cost and availability of parking along a corridor is also an option that your community may consider when exploring corridor planning and preservation options. Managing parking can include limiting parking along the facility to allow for free flow traffic at peak periods during the day, or eliminating parking along a facility. If you incorporate this option in your planning efforts, your decisions should reflect the needs of your community.

Additional note regarding alternatives analyses

As your community develops strategies to address current and future needs, you may wish to evaluate different alternatives for your transportation system. An analysis of alternatives is **not required** by the comprehensive planning legislation. However, the development of alternative scenarios allows you to assess the implications of different policies, programs and expenditure levels. Additionally, it allows you to assess different options and how well they will reasonably accommodate the trips generated. In addition, public evaluation of alternatives allows members of your community to play a more active role in determining the direction of your transportation element, which in turn may increase public support for the transportation component of your comprehensive plan. If you incorporate alternative approaches into your transportation element development process, it is important to understand that they may be difficult to implement. In general, the preference for vehicular travel is high and increasing. As a result, people may be reluctant to use another form of transportation. For this reason, it is not guaranteed that these approaches will be successful in encouraging people to select other forms of transportation.

There are different types of alternatives that can be analyzed. These include:

- Alternative land use scenarios,
- Alternative levels of funding, and
- Alternative transportation choices.

One approach is to look at **alternative land use/development scenarios** for your community and predict what your transportation system needs would be for each scenario. For example, how would your transportation needs change if a particular area of your community was zoned for commercial use instead of residential use, or if your town allowed the creation of small residential lots rather than 35-acre minimum parcels? Generally, applying this alternative to land use decisions within your community can result in higher density development patterns, likely resulting in increased biking and walking as a transportation choice. Providing an analysis using this approach helps the public understand the connection between land use and transportation and how land use and transportation decisions impact each other.

A second approach is to **address different levels of funding**. This option allows you to assess the number and type of projects that could be made to your transportation system based on different levels of investment. For example, how much funding would be required if all of your transportation needs were addressed, or if your community was willing to accept higher levels of congestion? How would funding vary if only the most urgent needs were addressed? This option assists the public in understanding the true costs of the improvements, and allows you to make different assumptions about future revenues.

The third approach is to **address alternative transportation choices** for travel in your community. For example, you may choose to expand available transit services and bicycle and pedestrian accommodations. By developing alternative transportation elements that incorporate differing types and amounts of transportation choices within your community, you will be able to evaluate each option and determine the approach that best fits your community's goals and objectives. Although expansion of transportation alternatives has not been shown to reduce the demand for vehicular travel, it does provide transportation users with more options as they consider their trip needs.

Endnotes

[i] A transport classification identifies the basic type of service the airport is intended to provide, such as light general, corporate, commuter and others.

[ii] Para-transit services generally are provided to members of the community who require vehicles that provide increased accessibility, as well as more "enhanced" and flexible routing than are provided by fixed-route, main-line transit services.

Chapter 5

Transportation and land use

Transportation and land use decisions are closely connected. Decisions to address either can and will impact the other.

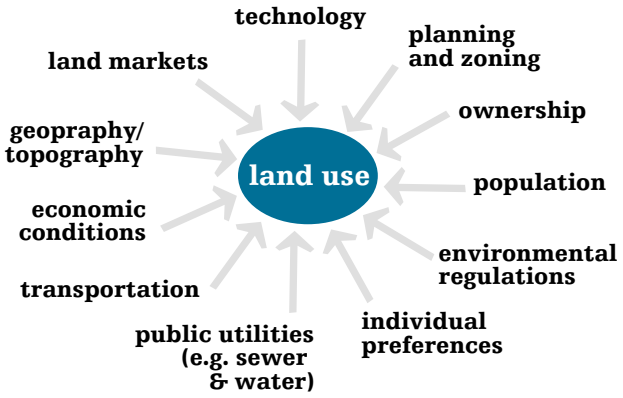
This chapter provides a brief overview of:

- direct, indirect and cumulative impacts of transportation;
- examples of indirect impacts of transportation projects and how they may influence land use and development within your community;
- Wisconsin Administrative Code, Chapter TRANS 233;
- access management and related techniques; and
- the importance of transportation corridor planning, and methods of corridor preservation.

As you consider how to address your community's needs over the short- and long-term, you will need to consider the entire array of factors that can influence the growth and development of your community. For example, if your community wants to attract industrial businesses then good connections to the regional and statewide transportation networks will be necessary. Additionally, decisions regarding lot sizes for a new subdivision can have an impact on travel choices—smaller lot sizes with mixed land uses will make the option to travel by a means other than a vehicle more attractive, while larger lot sizes with separated land uses will likely increase individual decisions to rely on vehicles for travel.

Although transportation can impact land use, it is not the only factor. There are many other factors that influence land use decisions, such as economic conditions and individual preferences (see Figure 13). Therefore, it is important that your decisions emphasize balancing these factors and their influences on your community.

Figure 13: Factors affecting land use



Source: *Indirect and cumulative effects analysis for project induced development,* Technical Reference, WisDOT

Direct, indirect and cumulative impacts of transportation

Although transportation is not the only influence on land use, it is important for you to be aware that the decisions you make regarding your community's transportation system may affect land use both *directly* and *indirectly*. You should also be aware of the cumulative or overall effects of your transportation decisions on your community. Understanding these concepts will help you make informed decisions for both your transportation and land use elements. (See Figure 14 for the Land Use Element statutory language.)

Direct impacts are impacts that are directly caused by the construction of a new transportation facility, changes to an existing facility, and/or decisions to change the traffic patterns along a facility. These may result in both positive and negative impacts. For example, positive impacts may include the diversion of truck traffic from a downtown area, or the creation of a safer walking environment in the area by reducing the high incidence of crashes. Additionally, decisions to reconstruct or expand a facility may have a positive direct impact of improving the storm water management practices at the time of reconstruction to better control run-off into nearby waterways. Potentially negative direct impacts resulting from transportation decisions may include loss of natural resources such as agricultural land, forests, and wetlands to accommodate the new facility, as well as the fragmentation of habitats and threats to endangered resources.

Indirect impacts of transportation decisions may also influence land use patterns but are not directly related to the project and therefore, may not be as easily discernible. For example, a capacity expansion project designed to accommodate increasing traffic levels along a facility may have an impact on future land use patterns in the area by making the adjacent land either more or less attractive for development. At the same time, however, decisions regarding the location of different land uses, through the promotion of mixed use and/or high density developments, can lead to increased transportation options by users in the area.

In addition to considering individual indirect and direct impacts of transportation decisions, it is important for you to consider the "big picture" or cumulative impacts and how decisions for one area of your community may impact other areas locally and/or regionally. For example, the location of a new public street intersection with a highway will often lead to increased development in the vicinity of the new access. The new development may result in increased jobs for the community, which may, in turn, result in population growth, potentially resulting in the need for new services such as new schools and extended public utilities.

Examples of indirect impacts of transportation

As your community considers how to address both short- and long-term transportation needs, it is important to consider how the transportation facility and proposed design will impact development patterns. There are five general design strategies or characteristics of transportation facilities that can influence land use, either separately or in combination. These include: location, capacity, travel patterns, traffic control, and access management.

The location of a transportation facility(ies) (e.g., new roads, airports, bypasses, and/or interchanges) can significantly influence the present and future development patterns for commercial, industrial, residential, and central business districts within your community. Because the location of a facility can influence future growth and development within your community, you may want to consider a range of alternatives regarding the new facility prior to making a final decision. Conducting an alternatives analysis will allow you to consider not only the actual alignment of the facility, but also the range of transportation and land use impacts that may result. An equally important activity, when considering a location decision, is ensuring that the public is involved. The decisions regarding locating a new facility or relocating an existing road will impact everyone using and situated adjacent to the corridor. Therefore it is important that the public has an opportunity to comment on the alternatives developed and decisions made. (See Chapter 2 for more information regarding public involvement.)

Decisions to add **capacity** may include new traffic lanes (including high occupancy vehicle lanes), increased rail service, and

Figure 14: Land Use Element (§66.1001(2)(h))

A compilation of objectives, policies, goals, maps and programs to guide the future development and redevelopment of public and private property. The element shall contain a listing of the amount, type, intensity and net density of existing uses of land in the local governmental unit, such as agricultural, residential, commercial, industrial and other public and private uses. The element shall analyze trends in the supply, demand and price of land, opportunities for redevelopment and existing and potential land-use conflicts. The element shall contain projections, based on the background information specified in par. a, for 20 years, in 5-year increments, of future residential, agricultural, commercial and industrial land uses including the assumptions of net densities or other spatial assumptions upon which the projections are based. The element shall also include a series of maps that shows current land uses and future land uses that indicate productive agricultural soils, natural limitations for building site development, floodplains, wetlands and other environmentally sensitive lands, the boundaries of areas to which services of public utilities and community facilities, as those terms are used in par. d, will be provided in the future, consistent with the timetable described in par. d, and the general location of future land uses by net density or other classifications.

For more information on secondary impacts and recommended analysis techniques refer to:

Indirect and Cumulative Effects Analysis for Project-Induced Land Development, Technical Reference Guidance, WisDOT.

/or accommodations for other transportation choices such as bike lanes, bus lanes, sidewalks, or pedestrian over/underpasses. Capacity decisions can also impact land use patterns depending on the amount and type of access available to the adjacent land, as well as the amount of traffic traveling along the facility. Expanding capacity is an important option when traffic levels along a facility have reached a level that is no longer safe or tolerable to users of the facility. However, it is important to understand that providing the added capacity will facilitate a greater flow of traffic along the facility potentially resulting in increased use of the facility by motorists, and further contributing to potential capacity issues in the future. Therefore, as your community considers whether to add capacity for motorists, you may also want to consider providing accommodations along the road for other potential users. These may include a dedicated lane for bicyclists and buses, and/or a sidewalk on one or both sides of the roadway.

Decisions that change **travel patterns** affect traffic volumes and/or traffic mix and can impact the desirability of adjacent land for existing and new development. As your community considers its goals and objectives, decisions to attract or encourage development within the area need to recognize that travel patterns will change as a result. For example, if your community has decided to allow the siting of a retail development in an area of the community that is relatively undeveloped, you should expect that traffic levels and patterns will change in response. Therefore, in addition to determining the site for the new development, you will also need to consider whether to accommodate the increases in travel or not. Similarly, if your community is considering new housing development, then decisions must consider the width of residential streets and how important providing on-street parking is.

Traffic control devices may include divided highways, placement of median openings, traffic signals, stop signs, and left/right turn lanes. The addition of these devices will impact land use patterns depending on whether it improves access or makes it more difficult. For example, a traffic signal at a busy intersection will likely improve the interaction of pedestrians and motorists traveling through the intersection. Additionally, the traffic control device may also result in individuals choosing to capitalize on the increased access to adjacent land, since traffic flow improved. Similarly, the placement of a median can serve several needs such as providing a refuge for pedestrians crossing the street, and controlling the traffic flow of vehicles traveling into or out of an adjacent development.

The degree of **access** onto and off of a transportation facility can also impact the desirability of developing the adjacent land. Access control characteristics can range from full access control such as grade separated interchanges, to partial access control, to no access control. Generally the more stringent the access control, the more likely that development will only occur in the vicinity of the

allowed access points. As you consider the future growth of your community, this is an important aspect of transportation planning to keep in mind.

Wisconsin State Administrative Code, Chapter TRANS 233

As you consider how to accommodate access to developments adjacent to State Trunk Highways, you should be familiar with the requirements mandated under TRANS 233 of the Wisconsin State Administrative Code. TRANS 233 specifies the requirements a developer[i] must follow when dividing land abutting a State Trunk or Connecting Highway. Under this rule, all land divisions (and assemblages[ii]) of abutting properties must be reviewed by WisDOT (through the Transportation District Offices) for compliance with the requirements.

TRANS 233 was established to manage the effects of land development on adjacent state highways by:

- managing the number of access points onto the facility from the new development;
- ensuring that the development is appropriately set back from the highways; and
- requiring reliance on internal public streets rather than private driveway access onto the highway.

