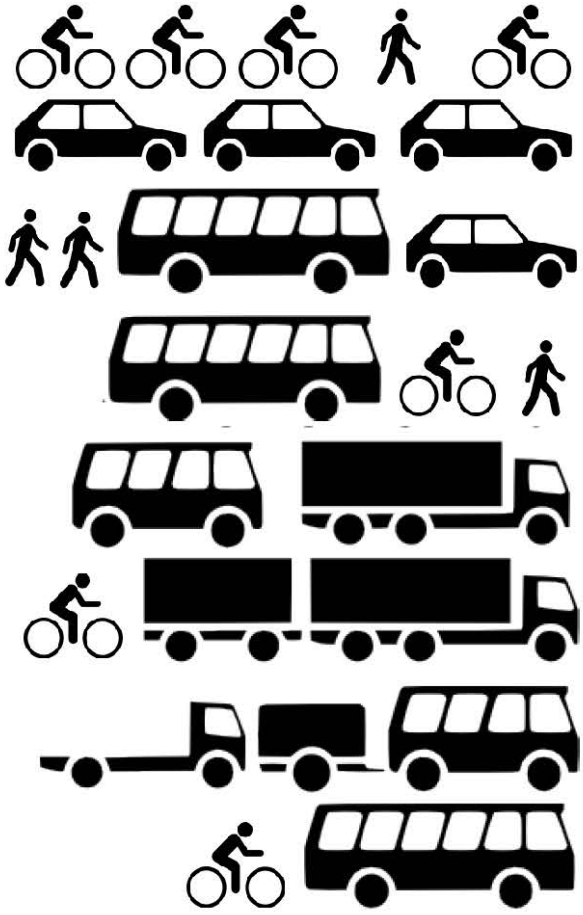
Michigan Livable Communities
Demonstration Project

Leading Livability:
Pilot Transportation Demand Management and Mobility Management Programs of Five Michigan Communities



Smart Growth America
Making Neighborhoods Great Together

Completed in collaboration with the Michigan Department of Transportation and Michigan State Housing Development Authority.

MDOT
Michigan Department of Transportation

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Geoff Anderson, President and CEO, Smart Growth America
Rayla Bellis, Associate, Smart Growth America
Roger Millar, PE, AICP, Vice President, Smart Growth America

The following consultants provided research and writing support:

Nelson\Nygaard Consulting Associates
Karina Ricks, Principal
Ellen Oettinger. Senior Associate
Gretchen Johnson, Associate
Stephanie Wright, Senior Associate

Current Transportation Solutions
Lisa Ballard, Principal
Ted Lange, Planner
Wendy Weaver, Planner
Kevin Wright, Planner

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STATE OF MICHIGAN

RICK SNYDER
GOVERNOR

MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY
LANSING

SCOTT WOOSLEY, CFA
EXECUTIVE DIRECTOR

November 12, 2013

Dear Michigan Leaders:

One year ago we invited Smart Growth America to partner with our agencies to develop policy and programmatic changes in Michigan that bring together the broad array of transportation and other stakeholders and align their efforts to ensure that Michigan's economic development and place-making activities will produce jobs, spur regional economies and elevate the quality of life for all our state's citizens. This report documents a year of that partnership's efforts to provide technical assistance regarding transportation demand management and mobility management strategies for sustainable communities.

The five communities featured in this progress report are representative of any community in our state. They have demonstrated the width and breadth of what is possible when state agencies and localities partner together, rethink old conventions, and try new things.

We are excited to see more communities avail themselves of the opportunities presented by transportation demand management and mobility management. We fully intend to do our part to encourage partnership across agencies and programs to support your efforts.

We encourage cities, counties, state agencies and other stakeholders to think critically about how these strategies can work elsewhere – from Saginaw to Benton Harbor, Copper Harbor to Coldwater and all the corridors and communities in between.

Best Regards,

Kirk Steudle, PE
Director
Michigan Department of Transportation

Scott Woosley
Executive Director
Michigan State Housing Development Authority

735 East Michigan Avenue, P.O. Box 30044, Lansing, Michigan 48909
michigan.gov/**mshda** • 517.373.8370 • FAX 517.335.4797 • TTY 800.382.4568

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Introduction

In 2013, the Michigan Sense of Place Council, representing numerous state agencies under the direction of Governor Snyder, engaged in a partnership with Smart Growth America to provide technical advisory services to agencies/organizations in five communities of Michigan pursuing livable communities initiatives. The agencies/ organizations are the City of Grand Rapids, the City of Marquette, the Northwest Michigan Council of Governments (NWMCOG), ReImagine Washtenaw (Ann Arbor/Ypsilanti region), and the Tri-County Regional Planning Commission.

The assistance was in two primary areas – community mobility management and strategic transportation demand management (TDM).

TDM is a general term for strategies that increase overall system efficiency by encouraging and enabling a shift from single-occupant vehicle (SOV) trips to non-SOV modes. TDM strategies may also look to shift trips from peak period (high-demand) hours to times when more capacity is available. SOV trip reduction strategies include increasing travel options, enhancing non-motorized networks and connections for bicyclists and pedestrians, providing incentives and information to encourage and help individuals modify their travel behavior, and reducing the physical need to travel through transportation-efficient land uses. The cumulative impact of a comprehensive set of TDM strategies can have a significant benefit on system efficiency, accommodation of new growth, and success of a metropolitan area. TDM programs are usually implemented by public agencies, employers, or via public private partnerships.

Mobility management is the state of the practice for planning and implementing effective and coordinated transit services for a variety of populations. Traditionally various programs target transportation services only to specific groups such as seniors, people with disabilities, veterans or low income households. Mobility management crafts a coordinated system that increases efficiency financially and operationally while providing individual customers with a range of options to meet their needs. Mobility management assists in integrating regional transit services as well which can expand the reach, efficiency and level of service across regions both large and small. The full range of mobility management services may include customer relations, marketing, planning, land use development, system integration, finance, administration, legal, compliance, human resources, multimodal operations, information technology, engineering, construction, and varied non-operating functions.

About the Demonstration

Michigan, like states across the nation, struggles with shrinking transportation budgets and ever expanding transportation needs. Both infrastructure and populations are aging requiring more services and investment. Although auto travel continues to

dominate in many areas of the state, more and more communities are looking to broaden transportation options to both meet local community needs and improve their position to compete for the next generation of workers and employers. As the state's economy rebounds and communities experience slow but steady growth, they are looking to gain more efficiency from transportation systems and resources.

The opportunities the five Michigan communities supported through this demonstration effort have seized respond to challenges familiar to communities across the state and nation:

- An urban district growing with development, but limited in roadway capacity seeking strategies to say yes to growth, but no to additional traffic. (Grand Rapids' Michigan Street Corridor)
- a suburban corridor trying to reinvent itself from a strictly auto arterial to a vibrant place inviting to all modes (Washtenaw Avenue between Ann Arbor and Ypsilanti)
- A region struggling to meet the daily transportation needs of its special populations today and support the vitality of those populations tomorrow. (Lansing Tri-County area)
- small and mid-sized municipalities seeking to expand and improve transportation services for commuters and tourists while at the same time meeting the needs of special needs populations (Marquette and Traverse City/Northwest regions)

The experience of these five communities, and the strategies and approaches developed through this technical assistance effort, provide lessons and reveal opportunities for regions throughout Michigan and provide colleague states a wealth of new approaches to old challenges. The report highlights the existing conditions and the intended directions of the model regions and provides tailored strategies that support their livability goals.

Lessons Learned

Across the state, small towns and major regions face transportation and mobility challenges to their economic success and community livability. Whether actively growing, or trying to catalyze growth, communities are seeking new approaches that will strengthen mobility while economically using the financial resources and physical infrastructure they presently have.

The experience of these Michigan communities demonstrates the significant value of transportation demand management and mobility management. The key lessons learned have been to:

1. **Local collaboration.** Barriers may exist in the isolation between diverse employers, in the rules governing various transportation funding programs, or between the practices of the state and the desires of the locality. The Michigan communities supported through this technical assistance program found ways to work together across institutions, governmental levels, and budgetary line items. This collaboration allowed

new ways to address needs and new efficiencies to meet them.

2. **Build up partnerships.** Both transportation demand management and mobility management rely on broad and diverse partnerships – partnerships between the state and localities, public and private stakeholders, and partnerships between agencies and among jurisdictions. Partnerships leverage and optimize available resources and nearly always achieve more for each individual stakeholder than could be accomplished separately.
3. **Rethink old notions about funding, management and travel.** Focus on outcomes rather than obstacles in reinventing programs, policies and mobility.
4. **Think long-term.** Transportation systems and programs and the communities and developments they serve took a long time to develop and may take a significant amount of time to change. The strategies developed look at steps that can be taken in the near term, and strategies that will require a longer period to mature and implement. It is important to recognize that incremental progress is important progress toward a more sustainable transportation program.
5. **Remain flexible.** Communities are dynamic and their transportation needs and patterns are sure to change over time. The strategies developed through this technical assistance program provide appropriate solutions to meet today's needs, but importantly, are flexible enough to adapt to changing demands and new opportunities in the future.
6. **Track, report, and celebrate performance.** "We achieve what we measure." There is much truth in the old adage. Measurement is a cornerstone of successful programs. Documenting where you began and measuring the effect of the program is vital to both celebrating success and recognizing the need to make adjustments and course corrections. Data from experience and implementation is vital to building and retaining partnerships, demonstrating value, reporting efficiencies, and gaining long term public support.
7. **Just do it.** The roughly nine months of the technical assistance period was a short timeframe in which to expect concrete actions to be accomplished, yet almost every region found at least one small, or not so small, action to dive into and each began to lay the groundwork for their management program even while the technical assistance was in process. Small steps begin the momentum necessary for improvement and success.

Michigan is a model state in many ways and the lessons learned here, and the strategies developed, provide a rich opportunity for other communities to learn and adopt approaches relevant to their own conditions and challenges.

1 The State Interest

Transportation is the backbone of the economy moving people to educational and employment opportunities, moving goods to market and moving investments and state competitiveness. Yet states across the nation continue to face serious economic challenges in providing efficient, competitive and reliable transportation systems. Federal resources are shrinking and their future uncertain. State budgets are stretched thin during a time when aging transportation infrastructure demands major reinvestment and aging populations demand more transit services.

At the same time, demographers increasingly cite how transportation choices are influencing worker choices in where they want to live and work. Today workers are choosing where they want to live before choosing where they will work, and employers are taking notice and gravitating to states and regions that offer a rich assortment of travel options, equal incentives across modes, and efficient transit systems for all ages and abilities. In attracting industry and employers to the state, efficient transportation services are vital, not only for the movement of freight, but the access and attraction of top skilled workers.

State government - which is at various times funder, intermediary, consumer and provider of transportation resources and services - plays a critical role in maintaining or enhancing the competitiveness of the state as well as local economies. They establish transportation standards that directly and indirectly affect how people move and whether employers move in. The constant call to "do more with less" means that states must seek out and support greater system and service efficiency. Increasingly, therefore, it falls to the state to lead the way toward fruitful collaboration, creative cross-funding and inventive incentives to reposition the state and its regions in the next economic age, even when program and project decisions ultimately lie with local officials or federal funders.

The State of Michigan has both an opportunity and imperative to support its livable regions. Transportation demand management offers a range of strategies that can be tailored to the needs, local culture, and existing resources of communities across the state. TDM programs are designed to enable, encourage and support traveler choices that optimize existing infrastructure, services, and capacities often resulting in significant state transportation program savings that can be applied to address pressing needs for maintenance, operations, and additional mobility services. TDM is a partnership between state agencies, (such as DOTs, economic development and housing agencies), localities, transit providers and public and private industry, institutions and employers. This shared partnership includes shared responsibility and shared financial commitment and a stake in positive transportation and economic outcomes. Once adopted and established, TDM programs provide greater opportunity to sustainably meet increases in travel demands and flexibly adapt as transportation preferences change over time.

State government not only provides leadership and support in pursuing TDM, but often also has an active role to play and vital stake in its success. TDM programs provide great benefit to the state. Such programs can help the state attract top talent from a workforce that increasingly seeks transportation choices (including the choice not to travel at all). By encouraging alternative travel patterns for shorter distance trips, TDM can reduce highway and arterial congestion improving operations for their intended purposes: moving freight and longer distance trips. While holistic TDM programs are generally implemented at the regional, municipal, district, or employer level, state government can lead by example in providing model TDM benefits to employees, developing temporary TDM programs for roadway construction projects, or actively linking the state's Complete Streets policy to providing infrastructure to support TDM programs and travel alternatives.

Mobility management (MM) strategies offer the state a comprehensive framework for identifying needs and integrating roles, funding and services to meet those needs. Although MDOT plays a central role in the state for planning, improving, delivering and funding public transit services, it is certainly not alone. Many state agencies also participate in the delivery of transit services through their funding, program or policy oversight of non-emergency medical transportation (NEMT) or other human service transportation including Veterans Affairs (VA), Office of Services to the Aging (OSA), Michigan Department of Community Health (MDCH), Medical Services Administration (MSA), and the Developmental Disabilities Council (DD). Mobility Management can offer the state a roadmap for improving interagency communication, helping to design and implement local level pilot projects, and developing and enacting policy changes to leverage the resources and optimize the impact of these many agencies.

By improving the ability to access services and destinations, mobility management improves the reach and effect of social service programs of the state. It maintains the vitality, activity and health of special needs populations and retains them as happy and contributing members of the state's communities. Integrated regional transit systems are simpler to use and more efficient to operate and fund. Such quality transit plans support tourism and local economies, especially in some of the charming, but small, cities and towns of the state. It is in the state interest to optimize all available financial resources and establish more efficient and productive transit and mobility systems. This too improves state competitiveness and attractiveness as a location for residents and businesses.

