Transportation Demand Management

Existing Practices and Opportunities in the SEMCOG region

April 2013

Transportation Reform Demonstration Project:
Creating jobs and economic development in Michigan by removing barriers to coordinated federal, state and local public transportation investment and management.
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1. CONTEXT OVERVIEW

The Southeast Michigan Council of Governments (SEMCOG) is a regional planning agency and the designated Metropolitan Planning Organization (MPO) for the area encompassing Wayne, Macomb, Washtenaw, St. Clair, Monroe, Livingston, and Oakland Counties. COG membership is open to counties, cities, villages, townships, school districts, and community colleges. Currently there are 137 member jurisdictions. SEMCOG is responsible for regional transportation planning, providing technical assistance to members, and reviewing federal grant applications, among other responsibilities. Both St. Clair and Washtenaw Counties have their own MPOs (St. Clair County Transportation Study and Washtenaw Area Transportation Study, respectively), but SEMCOG remains the lead MPO and any projects in these county-specific Transportation Improvement Plans (TIPs) are included in SEMCOG’s planning.

Population in the SEMCOG region is centered in Detroit and its inner suburbs, which cover portions of Wayne, Oakland, and Macomb Counties. Livingston and Washtenaw Counties have population centers in Ann Arbor and South Lyon-Howell. In general the northern and western edges of the SEMCOG region are non-urbanized. To the eastern and southern edges, population pockets pop up where Michigan borders Canada and Ohio (Figure 1). Region-wide population according to the 2010 Census totaled 4,704,743, a decline of 2.7% since the 2000 Census. Population in the Detroit area declined precipitously (~25%), while the suburban and less-urbanized areas experienced population growth (Figure 3).
Figure 1  Population Centers

Census Urban Areas, 2010
Southeast Michigan

Urbanized Area
- Ann Arbor
- Detroit
- Flint
- Monroe
- Port Huron
- South Lyon—Howell
- Toledo

Urban Cluster (Over 5,000)
- Chelsea
- Goodrich
- Holly
- Milan
- Richmond

Urban Cluster (Under 5,000)
- Dundee
- Fowlerville
Figure 3: Population Change

Percent Population Change, 2000-2010
Southeast Michigan

Legend:
- Large Increase (>15.0%)
- Increase (3.1% to 15.0%)
- Little Change (3.0% to -3.0%)
- Decrease (-3.1% to -15.0%)
- Large Decrease (>15.0%)
2. EXISTING STUDIES AND EFFORTS

SEMCOG covers a large and diverse region, in which numerous planning and implementation efforts are ongoing. This section lists the projects most relevant to transportation demand management (TDM) opportunities, including long-range plan priorities and investments, modal plans including transit expansions, corridor projects, and non-motorized projects. Studies are listed by geographic scope, from regional down to local.

Regional Studies

Direction 2035, SEMCOG

This regional long-range plan acts as the basis for inclusion of projects in the shorter range TIP. SEMCOG identified $2.8 billion in annual transportation needs, with an expected actual allotment of $1.3 billion per year. Direction 2035 includes more than 1,800 projects in the following six categories. The expected funding allocation per year and goal of investments by 2035 is listed below.

- Bridges - $74 million – goal 98% in State of Good Repair (SOGR)
  - Wadhams Bridge, St. Clair County
  - Jefferson Avenue Bridge, Detroit
  - I-96/US-23 bridge, Livingston County
- Walking & Cycling - $15 million – goal 62% of people and jobs ½ mile from a facility
  - River Bends Park, Macomb County
  - I-275 rehab, Wayne County
- Transit - $315 million
  - Maintain existing
  - 3 Rapid transit lines – Woodward Avenue (Detroit), Ann Arbor-Detroit, Ann Arbor-Howell (WALLY)
  - Alternatives analysis – M-59, Gratiot Avenue, Woodward Avenue (Oakland County)
- Pavement - $328 million – goal 68% roads in good or fair condition
  - Hayes Road, Macomb County
  - Lahser Road reconstruction, Oakland County
  - Nixon Road, Livingston County
- Congestion - $103 million – goal 2.8 hours of travel delay per 1,000 vehicle miles traveled
  - Signal retiming, Intelligent Transportation Systems (ITS)
  - Adding capacity – Dixie Highway in Monroe County, I-75 in Oakland County
- Safety - $19 million
  - Intersection redesigns, signal changes, education and enforcement
SEMCOG is currently gathering input for its update of *Direction 2035* to the 2040 long-range plan. *Direction 2035* also includes elements of the *St. Clair County 2035 Long Range Transportation Plan* and the *2035 Long Range Transportation Plan for Washtenaw County*.