If your community's comprehensive plan includes the development of land abutting a State Trunk Highway, it is necessary to follow the requirements outlined under TRANS 233. In general, private access to the highway is not allowed. Developers are required to use existing local roads, an internal street system, and/or joint driveways to provide access to the highway. Promoting the safe and efficient travel of people and goods on the state's transportation system is one of WisDOT's primary goals. If numerous access points are proposed along a highway to serve a single development, WisDOT will work with the developer to make modifications that will benefit the community, highway, and development.

TRANS 233 review process

For more information on specific TRANS 233 application requirements, refer to the Administrative Code and/or contact your area's WisDOT District Office. (See Appendix 3.)

Access management, and corridor planning and preservation

The land use decisions that your community makes to accommodate growth and economic development will directly impact your transportation system. Addressing your community's land use and transportation needs separately, without considering the impacts to the other, may result in undesired or unwanted patterns of community growth and development, heightened safety concerns, increased congestion, and a potentially greater reliance on vehicles rather than other travel choices. Therefore, it is important that as you develop your land use and transportation elements you should consider how they interact and impact each other. Access management practices and corridor planning and preservation are two

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management techniques that will help you to consider the impacts of your transportation decisions and further maintain the efficient and safe operation of the transportation facilities.

Access management

As previously discussed, the degree of access control onto and off of a transportation facility can impact the type and amount of development that will occur along that facility. Incorporating access management techniques into your planning process is one way that your community can help preserve the efficient operation of a transportation corridor.

The goal of access management is to limit the number of and control the spacing of access points (ideally before development occurs), thus reducing the number of potential conflict points a user (i.e., a pedestrian, bicyclist, or motorist) may encounter. Additionally, access management techniques balance the need to preserve the safe and efficient flow of traffic, while allowing for adequate, safe, and reasonably convenient access to adjacent land and land uses.

Access management techniques

There are several techniques that you may consider using as you incorporate access management principles into your planning initiatives. They can generally be divided into two categories: 1) development related, and 2) roadway related.

Development related techniques address the potential impacts associated with decisions made for land abutting a roadway. These may include:

- Avoiding planning narrow, commercial strips along roadways;
- Requiring developers to provide a connected and sufficient local road system to minimize using the main arterials for short trips (e.g., connected bike and pedestrian facilities);
- Requiring master planning for large tracts of land;
- Planning and designing transportation improvements that fit with the character of your community; and
- Requiring developers to provide traffic impact analyses for large developments.

Roadway-related techniques consider how traffic flow may be managed on the facility, and include design considerations, such as:

- Location, design and spacing of driveways, streets, and medians;
- Location, design, and openings of medians;
- Providing turn lanes;
- Considering proper spacing and timing of traffic signals;
- Protecting intersections and interchanges from increases in traffic;
- Investigating the potential for shared access points along a facility, and for inner-connectivity between parcels; and
- Providing for local traffic in the community's road network, instead of relying on the state or county highway facility.

As you consider implementing these techniques, it is important to remember that access management should vary by the functional classification of the highway. Arterials should have the fewest

access points since they are intended to move traffic through an area. Collectors and local function roads, on the other hand, should be permitted to have more access points since they function more to provide access to adjacent land. For more information regarding access management you may contact WisDOT's central office (see Appendix 4) and request a copy of the *WisDOT Access Management System Plan*.

Ideally, access management techniques are applied to transportation corridors just beginning to experience development pressures. In developed areas, opportunities to manage access may be limited to redevelopment opportunities, planned future developments, and/or roadways that involve reconstruction projects.

If the transportation corridors in your community are already developed, your efforts should focus on identifying redevelopment opportunities. As you consider these opportunities it is important to review your community's goals for growth, economic development and the anticipated changes in land use patterns. Once areas for potential redevelopment are identified, you should consider access management techniques including:

- limiting the number of access points such as driveways accessing the redevelopment;
- requiring shared driveways between adjacent developments; and
- providing for the circulation of traffic so that it is not necessary to use the arterial to get from one part of the development to another.

Transportation corridor planning

An important concept in transportation planning is the consideration of an entire transportation corridor, with associated goals to integrate land use planning and access management, and ensure that all transportation choices are accommodated as appropriate. Transportation corridors are broadly defined as connections between communities or regions, or as major links between travel origins and destinations within a city, village, or town. They can be existing or new facilities. Because transportation corridors will likely extend beyond your community's borders, it is important that your planning efforts include developing intergovernmental partnerships.

Intergovernmental partnerships

While there may be some transportation corridors that lie totally within a single jurisdiction (especially in larger cities), most will cut across jurisdictional boundaries. The corridors you identify as significant to your community may also be important to travel needs for a neighboring community, the region and/or statewide travel. If your community has identified a corridor that falls into this category, it is important that you partner with the appropriate parties to discuss how to preserve and enhance the entire corridor. For example, a road that begins in the center of a city might extend into the adjacent town and then enter a nearby village. Because that road is important to each jurisdiction, all three communities should be involved in the corridor planning process.

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Similarly, a corridor that connects your community to the neighboring community has been identified as significant to both communities. However, no efforts have been made to coordinate initiatives between the communities to accommodate the future transportation needs along the corridor, while preserving the existing facility. Your community has decided that the road should be expanded from a 2-lane facility to a 4-lane facility, while the neighboring community's long-range plans indicate that the corridor will not be expanded. If the communities do not work together to resolve the discrepancies between their seemingly disparate transportation goals, the future safe movement of users along the corridor, the potential connectivity of the corridor, and aspects that made it significant to both communities may be jeopardized.

If you choose to address only that portion of the corridor that runs through your community, you may impair the connectivity of the corridor between communities, as well as reduce the attractiveness of future development opportunities in the area.

If your community is located within an MPO or RPC planning area, it is essential that your corridor planning efforts include representatives from the MPO or RPC, as well as WisDOT. Your efforts to plan for the needs of existing and/or future corridors should include discussions with the planning agency to understand what its long-term goals are and to plan within the framework of the respective MPO or RPC long-range transportation plan.

Once decisions addressing short- and long-term needs along the facility have been made, it may be useful to have all impacted parties sign an intergovernmental or interagency agreement or memorandum of understanding to minimize or avoid future changes to the agreed upon decisions. (See Chapter 3 for more information.)

Benefits of corridor planning

There are several reasons to conduct corridor planning. These may include:

- identifying desired land uses for the adjacent property, including the type and scale of development to be encouraged;
- specifying points of access along the roadway;
- identifying ways to maintain the efficient operation of an existing corridor;
- ensuring adequate space to expand a roadway on its existing alignment if additional capacity becomes necessary;
- establishing intergovernmental partnerships and agreements for the future development of a specified corridor;
- identifying the location of a new corridor and taking steps to preserve the land so it is available when needed; and
- identifying needed transportation improvements along existing corridors.

Your corridor planning efforts should include components such as land use planning, access management, traffic operations management, the consideration of other modes and corridor preservation techniques. In addition to addressing the current and future infrastructure improvements,

you should also consider how the transportation services along the corridor will be impacted by your community's planned development, estimated population growth, and current and planned changes in land use.

Corridor planning process

There are several steps involved in planning for existing and future corridors. These steps may include:

- Defining the corridor and identifying why it is important to your community, and whether it is important to a neighboring community, region and state;
- Linking your corridor planning efforts to the land use element of your local plan to identify the vision and goals for existing and future land uses along the facility;
- Identifying issues to be assessed, such as safety, congestion, and accommodating other transportation choices;
- Implementing steps necessary to preserve the land needed for possible future expansion of the corridor on its current alignment, to prevent needing to relocate it to a new location; and
- Identifying and partnering with transportation stakeholders impacted by the planning process.

The transportation corridor(s) you identify should be given the highest priority in your transportation element and planning efforts. However, before you make decisions regarding the short- and long-term needs of the corridor, it is important that you contact your area MPO or RPC, WisDOT, WisDNR and applicable County offices (e.g., the land information office, and the County Highway Commissioner) to discuss your plans. Additionally, you need to review, compare and incorporate policy recommendations, as appropriate, from other applicable plans as previously discussed.

As your community develops its short- and long-term corridor plans, you need to consider:

- how to address anticipated increases in traffic along a facility;
- how to address the changing mix of personal vehicles, trucks (e.g., semi-trucks, community waste vehicles, and delivery) and other large vehicles, such as school buses using a facility;
- how to incorporate other modes into the corridor (e.g., dedicated transit lanes, bike lanes, sidewalks or multi-use side paths, transit stop-waiting areas, and transit pullouts);
- how to preserve the land needed for future corridor expansion or relocation;
- whether your corridor plan(s) will result in undesirable land use impacts, such as increased development along a transportation facility; and
- how to address any related environmental issues, such as avoiding impacts to sensitive areas/resources, preserving green space, and managing storm-water runoff.

Several of these issues may be addressed by incorporating corridor preservation techniques into the process. This will ensure that your community considers what aspects of the corridor are needed to accommodate future transportation. There are several corridor preservation techniques your community may want to consider including:

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- Purchasing land for future right-of-way needs;
- Officially mapping a future corridor to limit the amount of development in the needed right-of-way (see Chapter 7, Implementation and Monitoring for more information);
- Establishing setbacks[iii] in order to guarantee sufficient room for roadway expansion, provide vision clearance at intersections, and provide a buffer against noise and traffic—which may be accomplished by requesting developers and individuals to set-aside land for future transportation needs;
- Implementing local controls through zoning to manage land uses, growth, and development along the facility.

It is important to understand that each of these options limits the use of the land adjacent to a roadway. If your community determines that preservation of land adjacent to an existing corridor is an appropriate option, then you will need to compensate the existing land owners.

Land acquisition issues

It is important to understand that even with efforts to manage future land use along the facility, corridor expansion may become necessary as demand on the system increases. In order to ensure the future availability of land needed to accommodate the changing demands on the system, strategies should be in place to preserve the needed land. For existing corridors, it may be likely that the land adjacent to the road is privately owned, therefore, outright purchase of the land will be necessary. For planned corridors, ensuring setbacks are properly established and/or officially mapping the corridor may be appropriate options to ensure limited growth and land uses. If your transportation element does not include strategies to preserve this land, future efforts to address increased congestion, heightened safety concerns, and/or other facility issues may require you to consider relocating the facility. Facility relocation can have considerable social, environmental and financial impacts on your community.

Endnotes

[i] A developer is usually a private contractor, however, it is important to note that a local unit of government can also be the developer of a parcel of land.

[iii] An assemblage is also considered a land division for the purpose of this rule.

[iii] Setbacks are used to preserve future right-of-way along a roadway to accommodate potential future expansion needs along the existing corridor.

Chapter 6

Community and environment

Each transportation decision impacts economic and community development, and the natural and built environment. Even the decision to "do-nothing" has both negative and positive impacts. It is important that you understand these impacts before you make your transportation decisions.

This chapter provides a brief overview of things you should consider when determining the impacts your transportation decisions may have on:

- community/economic development, and
- environmental issues.

Figure 15: Economic development element (§66.1001(2)(f))

A compilation of objectives, policies, goals, maps and programs to promote the stabilization, retention or expansion, of the economic base and quality employment opportunities in the local governmental unit, including an analysis of the labor force and economic base of the local governmental unit. The element shall assess categories or particular types of new businesses and industries that are desired by the local governmental unit. The element shall assess the local governmental unit's strengths and weaknesses with respect to attracting and retaining businesses and industries, and shall designate an adequate number of sites for such businesses and industries. The element shall also evaluate and promote the use of environmentally contaminated sites for commercial or industrial uses. The element shall also identify county, regional and state economic development programs that apply to the local governmental unit.

Ideally, your local comprehensive planning efforts will include development of each element within the context of the remaining elements. Because transportation can be used as a tool to accommodate the future growth and development of your community, the policies you identify in each of the eight elements should be reflected in your transportation decisions. If these elements have not yet been developed, the impacts you identify in your transportation element should be reflected in these elements.

You should also remember that the impacts of your transportation element do not necessarily end at your community's borders. Oftentimes, impacts are felt on a regional basis. For example, development decisions made within your community to attract more industrial interests may result in increased trucking traffic not only through your community but also in communities located several miles away. Your transportation element should seek to minimize the negative impacts on both economic development and environmental quality.