2 Process and Partnership

Smart Growth America was invited by the Governor's Sense of Place Council in partnership with the Michigan Department of Transportation (MDOT) and Michigan State Housing and Development Agency (MSHDA) to provide technical assistance services that would support five Michigan regions pursuing livable communities initiatives. The individual regions chose to emphasize either transportation demand management or mobility management strategies; however the process to develop action plans for the regions followed a generally consistent process which is broadly applicable to other communities.

Prior to beginning the process, each region defined the core challenge they desired the technical assistance to focus on. The issues ranged widely from region to region. Each region had a primary local coordinator – an agency or entity that convened meetings, disseminated information, and served as project liaison and manager. The local coordinators was the primary project sponsor and assembled a broad-based stakeholder committee to guide, review, and ultimately implement the strategy. For most regions, this was the same body that served as the stakeholder committee for the livable community's effort; however in many instance the group was expanded to include major institutions or employers, additional transit providers, advocates, and other essential partners. Figure 2-1 illustrates the diversity of partners and representation in the various regions.

Figure 2-1 Project Sponsors and Committee Members

	ReImagine Washtenaw	Michigan Street Corridor	Marquette	Lansing Tri County	Grand Vision
Location	Southeast MI	Western MI	Northern MI	Capital Region	Northwest MI
Project Sponsor/ Coordinator	Washtenaw County	City of Grand Rapids	City of Marquette	Tri County Regional Planning Commission	Northwest Michigan Council of Governments
Stakeholders	Agencies/Authorities Washtenaw County Michigan DOT City of Ann Arbor Pittsfield Township City of Ypsilanti Ypsilanti Township Ann Arbor Transit Authority (AATA) Washtenaw Area Transportation Study (WATS)	Agencies/Authorities City of Grand Rapids Michigan DOT City Commission Interurban Transit Partnership (The Rapid) Grand Valley Metropolitan Council GR Public Schools Kent County Health Dpt GR Housing Commission GR Parking Commission	Agencies/Authorities City of Marquette Michigan DOT Marq-Tran Marquette City Commission Marquette County Marquette Township Negaunee Township Chocolay Township Marquette Area Public Schools Michigan State Housing Development Authority Marquette Senior Center	Agencies/Authorities TCRPC Michigan DOT City of Lansing City of East Lansing Clinton County Road Commission Ingham County Eaton County Meridian Township Bath Charter Township Central Michigan 2-1-1 Dept of Human Services Michigan Dept of Community Health Michigan Public Transp Association Capital Area Transit Authority (CATA) EATRAN Clinton Transit Social Security Admin.	Agencies/Authorities NWMCOG Michigan DOT GT Road Commission City of Traverse City City of Cadillac GT Band of Ottawa and Chippewa Indians Acme Township Bay Area Transport'n Authority (BATA) Cadillac-Wexford Transit Authority Benzie Transportation Authority (Benzie Bus) Kalkaska Public Transit Authority Cherry Capital Airport

	ReImagine Washtenaw	Michigan Street Corridor	Marquette	Lansing Tri County	Grand Vision
	Employers/Institutions Washtenaw Community College Eastern Michigan University Ann Arbor Veterans Administration Healthcare System University of Michigan	Employers/Institutions Spectrum Health Grand Valley State Univ Van Andel Institute St. Mary's Health Care GR Community College MSU College of Human Medicine	Employers/Institutions Northern Michigan Univ. Marquette General Hospital	Employers/Institutions Origami Brain Injury Rehab Center	
		Residents/Neighbors Midtown Neighborhood Neighbors of Belknap Heritage Hill Nbd Fulton Heights Nbd Michigan Oaks Nbd Congregation Ahavas Israel			
		Business Interests Michigan Street Corridor Association Third Coast Development Partners Restaurant Partners RDV Corporation Consumers Energy	Business/ Private Sector Downtown Development Authority Checker Cab and Bus Service	Business/ Private Sector Capital Area Michigan Works! Indian Trails	Business/ Private Sector Traverse Area Association of Realtors Cherry Capital Cab Co.

	ReImagine Washtenaw	Michigan Street Corridor	Marquette	Lansing Tri County	Grand Vision
		Advocates Grand Action The Right Place, Inc. Greater Grand Rapids Bicycle Coalition Disability Advocates of Kent County	Advocates The Marquette Access Group Superior Watershed Partnership The Superior Alliance for Independent Living	Advocates St. Vincent's Catholic Charities Mid-Michigan Environ'l Action Coalition Tri-County Bicycle Association Developmental Disabilities Council League of Michigan Bicyclists Capital Community of Bike Share Power of We Consortium	Advocates Michigan Land Use Institute Disability Network Goodwill Industries Brickways
		Foundations/Funders Dyer-Ives Foundation Frey Foundation			

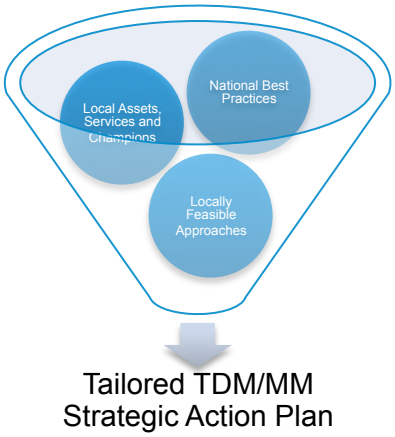
The project team met with stakeholder steering committees throughout the course of the project. Committees were responsible for reviewing interim reports and advising course corrections for the strategy development. In each region, the committee was a very active and committed body that took real ownership and interest in the process and product.

The process in each region began with a presentation of the "State of the Practice" of transportation demand management and/or mobility management. These reports and presentations gave an expansive overview of the wide range of tools and applications in practice in comparable communities around the country. The state of the practice chapter summaries provided in this report are a pull-out resource that can be utilized by all communities wishing to develop their own TDM or MM strategies.

Utilizing interviews, meetings, background documents and other resources, the project team developed an assessment of existing local conditions and assets relating to TDM or MM for each community. Existing conditions reports further focused and refined the key challenge and objective of the technical assistance. Critically, these reports identified the existing strengths, practices, services, and institutional capacity and champions that formed the core foundation for any recommended strategy.

Drawing from both the ambitious opportunities reflected in the state of the practice reports and the available assets and infrastructure of the local regions, the project team drafted alternative strategies that could be pursued by the regions to address and advance their primary objectives. These alternative strategy reports typically included multiple different approaches. Stakeholder committees met and discussed the approaches as to which options appeared the most practical, viable and attractive to their unique situations.

Figure 2-2 Strategy Development Process



These preferred approaches were then refined, with continued input from the project coordinator and stakeholders, into actionable initiatives for the region (Figure 2-2-2). The action plans provided clear steps toward implementation, leading and supporting partners, costs and potential funding sources, and other information critical for implementation. In most cases, one or more stakeholders seized on the recommended actions and began pursuing next steps even prior to the final project meeting.

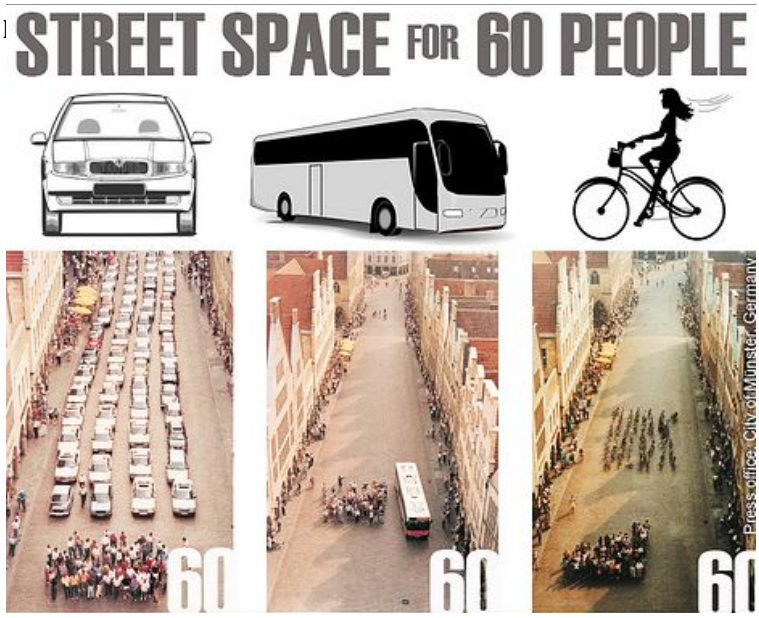
Many regions found the collaborative process and partnerships developed through this technical assistance exercise to be so productive that they committed (and continue) to meet even after the final report was issued in order to maintain the momentum for implementation.

3 Transportation Demand Management

Transportation demand management uses what you HAVE to provide the mobility you NEED to accommodate the growth and economic regeneration you WANT.

Even in the most congested cities or corridors, the transportation system is almost never at capacity in terms of moving people or goods. Congestion typically occurs only for an hour or two a day, only on certain corridors and only for one mode of transportation – the auto.

For most of the day, most streets, buses, trains, bike lanes, and sidewalks in most cities have abundant unused capacity. Transportation Demand Management (TDM) seeks to do two things – 1) promote more efficient modes of travel to move more people in the same amount of roadway space (Figure 3-1) spread the travel demand across more hours of the day to take advantage of space and capacity when it's available (Figure 3-2).



Road space occupied by 60 people in cars, a bus, and on bicycles
Source: City of Munster, Germany

Figure 3-2 Time of Day Capacity Constraints

The Opportunity

A comprehensive TDM program can enable seemingly "full" roadway networks and transit services to accommodate significant new growth. It does this by giving the "capable, but cautious" or "curious, but skeptical" travelers (Figure 3-3) the information, services and incentives they need to make travel choices that optimize the whole of the existing system.

Peak Direction Rush Hour Traffic - Washington, DC
Source: http://livewirepast.wordpress.com

Figure 3-3 Generalized Traveler Types[1]

Typology/Description
Convinced and committed Regular transit, telecommuting, or non-motorized travel users; early adopters either by commitment , choice or condition (economic limitations to travel choice)
Capable, but cautious Travelers who may have used non-private auto travel modes in the past or occasionally, but do not use them routinely; perhaps because they have other choices and/or they feel alternate modes do not conveniently and reliably meet their needs.
Curious, but skeptical Travelers who have not tried alternative travel modes, but would consider trying them if they had sufficient information about how to use them and confidence that the option would meet their needs and be reliable. Lack of information and skepticism about reliability is a major barrier to current use.
No way, no how! Travelers who may or may not have tried alternative commutes, but are nonetheless not interested in using them even occasionally.

TDM is a common term today. Most places associate it with measures such as transit benefits, carpool matching, and telecommuting. All are very important measures, though still often lightly used, but the leaders in transportation demand management go much farther in adopting comprehensive and ambitious strategies. Leading practices include:

- Integrated TDM programs across multiple employers and institutions, and closely coordinated with the municipality and transit authorities (e.g. transportation management associations or TDM coordinators)
- Strong regional leadership and coordination of transportation demand management strategies, often including mode split targets with regular measurement and reporting of performance and progress
- Pricing and incentives to influence mode choice and travel demand (e.g. demand-responsive parking pricing, parking cash-out, or transit or bicycle benefits)
- Adoption of public policies that imbed transportation demand management (and predictability) into the land development process
- Broad and effective public outreach and promotion programs that not only improve the public's awareness of alternative modes, but actively assist them in their day to day travel planning and choices

[1] Adapted from City of Portland, Oregon bicycle planning program

Tools and Techniques

In addition to these broad approaches, there are also a wide range of specific and effective tools utilized in successful TDM programs (Figure 3-4).

Figure 3-4 Common Transportation Demand Management Tools

Approaches	Programs
Expanded Transportation Options	▪ Enhanced bicycle and pedestrian facilities ▪ Free or reduced fare transit pass programs ▪ Vanpool, carpool, rideshare and ride-matching programs ▪ Car share programs ▪ Employer shuttles
Incentives and policies	▪ Travel subsidies or benefits ▪ Guaranteed ride home ▪ Flexible schedules, compressed work week and/or telecommuting ▪ Employer assisted housing and/or live-near-work programs ▪ TDM requirements in the zoning and development code
Parking management	▪ Variable market rate on-street pricing (a.k.a. performance parking) ▪ Unbundling parking (leasing or selling parking spaces separately from the rent or sale price) ▪ Rush hour parking user fee (fee applied during high congestion hours to encourage travel before or after peak period) ▪ Parking cash-out (employees given a choice between a free parking space or the cash equivalent of the cost to provide that space) ▪ Shared parking and park-once districts (one parking space serves multiple land uses and trip purposes) ▪ Pay-what-you-use monthly parking permits ▪ Priority parking for shared-use vehicles ▪ Parking occupancy tracking and guidance systems ▪ Parking maximums for new development ▪ Park and ride facilities
Education and outreach	▪ Travel planning apps and services ▪ Promotion campaigns ▪ Employer outreach and engagement ▪ Events and activities to raise awareness ▪ Travel coaching and mentoring

Organizational Structures

Choosing the TDM strategies to employ are only half the equation. The other half is how these tool are applied and by whom. To be effective and sustainable, TDM strategies must be appropriate to the organizational structure through which they will be carried out. In some regions, a public or private entity takes the lead and manages implementation; in many, a public-private partnership is set up to access the advantages of each. Figure 3-5 illustrates the various organizational structures.

