

OTHER TRANSPORTATION ISSUES/CONCERNS

Areas of Concern

Although there are many facets of the transportation networks, some may produce more significant impacts than others. Listed below are present and expected situations, the potential effects of which deserve special attention. Recognizing that transportation needs do not occur independently of land use, the NATS committees have identified a list of community concerns, primarily related to land use, that have a direct impact on the area's transportation network. These concerns are as follows:

- Southeast Berrien County Landfill (on Chamberlain Road) has an effect on the truck transportation system. US-12 tapers to two lanes near the landfill and there is a significant volume of truck traffic exists.
- Increased traffic volume on Portage Road results from retail development in Indiana.
- The development of the St. Joseph Valley Parkway (US-31) and the implementation of the *St. Joseph Valley Parkway Corridor Preservation Study* completed in 2004. (Corridor preservation involves planning for land uses that are adjacent to and can be viewed from US-31.)
- The Bertrand Crossing expansion and its effects on surrounding land use.
- Hospitals and other medical facilities, their locations, and the traffic that they generate. A new healthcare facility is slated to open in Mishawaka in 2009.
- Improved routes for commercial traffic accessing the Niles Industrial Park.
- Commercial traffic and its effects on residential and agricultural development, and the preservation of agriculture and open space. The preservation of open space and of the agriculture industry hinge on property owners' decisions and local implementation of state land use policy. These land use decisions bear directly on the road network. Any change in the density of population and intensity of land use activities will change the predicted traffic flows and possible congestion in those segments of the network. As employment opportunities spread far from the historic centers of the cities, they put a strain on the existing network. Many of these problems involve land use and development policies, and they often have the greatest affect on the townships. Concerns about population density, access management, and support of arterial routes have become important planning

considerations because of increasing residential development pressures. Housing developments on the northern edge of Indiana are encroaching into Michigan through subdivision roads as developers buy and build on land that straddles the boundary between the states.

- The lack of direct north/south routes in Cass County.
- Traffic on the existing north-south routes including, but not limited to, Gumwood, Fir, M-62/SR 23, and Ironwood, moving to and from the University Park Mall, individual strip malls and mega stores in the Mishawaka area (Indiana).
- Access management. In terms of a smoothly functioning road system, consistent land use and access management techniques throughout the individual jurisdictions protect the road's carrying capacity and improve safety. The road network does not appear to be carrying volumes of traffic that put roads over their design capacity. Rather, intermittent spots of congestion or inappropriate traffic through certain developed areas may be the result of less than ideal land use policies.

Intelligent Transportation Systems

Traffic congestion has been increasing worldwide as a result of increased motorization, urbanization, and population growth. Congestion reduces the efficiency of a transportation system thereby increasing travel time, air pollution, and fuel consumption. Interest in Intelligent Transportation Systems (ITS) has been the result of traffic congestion and the development of new technologies. An ITS system manages and controls a transportation system to achieve increased efficiency, promote safer traffic conditions, and provide users with better and more current information.

Development of a regional ITS architecture is required by the FHWA and FTA for a region to be eligible for federal funding of any ITS projects. Projects added to the TIP, must be evaluated to determine if the project contains ITS components. Detected components must be checked against the approved ITS architecture for compliance.

The U.S. Department of Transportation's (DOT) ITS Joint Program Office in 1999 defined ITS as a mechanism to collect, store, process and distribute information relating to the movement of people and goods. Examples include systems for traffic management, public transportation management, emergency management, traveler information, advanced

vehicle control and safety, commercial vehicle operations, electronic payment, and railroad grade crossing safety.

An architecture and deployment plan is created to provide the desired vision fifteen years hence. An ITS architecture is a high level plan that identifies the need for the various services that ITS can provide and documents how ITS systems and components can be integrated together. ITS architectures provide a framework for implementing ITS projects, encourage interoperability and resource sharing among agencies, identify applicable standards to apply to projects, and allow for cohesive long-range planning among regional stakeholders. With a functional ITS architecture stakeholders are able to plan for what they want their system to look like in the long-term and then break the system into smaller pieces that can be implemented in the short-term. A deployment plan provides a list of sequenced ITS projects to implement within the architecture. The plan will provide geographic location, technologies involved, and time of deployment. The plan also is financially constrained and provides a benefit cost analysis of different deployment options.