Economic/community development

Providing a quality transportation system is important to the success of every business in Wisconsin. Businesses need to be able to efficiently access the transportation system to ship and receive goods, and also to provide good access and visibility to customers. Therefore, it is important that your transportation element development efforts consider whether your decisions to address transportation will meet your community's development needs. For example, a regional shopping center has the potential to greatly improve the vitality of a community. However, if customers cannot easily access the shopping center due to an inadequate transportation system (e.g., traffic back-ups, lack of pedestrian accommodations, lack of transit service), they may choose to shop elsewhere. Similarly, manufacturers and commercial businesses may experience delays in shipping and receiving products as a result of transportation system problems. As you make these determinations you should be familiar with the requirements of the Economic Development Element identified within the Comprehensive Planning Legislation (see Figure 15).

Just as businesses need good access, employees also want to be able to efficiently access their places of employment. Lack of access to employment opportunities may affect individual decisions to seek employment or live in your community. For example, an individual may choose one job offer over another because she can easily commute to work in a minimal amount of time as a result of less congestion or more transportation choices (e.g., transit, bicycling, walking).

For these reasons, it is important that you consider how your community's transportation system currently serves the needs of your business community, and how it will accommodate future economic growth. When making your determinations, you must remember that different businesses have different transportation requirements. For example, a paper mill may value easy access to

roads and rail lines, while a retail distribution center may value access to the interstate and four-lane highways. Likewise, retail businesses located along a main street may value on-street parking and pedestrian and bicycle accommodations more than businesses located in a strip mall. Types of access to consider include:

- Bicycle accommodation (e.g., bike racks, wide lanes, paved shoulders)
- Pedestrian accommodations (e.g., sidewalks, crosswalks, lighting)
- Transit service (e.g., fixed bus routes, service hours and frequency, bus stops, shelters)
- Parking (e.g., adequate availability)
- Traffic flow (e.g., traffic signals, dedicated turn lanes)
- Rail service (e.g., proximity of nearest rail line, frequency of trains)
- Air service (e.g., proximity of nearest airport, type of service provided, highway access)
- Truck access (e.g., weight limits, clearance heights, street widths)
- Recreational/special transportation (e.g., snowmobiles, horses, ATVs)

You should also determine how businesses are likely to be impacted by your community's transportation needs. For example, if traffic flow on your community's main street is high and you decide to re-route some of the traffic to a different street, you should consider the potential impacts (e.g., increased pedestrian access to street shops, and/or decreased visibility to motorists who normally would travel along the corridor) this decision may have on businesses located along your main street.

Some questions to consider when evaluating how your transportation element impacts businesses may include:

- How do your community's plans for accommodating transportation for retail areas impact the safe and efficient use by vehicles, pedestrians and bicyclists?
- How does your transportation element impact the number of vehicle parking spaces?
- How visible and recognizable will the retail area be to passing motorists once your transportation element is implemented?
- Does your transportation element physically divide your business community?

Environmental considerations

Like economic development, transportation decisions can impact environmental quality either positively or negatively. You should develop your transportation element to enhance the positive impacts and avoid or minimize any negative impacts whenever possible.

When you consider environmental impacts of your transportation decisions, you should not only consider the natural environment (e.g., air, water, land), but also the built environment (e.g., aesthetics, existing residential and commercial areas). Both of these environments influence the quality of life within your community.

Figure 16: Agricultural, natural and cultural resources element (§66.1001(2)(e))

A compilation of objectives, policies, goals, maps and programs for the conservation, and promotion of the effective management, of natural resources such as groundwater, forests, productive agricultural areas, environmentally sensitive areas, threatened and endangered species, stream corridors, surface water, floodplains, wetlands, wildlife habitat, metallic and nonmetallic mineral resources, parks, open spaces, historical and cultural resources, community design, recreational resources and other natural resources.

When evaluating the potential impacts on the environment, you should consider the following questions:

- How will the transportation decision affect the particular resource?
- What actions can be taken to avoid, minimize and/or mitigate any negative impacts?
- What (if any) will be the regional impacts?
- How can our actions help to avoid, minimize or mitigate the impact?

As you consider these issues, you should be familiar with legislative requirements for developing the Agricultural, Natural and Cultural Resources Element. (See Figure 16)

When determining the potential impacts your transportation decisions may have on the environment, you should consider the following areas, as applicable to your community:

- Air quality
- Water quality/storm water runoff
- Wetlands
- Noise
- Endangered and/or threatened species
- Historical and/or archeological sites
- Agriculture
- Parks, natural areas and other open spaces
- Coastal and shoreline resources

The Wisconsin DNR has compiled data that may help in identifying and predicting project impacts. (See Appendix 4.)

Although you may strive to avoid, minimize and mitigate impacts to both the natural and built environments, some negative impacts may still occur. For example, even the installation of a sidewalk may have minor negative impacts. While it may positively impact air emissions by encouraging people to walk instead of drive, it also increases the amount of impervious surface which in turn increases the amount of storm water runoff. When a negative impact cannot be avoided, you should try to minimize the severity of the impact.

In addition to addressing the impacts on the natural environment, you should also try to minimize the negative impacts on your community's built and social environment. Some of the activities you can undertake to reduce the negative impact of your transportation project on the built and social environment include:

- Enhancing the aesthetics of a transportation project,
- Using traffic calming measures to minimize some of the negative aspects of vehicular traffic such as noise and speed, and
- Avoiding, when possible, the creation of barriers between neighborhoods.

Aesthetics

Aesthetics refer to the "appearance and character" of an area. Generally speaking, a transportation project should reflect the aesthetics of your community. In rural areas, this may mean preserving scenic areas using easements, designing the project to fit into the natural landscape by following the contours of the land, and landscaping the project. In urban areas, this may include amenities such as specialized lighting, landscaping, and special pedestrian facilities (e.g., raised/contoured crosswalks, benches). It can also include designing bridges and transportation buildings (e.g., transit transfer points, rail depots) to reflect the character of the community using architectural styles that are similar to nearby buildings.

Avoiding the creation of barriers

Transportation facilities can create significant barriers within a community. Often times, the greatest barriers are faced by pedestrians and bicyclists. For example, pedestrians and bicyclists are generally more wary of crossing multi-lane streets than 2-lane

roads, particularly when no medians are provided. Similarly, the construction of a new or expanded street can divide a neighborhood. When a significant barrier is created, people may be less inclined to walk or bike to a particular location because they feel the trip will not be safe. Additionally, a greater number of vehicles will likely use the facility which in turn can result in increased air emissions and possibly the need for an expanded facility.

Accommodating a greater number of transportation choices on the facility can avoid the creation of a barrier. These accommodations may include:

- Sidewalks and/or bike paths/lanes as part of the transportation project;
- Providing a continuous local street grid across major barriers to serve local motor vehicle traffic, bicyclists and pedestrians (See Figure 11 in Chapter 4);
- Underpasses/overpasses for bicyclists and pedestrians; and
- Medians on multi-lane streets to provide a refuge for pedestrians and bicyclists crossing the road.

Incorporating the principles of environmental justice

Finally, you should consider how your community's transportation decisions might impact groups that are traditionally under-represented in planning and programming initiatives. As discussed in Chapter 2, these groups may include minority populations, low-income populations, the elderly, and people with disabilities. As you make transportation decisions for your community, you need to ensure that no disproportionately high and adverse impacts are imposed on any one person or group. Disproportionately impacted includes not only those who experience more negative impacts than others, but also anyone who experiences more benefits than others.

Incorporating the concepts of environmental justice into your planning efforts improves transportation decision making in several ways. As the Federal Highway Administration notes, environmental justice contributes to:

- Better transportation decisions that meet the needs of all people,
- Transportation facility designs that fit more harmoniously into communities,
- Improved public involvement processes and community-based partnerships,
- Improved needs and impact assessment on minority and low-income populations,
- Partnerships with other public and private agencies to achieve a common community vision,
- Avoiding disproportionately high and adverse impacts on minority and low-income populations, and
- Minimizing and/or mitigating unavoidable impacts by identifying concerns early in the planning process and providing measures to benefit/enhance affected communities and neighborhoods.

Regulatory issues to note

There are several laws at both the state and federal levels that you should be aware of as you develop your transportation element and comprehensive

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plan. As you consider how to address the transportation needs within your community, it is important that you are familiar with the laws that may be associated with your decisions. These may include: historical and cultural resources preservation, wetlands and other environmentally sensitive areas protection, land acquisition laws and requirements, as well as any public notice requirements identified under statute. The following provides *a brief overview of just a few of the major laws that affect transportation.*

The **National Environmental Policy Act** (NEPA) of 1969 (42 U.S.C. 4332, as amended) directs all federal agencies to assess the environmental impacts of proposed major federal actions. This assessment requires the detailed documentation of the possible environmental impacts of a major proposed action, the local short term uses of the environment, the enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources.[i] This process of developing a detailed environmental impact analysis ensures that the public is aware of any impacts before decisions are made and actions taken.

The **Wisconsin Environmental Policy Act** of 1972 (WEPA), Wisconsin Statutes §1.11, contains Wisconsin's environmental policies and is patterned after the national environmental policies incorporated in NEPA. WEPA requires state agencies to study, describe and consider environmental impacts in their actions. If the action is considered a "major action significantly affecting the quality of the human environment," the law requires the agency to initiate several steps including: developing an environmental impact analysis (generally an Environmental Impact Statement or EIS) to circulate to other agencies and the public for review and comment; contacting other agencies to discuss the potential environmental impacts; and, holding a public hearing. WisDOT is responsible for developing environmental documentation for projects on the State Trunk Highway system (all numbered highways) and those transportation projects administered by the Department or funded with State and Federal funds. Local units of government may have requirements similar to WEPA that would require them to assess impacts on transportation facilities they develop without State or Federal assistance.[ii] If you have any questions relating to this law you should contact the WisDOT District office in your area (see Appendix 3 for contact information).

The **Clean Air Act** regulates the emissions of a variety of pollution sources ranging from utilities to dry cleaners to landfills to motor vehicles. Under the Clean Air Act, the United States Environmental Protection Agency (U.S. EPA) has established national ambient air quality standards (NAAQS). Communities that do not meet a specific NAAQS are considered to be a non-attainment area and must follow specific procedures outlined in regulation. If your community is located within a non-attainment area (see Appendix 5 identifying Wisconsin Counties currently in non-attainment), you should contact your County Highway Commissioner, MPO or RPC, the WisDNR or the WisDOT District office to discuss how these air quality issues may impact your transportation element and overall local plan.

The Clean Air Act also requires States to prepare State Implementation Plans (SIPs). SIPs document how the State will bring non-attainment areas within the State into compliance with NAAQS. The U.S. EPA approves each SIP.

For more information on the Clean Air Act:

- contact the Wisconsin Department of Natural Resources (Appendix 4), the U.S. EPA (appendix 4), and/or
- review *The plain English guide to the Clean Air Act*. U.S. EPA, EPA-400-K-93-001, April 1993. http://www.epa.gov/oar/oaqps/peg_caa/pegcaain.html

Endnotes

[i]Wisconsin Department of Transportation, *Facilities Development Manual, National Environmental Law, 20-5-1*, February 15, 1998.

[ii]WisDOT, Facilities Development Manual, State Environmental Statute, 20-20-1, February 15, 1998.

Chapter 7

Implementation & funding

Implementation and funding

Development of your transportation element should include defining your implementation strategies and mechanisms for monitoring the progress and success of your element. As you consider strategies to implement your transportation element, you should continually refer back to your community's transportation vision, goals and objectives.

This chapter discusses:

- the implementation element of your local comprehensive plan;
- implementation strategies and tools that may be used for your transportation element;
- funding considerations; and
- monitoring your plan and transportation element.