Figure 3-5 Organizational Structures to Implement Transportation Demand Management

Structure	Elements
Transportation Management Organizations / Associations	▪ Typically nonprofit organizations ▪ Executed in partnership with local or regional governments ▪ Eligible for state and federal aid funds for congestion management and air quality
Private entities	▪ Entities of a private for-profit employer or nonprofit institution ▪ Generally privately funded (or through partnership) ▪ Less state or federal funding typically means greater flexibility in the types of programs offered ▪ With fewer participants and targeted clients, may have more limited effect on the broader area
Public agency	▪ Often regional transit providers, municipal transportation agencies, or metropolitan planning organizations ▪ As a public entity, can have broad reach, but may have limited staffing and inability to focus intensely
Individual coordinators	▪ Reside in each individual employer or institution ▪ Serve only the clients of that employer ▪ Privately funded ▪ May be difficult to orchestrate collective and unified action for a district or region

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Funding and Partnerships

Funding transportation demand management initiatives can be enhanced through partnerships and especially by the creation of a TMO. While businesses themselves can offer employee transportation benefits and in some cases take advantage of federal tax incentives. TMOs have much greater flexibility with raising funding and accessing additional funding streams. These can include:

- **District assessment/tax** - Assessments levied through a TMO or other type of business improvement district can help fund TDM programs and are often the largest source of income for these entities.
- **Parking revenue** - Parking revenue can be used on an individual employer level but also on a larger scale, especially if the organization is allowed to collect revenue from parking meters.
- **Direct employer contributions** - Direct contributions to services is the most common type of funding, especially for smaller-scale or early-phase efforts. Contributions can be assessed based on a formula or collected as part of dues for a TMO.
- **Local government contributions** - For special projects, local governments sometimes supply grants or potentially state or federal funding for certain types of initiatives, such as directly-operated transit. Typically, governmental contributions are not allocated on an ongoing basis.

Performance Measurement

No matter what type of strategy an area decides to implement, keeping tracking of its effect on the region is critical to maintaining participant momentum and supporting funding. For some measures, such as transit service, tracking the number of passengers supplies an acceptable metric to measure success. However, the primary goal of TDM measures is to reduce single-occupant vehicle travel in an area. Therefore, measuring the trip reduction impact is a more telling method for gauging success. Figure 3-6 displays the estimated effects of each type of strategy and combination of strategies.

Figure 3-6 Impact of Selected Employer-Based TDM Strategies

Strategy	Details	Employee Vehicle Trip Reduction Impact
Parking Charges[1]	Previously Free Parking	20%-30%
Information Alone[2]	Information on Available SOV Alternatives	1.4%
Services Alone[3]	Ride matching, Shuttles, Guaranteed Ride Home	8.5%
Monetary Incentives Alone[4]	Subsidies for carpool, vanpool, transit	8-18%
Services + Monetary Incentives[5]	Example: Transit vouchers and Guaranteed Ride Home	24.5%
Cash Out[6]	Cash benefit offered in lieu of accepting free parking	17%

1 Based on research conducted by Washington State Department of Transportation.

2 Schreffler, Eric. "TDM Without the Tedium," Presentation to the Northern California Chapter of the Association for Commuter Transportation, March 20, 1996.

3 Ibid.

4 Washington State Department of Transportation.

5 Schreffler (1996).

6 Donald Shoup (1997), "Evaluating the Effects of California's Parking Cash-out Law: Eight Case Studies," Transport Policy, Vol. 4, No. 4, 1997, pp. 201-216. http://www.commuterchallenge.org (accessed November 2, 2007).

Applications in Michigan Livable Communities

Grand Rapid's Michigan Street Corridor and Washtenaw County's *ReImagine Washtenaw* stakeholders chose to focus on pursuing transportation demand management as a strategy to improve the livability, sustainability, and economic strength of their regions and revitalization project areas. After assessing the unique assets and strengths of each area, the stakeholder groups chose to focus their energy and attention pursuing a handful of the leading national practices most applicable to, practical in and supported by their community agencies and non-governmental champions (Figure 3-7).

Figure 3-7 Adopted TDM Approaches for Pilot Michigan Communities

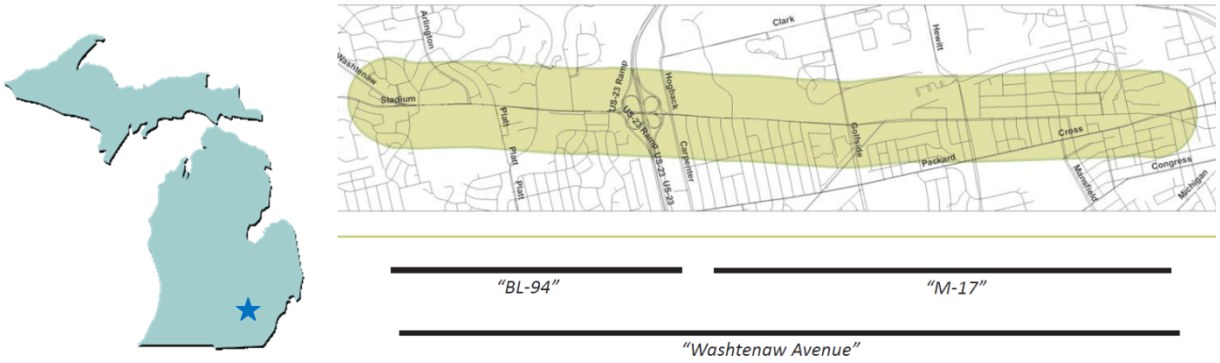
State of the Practice Recommended Approaches	*ReImagine Washtenaw* Adopted Approaches	Michigan Street Corridor Adopted Approaches
Transportation Demand Management associations or coordinators	▪ TDM internship	▪ City-sponsored TDM coordinator (initial) ▪ TMA (long term)
Transit or alternative commute benefits	▪ Individual employer programs	▪ Individual employer programs ▪ TMA (long term)
Vanpool, carpool, ride-matching and/or ride-share programs	▪ Individual employer programs ▪ Expand getDowntown!	▪ Individual employer programs
Carshare, bikeshare or additional transportation options		
Marketing and information campaigns	▪ TDM intern ▪ Individual employer events	▪ City-sponsored TDM coordinator (initial) ▪ TMA (long term)
Traveler information and trip planning tools		
Improved pedestrian and bicycle facilities and networks	▪ Complete street corridor design and case study	▪ Through city master plan
Improved or enhanced transit and/or shuttle services		▪ Branded transit service
Flexible schedules, telecommuting, or compressed work week	▪ Individual employer programs	▪ Individual employer programs
Live near work programs		▪ Housing supply incentives ▪ Live near work marketing
Parking management (including permit reform)		▪ Parking management district ▪ Coordinated parking plan
Municipal development policies for incorporation of TDM	▪ Coordinated TDM policy	

Transforming a Suburban Arterial with TDM: Washtenaw Avenue

Washtenaw Avenue is a pilot project in how to utilize transportation demand management as strategic component in transforming an auto-oriented suburban arterial into a vibrant and attractive place that supports expanded development and enhanced quality of life.

The 4.5 mile segment is an important transportation link between Ann Arbor and Ypsilanti (and Detroit beyond), but it is also a destination unto itself (Figure 3-8). The *ReImagine Washtenaw* initiative – a multi-agency, multi-jurisdictional partnership coordinated through Washtenaw County - brought together the four jurisdictions along the corridor with the state DOT to develop a collaborative and common revitalization plan to bring new retail, employment and residential to the corridor.

Figure 3-8 Washtenaw /*ReImagine Washtenaw* Pilot TDM Area



SOURCE: *ReImagine Washtenaw*

Managing both existing and traffic volumes becomes increasingly important to this vision of creating a place where residents, workers, shoppers and students can live, work, play, ride and stroll at the several planned nodes and places along the corridor.

The *ReImagine Washtenaw* partners requested assistance in developing a transportation demand management strategy for the corridor. The project stakeholder committee expanded to include not only of representatives from the four jurisdictions, county and MDOT, but also the transit authority (AATA) generally and their getDowntown TDM program specifically, University of Michigan, Eastern Michigan University, Washtenaw Community College, and Ann Arbor Veteran's Administration Health Services representatives.

The transportation demand management strategy developed through this process and ultimately adopted by the *ReImagine Washtenaw* stakeholder committee leveraged the well established TDM practices and programs of the City of Ann Arbor and the University of Michigan to support and model

policies and programs for the several other major institutions and employers in the area. Improving TDM programs around the corridor would serve the corridor vision itself by improving alternative transportation services, gaining more stakeholders in a walkable Washtenaw, and relieving a modest portion of the traffic on the corridor itself.

Challenges and Opportunities

At present the corridor is dominated by cars – 23,000 to nearly 42,000 vehicles traverse the corridor daily and auto-oriented parking lots, drive-thrus and low-scale development line the street. Parking is plentiful and free, yet parking lots remain largely empty, especially in off-peak hours. Although transit is well used, pedestrians struggle to cross where signals are few and far between.

Yet despite the operational prevalence and visual prominence of the car, the corridor offered numerous opportunities for more balanced demand and a more human scaled and active corridor:

- **Transit:** Transit is strong with the primary route serving the corridor achieving the highest ridership of any in the system. In fact, ridership increased by 27% in 2012 over 2011, serving over one million riders.
- **Ridesharing and Vanpools:** VanRide services providing registered pools with a 7-passenger van, maintenance, incident coverage, and insurance is a well used regional service
- **Pedestrian Facilities:** Although poor or lacking in segments of the corridor, pedestrian demand was high on the corridor as evidenced by the well worn dirt tracks along the side of the road and the many observed pedestrians crossing the corridor.
- **Bicycle Networks:** Although bike volumes were low along Washtenaw Avenue, the recently completed Border-to-Border Trail provides an alternative and attractive cycling route between Ann Arbor and Ypsilanti.

Six major employers rely on the corridor to transport their workers or students efficiently and reliably. These institutions also recognize Washtenaw Avenue as a place that can help or hinder their overall image as an attractive place to work or study. Several already find value in transportation management and offer some form of TDM services to their employees:

- **City of Ann Arbor:** The city runs the GetDowntown program which provides all employees of the downtown the Go!pass universal transit pass. In addition, the program provides commuting information and alternative commute marketing and promotion; bike locker rental, and organizes multiple events a year. The city actively manages parking to manage auto demand and provides car sharing alternatives.
- **University of Michigan:** The University has a robust TDM program that includes parking management, campus bus services, commuter information and benefits to employees, car sharing opportunities and a strong network of non-motorized routes and parking.

- **Eastern Michigan University:** EMU is largely a commuter school, yet is an active participant in the innovative "Live Ypsi" live near your work loan program in addition to providing discounted transit passes, and free satellite parking.
- **Washtenaw Community College:** The College recognizes the importance of transportation demand management, yet recognizes that its students travel from a wide radius around the area to access programs. WCC seeks strategies that will increase its competitiveness, advance sustainability goals, and meet student and faculty needs.
- **Veteran's Administration:** As a federal agency, the VA provides both transit and parking benefits to its employees, actively promotes vanpool and transit use, offers teleworking options and encourages bicycle use.

These programs and assets provided a strong foundation on which to build a transportation demand management program to support and advance the vision for revitalization and place making -- "*ReImagine Washtenaw*". Building from the multi-jurisdictional effort bridging the state, county, local municipalities, and private and institutional partners; and learning from the recognized success of neighboring Ann Arbor and the University of Michigan, the corridor can implement TDM strategies that will help transform this all too familiar suburban arterial into a unique, vibrant and livable place.

Reimagining – and Repositioning - *Washtenaw*

Four broad strategies were recommended through the demonstration project as priority initial actions:

1. Adopting and implementing employer-specific TDM practices (implemented by individual employers)
2. Creating a jointly funded TDM-focused internship
3. Documenting the process of making Washtenaw a complete streets policies (in coordination with MDOT)
4. Establishing predictable and consistent TDM policies for long-term development

Initiative 1: Adoption of Employer-Specific TDM Practices

Major employers located on or near Washtenaw Avenue play a dynamic role in shaping the corridor and its future. TDM programs for each unique institution were investigated and recommended. Each institution was advised to participate in developing and adopting a joint statement of commitment to TDM, identify and appoint an in-house TDM coordinator, and establish and implement individualized TDM programs.

Progress Report: The *ReImagine Washtenaw* project manager has taken on this challenge together with partners at AATA. The stakeholder committee, having found value in the monthly meetings associated with the TDM technical assistance effort, determined to continue meeting on a regular basis to

maintain the momentum, commitment and support among the major institutions and employers in pursing individualized TDM programs and coordinate efforts.

Initiative 2: Jointly Funded TDM-Focused Internship

A TDM-focused internship will ensure focused attention on advancing knowledge and effectiveness of TDM programs, and institutionalize its practice in the near term. Doing so requires identifying funding and a host entity, defining a meaningful and achievable work plan, and maintaining the internship for at least three years to ensure sufficient time to make an impact.

Progress Report: The *ReImagine Washtenaw* project has drafted a job description and initial work plan for an intern to coordinate, encourage and support TDM program development and implementation among the major employers and corridor stakeholders. At the time of this report, an intern search was underway.

Initiative 3: MDOT Complete Street Process Case Study

In summer 2012 the Michigan State Transportation Commission (STC) adopted a Complete Street Policy to be implemented by the Michigan Department of Transportation. Washtenaw Avenue will present an early opportunity for policy implementation. The corridor is fairly representative of many suburban state arterials. Documenting the design decisions and process associated with multimodal corridor improvements for economic revitalization as a process case study can be an important and valuable learning tool for the stakeholders, DOT, and communities seeking to reinvent their own corridors.

ReImagine Washtenaw envisions a multimodal corridor linking vibrant mixed-use nodes. The diverse stakeholder group, which includes the local jurisdictions together with MDOT, is proceeding on a corridor design project to enable this vision while meeting the standards and policies that govern design of a state highway project. The Washtenaw project will be one of the early tests of the agency's new Complete Streets Policy.