**St. Clair County 2035 Long Range Transportation Plan, 2009**

The St. Clair County Transportation Study (SCCOTS) is a designated transportation study that functions similar to an MPO. Approximately $3 million is allocated to SCCOTS from the federal government via SEMCOG. St. Clair measures 724 square miles. Population is concentrated in Port Huron-Marysville.

Roadway projects in the county are most focused on state of good repair and developing an asset management program. Transit recommendations concentrate on extending service hours, TOD along the M-25/Fort Gratiot retail district, and locally-funded county-wide transit. Non-motorized long-term plans for the county include an expanded trail network, waterfront access, and adopting a complete streets policy.

**2035 Long Range Transportation Plan for Washtenaw County**

The Washtenaw Area Transportation Study (WATS), like SCCOTS, mimics the functions of an MPO. The long-range transportation plan (LRTP) identified system deficiencies by mode and highlighted a series of projects that have procured funding. Identified highway deficiencies include US-23 from M-14 to the northern county line, Washtenaw Avenue from Huron Street in Ann Arbor to Hamilton in Ypsilanti, Michigan Avenue from City Saline to Ypsilanti, and I-94 from State Street to US-23 and from US-12 to Harris. Washtenaw County supports other measures that alleviate congestion; the WATS Policy Committee promotes rail and will only support additional highway capacity if it is built as a high-occupancy vehicle lane.

**Figure 6. Funded projects**

![Image of funded projects](source: 2035 Long Range Transportation Plan for Washtenaw County)
On Board Survey, 2012

SEMCOG published the *Regional On-Board Transit Survey* report documenting data collected in fall 2010 and spring 2011 on all fixed-route systems in Southeast Michigan. A total of 18,495 usable questionnaires were netted from 114,901 eligible boardings for a response rate of 16.1%. This data was used to update SEMCOG’s travel demand model (maps of origins and destinations were not provided in the report). The summary results found that, regionally, the bus system serves 222,000 boardings per day with half of those occurring on 10% of the system’s routes. Most riders are transit dependent (rather than “choice” riders), with 52% reporting that a vehicle was unavailable to make the trip. 86% of those surveyed live in a household with an income of $50,000 or less. Typical of most transit systems, the vast majority of trips start or end at home, the trip is work-related, and people walk to and from bus stops. 75% of respondents are frequent riders.¹

Non-Motorized Plan (current)

SEMCOG has undertaken a Regional Nonmotorized Plan covering all MDOT regions. The study began in December 2012 and includes an inventory of existing facilities, gap analysis, and needs assessment. The final plan will be released in Fall 2013.

Comprehensive Regional Transit Service Plan, 2008

The *Comprehensive Regional Transit Service Plan* builds on the 2001 study *Improving Transit in the SEMCOG Region* and provides detailed implementation steps for the transit vision plan created by the Regional Transit Coordinating Council in 2007. Highlights of the 2008 plan include recommendations for:

- Improved existing service via better bus stops and shorter headways
- Rapid Transit
  - Arterial Rapid Transit as the backbone
  - BRT or LRT if ridership warrants
  - A privately-funded rapid transit on Woodward Avenue
  - Commuter rail from Detroit to Ann Arbor

The plan predicts that these transit investments will cut travel time by 30% by 2035. For every $1 invested, the region will reap $4-$8 in returns. A major recommendation from the study was the need to form a regional transit agency to implement the envisioned network. The formation and institutionalization of this entity is presently underway.

Figure 7. Proposed 2035 transit network

Source: Comprehensive Regional Transit Service Plan
**County**

**Washtenaw County, Transit Master Plan, 2011**

Ann Arbor Transit Authority (AATA) adopted a 30-year vision for expanded transit service. A 5-year Transit Master Plan (TMP) for countywide service was developed but did not gain the political support necessary to pursue a funding initiative. A more limited plan for expanded service in the urban core is in development as of January 2013. The AATA implemented some service expansion in advance of the TMP, including doubling the frequency of weekday service on the #4 Washtenaw route. The AATA is currently considering how to fund continuation of these advance services.

**Corridor / area-specific**

**Re-Imagine Washtenaw, 2009-Present**

Begun in 2009, this study seeks to revitalize Washtenaw Avenue as a place supporting high quality of life by encouraging diverse housing and shopping options, improved transit service, walking and cycling infrastructure, and better parking design. Under the umbrella of the Re-Imagine Washtenaw project, the Ann Arbor Transportation Authority (AATA) and Washtenaw County have each received large federal grants ($2.6 and $3 million, respectively) to implement some of the project’s recommendations. The most recent major development for the project occurred in 2012 when the Michigan legislature also approved a bill that would allow city leaders to create a Corridor Improvement Authority (CIA) for Washtenaw Avenue.