Figure 17: Implementation element (§66.1001(2)(i)

A compilation of programs and specific actions to be completed in a stated sequence, including proposed changes to any applicable zoning ordinances, official maps, sign regulations, erosion and storm water control ordinances, historic preservation ordinances, site plan regulations, design review ordinances, building codes, mechanical codes, housing codes, sanitary codes or subdivision ordinances, to implement the objectives, policies, plans and programs contained in pars. (a) to (h). The element shall describe how each of the elements of the comprehensive plan will be integrated and made consistent with the other elements of the comprehensive plan, and shall include a mechanism to measure the local governmental unit's progress toward achieving all aspects of the comprehensive plan. The element shall include a process for updating the comprehensive plan. A comprehensive plan under this subsection shall be updated no less than once every 10 years.

Implementation Element

The Implementation Element requires that you identify strategies and actions your community will take to implement your local plan over the planning period. (See Figure 17.) The planning and implementation process should not be considered as occurring in a linear or consecutive pattern. Very often steps to address aspects of one element will need to be taken concurrently with steps needed to address issues for another element.

Although your community's efforts will be directed toward implementing your entire local comprehensive plan, some of the individual strategies will be element specific. As a result, some of your strategies will address your community's existing and future transportation needs. However, because transportation and land use are closely connected, you should consider strategies to implement both elements simultaneously. It is also important that the strategies you develop to implement each of the elements do not contradict or conflict with strategies implementing another element.

Implementation strategies and tools

Once you have drafted your vision statement, identified the related goals and objectives, and assessed your community's needs, you should prepare written implementation strategies or action steps for your community to reference as transportation-related questions are raised and decisions are made.

Your implementation strategies should:

- reflect your vision, goals and objectives defined for the other planning elements;
- reflect your transportation vision statement, goals and objectives; and
- be consistent (as applicable) with state, regional and/or neighboring community transportation policies, and state/federal environmental regulations.

Examples of implementation strategies may include:

- fostering a comprehensive approach to promote and preserve a safe transportation system within the context of the three E's—engineering, enforcement, and education; and/or,
- encouraging pedestrian and bicycle travel by maintaining and enhancing the connectivity of related transportation facilities on the local street transportation system.

There are several tools that you may wish to use and/or consider as you develop strategies to implement your transportation element. The following provides a brief discussion of a few of the tools (indicated in bold text) your community may consider to implement your transportation element. Although each of these methods can be used separately, combining them will likely result in a more comprehensive implementation effort.

As discussed previously, **education and outreach** are critical to the successful implementation of your transportation element. It is important that both the members

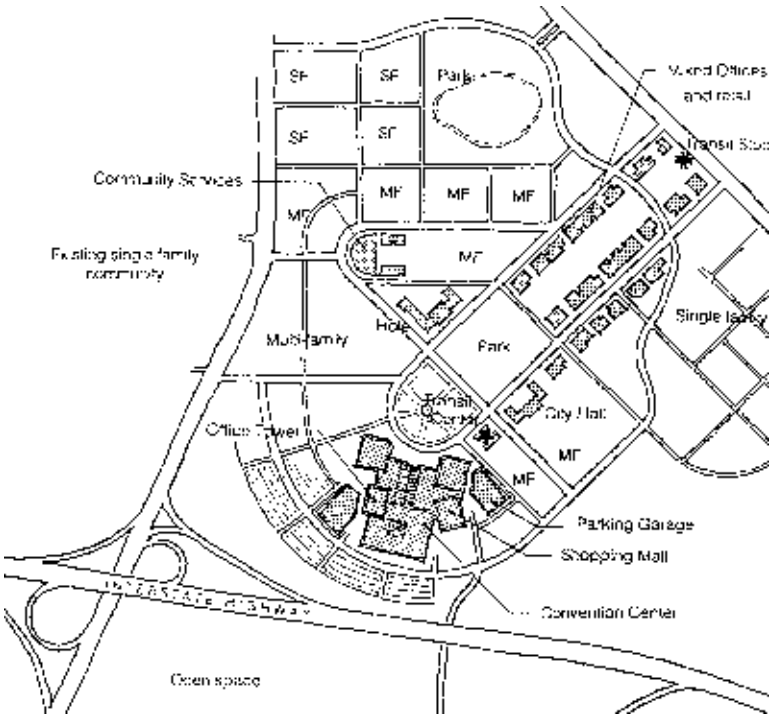
of your community and decision-makers are aware of your comprehensive planning initiative and understand how the goals and objectives within the plan are to be achieved.

In addition, it is important that your community define its standards for future development patterns specific to subdivision, land division, lot layout standards, location of driveways, and other land uses. **Zoning ordinances and subdivision and land division regulations** can help you to implement these strategies. Both methods are widely used to regulate land use and control community development patterns.

Zoning is used to govern how land is used within a community. There are four basic land use categories: agricultural, residential, commercial (business), and industrial (manufacturing). For each general category, there are several sub-categories that can further define the specified land use allowed in that zone or district. Each of these types of zoning regulations can help a community separate land uses that may not be compatible, such as industrial development located within a neighborhood setting.

Another option your community may consider as it defines standards for growth and development includes adopting traditional neighborhood development and conservation subdivision ordinances. While the law requires that communities with populations of at least 12,500 adopt a *traditional neighborhood development ordinance* (§61.1027) by January 1, 2002 it is not required that it be mapped. (Note: Currently this portion of the law is under review, and decisions as to whether it will continue to be a requirement are pending. As you development your comprehensive plan you will need to be familiar with the current legislative requirements.) Generally, traditional neighborhood design promotes incorporating mixed use development concepts into neighborhood design. This means that a variety of uses may be incorporated into one area such as business, residential, and civic spaces which may help to decrease VMT and increase the viability of travel options such as bicycling and walking. (See Figure 18.)

Figure 18: Example of a traditional neighborhood development design (TNDs)



TNDs generally have a center and include a mix of neighborhood uses. They are designed to make walking and bicycling attractive while offering motorists many route options within the local grid system.

SF=single family dwellings MF=multi-family dwellings

Diagram provided courtesy of Citizens for a Better Environment.

A few resources to consider when developing and implementing your transportation element include:

Guide to Community Planning in Wisconsin, Brian Ohm, UW-Extension, 2000.

Smart Growth: Creating Communities for People, Citizen's for a Better Environment, Allison Semandel & Michael Kinde, available Winter of 2000.

As you consider how to accommodate future traffic along specific corridors within your community, it is also important to plan for **land acquisition** needs for both the short- and long-term components of your transportation element. As discussed in the corridor preservation section, preserving the right-of-way along a corridor is important to preserving the facility for potential future expansion. Therefore, you will need to develop strategies to acquire the needed land for future development.

A tool that your community may consider when preserving land for future right-of-way is **official mapping**. Official mapping allows villages, cities, counties and the state to prepare plans and maps showing the approximate location and width of future streets and highways. The purpose of an official map is to inform the public that identified land areas may be required for future rights-of-way. By officially mapping transportation corridors in advance of their need, public agencies can limit development in the corridor.[i] This prevents/limits development from taking place in designated areas of the corridor, and notifies area land owners of future transportation plans.

Inter-governmental and inter-agency agreements are another tool your community may want to consider when implementing your plan and each element. Agreements can be developed with different interests that may be affected by your local planning efforts, such as local governmental units, regional and state agencies, and neighboring communities. By developing these agreements, future conflicts or disagreements may be minimized or avoided. Similarly, establishing these agreements may help to identify barriers and subsequently find solutions toward implementing your plan. These agreements should build upon the Intergovernmental Cooperation element (§66.1001(2)(g)) of your local plan, that requires you to include joint planning and decision making with other jurisdictions for siting and building of public facilities, and sharing of public services.

Funding considerations

In order for your transportation element to be successful, it needs to be financially achievable. Therefore, although it is not required under the Comprehensive Planning Legislation, it is important that you conduct a financial analysis to calculate the cost of meeting your community's identified current and future transportation needs, and then compare this cost to an estimate of available resources.

This section discusses the basic elements of community financial planning by identifying the steps necessary to anchor your transportation element and local plan within your community's budget.

This analysis will guide your implementation strategies and help determine how much your community can afford now and in the future. Additionally, it will help you prioritize projects over the planning period and further achieve your community's goals. One option for conducting this analysis may include developing a Capital Improvement Program. The Capital Improvement Program helps communities plan for capital

expenditures such as, roads and highways, water and sewer facilities and various public buildings generally identified in a list of proposed public projects scheduled over a short time frame (e.g., 4- to 6-years).

Developing an accurate assessment of your community's financial status involves many steps. You should base your financial analysis on the short- and long-term transportation decisions your community has made. (Projects identified for the near term will require a more detailed analysis than projects scheduled in the longer term.)

As you consider how to fund and implement your transportation element, you may want to consider establishing cooperative agreements with your neighboring communities to assist in the development of your transportation element and various projects identified over the planning period.

There are many steps involved in transportation financial planning process. These include:

- estimating the costs of implementing your community's transportation element and/or alternative elements;
- developing cost estimates that include both capital and operating needs;
- identifying and assessing current revenue sources;
- forecasting future revenue sources; and
- developing a schedule of projects to reflect community priorities, and available revenues.

By understanding the costs associated with your community's entire transportation system (e.g., bicycle lanes, pedestrian facilities, possibly transit services, and airport connections), you will be able to develop a more accurate estimate of your community's funding requirements. This will enable you to implement strategies to achieve your community's goals.

Areas that should be considered when developing cost estimates include:

- Maintenance and operation of existing and proposed transportation facilities;
- Designing and building new, expanded, or replacement facilities—such as roads, terminals, sidewalks and bike lanes or paths;
- Costs associated with acquiring new transit vehicles or transit-related equipment and the related capital investment needs (e.g., maintenance facilities);
- Program costs for operating your community's transportation services and facilities; and
- General costs associated with administering and planning the transportation system.

It is important that costs associated with the maintenance and operation of your community's transportation system be accounted for before budgeting for other transportation needs. Maintenance and operation costs are likely to require a large portion of your community's budget.

In addition, as land use decisions are made for your community, it is important for you to estimate the transportation-related costs associated with new developments. If your financial assessment for

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a new building, such as a school or large retail center, does not include cost estimates associated with the necessary transportation facilities to access the land use, funding shortfalls may delay or prevent the successful completion of the project.

The maintenance and operation costs for your transportation system must be fully accounted for before budgeting for any other transportation needs.

Once you have made the cost estimates and determined whether available and forecast revenues will be sufficient to meet those needs, decisions regarding your community's financial policies and scheduling of projects should follow. By scheduling projects based on funding availability and community priorities, the transportation element is further framed within the context of what is achievable over the planning period. It is equally important to include the costs associated with any future plans for retrofitting a facility to ensure a more accurate estimate of future needs.

By developing your transportation element within an achievable and realistic fiscal framework you will help to ensure the success of your transportation element.

For example, your community has determined that a new roadway is needed, but available resources will not cover the costs of including sidewalks at the time of construction. Your assessment should reflect the reality that a future sidewalk retrofit can be and generally is more expensive than constructing it at the time the original project is built.

As you consider available funding sources to implement the strategies outlined in your transportation element, you may want to consider the programs administered by WisDOT (see Appendix 6). Each program's available funding is limited, and the application process is very competitive. If your community chooses to submit an application for funding under a specific program, it is important that you follow the specific requirements outlined for that program.

Developing a transportation element or plan takes time and money. Your financial needs assessment should also include estimates associated with the preparation and the ongoing administration of the transportation element.

Available resources

There are many technical resources available to assist you as you consider the financial aspects of your transportation element. These include your area WisDOT Transportation District Office, the applicable MPO or RPC, and County Highway Department.

A few notes regarding plan adoption

The Comprehensive Planning Legislation requires that all plans be formally adopted on or before January 1, 2010. The Legislation (§66.1001(4)) outlines the procedures for adopting your comprehensive plan. Briefly, these include:

- ensuring that the plan includes all nine elements;
- demonstrating that the plan development process was designed to foster public participation throughout every stage of preparation as required by §66.1001(4)(a);
- adoption of a resolution by a majority vote of the entire plan commission or other body of a local governmental unit authorized to prepare or amend a comprehensive plan (§66.1001(4)(b));
- enacting an ordinance to formally adopt the plan (§66.1001(4)(c)) by a majority vote of the members elect as defined under §59.001(2m); and
- holding at least one public hearing to discuss the proposed ordinance before it may be enacted (§66.1001(4)(d)). A Class 1 notice under ch. 985 must be published at least 30 days prior to the date of the hearing. (See Figure 19.)