New policies, processes and standards inevitably require a period of learning and

Rapid Response from the Veteran's Administration

After just the first meeting with the project stakeholder committee, the Veteran's Administration in the Ann Arbor region moved toward action. After initial resolving concerns that federal agency policies prohibited TDM benefits or services apart from subsidized parking or transit benefits (they do not), the VA immediately began discussions with the Ann Arbor Transit Authority to improve transit services to the VA facility for employees, patients and visitors. Concurrently the agency parking to the immediate positive response of its workforce using this commute option.

adjustment. Documentation of the process on Washtenaw Avenue will inform similar projects across the state as they too struggle to meet their own challenges and needs for complete streets.

Progress Report: Washtenaw County, as the contract agent for the *ReImagine Washtenaw* initiative, is leading a right of way study for the Washtenaw Avenue corridor to determine multimodal accommodations and typical section. Recommendations include exceptions to design standards that are still under review by MDOT.

Initiative 4: Predictable and Consistent TDM Policies for Long-Term Development

Transformation of Washtenaw Avenue will not happen overnight. It will take decades of redevelopment and investment by the private sector to fully achieve the vision. Corridor stakeholders must therefore develop a shared TDM policy and appropriate authority for consistent and continuous implementation. The impact of the policy and successful strategies must be tracked and monitored. This is further complicated on Washtenaw Avenue given the multiple jurisdictions each with their own local land use and development policies. The collaborating jurisdictions will need to come together to develop common, consistent and predictable TDM policies for development on the corridor. Development of such requirements is an exercise unto itself. An illustrative example of what such a policy might encompass is shown in Figure 3-9.

Progress Report: The City of Ypsilanti is currently undergoing a master plan and zoning update process (Shape Ypsi) that may have some impact and effect on the Washtenaw Avenue corridor in establishing development policies requiring or encouraging transportation demand management.

Figure 3-9 Sample TDM Requirements

GUIDE:
E = Expected TDM measurer
e = Expected TDM Measure *(Option to Substitute)*
S = Potential Substitute Optional Measure

TYPE OF DEVELOPMENT	Proposal consistent with the Zoning Code and project generates less than 50 peak hour auto trips	Proposal requires a variance or is a PUD) and project generates less than 100 peak hour auto trips	Proposal consistent with the Zoning Code and project generates between 50 and 200 peak hour auto trips	Proposal consistent with the Zoning Code and project generates over 200 peak hour auto trips	Proposed requires variance (or is a PUD) and project generates between 100 and 400 peak hour auto trips	Proposed requires a variance (or is a PUD or Campus Plan) and project generates more than 400 peak hour auto trips
TDM Measures						
During construction, maintain or coordinate relocation of any existing bus stops at the developer's expense.	E	E	E	E	E	E
Comply with Zoning requirements to provide bicycle parking/storage facilities.	E	E	E	E	E	E
Require all parking costs to be unbundled from the cost of lease or purchase. Parking costs must be set at no less than the charges of the lowest fee garage, located within ¼ mile.	E	E	E	E	E	E
Post all TDM commitments on-line, publicize availability, and allow the public to see what commitments have been promised.	E	E	E	E	E	E
Identify A project's TDM Leader (for planning, construction, and operations). Provide DDOT/Zoning Enforcement with annual TDM Leader contact updates.	E	E	E	E	E	E
Install a Transportation Information Center Display (kiosk) containing printed materials related to local transportation alternatives and maintain a stock of materials at all times.	S	S	e	e	e	e
Provides website links to CommuterConnections.com and goDCgo.com on developer and property management websites.	E	e	e	e	e	E
At no cost, dedicate spaces in the garage for car sharing services to use with right of first refusal. Locate spaces that are convenient to the garage entrance, available to the members of the car sharing service, 24-hours a day, seven days a week, without restrictions (the garage may be gated—members of the service would have access to the spaces via a key pad combination to a pass code system, or other similar device). Count the car sharing spaces towards the project's parking requirements.	S 1 space required	S 1 space required	S 2 spaces required	e 2 spaces required	e 2 spaces required	e 2 spaces required
Provide reserved spaces for carpools and vanpools that are conveniently located with respect to the elevators serving the buildings. Oversee a program to provide carpools and vanpools with a parking subsidy.	S	S	S	e	e	e
Provide secured bicycle parking/storage facilities (lockers, bicycle valet parking, etc.)	S	S	S	e	e	e
Contribute funding to available, non-exclusive Shuttle Service to Metro or DC Circulator (based on total number of trips generated). Only applies to developments not considered Transit Oriented Developments by DDOT.	S*	S*	S*	e*	e*	e*
Provide an on-site business center to residents with access to copier, fax, and internet services.	S	e	e	e	e	e

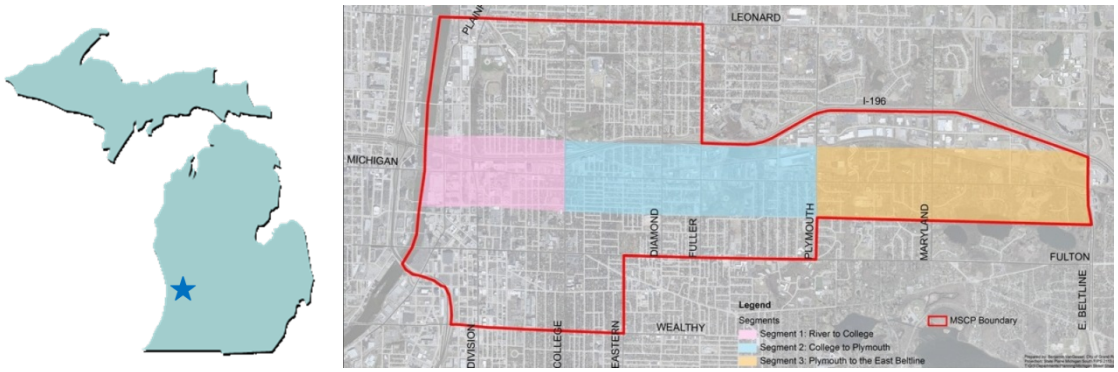
*Shuttles and Direct Access to Metro is site specific.

Accommodating Growth, Maintaining Place: Grand Rapids' Michigan Street Medical Mile

Downtown Grand Rapids has seen a resurgence somewhat unique in the state. The past two decades have been tough for Michigan. While every city in the state saw some level of economic contraction, Grand Rapids still saw significant growth along the "Medical Mile" – a half mile stretch of Michigan Street NE extending from College to Division Avenues. Major health institutions have grown and risen on "The Hill" and just to the southwest, the historic (and modern) downtown continues to grow and expand as a major civic, cultural, and employment destination while neighborhoods north and south emerge as some of the most attractive communities in the state (

Figure 3-10).

Figure 3-10 Michigan Street – Grand Rapids Pilot TDM Area



SOURCE: Michigan Street Corridor Plan, City of Grand Rapids

Challenges and Opportunities

The challenge in Grand Rapids was less one of catalyzing transformation, but more how to meet the demands of continued growth while enhancing the community's unique character and sense of place. Land locked by existing development, and desiring yet more, expansion of the roadway was neither practical nor desirable. The Michigan Street Corridor Initiative was a city-lead, community-based plan to holistically plan for growth on the corridor – not only on "The Hill" but extending east to the neighborhoods and districts beyond. A committee of diverse residents and stakeholders led the Initiative. To meet growing employment and residential travel demands, the corridor would need to move more people more efficiently within the roadway it had. A robust and well coordinated TDM program, as a component of the overall plan, was needed to ensure the growth the city had seen would not ultimately strangle it if only traffic were generated.

Michigan Street is one of several major east-west thoroughfares through Grand Rapids. The arterial parallels I-196 and provides access to some of the largest employers in Western Michigan. On the city-wide level, Grand Rapids has instituted a number of

policies to manage growth to promote and sustain a multimodal city. The master plan encourages compact, mixed-use development, adds requirements for sidewalks and bicycle parking to the zoning ordinance, and diversifies the transit system with the exciting introduction of Bus Rapid Transit (BRT).

The robust growth on the corridor creates the need for the city and corridor stakeholders to address a number of challenges in order to sustain the success, energy and positive identity the corridor has so far enjoyed:

- ***Traffic congestion*** Traffic is perceived as a major current and growing future challenge on Michigan Street and for the continued expansion or the revitalization zone for the city. A majority of stakeholders understand that shifting commuters to other modes is critical to the continuation of development in the area and essential to its viability as a choice place to work and play and valuable to their own competitiveness and sustainability.
- ***Limited Mode Options*** While transit service on The Rapid is perceived as good, accessing bus stops as a pedestrian is a challenge and information on transit benefits is limited. Michigan Street is not a comfortable alternative for pedestrians and cyclists due to high speeds and high traffic volumes.
- ***Coordination and Duplication of Service*** On a corridor level, no group exists to address the shared transportation issues along Michigan Street, though individual institutions are using TDM in small ways. Some private shuttles operating along Michigan Street offer service that duplicates what The Rapid and the DASH offer.
- ***Marketing and Incentives*** Many institutions have TDM programs in place and have made laudable efforts to create programs tailored to their employees and students. However, many do not actively advertise the programs beyond annual announcements, and almost none truly incentivize their use.
- ***Parking Management*** There is, at present, no cohesive parking management along the corridor. Different institutions charge different prices and have different deals with parking facilities. Pricing is not matched to demand, and few institutions use pricing incentives to encourage drivers to park in lots further out along transit routes.

- ***Pedestrian and Bicycle Accommodations.*** Bike volumes are generally low along Michigan Street. While this part of Michigan has an organized and avid bicycling community, the general absence of cyclists on the corridor is likely due to the high speed and high volume automobile traffic. Pedestrians are similarly affected, lacking much, if any, buffer from traffic. Narrow sidewalks and multiple driveways creating a challenging pedestrian environment, and near impossible barriers for disabled travelers.

The major institutions along Michigan Street and extending to the south (St. Mary's Health Center and St. Mary's Free Bed Rehabilitation Hospital) represent over 20,000 downtown workers and 22,500 students. U3 Ventures, who completed a market assessment for the Michigan Street Corridor Plan, has estimated that of these, only roughly 3.5% live within the Michigan Street Corridor area meaning that the vast majority of the workforce and student population must commute from more distant areas. While there are cultural, historical, infrastructure and service challenges, several institutions along Michigan Street have some early forms of TDM in place:

- Spectrum Health operates free shuttles to its off-site parking facilities, contracts with The Rapid to provide free passes to employees, participates in the Western Michigan Green Ride program, and provides shower facilities for cyclists.
- Grand Valley State University (GVSU) has contracted with The Rapid for 10 years and has four dedicated routes serving its campus. GVSU participates in Western Michigan Green Ride, has an internal carpooling website, has a car sharing program, and offers annual bike rentals to students.
- Grand Rapids Community College (GRCC) contracts with The Rapid to reserve DASH parking spaces and provide DASH shuttle service to campus. GRCC will be a future stop on the BRT line.

A Mayoral Challenge

Shortly after presentation and discussion of the state of TDM practice, including the value of mode split targets, Mayor Heartwell of Grand Rapids issued his own challenge to the city residents and employers – to reduce single occupant vehicle travel to 70% (down from 95%) by more than doubling the transit and pedestrian mode shares and increasing bicycle mode share by a factor of 10. While bold and aggressive, these targets were not only embraced by the Michigan Street Corridor committee but pushed even further with ambitions for a highly effective TDM program.

Strategies for Sustaining Growth on the Medical Mile

Grand Rapids' Michigan Street stakeholder steering committee prioritized four primary areas of focus to increase mobility in the corridor:

1. Transportation management structure
2. Parking management
3. Transit strategies
4. Live Near Work programs

Initiative 1: Establish a Transportation Management Structure

To optimize transportation demand management on the Michigan Street Corridor, a structure must be put in place in order to implement the goals of the committee and continue work on congestion and transportation demand management issues. A formal Transportation Management Association is the best tool over the long term for the corridor, however may not be the ideal first step.

- **Designate a TDM coordinator** – Transportation demand management is still a relatively new concept for Michigan Street stakeholders. While a full Transportation Management Association is ultimately recommended for the corridor, the initial designation of a TDM coordinator will allow further education and outreach without the capital outlay required for a TMA.
- **Establish a Transportation Management Association** – The Michigan Street corridor is ripe for a TMA. Such a formalized entity is likely necessary for the long term success and sustainability of the corridor. Designating a TDM coordinator is a good first step to lay the groundwork and build support for the establishment of a TMA at a later date.

Progress Report: The Downtown Development Authority, in coordination with the City of Grand Rapids and The Rapid, has recently appointed a TDM coordinator to support and advance the overall TDM initiative for Michigan Street and the broader downtown.

Initiative 2: Manage, and Measure, Parking

Each institution provides parking relative to their own estimated parking needs and sets pricing according to their own internal policies and practices. Stakeholders need to work together to build a successful and sustainable Michigan Street.

- **Establish the baseline** – more specific information is needed as to precisely how much parking exists on the corridor, how it is managed, and what the demands (with and without parking management) are on the corridor. Establishing this baseline will inform future steps and allow the measurement of progress and effectiveness.
- **Reform pricing and permits** – Appropriately pricing parking and strategically managing employee and visitor permits is a good first step to

determining the true unmet need for parking after market-based management is applied.

- **Explore creation of a Parking Management District** – The high concentration of employment and service/visitor/student activity in the Medical Mile, and the presence of several major stakeholders makes collaborative action a near necessity if the area is going to continue to grow successfully and sustain its competitiveness.

Progress Report: A parking assessment was completed in the recent past by the various private employers and institutions on the Michigan Street Medical Mile. This resource can be updated and amended to serve as the initial baseline.

Initiative 3: Optimize Transit

At present, transit is not being optimized for the corridor nor its use maximized. If stakeholder institutions consolidated their investments in transit operations with each other and The Rapid into a branded circulator route, the corridor could see real progress toward its mode shift goals. An EcoPass program would incentivize use of the bus through employers.