Southwest Regional Plan

The southwest regional plan was introduced in January 2008 and encompasses nine counties in the southwest corner of Michigan, including Berrien, Cass County and two counties in the university region (Lansing). The purpose of the plan is to identify feasible ITS solutions that can meet the needs of the region and a reasonable implementation plan. The plan focuses on the benefits and costs of various ITS deployments as they relate to the overall system. This gives local agencies the necessary tools to make informed decisions with limited available funding. The Southwest Region's architecture and deployment will be continually maintained and updated by MDOT's Southwest Regions as the region grows and technology changes to ensure quality and usefulness.

ITS in the Southwest Region

Eight public transit providers in Berrien, Cass, Branch, Kalamazoo, St. Joseph, and Van Buren Counties have purchased and are implementing a web-based system called Dial-A-Ride-Online. This is a route scheduling software which enables automatic trip scheduling/optimal route planning designed to make managing and operating road based, passenger transportation service, quick, simple, and cost effective. The web based software

automatically schedules passenger requests to the most appropriate vehicle by providing the operator with a list of available options. The process maximizes the number of passengers per vehicle/route. Dial-A-Ride-Online is helping transit providers to optimize vehicle resources, reduce trip refusals, dead mileage, vehicle running cost, and improves efficiency of service for the customer. Because Dial-A-Ride Online is web-based, there is an opportunity to utilize the software to improve cooperation and communication between the transit providers and human service agencies. The software will allow the transit agencies the potential to expand services where they are most needed, provide more effective cross-county service, decrease duplication of efforts, and make it possible to pool resources regionally.

Development Patterns/Smart Growth

“In communities across the nation, there is a growing concern that current development patterns, dominated by what some call "sprawl" or leapfrog development, are no longer in the long-term interest of our cities, existing suburbs, small towns, rural communities, or wilderness areas. Though most are supportive of growth, many communities question the economic costs of abandoning infrastructure in the city, only to rebuild it in further out” (www.
<http://www.smartgrowth.org/about/default.asp>).

Communities are also observing that sprawl has social affects such as quality of life, social equity, health, transportation and housing.

“Spurring the smart growth movement are demographic shifts, a strong environmental ethic, increased fiscal concerns, and more nuanced views of growth. The result is both a new demand and a new opportunity for developing in a different and smarter way, smart growth.

The features that distinguish smart growth in a community vary from place to place. In general, smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. Smart growth is more town-centered, is transit and pedestrian oriented, and has a

greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities.”

Those that apply smart growth tenets tend to focus on ten key principles to guide them through their land use decisions:

1. Create a range of housing opportunities and choices
2. Create walkable neighborhoods
3. Encourage community and stakeholder collaboration
4. Foster distinctive, attractive communities with a strong sense of place
5. Make development decisions predictable, fair and cost-effective
6. Mix land uses
7. Preserve open space, farmland, natural beauty and critical environmental areas
8. Provide a variety of transportation choices
9. Strengthen and direct development towards existing communities
10. Take advantage of compact building design

The preservation of open space, farmland, natural beauty and critical environmental areas is being achieved through a tri-county initiative for green infrastructure. This effort is being facilitated by the SWMPC under the title of “Growing Greener in Southwest Michigan.”

The value of these lands are gradually becoming apparent as they are incrementally lost or become fragmented by development. With the loss or degradation of land that is vital in the network of green infrastructure in the region, important function and habitat is compromised. The Michigan State University land transformation model shows increasing development pressure to be expected, especially along the 55 miles of southwest Michigan’s Lake Michigan coast. Without a comprehensive effort to inventory and rank critical resource areas, conservation efforts will not be able to adequately provide an interconnected system of green infrastructure. However, with a common vision, priority resources can be strategically protected, connected and the efforts of organizations and municipalities with common goals can be coordinated. The Growing Greener project will strive to have green infrastructure be a major component in land use planning, growth, and economic development decisions. Sustained prosperity in SW Michigan depends on our natural resource infrastructure. To date, this is the complete list of communities and organizations

that have signed a resolution of support for the Growing Greener in southwest Michigan initiative:

- **FEDERAL:**
National Park Service, Rivers, Trails, & Conservation Assistance Program
- **STATE:**
Michigan Natural Features Inventory, Michigan Department of Environmental Quality (MDEQ) Coastal Zone Management Program
- **TRIBAL:**
Pokagon Band of Potawatomi Indians
- **EDUCATION:**
Michigan State University Land Policy Institute
- **REGIONAL:**
Southwest Michigan Planning Commission, Paw Paw River Watershed Group,
- **COUNTY:**
Berrien County Planning Commission, Cass County Planning Commission, Cass County conservation District, Cass County & Road Commission Parks Department, Van Buren County Planning Commission, Berrien County Parks Department
- **TOWNSHIP:**
Almena Township, Bloomingdale Township, Chikaming Township Planning Commission, Decatur Township, Hamilton Township, Silver Creek Township, St. Joseph, New Buffalo
- **CITY & VILLAGE:**
Bangor, Benton Harbor, Bloomingdale, Hartford, Niles
- **NON-PROFIT:**
The Conservation Fund, Chikaming Open Lands, Southwest Michigan Land Conservancy (SWMLC), Meeting Ecological and Agriculture Needs of Dowagiac River System (MEANDRS), Friends of the St. Joseph River
- **PRIVATE:**
Homebuilders of Southwest Michigan

Communities throughout the planning region have begun to incorporate Green Infrastructure language into their master plans and recreation planning documents. This

incorporation of language will serve as the tool needed to ensure that land with high values within the green infrastructure will not lose its ability to retain its vital function.

Asset Management

In the State of Michigan, under the oversight of the Transportation Asset Management Council (TAMC), it is encouraged that all agencies that spend transportation funds on roads and bridges to implement an asset management approach to managing their transportation infrastructure. Asset management is defined as “an ongoing process of maintaining, upgrading, and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment.” Asset management consists of a set of business principles and practices for improving resource allocation decisions. It requires a shift from a traditional tactical project management approach to a strategic, comprehensive systems management concept (Michigan TAMC 1-1).

The Berrien and Cass County Road Commissions and NATS have a pavement management system in place to manage their resources by making cost effective allocations. The process begins with assessing the current condition of the transportation infrastructure. Pavement Surface Evaluation and Rating (PASER) is a visual evaluation method, based on engineering principals, of rating the road network using a scale from 1 to 10. On an annual basis a three-member team is assembled from the road commission, SWMPC, and MDOT to collect the field data necessary to assess the current network. The data collected is used by NATS to set program targets and funding levels. Specifically, those targets reflect how much money is available for spending on preventive maintenance or capital improvements and what combination will achieve the greatest efficiency. Future candidate projects are identified by applying rules of thumb to current condition data, based on public input, or through engineering judgment and field inspection. Projects have to be prioritized because in most cases there is not enough money to carry out all candidate projects. PASER provides the data necessary to prioritize candidate projects. Projects are incorporated in a multi-year program (TIP) and updated on an annual basis. The final step in the process is to report the results to TAMC through three reports – a summary of current condition, a three-year program, and a summary of actual spending over the past year.

Rideshare

SWMPC has managed a Rideshare program since 2001. The Rideshare program in Berrien County works to effect behavioral change among citizens and businesses to reduce traffic congestion and improve air quality. Rideshare staff works one-on-one with employers, employees, and public agencies to develop options for commuting. Initiatives include an outreach effort to assist area employers in establishing and maintaining effective commuting options for employees and job seekers.

The Go! Rideshare website www.gorideshare.org provides a secure, free, on-line, real-time commuter matching service available to anyone who lives and works in Berrien, Cass, or Van Buren counties. Interested commuters who register with Go! RideShare are sent an email once a match is found of people or co-workers who are going the same direction at approximately the same time of day.

The SchoolPool program shares space on the GO! Rideshare website and provides a secure, on-line, real time matching service to all public and private schools K-12, technical schools, universities, and colleges located in Berrien, Cass, and Van Buren counties.

Transportation Safety Planning

Federal law requires both the state and MPO to integrate safety conscious planning into the transportation process and to be consistent with the Strategic Highway Safety Plan (SHSP). The SHSP's mission is to improve traffic safety in Michigan by fostering communication, coordination, and collaboration among public and private entities. NATS and its MDOT partners are constantly looking for opportunities to incorporate safety conscious planning into their planning process for the benefit of the entire transportation network.

In the past, SWMPC has sponsored traffic safety forums to discuss topical issues regarding traffic safety and emergency transportation operations. Invitees included individuals and organizations charged with enforcement, planning, public works, and engineering within the region. Forums are intended to get input for area stakeholders on how to better to incorporate safety conscious planning into the transportation system.

NATS also incorporates safety conscious planning in the project selection for the LRTP and the TIP. All projects are evaluated against a range of criteria including whether or not they promote a safer transportation network.