Once the plan is adopted, you must send a copy to all of the following:

- Every government within the boundaries of the local governmental unit;
- The clerk of every local governmental unit that is adjacent to your community which is the subject of the plan;
- The Wisconsin Land Council;
- The Department of Administration (after September 1, 2003);
- The regional planning commission in which your local governmental unit is located; and
- The public library that serves the area in which your local governmental unit is located.

Although the legislation does not require it, you should also send a copy of your plan to the MPO, WisDOT Transportation District Office in your region, and the Wisconsin DNR.

Ensuring consistent decision-making

Once your plan has been adopted, all programs and actions affecting land use within your community must be consistent with your comprehensive plan (§66.1001(3) pars. (a) to (s).) (See Figure 20.) The decisions you make and actions you take regarding development within your community must be consistent with your comprehensive plan. Therefore, it is important that as you consider implementing your transportation element, you include a discussion of both new projects and projects related to existing facilities, anticipated in both the short- and long-term portions of your transportation element.

Although it is unlikely that you will be able to identify the specific location of a new project, other aspects should be identified. Project information may include any expected capacity expansion projects, the general location and extent of new road and/or interchange needs, and any expected expansions or provisions for other modal services such as adding a new transit service or expanding existing service, providing additional bike accommodations, and/or pedestrian walkways. You should also identify projects related to existing facilities that may include more routine activities such as resurfacing and reconstruction of facilities expected over the life of your plan. As you identify

Figure 19: Minimum requirements of a Class 1 notice

- date, time and place of hearing;
- summary information related to proposed comprehensive plan, or amendment;
- contact information; and,
- information on how to obtain a copy of the proposed comprehensive plan or amendment prior to the hearing.

Figure 20: Local actions must be consistent with adopted comprehensive plans—(§66.1001(3) pars (a) to (s))

Beginning on January 1, 2010, any program or action of a local governmental unit that affects land use shall be consistent with that local governmental unit's comprehensive plan…

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these projects, you will also need to develop cost estimates for these projects.

Monitoring your transportation element

Your comprehensive plan must have at a minimum a 20-year planning horizon. Therefore a critical component to the successful implementation of your plan is to monitor and evaluate the effectiveness of the plan in meeting your community's goals and objectives. The Implementation Element of the Comprehensive Planning Legislation requires that you include:

- A mechanism to measure your progress toward achieving all aspects of the comprehensive plan; and
- A process to review and update your plan as necessary at least once every ten years.

As your community changes, your plan will need to be reviewed regularly and updated as needed. Therefore, it is important that your community incorporate mechanisms within your planning process to "trigger" plan reviews as necessary. If you find that your transportation element is not meeting your community's goals and objectives in its current form, then you will need to amend both your transportation element and comprehensive plan.

To determine at what times a plan review and potential update is necessary, you should ask the following questions:

- Is the plan achieving/attaining the goals and objectives originally defined?
- Is a proposed decision, action or program consistent with our local plan?
- Does a proposed decision, action or program significantly impact decisions specific to one or more of the elements?
- Is the inventory of data used to assess our community's future transportation still accurate or has new data been developed?
- Are growth trends consistent with the forecasts used in the plan?
- Does a recent action or program taken by an adjacent community, region or state entity impact our community's local plan, or one or more of the individual elements?
- Do any of the implemented strategies identified in the plan now appear to conflict or inhibit attainment of our community's goals, or objectives?
- Is a plan update needed to respond to a recent suit filed against the community for actions alleged to be inconsistent with the local plan?

Endnotes

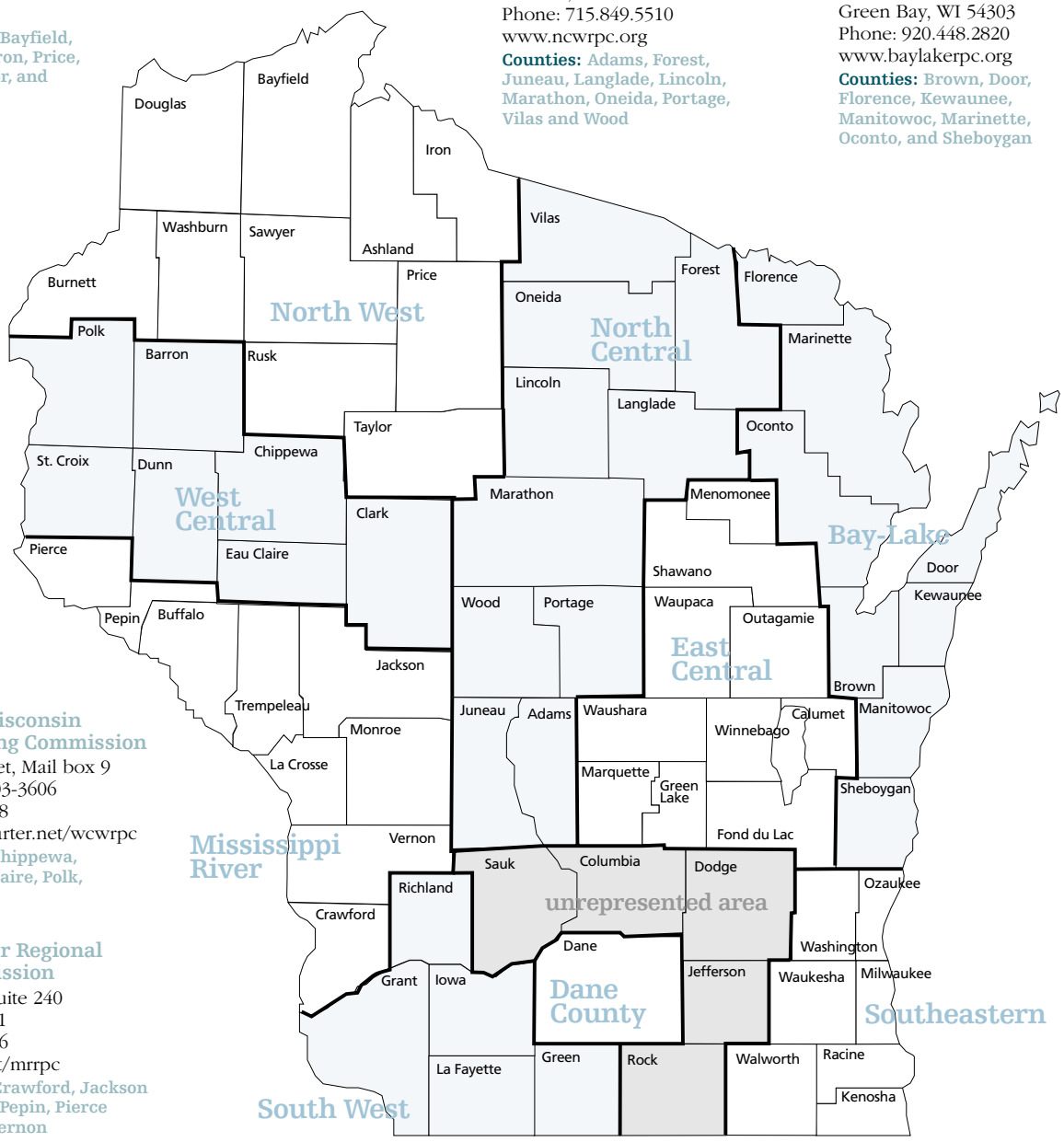
[i]Brian Ohm, *Guide to community planning in Wisconsin*, 2.10.1, 2000.

Appendix 1: Contact information for Regional Planning Commissions (RPCs)

North West Regional Planning Commission
1400 S River Street
Spooner, WI 54801
Phone: 715.635.54801
www.nwrpc.com
Counties: Ashland, Bayfield, Burnett, Douglas, Iron, Price, Rusk, Sawyer, Taylor, and Washburn

North Central Wisconsin Regional Planning Commission
210 McClellan St, Suite 210
Wausau, WI 54403
Phone: 715.849.5510
www.ncwrpc.org
Counties: Adams, Forest, Juneau, Langlade, Lincoln, Marathon, Oneida, Portage, Vilas and Wood

Bay-Lake Regional Planning Commission
Suite 211
Old Fort Square
211 N Broadway
Green Bay, WI 54303
Phone: 920.448.2820
www.baylakerpc.org
Counties: Brown, Door, Florence, Kewaunee, Manitowoc, Marinette, Oconto, and Sheboygan



West Central Wisconsin Regional Planning Commission
800 Wisconsin Street, Mail box 9
Eau Claire, WI 54703-3606
Phone: 715.836.2918
http:/webpages.charter.net/wcwrpc
Counties: Barron, Chippewa, Clark, Dunn, Eau Claire, Polk, and St. Croix

Mississippi River Regional Planning Commission
1707 Main Street, Suite 240
La Crosse, WI 54601
Phone: 608.785.9396
www.centurytel.net/mrrpc
Counties: Buffalo, Crawford, Jackson La Crosse, Monroe, Pepin, Pierce Trempealeau and Vernon

South West Wisconsin Regional Planning Commission
426 Karrman Library
Platteville, WI 53818
Phone: 608.342.1214
www.swwrpc.org
Counties: Grant, Green, Iowa, Lafayette, and Richland

Dane County Regional Planning Commission
217 S Hamilton, Suite 403
Madison, WI 53703-3238
Phone: 608.266.4137
www.co.dane.wi.us/rpc/rpc.htm
Counties: Dane

Southeastern Wisconsin Regional Planning Commission
916 N East Avenue
PO Box 1607
Waukesha, WI 53187-1607
Phone: 262.547.6721
Counties: Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha

East Central Wisconsin Regional Planning Commission
132 Main Street
Menasha, WI 54952-3100
Phone: 920.751.4770
www.eastcentralrpc.org
Counties: Calumet, Fond du Lac Green Lake, Marquette, Menominee, Outagamie, Shawano, Waupaca, Waushara and Winnebago

Appendix 2: Contact information for the Metropolitan Planning Organizations (MPOs)

East Central Wisconsin Regional Planning Commission
(Appleton-Oshkosh)
132 Main Street
Menasha, WI 54952-3100
phone: 920.751.4770
fax: 920.751.4771
email: anyone@EastCentralRPC.org
http://www.eastcentralrpc.org

State Line Area Transportation Study
(Beloit)
100 State Street
Beloit, WI 53511
phone: 608.364.6690

Dubuque Metropolitan Area Transportation Study
(Dubuque)
P.O. Box 1140
Dubuque, IA 52004
email: ecia@mwci.net
http://www.iarcog.com/ecia.htm

Janesville Area Transportation Study
Janesville Planning Department
18 North Jackson Street, P.O. Box 5005
Janesville, WI 53547-5005
phone: 608.755.3084
fax: 608.755.3196

La Crosse Area Planning Committee
400 La Crosse Street
La Crosse, WI 54601
phone: 608.789.7512
email: ruckenbrodd@cityoflacrosse.org