- **Address concerns to ensure the participation of Spectrum Health.** As the largest employer in Grand Rapids, Spectrum Health has tremendous influence and impact. Spectrum employees represent a significant share of potential corridor riders. Therefore close coordination with the institution is essential to ensure their participation in a program that meets their unique needs and expectations. By encouraging their employees to utilize transit, and providing feedback to the transit provider on routes and schedules, employers can make the most of this existing resource.
- **Consolidate shuttles into a branded "choice-rider" service.** At present, multiple institutions operate or contract for individual transit services. Not only is this not cost effective, but continued growth of individual shuttles may contribute additional traffic to the corridor. A consolidated program would provide better service at lower cost while helping to expand the "brand" of the

Early Action

Within less than a month of the final meeting, Grand Rapids stakeholders took a major step forward in advancing transportation demand management in the city with the establishment of a Transportation Demand Management Coordinator within the Downtown Development Authority. The position will unite and coordinate the many private TDM efforts and compliment them through partnership with the City, DDA and transit authority.

corridor.

- **Implement an eco-pass program.** A universal transit pass, or "eco-pass", distributed to all employees of the Michigan Street corridor would encourage transit ridership and increase the competitiveness of transit as an alternative to driving. With the pending launch of bus rapid transit serving the corridor, eco-pass participants would enjoy premium transit connections to downtown Grand Rapids and the region.

Progress Report: Consolidation of transit shuttle services and/or establishment of an eco-pass will take some time to implement. At the time of publishing, no significant progress had been made on this initiative, but the appointment of a TDM coordinator is a crucial first step in advancing the concept.

Initiative 4: Promote a Living Corridor

By encouraging employees to live close to work, live near work programs make them more likely to commute using an alternate mode such as walking. On the supply side, institutions and employers can participate as strategic investors and a secure "buyer" that can help developers write down development costs and loans. Employers can also assist with down payment grants or other demand-side solutions, though Grand Rapids is more in need of additional housing supply.

- **Explore "supply side" investment opportunities and strategies.** Urban housing demand is not a major challenge in Grand Rapids. With long wait lists for units in some downtown housing properties, the greater challenge is in expanding the housing supply downtown.
- **Expand and encourage employee housing support.** Educational and medical institutions compete for a highly desirable workforce. These new workers are less and less tempted by a free reserved parking space, but may be lured by housing support in the form of rent deposits, home finding assistance, and other employer housing contributions. These contributions are often times modest, but make can have a major influence on employee attraction and retention.

Progress Report: At the final strategy presentation meeting, representatives of the City's Economic Development office were present and indicated an interest in exploring the options available to advance this initiative.

4 Mobility Management

Mobility management is a paradigm shift under which transportation providers are not measuring their performance based on the cost efficiency of how they operate their fleet, but instead measuring their return on investment in terms of moving people and meeting community needs.

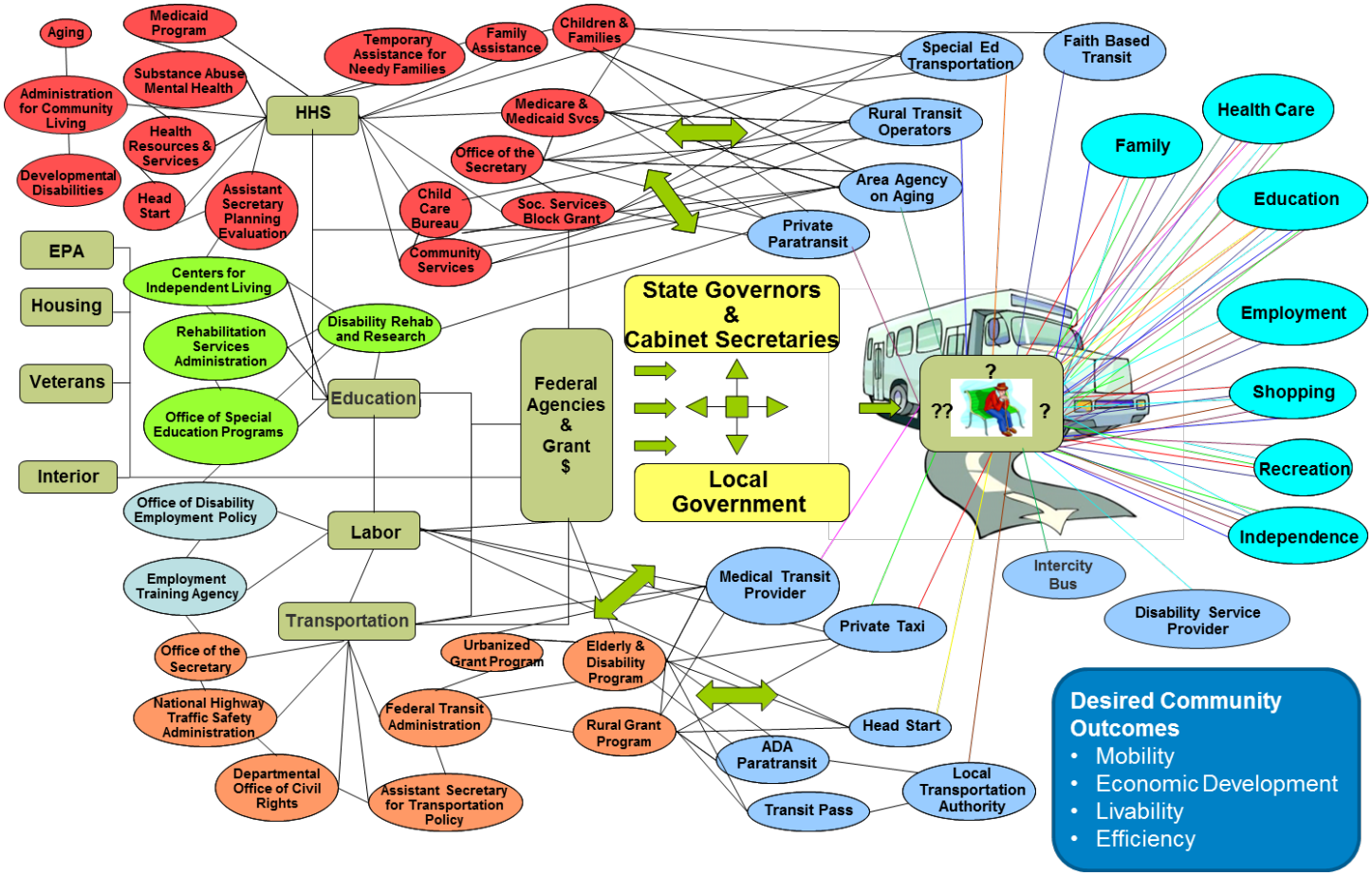
Communities across the country are looking for ways to increase the quality of life and mobility of residents, seeking to connect residents, neighborhoods and downtown areas with multiple transportation modes. Mobility management strategies offer an effective approach to optimizing the value of transportation services through increasing access and reducing complexity.

The Opportunity

Providing a coordinated, efficient transportation system requires great expertise in navigating through the complicated network of federal transportation funding sources and rules, and applying this understanding to the web of community partners and needs. In 2004 the Congressional Office of Management and Budget identified 62 federal programs that have transportation funding programs for the human service portion of community transportation. The spaghetti diagram in Figure 4-1 shows these programs, updated to include livability programs and other program changes. Layered onto the federal funding sources are the state and local governments, the transportation providers, and the supporting social services.

The person looking for a ride and the organizations offering rides can get lost in the complexity of navigating this network of often overlapping programs. In communities with poor coordination and a lack of expertise and the staffing resources to tackle this challenge, the result is typically low funding levels and missed opportunities, with duplicated transportation services in some areas and no service and limited hours in other areas.

Figure 4-1 Complexity of Different Funding Agencies, Providers, and Ride Purpose



Adapted from United We Ride

As illustrated, to effectively achieve the goals of maximizing transportation options and service coverage while also being efficient and cost-effective, a mobility management system must successfully serve two key functions:

1. A mobility manager must **strategically plan region-wide and long term**, by building working partnerships, coalitions and business relationships between multiple transportation service providers, social service providers and other stakeholders.
2. On the **tactical day-to-day level** of serving individual riders and maximizing ridership, they must be effective at creating and managing systems and communication strategies that **help people find rides** and get where they need to go. Mobility management should be focused on both customer needs and cost efficiency so that find-a-ride services are unbiased in pairing customers with the most cost-effective transportation service that fully meets their needs. Based on these two criteria, the most appropriate ride for a given client may be with public transit, a human service agency, or a private operator.

Combining these two responsibilities, fundamental practices include:

- Ongoing coordination and relationship building between the mobility manager and other stakeholders to achieve positive outcomes.
- Providing access to information to all target audience members for a variety of uses
- Increasing the role of technology in providing information access
- Coordination at multiple levels including local, state and federal
- Coordination between the worlds of transportation and social services
- Coordination of marketing strategies
- Integration of mobility management efforts into local and regional planning efforts
- Assistance with managing financial and other resource allocations.

A quality that communities pursuing effective mobility management efforts all share is that the lead governmental and nonprofit agencies have organizational cultures that value cooperation and collaboration and are willing to invest in coordination because they have a shared vision as well as a practical understanding of the benefits that can be achieved.

The ideal community transportation system not only meets basic social service needs, but also provides significant economic benefit to employers, employees and commercial areas. Additionally, by maximizing ridership it should achieve meaningful reductions in traffic congestion and carbon footprint. To do this, services must be affordable and consist of routes and services that are designed using good data and stakeholder input to effectively serve a broad range of community needs.

Tools and Techniques

Strategic, Longer-Term Mobility Management

Long term planning for mobility management encompasses all the tasks required to build and sustain an effective network of transportation services. These tasks include stakeholder coordination and partnership building; developing diverse, stable funding sources; and integrating transportation into community planning efforts. Tools and programs are summarized in the following table (Figure 4-2):

Figure 4-2 Key Tools and Approaches for Strategic Longer-Term View

Approaches	Programs
Coordination	▪ Human Service Coordination Plan- MDOT requires this to access funding from the FTA Senior and Disabled grant program but recommends it for all recipients. The plan paves the way to coordination between transportation and human service providers while assessing community needs ▪ Develop a transportation inventory and assess resources ▪ Integrate mobility management efforts into community development and other types of planning ▪ Facilitate ways for different transportation providers to interact
Identify unmet needs	▪ Identify and record unmet transportation needs.
Funding Knowledge & Partnership Development	▪ Develop an in-depth understanding of all relevant funding issues and regulations, and use this knowledge to work with all possible partners to develop creative funding agreements for providing and expanding service.
Other planning	▪ Help human service agencies build transportation programs to meet needs that cannot be met through public transportation services. Alternative programs may include agency-provided transportation, mileage voucher, gas reimbursement, faith-based transportation, carpool programs, and volunteer driver programs.
Cost allocation and billing	▪ Develop agreements with social service agencies to fund rides on public transportation. ▪ Track ridership, miles, hours, passenger-miles, costs, revenues ▪ Invoice agencies based on fair share of transportation costs ▪ Tools include electronic payment systems

Approaches	Programs
Transit system performance	▪ Track data and assess performance measures. ▪ Collect and process data from an automated vehicle location (AVL) and automated passenger counts (APC) ▪ Use data to allocate costs, help optimize system design, improve customer service, and measure effectiveness.
Marketing	▪ Coordinated marketing appearance visually linking services ▪ Reference other service types on websites ▪ Increase the quality of customer service
Infrastructure	▪ Increase the attractiveness of infrastructure such as benches, shelters, and bus stop signs ▪ Road and site design to minimize buses travelling through parking lots
Integrating public transportation into sustainability and livability	▪ Engage in multimodal planning by all appropriate government agencies, decision-makers and other stakeholders, including promoting and planning improved and expanded options for transit and carpooling; walking and biking; and transit oriented development.

Tactical, Day-to-Day Work

The table below (Figure 4-3) breaks down the mobility management concept into its specific functions for day-to-day tactical mobility management – matching people to rides. This refers to both fixed route and demand response.

We have seen many local systems fall far short of their potential because the public has a low level of awareness of the services that are available. Failure to provide a positive experience and to market services can have a substantial impact on ridership and can significantly limit the effectiveness of the FTA funding being invested in other aspects of the system.

Figure 4-3 Key Tools and Approaches for Tactical Day-to-Day Mobility Management

Approaches	Programs
Finding available services	▪ Help people to find services through printed and electronic transportation guides, 2-1-1 and other one call-one click services, Google Maps and other trip planners, clear and up-to-date maps, and web sites designed to meet the specific needs of a transit rider ▪ Share data that describes services, such as the General Transit Feed Specification (GTFS), for third party applications
Resource directory	▪ Coordinate with social service agencies to maintain an accurate web-based service directory, designed for easy use by the target riders as well as anyone who will be providing assistance to that target population.
Trip Planning	▪ Arrange transportation for a customer or a service agency on behalf of its clients. – Take requests for assistance by phone, email, or Internet request. – Transportation may be provided by the public transportation systems, senior transportation programs, volunteer drivers, agency vehicles, gas vouchers, veteran services vans, for hire cars, private intercity shuttles, or taxis. – Transfers between providers may be necessary. – A web-based trip planner supports this function.
Person-centered transport plans	▪ Develop individual transportation plans to meet the ongoing needs of the customer.
Travel training	▪ Work with social service agencies to provide travel training to their clients. This includes in-class training and training transportation ambassadors.
Broker rides	▪ A ride brokering service books a ride and arranges for payment on any available vehicle when someone calls to request a ride.
Client eligibility (facilitate)	▪ Assist people with establishing eligibility to use paratransit services as required by the Americans with Disabilities Act (ADA).
Customer assistance	▪ Travel training and person-centered transportation plans ▪ Facilitate client eligibility
Optimize operations	▪ Combine riders when possible on demand response systems ▪ Holistic brokerage to help people reserve a ride and lower costs ▪ Technology tools for fixed route riders (e.g. actual arrival time) ▪ Tools to operate demand response services more efficiently, like demand response software, vehicle tracking devices, shared data between services.