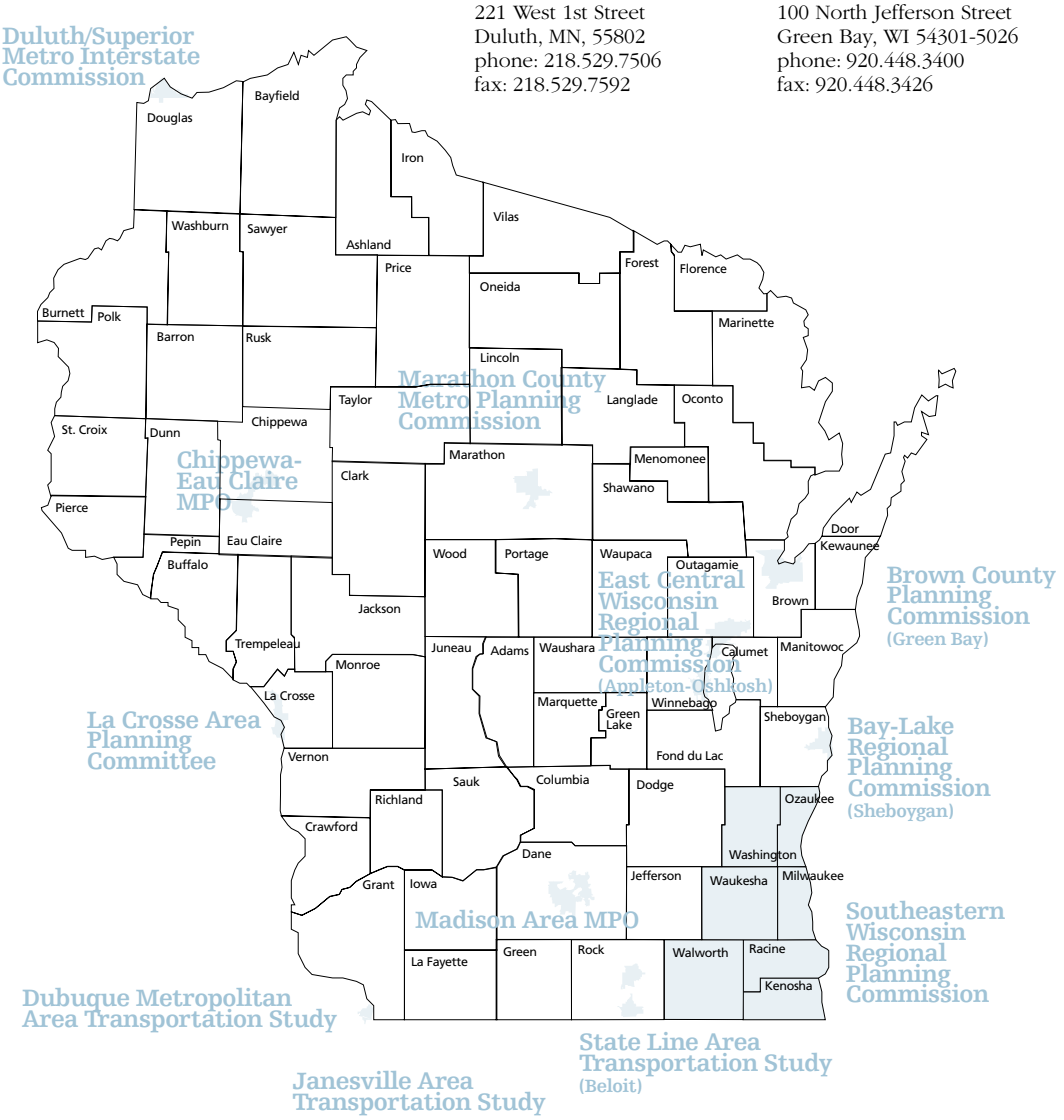
Madison Area MPO
City of Madison
217 S. Hamilton, Suite 217
Madison, WI 53703
phone: 608.266.4137
fax: 608.266.9117

Bay-Lake Regional Planning Commission
(Sheboygan)
Old Fort Square, Suite 211
211 North Broadway
Green Bay, WI 54303-2757
phone: 920.448.2820
fax: 920.448.2823
http://www.baylakerpc.org/index.htm

Marathon County Metro Planning Commission
(Wausau)
Marathon County Planning Department
210 River Drive
Wausau, WI 54403-5449
phone: 715.261.6043
fax: 715.261.6016
email: dtmack@mail.co.marathon.wi.us

Superior-Duluth Metro Interstate Commission
Arrowhead Regional Development Commission
221 West 1st Street
Duluth, MN, 55802
phone: 218.529.7506
fax: 218.529.7592

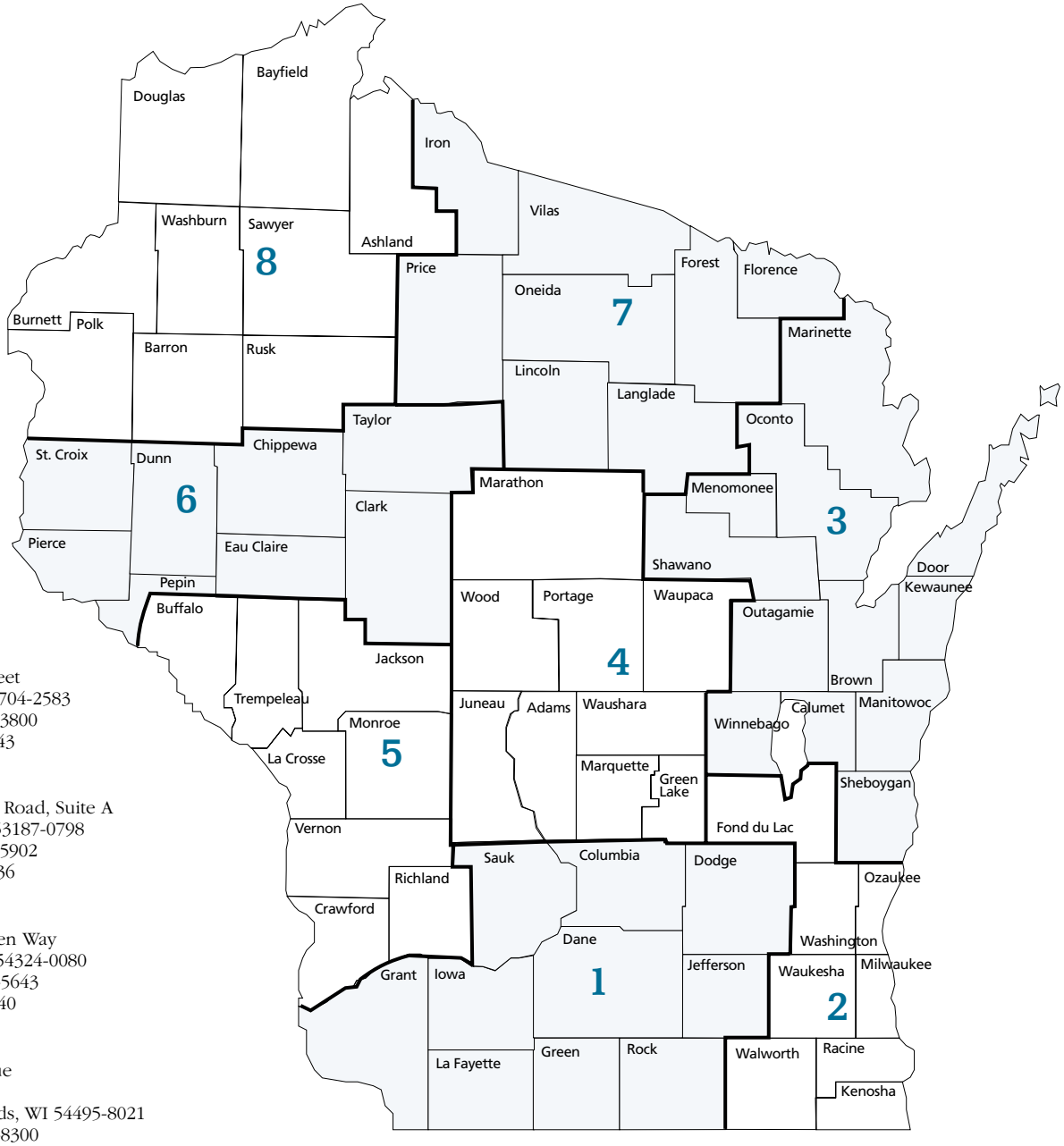
Brown County Planning Commission
(Green Bay)
City Hall, Room 608
100 North Jefferson Street
Green Bay, WI 54301-5026
phone: 920.448.3400
fax: 920.448.3426



Southeastern Wisconsin Regional Planning Commission
(Kenosha, Milwaukee, Racine)
Old Courthouse
916 N. East Avenue, P.0. Box 1607
Waukesha, WI 53187-1607
phone: 414.547.6721
fax: 414.547.1103
email: sewrpc@globaldialog.com
http://www.wisrep.org/SEWRPC/sewrpc.html

Chippewa-Eau Claire Metropolitan Planning Organization
West Central Wisconsin
Regional Planning Commission
800 Wisconsin Street Mailbox #9
Eau Claire, WI 54703-3606
phone: 715.836.2918
fax: 715.836.2886
email: wcwrpc@charter.net
http://webpages.charter.net/wcwrpc

Appendix 3: Contact information for WisDOT (District offices)



District 1
2101 Wright Street
Madison, WI 53704-2583
Phone: 608.246.3800
Fax: 608.246.3843

District 2
2000 Pewaukee Road, Suite A
Waukesha, WI 53187-0798
Phone: 262.548.5902
Fax: 262.548.8836

District 3
944 Vanderperren Way
Green Bay, WI 54324-0080
Phone: 920.492-5643
Fax: 920.492-5640

District 4
1681 2nd Avenue
P.O. Box 8021
Wisconsin Rapids, WI 54495-8021
Phone: 715.421-8300
Fax: 715.423-0334

District 5
3550 Mormon Coulee Rd.
LaCrosse, WI 54601-6767
Phone: 608.785.9022
Fax: 608.785.9969

District 6
718 W. Clairemont Ave.
Eau Claire, WI 54701-5108
Phone: 715. 836-2891
Fax: 715 .836-2807

District 7
Hanson Lake Road
Rhinelander, WI 54501-0777
Phone: 715. 365.3490
Fax: 715.365-5780

District 8
1701 N. 4th St.
Superior, WI 54880-1068
Phone: 715.392.7925
Fax: 715.392.7863

Appendix 4: Resource directory: agency resources, information & reference list

Agency resources

The sources listed below are not all-inclusive. Instead, the list provides a sample of agencies that may have information you could use in preparing your transportation element. Other sources of information (e.g., county government, neighboring communities, MPO/RPCs) are not listed.

The State of Wisconsin and the U.S. Federal Government both provide general web pages that offer links to a variety of state and federal agencies and local governments. The web addresses are:

Wisconsin
www.wisconsin.gov

United States
www.firstgov.gov

Demographic

U.S. Census Bureau
Washington, DC 20233
301.457.4608
www.census.gov

Wisconsin Department of Administration
101 East Wilson St.
Madison, WI 53707
608.266.1741
www.doa.state.wi.us

Economic development

Wisconsin Department of Commerce
201 W. Washington Ave.
Madison, WI 53703
608-266-1018
www.commerce.state.wi.us

University of Wisconsin –Extension
432 N. Lake St.
Madison, WI 53706
608.262.3980
http://www1.uwex.edu/
(Note: Extension offices are located in every Wisconsin county. You should contact your county extension office before contacting the main office in Madison. Contact information should be listed in your local telephone book.)

Environment

U.S. Environmental Protection Agency (Region 5)
77 W. Jackson Blvd.
Chicago, IL 60604
312.353.2000 or 800.621.8431
www.epa.gov

U.S. Fish & Wildlife Service Region 3
Federal Drive
BHW Federal Building
Fort Snelling, MN 55111
612.713.5360 or 800.657.3775
www.fws.gov

U.S. Geological Survey State Representative Office
8505 Research Way
Middleton, WI
53562-3581
608.821.3801 www.usgs.gov

Natural Resource Conservation Service –Wisconsin State Office
6515 Watts Rd
Madison, WI 53719-2726
608.276.8732
www.nrcs.usda.gov

Wisconsin Department of Natural Resources
101 S. Webster
P.O. Box 7921
Madison, WI 53707-7921
608.266.2621
www.dnr.state.wi.us

State Historical Society
816 State St.
Madison, WI 5306-1482
608.264.6400
www.shsw.wisc.edu

Wisconsin Agricultural Statistics Service
P.O. Box 8934
Madison, WI 53708-8934
608.224.4848 or 800.789.9277
www.nass.usda.gov/wi/

University of Wisconsin–Extension
432 N. Lake St.
Madison, WI 53706
608.262.3980
http://www1.uwex.edu/
(Note: Extension offices are located in every Wisconsin county. You should contact your county extension office before contacting the main office in Madison. Contact information should be listed in your local telephone book.)

Land use, mapping, and zoning

Wisconsin Department of Administration
101 East Wilson St.
Madison, WI 53707
608.266.1741
www.doa.state.wi.us

Wisconsin Department
of Commerce
201 W. Washington Ave.
Madison, WI 53703
608.266.1018
www.commerce.state.wi.us

Wisconsin Department
of Agriculture, Trade
and Consumer Protection
2811 Agriculture Dr.
PO Box 8911
Madison, WI 53708-8911
608.224.5001
datcp.state.wi.us/static/

Wisconsin Department
of Revenue
2135 Rimrock Rd.
Madison, WI 53713
608.266.2772 www.dor.state.wi.us

Wisconsin State
Cartographer's Office
160 Science Hall,
550 N. Park Street
Madison, WI 53706-1491
608.262.3065
http://feature.geography.wisc.edu/

University of Wisconsin
–Madison School of
Natural Resources,
College of Agricultural
and Life Sciences
Land Information
Center and Computers
Graphics Facility
550 Babcock Drive, Room B102
Madison, WI 53706
608.263.5534
www.lic.wisc.edu

Transportation

U.S. Department
of Transportation
www.dot.gov

Federal Highway
Administration
(Wisconsin Division Office)
Highpoint Office Park
567 D'Onofrio Dr.
Madison, WI 53719
608.829.7500
www.fhwa.dot.gov/widiv/

Federal Transit Administration
(Region 5)
200 W. Adams St., Ste. 2410
Chicago, IL 60606
312.353.2789
www.fta.dot.gov

Federal Railroad Administration
1120 Vermont Ave., N.W.
Washington, D.C. 20590
202.493.6024
www.fra.dot.gov

Federal Aviation Administration
(Minneapolis Airport District Office)
6020 28th Avenue, South
Minneapolis, MN 55450
608.713.4350
www.faa.gov/arp/app600/
5054a/landuse.htm

Federal Aviation Administration
(Great Lakes Region)
4301 International Ln.
Madison, WI 53704
608.244.7774
www.faa.gov

Maritime Administration
(Great Lakes Region)
2860 S. River Rd., Ste. 185
Des Plaines, IL 60018
847.298.4535
www.marad.dot.gov

Wisconsin Department
of Transportation
4802 Sheboygan Ave.
Madison, WI 53702
608.266.3581
www.dot.state.wi.us
(Note: This address is to the central office in Madison. See Appendix 3 for contact information for District offices.)

Office of the Commissioner
of Railroads
610 N. Whitney Way
Madison, WI 53702
608.266.7607

Transportation Development
Association of Wisconsin
22 N. Carroll St., #102
Madison, WI 53703
608.256.7044
www.tdawisconsin.org

Notes

Information & reference list

Note that the materials included below are not all-inclusive, but only a sample of materials available. In addition, the web site addresses listed in the Information Resources can provide additional references.

Access management & corridor planning

Corridor Preservation & Access Management Guidance, Guidelines to Assist Metropolitan Planning Organizations in Addressing Corridor Preservation and Access Management Concerns in their Communities.
WisDOT, January 1994

WisDOT Access Management System Plan, WisDOT

Idaho Corridor Planning Guidebook, Idaho Transportation Department, February 1998
http://www2.state.id.us/itd/index.htm

Airport planning

Land use Compatibility Around Airports, A Guide for Effective Lane Use Planning
FAA, September 1993

Wisconsin State Airport System Plan 2020
WisDOT, February 2000

A Guide for Land Use Planning Around Airports in Wisconsin
WisDOT, 2001

Wisconsin Airport Development Handbook
WisDOT, March 2000

Bicycle planning

Wisconsin Bicycle Planning Guidance—Guidelines for Metropolitan Planning Organizations & Communities in Planning & Developing Bicycle Facilities,
Wisconsin Department of Transportation, 1993

Wisconsin State Bicycle Plan 2020
WisDOT, December 1998

Guide for the Development of Bicycle Facilities
American Association of State Highway and Transportation Officials, 1999
http://www.aashto.org
202.624.5800

Community planning: general

Guide to Community Planning in Wisconsin
Brian Ohm, University of Wisconsin–Extension

Smart Growth: Creating Communities for People
Allison Semandel and Michael Kinde, Citizens for a Better Environment, 2000
http://www.cbemw.org
414.271.7280

Environmental justice

An Overview of Transportation and Environmental Justice
Federal Highway Administration, FHWA-EP-00-013, May 2000

FHWA Environmental Justice Internet Library
http://www.fhwa.dot.gov
(key word search environmental justice)

Highway planning

Wisconsin State Highway Plan 2020, WisDOT, February 2000

6-Year Highway Improvement Program, WisDOT.

Pedestrian planning

Wisconsin Pedestrian Planning Guidance—Guidelines for Metropolitan Planning Organizations & Communities in Planning & Developing Pedestrian Facilities
WisDOT, 1993

Wisconsin State Pedestrian Plan 2020, WisDOT, 2001 (tentative release date)

Main Street…when a highway runs through it: A handbook for Oregon communities
Oregon Department of Transportation and Oregon Department of Land Conservation and Development (DLCD), 1999

Public involvement

Transportation Action: A Local Input Model to Engage Community Transportation Planning
North Central Regional Center for Rural Development, April 1996

The Neighborhood Charrette Handbook
Dr. James A. Segedy and Bradley E. Johnson. http://ww.louisville.edu/org/sun/planning/char.html

Public Involvement Techniques for Transportation Decision-making
FHWA and FTA, 1996. http://www.fhwa.dot.gov/reports/pittd/cover.htm

Rail planning

Wisconsin State Rail Plan 2020
WisDOT, 2002 (tentative release date)

Secondary impacts

Indirect and Cumulative Effects Analysis for Project-Induced Land Development, Technical Reference Document
WisDOT

Community Impact Assessment: A Quick Reference for Transportation
Federal Highway Administration, FHWA-PD-96-036, September 1996

Community Impact Mitigation: Case Studies
Federal Highway Administration, FHWA-PD-98-024, May 1998

Transit planning

Wisconsin State Transit Plan 2020
WisDOT, 2003 (tentative release date)

Transportation planning: general

Translinks 21: A Multi-modal Transportation Plan for Wisconsin's 21st Century
WisDOT, February 1995

Your Community's Transportation System: A Transportation Element Guidebook
State of Washington, Department of Community Development, Growth Management Division, June 1993. 206.753.2222

Visioning

Building Our Future: A Guide to Community Visioning
University of Wisconsin –Extension, 2000

Towards Managing Growth in Washington: A Guide to Community Visioning
State of Washington, Department of Community Development, Growth Management Division, October 1991. 206.753.2222

Appendix 5: Wisconsin counties in non-attainment and maintenance

attainment area
severe non-attainment area
moderate non-attainment area
maintenance area
rural transport non-attainment area

Appendix 6: WisDOT administered local programs

The following provides a brief description of funding programs administered by WisDOT. They are divided into two categories: 1) competitive funding programs; and 2) formula driven programs.

Competitive funding programs available to communities

Statewide Multi-modal Improvement Program (SMIP)

This program is designed to fund projects that enhance traditional highway facilities and promote multi-modal activities. There are two programs that make up SMIP: Local Transportation Enhancements (TE) Program, and Surface Transportation Program Discretionary (STP-D).

1. Local Transportation Enhancements (TE) program

The enhancements program provides funding to local governments and state agencies for projects that enhance a transportation project. There are 12 eligible project categories:

- providing facilities for bicycles and pedestrians;
- providing safety and educational activities for pedestrians and bicyclists;
- acquiring scenic easements and scenic or historic sites;
- sponsoring scenic or historic highway programs, including the provision of tourist and welcome centers;
- landscaping and other scenic beautification;
- preserving historic sites;
- rehabilitating and operating historic transportation buildings and structures;
- preserving abandoned railway corridors;
- controlling and removing outdoor advertising;
- conducting archaeological planning and research;
- mitigating water pollution due to highway runoff or reducing vehicle caused wildlife mortality; and
- establishing transportation museums.

Federal funds will cover up to 80% of the project, while the project sponsor is responsible for providing at minimum the remaining 20%.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.264.8723 or 608.266.1535.

2. Surface Transportation Program Discretionary (STP-D)

This program encourages projects that foster alternatives to single occupancy vehicle trips, such as rehabilitation and purchase of replacement vehicles for transit systems, facilities for pedestrians and bicycles, system-wide bicycle planning, and a wide range of transportation demand management (TDM) projects. Communities over 5,000 are eligible to apply for the funds through the competitive application process.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.264.8723 or 608.266.1535 and 608.266.1379 for transit projects only.

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Transportation Demand Management Programs

Transportation Demand Management consists of policies and programs designed to reduce the number of single occupant vehicle (SOV) trips in a region, especially during peak travel periods.

There are two grant programs: TDM Grant Program; and the Wisconsin Employment Transportation Assistance Program (WETAP).

1. TDM Grant Program

The TDM grant program provides funding to successful grant recipients to implement projects that encourage innovative solutions and alternatives to reducing SOV trips. WisDOT accepts applications annually. Eligible applicants may include local governments, chambers of commerce, and others as defined by the program. The required local match is 20% of the project cost.

2. Wisconsin Employment Transportation Assistance Program (WETAP)

As a joint program between the Wisconsin Department of Workforce Development (DWD) and WisDOT, it provides funding to help low-income people access, retain or advance in employment with the goal of meeting the entire population's transportation needs. This program is funded with combined federal and state dollars, and requires a local match.

Application requirements include the development of regional job access plans that identify the need for transportation services and illustrate the alternatives proposed for the program. Plans should be developed between public transit providers, local units of government, transportation planners, human service agencies, low-income individuals and other interested parties.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.1379.

Transportation Economic Assistance (TEA) Program

This program provides 50% state grants to governing bodies, private businesses, and consortiums for road, rail, harbor, and airport projects necessary to help attract employers to the state, or to encourage business and industry to remain and expand.

For more information, contact WisDOT, Divisionof Transportation Investment Management, Bureau of Planning, 608.266.3488.

Congestion Mitigation and Air Quality Program (CMAQ)

This program provides funding for transportation projects that improve air quality and reduce traffic congestion. Funding is only available in counties that are classified as air quality non-attainment or maintenance areas for ozone under the criteria established at the federal level. Wisconsin counties that currently meet this criteria include: Milwaukee, Racine, Kenosha, Waukesha, Washington, Ozaukee, Walworth, Sheboygan, Manitowoc, Kewaunee, and Door. (See Appendix 5) Applicants are required to provide at minimum a 20% match of the total project cost.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.264.8723 or 608.266.1535,

Federal Airport Improvement Program

The Airport Improvement Program provides funding for airport improvement projects in two ways: block grants, and individual grants to primary commercial service airports.

The grants may be made either as entitlement grants or discretionary grants. Entitlement grants are awarded as annual lump sum awards to qualifying primary commercial service airports based on the airport's number of annual enplanements. Discretionary grants are another competitive source of funds that a primary commercial service airport may apply for. Discretionary grants are awarded using the national priority rating system.

For more information, contact WisDOT, Division of Transportation Infrastructure Development, Bureau of Aeronautics, 608.266-3351.

Federal Discretionary Capital Assistance Program: Section 5309

Funds under this program are awarded through the Congressional earmark process. Capital assistance includes 80% of the costs of the project equipment, or up to 90% of the costs of equipment or modifications required by the Americans with Disabilities Act (ADA) or the Clean Air Act.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.6812.

State Urban Mass Transit Operating Assistance Program

This program has an annual application cycle that provides funds for eligible project costs to 65 public bus and shared-ride taxi systems. Eligible public transportation services include transportation by bus, shared-ride taxicab, rail or other conveyance, either publicly or privately-owned that provides the public with general or special service on a regular and continuing basis.

Funds are distributed using a four tier system (each tier has a separate appropriation):

- Tier A1 includes funding for the Milwaukee County Transit System;
- Tier A2 includes funding for the Madison Metro Transit System;
- Tier B: Systems in urbanized areas with populations between 50,000 and 200,000, plus Waukesha City and County systems;
- Tier C: All systems in urban areas with populations between 2,500 and 50,000.