Organizational Structure

Mobility management can fall short for one or both of the following two reasons:

1. Qualified staff is hired but have so many responsibilities for operating the local transit system that they have no time for mobility management tasks such as pursuing new funding sources, or building and coordinating coalitions and partnerships.
2. Low salary and low expectations for professional skills result in hiring unqualified personnel.

Mobility management functions can be assigned to existing staff, or a new position can be established. In this project we loosely use the term "mobility manager" to apply to anyone carrying out some or all of the mobility management functions, regardless of job title.

There are many successful community or coordinated transportation systems serving rural, small urban, and metropolitan regions around the country. These systems can be categorized into three generalized structures as shown in Figure 4-4. Regions can choose different organizational structures for different elements of their mobility management efforts. For example, the provision of trips can be through a brokerage structure, while planning is through a lead agency structure.

Figure 4-4 Coordination Structures

Structure	Elements
Lead Agency	In the lead agency model, one local organization is responsible for coordinating transportation services and activities within a defined geographic area. The lead agency may be a private or nonprofit organization, social service or related agency, or public entity.
Brokerage	In the brokerage approach, one entity acts as an agent to arrange rides for persons needing transportation among a group of operators that "bid" to provide services. Both the broker and transportation provider receive fees for services, which are rolled into transportation charges per capita, per trip or some unit, and/or per mile. Such charges are paid by individuals or insurance companies directly or via health and social service funding.
Administrative Agency	In the last type, an administrative agency is a public agency or entity (often a transit authority) that has responsibility to coordinate social service or specialized transportation, in addition to its role in providing public transportation.

Funding and Partnerships

Diverse and often creative and entrepreneurial funding strategies are necessary to build and sustain an effective mobility management system, and to take advantage of opportunities to expand and improve services. It is essential for mobility managers to understand transit system funding as well as human service funding because public transit and social service staff often do not have the time or training to "unravel the spaghetti" of transportation funding illustrated in Figure 4-1. A mobility manager can identify opportunities to share resources and leverage various funding sources only if they develop an in-depth understanding of transit funding as well as funding sources such as Community Development Block Grants (CDBG), Medicaid, and *Michigan Works!*/Department of Labor.

Communities with high performing transportation systems are proactive about negotiating contracts and contributions with a variety of partners. Whenever possible, these relationships should be negotiated for expanded service that serves both targeted populations and the general public. The choice of whether to negotiate a contract or a contribution can be made on a case by case basis depending on the needs and preferences of different partners such as:

- Universities, colleges and other educational institutions
- Large employers
- Social service agencies
- Nonprofit organizations
- Commercial centers

Finally, these communities achieve efficiencies through coordination with human services. Public transportation funds by themselves cannot meet the entire needs of the community. Human services must also contribute funds to meet the whole community's needs.

The Role of Technology

Technology plays a critical role in effective customer communications, and internal management of daily operations as well as longer term planning decisions. It is tightly related to operations, performance monitoring, marketing, social media strategy, and good information design. The same technological capabilities that make it possible to provide real time bus tracking, automated stop announcements and other accurate, user-friendly information to the public are also necessary for critical management challenges such as assessing on-time performance, analyzing ridership and deciding how to allocate resources when increasing or cutting service. Additionally, technology is essential for effective mobility management, helping professional staff coordinate the services of multiple providers and guide customers who are trying to find a ride.

An intelligent transportation system (ITS) is the combination of technologies used to achieve these functions. Different software, hardware, spreadsheets, and back-end databases can be used as long as they are coordinated. USDOT requires transit systems to use a systems engineering process when

using FTA funding to design and implement transit management system technology. The systems engineering analysis should be commensurate with the size and scope of the project being developed (23 CFR §940.11).

Simply stated, systems engineering is an integrated planning, design and implementation process that involves users and ITS developers in a team effort with the goal of providing a quality product that meets all user and technical needs. The process ensures the collaboration, iteration, and feedback that most ITS projects typically require between the design and implementation phases. It should be possible to scale and tailor the process to apply to projects of all sizes and complexity.

This is an important, but widely neglected policy. Transit operators commonly invest FTA funding in a wide range of ITS applications. However, a study of costs for 44 projects found a 50% average cost overrun on projects without systems engineering, and a clear trend towards better cost performance with systems engineering. (FHWA-California Division and Caltrans, 2009) Systems engineering reduces the risk of schedule and cost overruns and increases the likelihood that the implementation will meet the user's needs. Other benefits include:

- improved stakeholder participation
- more adaptable, resilient systems
- verified functionality and fewer defects
- higher level of reuse from one project to the next, and
- Better documentation.

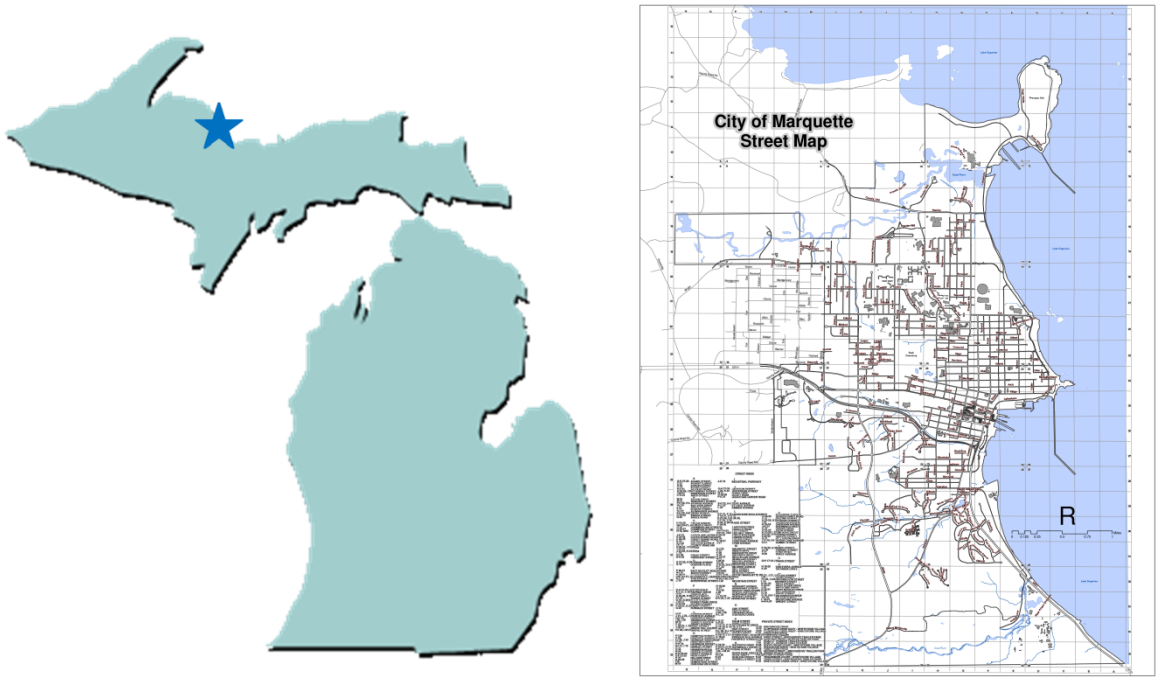
FHWA and FTA recommend that the systems engineering process for transit ITS should follow the Vee Development Model (FHWA-California Division and Caltrans, 2009). While the benefits are persuasive, it is easy to see that the process can be complex, time consuming, costly and require expertise that many communities do not have available. A properly scaled process touching on each element of the Vee should reduce risk in purchasing or developing appropriate tools for mobility management and transit ITS.

Pilot Project: Marquette

The City of Marquette and the surrounding counties enjoy many assets that provide a foundation on which to build a more robust network of transportation services that support community goals. In addition to being a population center, Marquette serves as the regional center for education, health care, recreation, and retail. Northern Michigan University (NMU) and Marquette General Hospital are large attractions for the city. In October 2010, Forbes announced their "Ten Best Small Cities to Raise a Family," and Marquette was designated #3 in the nation. CNN Money identified the community as one of the top five "Best Places to Retire" (Figure 4-5).

Marquette is well suited to take on mobility management strategies that go beyond human service transportation and also integrate and improve service to meet the needs of tourists, students and the general public. The community's strong sense of partnership and shared commitment are evident in the city. The openness to work together to explore viable strategies to ensure the transportation mobility necessary for sustained economic success in the region is a vital cornerstone of any wide ranging and successful strategy.

Figure 4-5 Marquette Pilot Mobility Management Area



Existing Community Needs

The City of Marquette has a strong commitment to, and has made great progress toward its vision of achieving economic prosperity and a high quality of life by becoming a premier sustainable, livable, walkable community. The City received a Housing Development Grant from MSHDA to revitalize the 3rd Street Village Corridor through a comprehensive planning effort focused on quality affordable housing, mixed-use development and better linkages between NMU, the downtown and the surrounding neighborhoods. The region also enjoys a vibrant year-round population and expanding major institutions who have demonstrated a vested interest in the City's downtown, including the 3rd Street corridor, the city core and University area. These institutions not only have the ability to make profound change based on their sheer size, but also based on the values and missions that drive them.

Mobility management strategies compliment the community vision laid out in the Community Master Plan (CMP) and other planning documents, and can play a crucial role in leveraging transportation in the region to support this vision. Mobility management typically focuses on human services, but Marquette has the opportunity to be innovative by designing strategies that integrate human service needs with many other goals the community has identified.

Change of any form, however, requires energetic leadership, relationship building and a continued diligence for progressive planning. Marquette leaders at the citizen, city, and civic levels have shown the willingness to be bold in vision and committed in action. These leaders will be essential in sustaining the momentum and energy needed for what are often slow or sporadic advances.

Mobility Management Recommendations

The recommendations developed for Marquette were designed to support a vibrant, sustainable and livable community, city, and region. Within the city core, the discussion focused on the 3rd Street corridor that connects the historic downtown, Northern Michigan University, and the hospital. Region-wide the discussion focused on better informing people about available services and coordination of service providers.

Marquette participants chose to focus on pursuing implementation steps by blending goals and strategies into three priorities:

1. Complete a Human Service Coordination Plan
2. Improve marketing, information, communication, and coordination of transit service
3. Build partnerships and community focus on moving forward to improve transportation and community planning along and around the 3rd Street corridor

Initiative 1: Human Service Coordination Plan

Developing a Human Service Coordination Plan can help communities identify unmet mobility needs and opportunities to improve transportation service, and can also better-position them to take advantage of federal funding opportunities as they become available. Through this project, stakeholders in Marquette began laying the groundwork to complete Human Services Coordination Plan.[2] Identified champions included the Superior Alliance for Independent Living (SAIL), Michigan DOT, Marquette County, Marq-Tran, and the City of Marquette.

Implementation Steps

- Inventory transportation providers and services
- Hold a coordination meeting to reach consensus on top priorities for action
- Collect and document additional information required to complete the plan

Progress Report: The region is currently beginning the process of developing a human service coordination plan.

[2] MDOT's guidance for developing a Coordination Plan is available at http://www.michigan.gov/documents/mdot/MDOT_coordinated_plan_253283_7.pdf

Figure 4-6 Sales Funnel

Initiative 2: Improve Marketing Information, Communication & Coordination

It is unlikely that any of the strategies proposed in this document will be highly successful unless they are supported by strong efforts to make it easy for the public to learn about and use transit services as well as other transportation options. One of the central goals of mobility management is to help people "find-a-ride". Ideally, a newcomer or visitor to your community should be able to easily find the information they need regardless of whether they are a tourist, a senior citizen, a new NMU student, a disabled veteran or a new hire at the hospital. Whether they need to find a Marq-Tran fixed route to the grocery store, a carpool for commuting, a dial-a-ride service to get to their doctor, a taxi to their hotel, or the nearest bike trail they should not have to go on a completely different and difficult search for information on each different type of service. For many people, the web will be the first place they look, but hard copy information is important as well – especially bus schedules and bus stop signs.

Implementation Steps

- Marketing Plan and Branding (Figure 4-6)
- Coordinating across providers to have transit information everywhere
- Put information where visitors can find it (including brochures in hotel rooms, at bike rental facilities, etc).
- Trip planning
- Transit service guide
- Real-time information
- Systems engineering process

Progress Report: The city has already improved its website to offer more transit information. Communication among stakeholders and with 2-1-1 is increasing. As a result of the stakeholder meetings, the Downtown Development Authority has a greater awareness and demonstrated more support and collaboration on transportation issues and has provided better information to their business stakeholders for posting on the private sector websites.

Examples

Examples of transportation-focused web resources, travel guides, and good marketing include:

- Get Around the Western U.P. (http://www.getaroundwup.com/)
- Oregon TripCheck (tripcheck.com)
- Ride Connection (rideconnection.org)
- SF Bay Area 511 Traveler Information System (511.org)
- Humboldt County Transit Service Guide
- Streamline, Bozeman, Montana

Initiative 3: 3rd Street Transit Corridor

Toward the beginning of this effort, many stakeholders involved in the project identified investigating a new or modified fixed-route bus route on Marquette's 3rd Street Corridor as a major priority for this initiative. After further discussion, the group deemed this priority a longer-term goal due to current lack of available funding. Pursuing Priority 1 (developing a Human Service Coordination Plan) and Priority 2 (Improve marketing information, communication and coordination) were identified as short-term steps that would help to maximize existing resources and build the necessary ridership and demand to warrant the proposed new 3rd Street route.

Pursuing a new 3rd Street transit route would involve four stages:

- **Marketing:** Better utilize the existing Marq-Tran and NMU services.
- **Assessment:** Look at transit needs including new stops and changes in schedule, consider a recently-completed 3rd Street parking assessment, and consider funding options.
- **Service Design:** Marq-Tran and stakeholders work together to redesign services within the city core to meet the identified needs.
- **Implementation:** Can be flexibly integrated into the existing system based on the types of needs and designs that arise during the earlier two stages.

As long as priorities have been clearly established and funding sources have been

realistically assessed, there should be flexibility and opportunities for staging implementation. For example, adding late-night service three evenings per week can be scaled up to a full route that runs six days a week, twelve hours per day. Implementation may also be driven by funding or infrastructure considerations. If restaurants, bars and Northern Michigan University (NMU) students are highly supportive of late-night service and willing to provide funding for it, this could be the first change to be implemented. Or if the South 3rd Corridor is the first area to install high quality bus stop infrastructure, implementation could begin in that area. However, it is important to note that frequent route changes are not recommended because of the transit management and operations problems they create, and because this can be confusing and frustrating to riders. It is best to make changes no more frequently than once a year.

Stakeholders in Marquette identified bus shelters as a high priority for the proposed new route on 3rd Street to enhance the attractiveness of the route and promote businesses along the corridor. Developing and implementing a plan for fixed route bus stop improvements should be a high priority over the next five years. Bus stop infrastructure should be location appropriate and always include a bus stop sign. When appropriate it may also include pull-outs, benches, shelters, lighting, and bike racks.

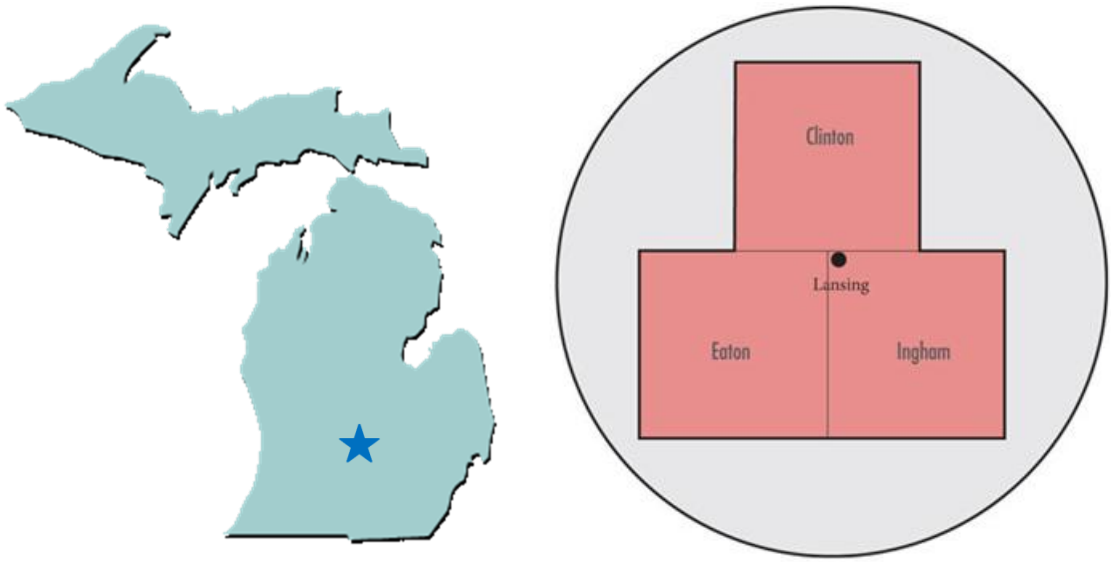
Progress report: While 3rd Street is a priority, this is a longer term action item. At present, the city is reassessing ways to leverage existing services to meet the 3rd street needs.

Pilot project: Lansing Tri-County

In the Lansing Tri-County area (Figure 4-7) and across the nation, non-emergency medical transportation (NEMT) is a critical link to providing people with quality healthcare, removing one of the largest barriers to preventative care and leading to significant benefits for people's lives and savings in medical care (estimated at 6.11 to 1 benefit-to-cost ratio for the Lansing/Tri-County area).

Populations in need of NEMT services include people with low incomes, veterans, people with disabilities, and the rapidly growing elderly population. Providing these services is both costly and complex because many clients need door-to-door service which costs far more per ride compared to fixed route transit service. These services are provided by public transportation agencies, a wide range of nonprofit and public human service agencies, and private sector providers ranging from taxi companies to specialized NEMT providers as well as ambulance operators. These services are funded and regulated by a variety of federal, state and local programs.

Figure 4-7 Lansing/Tri County Pilot Mobility Management Area



Existing Community Needs

Stakeholders in the Tri-County area asked the project team to identify barriers and solutions for expanding and improving NEMT services in the region. Specifically, they directed the team to focus on mobility management strategies to improve the coordination and cost efficiency of these services, and to focus primarily on issues surrounding Medicaid. Medicaid-funded NEMT is an increasing focus and concern shared by stakeholders throughout the state and the nation because Medicaid is by far the largest NEMT funder, and Medicaid policies are increasingly presenting the most complex and difficult challenges facing NEMT coordination efforts.

The team identified three core issues:

1. **A daunting and inefficient system for users**

   For human service agencies and individual clients the NEMT system is complex, confusing and difficult to use. Because arranging NEMT rides is complex and very time consuming, and because many clients miss appointments as a result, many human service agencies are providing transportation themselves even though this may not be as cost efficient as other potential options.

2. **Increasing needs and high costs**

   There are significant needs for NEMT services and demand is increasing due to the aging population. NEMT paratransit[3] is comparatively expensive and is straining the budgets of all the agencies that try to provide it or fund it. However, the cost of NEMT transportation is far less than the cost of medical problems that go untreated because clients lack transportation options to access medical services.

   Providing these services is both costly and complex because many clients need paratransit service, which costs far more per ride compared to fixed route transit service. Public transit plays a major role in providing the service and often carries more than its share of the cost. A wide range of non-profit and public human service agencies and private sector providers ranging from taxi companies to specialized NEMT providers as well as ambulance operators also provide transportation. These services are funded and regulated by a complicated network of federal, state and local programs.

   The Affordable Care Act (ACA) may or may not impact transportation. If Michigan chooses to implement it, the ACA will expand Medicaid coverage to cover everyone within 138% of the poverty line. This expansion will not include seniors since Medicare already covers people over age 65, and for the most part it will not include people with long term disabilities since Medicaid

[3] When provided by a public transportation agency, paratransit is also known as demand response, door-to-door, curb-to-curb, or dial-a-ride.

already covers them. The team does not expect significant impact on Medicaid-funded NEMT via public paratransit since the newly covered are not likely to have a disability that prevents access to fixed route service. The groups already covered, people with disabilities and people below the poverty line, are those most likely to need paratransit. Provisions that encourage aging in place and community-based health care may have more impact on transportation needs.

3. Public transportation agencies cannot afford to provide Medicaid transportation without higher reimbursement

With a combination of expertise, vehicles, infrastructure, and systems in place, public transportation providers are often best positioned to provide cost effective service to meet NEMT needs. However, the Americans with Disabilities Act (ADA) and the current execution of Medicaid policies in the Tri-County area limit the compensation public transit providers in the region receive for providing NEMT service to the farebox rate for the rides, a small fraction of the actual cost of providing NEMT paratransit. For example, the Capital Area Transportation Authority (CATA)'s paratransit service costs $24 per ride on average and farebox covers approximately 10% of that amount.

The discrepancy between the farebox rate and full cost of providing rides is due to the nature of public transportation and ADA regulations. Any public transportation agency that provides fixed route service is required by the ADA to also offer paratransit service for people whose disability prevents them from accessing fixed route service. Required within 3/4 mile of all bus stops, ADA restricts fares to no more than twice the regular fixed route fare.[4]

The result in many cases is that transit providers receive a reimbursement for Medicaid-funded paratransit rides that is equivalent to the fare charged, but significantly lower than the actual cost of providing the service. Tools for reducing ADA paratransit costs are limited because a transit agency must meet or exceed the regulations, so the federal, state, and local public transportation resources that go to Medicaid NEMT tend to be cut from rural demand response services and fixed route services that are designed to meet the needs of the general public, but can also provide a cost-effective means of meeting the needs of Medicaid patients when structured to do so.

Federal Medicaid policy includes an allowance for public transit agencies like CATA, Eatran, and Clinton Transit to negotiate a higher reimbursement rate than farebox for public paratransit. The Deficit Reduction Act clarified that the Medicaid program, when using a governmental broker, "pays no more for fixed route public transportation than the rate charged to the general public and no more for public paratransit services than the rate charged to other State human

[4] The ADA further requires that paratransit rides be provided to all eligible riders if requested any time the previous day, within an hour of the requested time.

services agencies for comparable services." (42 CFR Part 440.170). Furthermore the final rule 73 FR 77519 (2008-12-19) discusses this issue and states that there is no restriction from "negotiating rates with public transportation providers" and "it is appropriate and consistent with current practice for Medicaid to pay more than the rate charged to disabled individuals for a comparable ride."

The two key requirements to negotiate a higher payment for Medicaid payment of public paratransit rides are for a public transportation provider to 1) Use a fair methodology for determining an equitable cost allocation among funders, and between services, and 2) have contracts negotiated with another human service agency. If that contract allows for reimbursement of the full cost of the ride, then the public transportation provider has a basis for asking for similar reimbursement from Medicaid.

Quantified Impact

If Medicaid NEMT use of public paratransit increases and payment remains at the farebox level, the consequence is less resources to meet other public transportation needs. Under the current way of doing business, with Medicaid paying only farebox, it pays 10% of the cost of CATA's medical rides. The remainder is paid by FTA, state transportation dollars, and county mill levies that are aimed at transportation, not medical care. For CATA, this leaves $1.3 million per year of unreimbursed costs for transporting people to and from medical appointments on demand response services.

If CATA were to be reimbursed the entire cost of the ride, they could reinvest the funds elsewhere. For example, CATA could operate 2 additional fixed route buses 16 hours per day, 7 days per week[5]. This would benefit people using fixed route service to access medical care, as well as the entire community. Data specific to medical transportation is unavailable for E-Tran and Clinton Transit, but we assume the situation is much the same as CATA

Mobility Management Recommendations

Following are the top priority actions we identified for improving NEMT cost efficiency and service in the Lansing Tri-County area:

1. Match riders to the most appropriate and cost-effective transportation options
2. Reimburse public transportation providers for the full cost of Medicaid-funded paratransit rides
3. Help people navigate the system with ever-improving trip planning services
4. Collect the data necessary to document NEMT needs and coordinate services

Initiative 1: Match riders to the most appropriate and cost-effective transportation options

Riders who need NEMT services range from low income individuals with no disabilities who can easily ride fixed route transportation

[5] Calculated using NTD 2011 fixed route cost per hour of $112.81, 52 weeks per year, no holidays.

and can easily walk to and from bus stops; to people with disabilities who are accompanied by a caretaker and need curb-to-curb transportation in a wheelchair compatible vehicle. Matching each type of rider to the most appropriate and cost effective ride requires an understanding of their needs and of the regulations governing the funding source that is paying for the ride. Overall, cost efficiency will be maximized by coordinating all NEMT and other demand-response services to combine rides whenever possible, and using fixed route bus service whenever possible.

Throughout the nation, many states and regions are addressing this challenge by implementing a variety of brokerage models. Michigan is exploring brokerages as an option and the Tri-County region should be pro-active in exploring whether there is a brokerage model that could meet the Lansing area's needs. At the same time, there are a number of approaches that could be implemented with or without a brokerage. The following recommendations address the most promising strategies for both brokerage and non-brokerage scenarios.

Clinton Transit's Volunteer Driver Program – A Tri-County Best Practice

Volunteer driver programs are used to connect NEMT beneficiaries with critical resources and have a large flexibility to meet the needs of the diverse community they serve. Clinton Transit's volunteer driver program, written up as a best practice while it operated under the FTA New Freedoms grant program, has functioned as a reliable, sustainable and flexible model to meet a range of NEMT needs in the region. The program has been highly effective at using volunteer support to provide reliable service and leverage a variety of funding sources. This success stems partially from an extensive volunteer screening program, creative fundraising, strong leadership and strategically conservative growth over time to ensure the program can continue to meet demand.

Implementation Steps

- Use fixed route bus service whenever possible
  - Make it easy for human service agencies to provide bus passes
  - Provide Travel Trainings
  - Facilitate transfers and modify routes as necessary
- Enable and encourage shared paratransit rides
- Support Volunteer Driver Programs
- Pursue NEMT coordination strategies that do not require a brokerage
- Build a "holistic" brokerage for all types of NEMT and human service transportation needs

Progress Report: The region is in the process of updating the coordination plan and will incorporate these concepts as elements of it.

Initiative 2: Reimburse public transportation providers for the full cost of Medicaid-funded paratransit rides

Public demand-response services are the logical choice as the most appropriate option for meeting a significant percentage of NEMT needs. However, most public transit systems will be unable to afford to provide these services unless Medicaid reimbursements pay the all or most of the full cost of these rides. Medicaid typically reimburses private providers and human service agencies for an amount close to the full cost of paratransit rides. Doing the same for public transit agencies would have several benefits that will help achieve overall cost savings and expanded transportation services:

1. It would allow public transit agencies to provide quality paratransit service to meet increasing NEMT demands.
2. It would enable public transit agencies to expand and improve fixed route service to meet NEMT needs at lower cost and improve overall mobility in the region.

Implementation Steps

- Determine the most suitable cost allocation approaches to address the Medicaid NEMT funding gap
- Negotiate cost agreements with one or more human service agencies
- Engage in state level discussions and policy-making on non-emergency medical transportation
- Design and Implement a pilot project

Progress Report: Addressing non-emergency medical transportation needs is a significant policy and procedural change that will take time for implementation. While no significant progress has been made in the immediate weeks following final strategy development, the Michigan Public Transit Association (MPTA) is exploring the adopted strategies further.