Eligible applicants include a local public body (e.g., counties, municipalities, towns or transit or transportation commissions or authorities) in an urban area (i.e., city or village of 2,500 or more that is appropriate, in the judgment of WisDOT, for an urban mass transit system) served by an urban mass transit system incurring an operation deficit.

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For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.6812.

Elderly and Disabled Transportation Capital Assistance Program

This annual grant program provides capital funding for specialized transit vehicles used to serve the elderly and persons with disabilities. State and federal funds provide 80% of the eligible equipment costs.

Eligible applicants may include private non-profit organizations, local public bodies that do not already have a private non-profit organization readily available to provide transportation service, and local public bodies that are approved as the coordinator of elderly and disabled transportation services in their service area.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.1650.

Harbor Assistance Program (HAP)

This is a grant program designed to assist harbor communities along the Great Lakes and Mississippi River to maintain and improve waterborne commerce. Applications are accepted on a semi-annual basis on August 1 and February 1.

To be eligible for funding, the port facility must be publicly-owned; the project must benefit facilities that are used for cargo transfer, ship building, commercial fishing or regular ferry service; the applicant must be a local unit of government; the project must pass a rigorous benefit-cost analysis; and the project must have been identified in a current Three-Year Harbor Development Plan.

Project selection criteria are spelled out in an administrative rule (TRANS 28) and they include the following: 1. economic impact of the project, 2. type and urgency of the project, and 3. priority of the project. Port projects typically include dock reconstruction, mooring structure replacement, dredging, and the construction of facilities to hold dredged material.

For more information, contact WisDOT, Division of Transportation Infrastructure Development, Bureau of Rails and Harbors, 608.267.9319.

Freight Railroad Programs: Grant & Loan Program

WisDOT administers two programs to help preserve and improve Wisconsin's freight rail service: 1) the Freight Railroad Preservation Program (FRPP); and 2) the Freight Railroad Infrastructure Improvement Program (FRIIP). Both programs provide local units of government, industries, and railroads with financial assistance to preserve essential lines and encourage improvements of existing lines.

The FRPP provides grants for up to 80% of the costs to purchase abandoned lines to continue freight rail service or to preserve the opportunity for future rail service. The program also provides grants for substitute service projects and to rehabilitate facilities such as tracks and bridges on publicly-owned lines.

The FRIIP provides up to 100% loans for projects that accomplish line rehabilitation, help develop the economy, connect an industry to the national railroad system, and/or make improvements to enhance efficiency, safety, and intermodal freight movement.

For more information, contact WisDOT, Division of Transportation Infrastructure Development, Bureau of Rails and Harbors, 608.267.3710.

Competitive/Formula Funding Source

Local Transportation Facilities Program

The Local Transportation Facilities Program is comprised of two programs: the Surface Transportation Program-Urban (STP-U) and the Surface Transportation Program-Rural (STP-R).

1. Surface Transportation Program-Urban

The Surface Transportation Program-Urban provides funding for projects designed to improve federal aid eligible highways within urban areas. Projects must meet federal and state requirements. Communities are eligible for funding on roads functionally classified as higher than "local". Counties, towns, cities, villages and certain public authorities located within urban and urbanized areas are eligible for funding of projects that meet federal and state requirements. Urban areas with populations of more than 200,000 (Madison and Milwaukee) receive designated funding by federal law. Urban areas with populations of 5,000 to 200,000 receive funds based upon MPO priorities or statewide formula requirements.

2. Surface Transportation Program-Rural

The Surface Transportation Program–Rural provides funding for projects designed to improve federal aid eligible highways outside of urban areas (generally county trunk highways). Projects must meet federal and state requirements. Communities are eligible for funding on roads classified as rural minor collectors or higher. Counties set priorities for funding requests within their area, with projects funded on a statewide formula basis.

STP-U and STP-R projects are solicited by the local WisDOT Transportation District Office staff in winter of the odd numbered years, with program approval in summer of the odd numbered years. The programs have a three-year cycle.

For more information regarding either program, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.1535 or 608.264.8723

Formula driven local government transportation assistance programs

General Transportation Aids (GTA)

Funding from this program represents a partial reimbursement for transportation-related expenditures made by local units of government. Payments are divided among all local governments based on either a percentage of eligible highway-related expenditures or a per-mile payment, whichever results in a higher payment.

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For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.267.7344 or 608.266.9497.

Connecting Highway Aids

This program pays local governments for maintaining streets and highways within their jurisdictions that provide connections to the State Trunk Highway system. Municipalities receive quarterly payments on a per lane mile basis, with rates varying according to population, and the number of lanes or segments of streets.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.267.7344 or 608.266.9497.

Lift Bridge and Expressway Policing Aids

This program provides state aid to specific local governments (Cities of Milwaukee, Racine, Green Bay, Manitowoc, and Two Rivers) for costs associated with their lift bridges and with the police patrolling of expressways in Milwaukee County.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.264.7336 or 608.267.7344.

County Forest Road Aid

This program provides assistance to counties that have eligible roads located within county forests. It is intended to defray the costs for the improvement and maintenance of public roads within a county forest.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.264.7336 or 608.267.7344.

Flood Damage Aids

This program provides local governments with financial assistance for replacing or improving roads or roadway structures that have had major damage caused by flooding.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.264.7336 or 608.267.7344.

Local Roads Improvement Program (LRIP)

This program provides funding to local units of government for the costs associated with improving seriously deteriorating county highways, town roads, and municipal streets in cities and villages under the authority of the local unit of government. Projects are required to have a minimal design life of 10 years. This is a biennial program and all funds are distributed the first year. Applications are submitted through the county highway commissioners by November 15 of the odd numbered years.

There are three entitlement components for funding road improvements: 1) County Highway Improvement component (CHIP); 2) Town Road Improvement component (TRIP); and 3) cities and villages under Municipal Street Improvement component (MSIP).

In addition, LRIP funds three statewide descretionary programs: 1) CHIP-D County Highway Discretionary Improvement Program; 2) TRIP-D Town Road Discretionary Improvement Program; and 3) MSIP-D Municipal Street Discretionary Improvement Program for cities and villages.

All LRIP projects are locally let, with up to 50% of the costs reimbursed by WisDOT upon completion, and the remainder matched by the local unit of government. Eligible projects include, but are not limited to: design and feasibility studies, bridge replacement or rehabilitation, reconstruction, and resurfacing. Ineligible projects include, but are not limited to: new roads, seal coats, ditch repair, and/or curb and gutter construction.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.9497 or 608.264.7336.

Local Bridge Program

This program funds 80% of project costs to replace and rehabilitate structures on the Federal Bridge Register, in excess of 20 feet. Bridges with sufficiency ratings less than 50 are eligible for replacement and those with sufficiency ratings less than 80 are eligible for rehabilitation.

Counties set priorities for funding within their area, with projects funded on a statewide formula basis.

Local bridge projects are solicited by local WisDOT Transportation District Office staff in winter of the odd numbered years, with program approval in summer of the odd numbered years. The program has a three-year cycle.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.1535 or 608.264.8723.

Federal Formula Grant Program for Urbanized Areas: Section 5307

This is a federal formula program based upon population, population density, and revenue miles of service. It is organized into three funding tiers:

A. urbanized areas with populations over one-million (Milwaukee);
B. urbanized areas with populations between 200,000 and one-million (Madison); and
C. urbanized areas with populations between 50,000 and 200,000 (twelve in Wisconsin).

Tiers A and B can use funds for capital purchases only (including capital maintenance costs). These are funded directly from the Federal Transit Administration.

Program funds for urbanized areas under 200,000 population are allocated to the Governor who is responsible for determining the distribution to individual transit systems. Systems in Tier C can use funding for either capital or operating assistance.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.6812.

Notes

Rural and Small Urban Area Public Transportation Assistance Program: Section 5311

Allocations to the State are set at the federal level. Funds may be used for operating assistance, and capital assistance. Eligible public transportation services include public transportation service operating or designed to operate in non-urbanized areas (less than 50,000 population).

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.3973.

Rural Transportation Assistance Program (RTAP)

This program funds projects with the following qualities: furthering the development of skills and abilities of persons involved in providing passenger service to the state's rural and small urban areas; encouraging development of professional networks among Wisconsin transportation providers; and offseting some of the costs of attending national, state and local transit training and educational programs.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.3973.

Specialized Transportation Assistance Program for Counties

Allocations under this formula program are based upon the proportion of the state's elderly and disabled population located in each county, subject to two minimums: no county can receive less than a ½-percent of the total annual appropriation; and no county can receive an allocation smaller than they received in 1992. A local match of 20-percent is required.

Eligible expenditures include:

- directly provided service;
- purchase of transportation service from any public or private organization;
- a user-subsidy for elderly or disabled passengers for their use of the transportation service;
- volunteer driver escort reimbursement;
- performing or purchasing planning or management studies on transportation;
- coordinating transportation services;
- performing or purchasing in-service training relating to transportation services; and/or
- purchasing capital equipment for transportation services.

For more information, contact WisDOT, Division of Transportation Investment Management, Bureau of Transit and Local Roads, 608.266.1650.

Appendix 7: Public involvement techniques

How can you reach the public?

There are a number of ways you can reach the public. These may include using mass media, implementing two-way communication techniques and employing other avenues to provide and receive information. It is not necessary to utilize all of the techniques indicated in Figures 21 and 22. Instead, you can select and tailor the methods you believe will best suit your public outreach needs.

Utilizing the media (e.g., newspapers, radio, television) to advertise your planning effort will facilitate participation in your public involvement process. Ways to conduct outreach through the mass media may include:

- ads in community calendars
- display ads in newspapers
- newspaper articles
- news coverage
- radio call-in shows
- public service announcements
- meetings with reporters

The people interested in your transportation planning process will expect to be kept informed and updated regularly. A useful method to start this process is to develop and maintain an inclusive mailing list. One of the ways in which you can assemble and/or refine your mailing list during the initial stages of your plan development is to inform your community that you are starting a transportation planning process. This may be communicated by circulating brochures, pamphlets or other materials to the general public and organizations throughout your community or by posting them in libraries and other public spaces. The brochure/pamphlet can be used as an effective two-way communication tool to not only introduce your planning initiative, but also assess the level of interest in your community. By including a built-in response mechanism, such as a response card into your brochure, you will provide a means for the public to become part of the process by indicating their interest in receiving updates and learning more about the initiative.

As you develop an approach to meet the goals of your public involvement process, your community involvement toolbox will likely contain a variety of strategies. You will not only want to have opportunities to convey information to the community but you will also want to listen to what the public has to say. Each of the methods highlighted in Figures 21 and 22 can be used individually or in combination and can help expand and enhance your public involvement process.

More information on most of these public involvement approaches, as well as other techniques can be found in the Federal Highway Administration/ Federal Transit Administration publication, *Public involvement techniques for transportation decision-making*, dated September 1996. This publication is available on the Internet at: http://www.fhwa.dot.gov/reports/pittd/cover.htm

Figure 21: Other information vehicles

- mailing lists
- brochures/pamphlets
- newsletters
- informational flyers
- web site
- surveys/questionnaires
- information hotline

Figure 22: Two-way communication techniques

- public meetings
- symposiums
- public forums
- workshops
- listening sessions
- focus groups
- open houses
- present information at community meetings
- public hearings

Appendix 8: Wisconsin's Adopted Draft and Final Comprehensive Plans

The following is a brief list of some Wisconsin communities that have developed comprehensive plans in response to the Comprehensive Planning Legislation. Please note that these plans have not been reviewed or certified to ensure that they meet the requirements of the Comprehensive Planning Legislation.

Community and plan title	Counties of Jurisdiction	Draft/ final	Date of plan
City of Mauston Comp Plan	Juneau	draft	March 00
Village of Cottage Grove Comp Plan	Dane	final	March 00
City of Watertown Comp Plan	Jefferson, Dodge	draft	May 00
Town of Scott	Burnett	final	July 00
City of Altoona	Eau Claire	final	August 00
Belmont Comprehensive Plan Summary	Lafayette	final	January 00
Sheboygan Comprehensive Plan	Sheboygan	final	October 00
City of Sheboygan Comprehensive Plan	Sheboygan	draft	October 00