Initiative 3: Help people navigate the system with ever-improving trip planning services

Find-a-ride trip planning services are the tactical, day-to-day component of mobility management. These services include all forms of marketing and outreach to target populations including websites, call centers, hard copy materials and travel training programs. The following recommendations include expanding the scope of CATA's existing Mobility Broker program along with other efforts to improve information and services available to clients trying to navigate the complex options for accessing NEMT.

Implementation Steps

- Expand the scope of CATA's Mobility Broker program to provide information about all transportation providers
- Expand marketing of Mobility Broker program to include human service transportation
- Collaborate with 2-1-1 and human service agencies to provide one-call one-click NEMT information
- Continue to "unravel the spaghetti" of NEMT funding programs

Progress Report: Under a separate initiative underway prior to the development of the mobility management strategy, CATA has made improvements to it trip planning services. This improvement is a significant step forward for Initiative 3.

Initiative 4: Manage data to document NEMT needs and coordinate services

Good data is essential for understanding needs, inventorying services currently available, assessing and documenting problems, and designing solutions. Data is the backbone of any cost sharing structure, and is also necessary for creating one-call one-click services and for planning and designing fixed bus routes and other transportation services. However, NEMT data can be particularly hard to collect because of the large number of stakeholders, services and funding sources involved. For Medicaid-funded NEMT the necessary data is either not collected or extremely difficult to access. Data is needed on how Medicaid NEMT funding is being spent including populations served, number of rides, types of rides and destinations accessed.

Implementation Steps

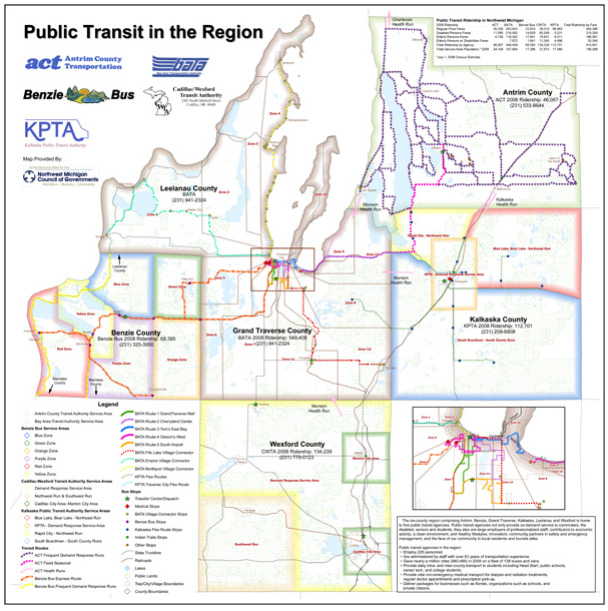
- Create a data structure that is easy to use and easy to update
- Coordinate with 2-1-1
- Explore data available from the Michigan Data Warehouse
- Build and maintain a regional data inventory

Progress Report: Data management is proceeding in concert with the coordination plan and regional planning efforts and will be implemented over time.

Pilot project: Traverse City and the Grand Vision region

This project builds on an outstanding Grand Vision process that is ongoing in this six-county region. Grand Vision is a broad based, community-based planning initiative to create a unified long range vision for land use, transportation, economic development and environmental stewardship in the northwest region of the lower peninsula (Figure 4-8). Based on the large amount of high-quality work that has been done and the high level of engagement by partners throughout the region, we believe the region's public transportation providers are well-positioned to implement mobility management strategies that will help achieve their goals.

Figure 4-8 Traverse City/Grand Vision Pilot Mobility Management Area



Existing Community Needs

Participants in the Grand Vision region identified several important outcomes they hoped to achieve from this project:

- They want to help achieve a paradigm shift in which the public and decision-makers perceive the region's transit providers as viable and important resources for sustaining and improving the region's economy.
- They want to make transit more usable.
- They want to develop strategies with outcomes that are achievable within a relatively short timeframe so they can point to initial successes and generate momentum toward the big picture goals.
- They want to develop strategies that will position the region to receive available federal funding.

Mobility Management Recommendations

Regional coordination is the primary theme throughout the implementation recommendations developed for the Grand Traverse area. Coordination between transportation providers and a wide range of other stakeholders is necessary to improve and expand convenient and cost effective inter-county transportation options for commuters, tourists, human service clients and the general public. Coordination is also essential for creating and marketing high quality web-based and hard copy resources to make it easier for residents and visitors to navigate the region's entire suite of transportation service options. Finally, coordination can tie together regional land-use, transportation and other types of planning in the short and long-term to ensure a holistic approach is taken to connecting transportation with community development. In combination, these recommendations should help the region and its communities become more vibrant, livable and sustainable, bringing about economic development and increased support for transportation services.

The project team and stakeholder group identified the following priorities:

1. Improve coordination between transportation providers (public and private)
2. Integrate transit with the tourism economy
3. Consider water transportation
4. Integrate transportation with regional planning
5. Integrate human service transportation into mobility management planning
6. Continue to evolve regional leadership structure

Initiative 1: Improve coordination between transportation providers (public and private)

Multiple transit providers currently operate in the northwest region (Figure 4-8). The following actions address a wide range of strategies for achieving the Grand Vision

goals of effective regional cooperation and integration. These strategies should provide economic and quality of life benefits for both Traverse City and outlying communities.

This priority is focused on sustaining and improving the region's economy by making transit more usable and expanding transportation options for both residents and visitors. It is important to note that the service improvement actions discussed under this priority must go hand-in-hand with effective branding and marketing. Strategies for branding and marketing are primarily discussed under Initiative 2.

Implementation Steps

- Build relationships with people in other regions, such as with the Northwest Oregon Transit Alliance (NWOTA) and Maine's Shoreline Explorer, to share successes in coordinated regional service design.
- Develop a regional transit pass or other fare coordination policies
- Develop and share cost allocation models for each public operator and use models as a basis for developing budgets and negotiating cost and revenue allocations.
- Coordinate local route timing to facilitate transfers where Indian Trails intercity buses stop in the region during local transit operating hours.
- Pursue new intercity connection between Traverse City and Grayling
- Expand Village Connectors across county lines (Years 2-5)
- Implement strategies for fare coordination and fare sharing. (Years 2-5)
- Use a cost allocation model as a basis for developing budgets and negotiating cost and revenue allocations. (Years 2-5)
- Develop a data-sharing network(Years 2-5)
- Coordinate with Indian Trails intercity(Years 2-5)
- Explore passenger rail service between Traverse City and Williamsburg(Years 2-5)

Progress Report: BATA has begun to initiate coordination with other providers, however, given the number and extent of transit providers and services, this will be an ongoing process for quite some time.

Initiative 2: Integrate transit with the tourism economy

The transportation community has the opportunity to work with the full spectrum of leaders in the regional tourism and events economy to tap into their creativity and identify opportunities for partnerships and expanded service. Conversations with these stakeholders can explore opportunities involving events, businesses, and locations that are attracting people who are already predisposed to riding a bike or riding a bus, getting around without a car. Another opportunity is to look at events that are creating congestion and parking problems.

Both long-standing events and attractions such as the National Cherry Festival, Sleeping Bear Dunes, Film Festival, casinos, and Grand

Traverse Resort; as well as more recent additions such as the Microbrew & Music Festival, TC Cycle Pub represent opportunities for partnerships. Transit providers can build from these events to provide seasonal services that respond to tourist travel needs such as providing return trip accommodation for bicyclists on the many area trails or direct linkages to the vacation resorts.

Implementation Steps

- Assess potential for partnerships and service expansion by reaching out to leaders in the tourism and events economy.
- Find opportunities to practice coordination around events
- Improve transportation service to the airport
- Improve transportation information on the Internet
- Expand and improve non-web based customer outreach efforts
- Take a customer-oriented approach to providing service
- Use free media coverage and other free publicity

Progress Report: BATA has made accommodation for, and actively markets to, bicyclists utilizing the Sleeping Bear or Leelenau trail(s) who wish to take the bus for the return trip. The tribe and MLUI are further exploring the possibility of providing rail service among key tourism destinations in the region.

Building on Success: Innovative Bike-and-Ride

The Bay Area Transportation Authority (BATA)'s new and highly successful Bike-and-Ride program takes an innovative approach to supporting the community's tourist economy. The first of its kind in Michigan and one of the only such programs in the US, the Bike-and-Ride program encourages groups of recreational cyclists to bike a 17-mile trail from Traverse City to Suttons Bay and return in school buses retrofitted to carry bicycles and child trailers. The program enables visitors who would otherwise find the 34-mile roundtrip ride too daunting to

Initiative 3: Consider Water Transportation

The region, led by the Grand Traverse Band of Indians, has started investing in boat docks that can be used for ferry service between the peninsulas and to islands in Lake Michigan. This service could cut down travel time extensively. For example, travel between tribal headquarters in Peshawbestown and Old Mission State Park is 39 miles by road, or 50 minutes without traffic. By comparison the trip is 6 miles, or 30 minutes by boat. The GTB is interested both from the perspective of carrying tourists to its resort and casinos and from providing more convenient transportation for tribal members throughout the region to access tribal resources at its

headquarters in Peshawbestown. The following map shows potential routes. The orange route was selected to begin exploring financial feasibility.

Implementation Steps

- Select a service lead
- Consider all the possible parties that may be interested in connecting to a water ferry
- Create a Water Ferry Service Plan
- Pursue funding in preparation for start of service
- Formalize service and financial commitments and expectations in agreements with partners/service locations (Years 2-5)
- Purchase boats
- Implement a first phase of service at the beginning of the tourist season
- Expand services as the business plan is updated
- Test new visitor services

Progress Report: The tribe is currently consulting with water based transportation providers to further explore the feasibility of ferry service.

Initiative 4: Integrate Transportation with Regional Planning

Transit works best when supported by good land use, road connectivity, and complete streets. The lack of coordination has resulted in commercial development site designs that require buses to drive through parking lots to drop off and pick up passengers. In many locations there is no bus stop infrastructure on the state highway and no safe way for passengers to walk between the road and the entrance of the commercial buildings. Driving through large parking lots typically causes significant travel time increases and also increases safety concerns as drivers negotiate unpredictable parking lot traffic and pedestrians.

This is illustrated by the Interlochen Loop Route. Initial reports from the launch of BATA's new Village Connector service indicate that most of the Village Connectors are operating with efficient travel times because they have a limited number of stops linking residential/commercial nodes in rural areas on roads that are largely without commercial strip development. In contrast, on the Interlochen Loop Route that is coordinated with the Benzie Bus, travel time is a barrier for riders seeking to use the service for commuting to work. Past development decisions and site planning have resulted in land use patterns that led to the need to travel through parking lots.

Implementation Steps

- Consider modifying services to include express commuter service that will stop along the mainline arterial in addition to regular midday service that will provide stops and service in the parking lots until redevelopment occurs
- Improve bus stop infrastructure at two pilot locations
- Develop local guidelines for transit stops and development review
- Build more well-connected bus stops (Years 2-5)
- Implement guidelines for transit stops and development review (Years 2-5)

Progress Report: MLUI continues to advocate with the jurisdictions to seek better site plans and development programs that begin to reduce the need to divert transit service off the mainline and into parking lots.

Initiative 5: Coordinate and integrate human services transportation

Because of the complexity of coordinating diverse human service agencies, clients and transportation funding sources, human service transportation coordination is often the primary focus of mobility management efforts. In the Grand Traverse region, even if tourists and commuters remain the primary target populations for coordination efforts, these efforts should also include human service needs.

Implementation Steps

- Develop a Human Service Coordination Plan
- Engage in state level discussions and policy-making regarding human services transportation
- Collaborate with 2-1-1 and human service agencies to provide one-call one-click information
- Volunteer driver programs
- Travel Training Programs
- Coordination with schools

Progress Report: Human services coordination will be a component of the Grand Traverse Region regional planning process currently underway.

Initiative 6: Regional Leadership

As they take steps to expand and improve transportation options in the region, the Grand Traverse partners will need to decide whether to continue with the current practice of informal meetings among transit provider leadership or whether to create one or more formal organizations to provide leadership.

There are a number of Mobility Management tasks that could be handled by a regional organization including:

- Inter-county route planning.
- Coordinating data sharing.
- Coordinating regional funding efforts and revenue sharing
- Building relationships and facilitating stakeholder meetings with the private sector, human services and others to broaden and strengthen partnerships.
- Marketing, including developing and maintaining one-call one-click services such as a centralized website similar to Get Around the Western U.P.

Additionally, Transportation Demand Management (TDM) efforts could be handled by a regional organization. TDM and mobility management are closely related and complementary, so they could potentially be handled by the same organization. Both revolve around helping people find transportation options and better coordinating those options. However, TDM typically focuses on commuters and large employers, while mobility management typically focuses on people with disabilities, seniors, and people with low incomes (we have included tourists and event goers as an additional market segment for mobility

management). It is important to recognize the differences between the needs of the user groups and to tailor services, marketing, and coordination with the key players appropriately.

Implementation Steps

- Research types of formal regional organizations that could be created under current Michigan statutes.
- Decide whether one or more formal organizations or informal working groups should be formed to lead ongoing efforts.
- Organize and establish the organizational structures and groups necessary for providing leadership.
- Implement moderately ambitious, achievable actions such as a centralized website and regional transit branding.
- As the leadership structure matures, focus on tackling more ambitious actions and also focus on addressing long term financial sustainability for improved and expanded regional transportation.

Progress Report: MLUI is currently leading efforts to form an entity to provide regional transportation management coordination and support transportation demand management efforts.