**Woodward Avenue Streetcar (construction to start August 2013)**

In 2011, MDOT published the final Environmental Impact Statement (EIS) for the Woodward Avenue Light Rail Transit Project, which called for a 9.3 mile Woodward Avenue light rail from downtown Detroit to 8 Mile Road near the Michigan State Fairgrounds. The Woodward Avenue Streetcar project, a 3.3 mile spur from downtown to Grand Boulevard, became lumped together with the light rail initiative to leverage New Starts money. At the time, however, the plan was for Detroit Department of Transportation (DDOT) to operate the streetcar, which was a very high-risk proposition and the FTA refused to fund it. M-1 Rail, a consortium of business leaders and non-profits, pushed strongly for streetcar and in January 2013, the FTA granted $25 million to fund the streetcar. This turnaround was spurred in large part by the creation of a Regional Transit Authority. M-1 Rail has pledged more than $100 million of private dollars to the project, and has created an endowment that, coupled with fares and other measures like naming rights, will produce the expected $5.1 million annually needed to operate the system. M-1 Rail expects to operate the system for 10 years, after which it will become part of the RTA. The M-1 Rail Streetcar Project Business Plan projected ridership based on existing patterns and growth factors from other streetcar peer cities. DDOT Route 53, which runs on Woodward Avenue, carries 12,466 daily trips, of which 3,000 are within the streetcar alignment. Factoring in as well the economic development and growth as exhibited in other streetcar cities, the Business Plan predicts 6,000 daily trips in Year 1, rising to 10,000 in 5 years. No plans are in place to alter existing connecting services.

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Woodward Avenue Alternatives Analysis (current)

SEMCOG is conducting an alternatives analysis (AA) for rapid transit options on the 27-mile Woodward Avenue corridor connecting Detroit to Pontiac and spanning both Wayne and Oakland Counties. The 11 communities benefiting from rapid transit are members of a Steering Committee. The Michigan Suburbs Alliance and the Woodward Avenue Action Association are partners in the effort. As of December 2012, preliminary stop locations and routing alignments had been presented to the public. SEMCOG has put forth options including enhanced bus, bus rapid transit (BRT), and light rail transit (LRT) running in mixed flow, a fixed guideway, or a combination. Woodward Avenue will be the first of four rapid transit corridors in a 113-mile network. SEMCOG expects to complete the AA in early 2014.4 This AA will dovetail with the funded streetcar by providing longer-range mobility to complement the streetcar’s local service.

Gratiot Avenue Corridor Improvement Plan, 2009

Gratiot Avenue is one of the corridors destined for future BRT or LRT. This corridor plan addresses Gratiot Avenue’s development and urban design issues by promoting access management, complete streets design, and zoning that supports multimodal access. The corridor is 26 miles long and is in Macomb County. While the focus of the project is on access management, the goal of stakeholders is also to address urban form, setback, street and intersection design, development review processes, and economic development.5

Ann Arbor Detroit Regional Rail Project

A commuter rail link was recommended as part of the Improving Transit in Southeast Michigan: A Framework for Action published in 2001. Service would run on the Great Lakes Central Railroad. The original plan in 2010 called for 4 weekday round trips at 5 stations. At this time, $33 million in capital funds had been obligated, out of the total $80 million cost.6 Service implementation was stalled in 2010 due to this lack of funding7, although new testing of rail care began again in 2012.8

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4 Information can be found at [http://www.woodwardanalysis.com/](http://www.woodwardanalysis.com/)
6 PowerPoint Presentation, [http://www.semcog.org/AADD.aspx](http://www.semcog.org/AADD.aspx)
Washtenaw Livingston Rail Line

The Washtenaw and Livingston Line (WALLY) consists of a 27-mile commuter rail line connecting Ann Arbor and Howell. Running parallel to US-23, a heavily congested highway corridor, WALLY offers a travel alternative. Likely AATA will operate WALLY through a contract. Expected ridership tops 1,200 daily riders and monthly fares will cost an estimated $150. WALLY construction was estimated at $32 million, with $7 million in estimated operating costs. The concept of WALLY came about in 2006 as stakeholders sought viable travel alternatives as an alternative to a $500 million expansion of US-23.9

Local Projects

Detroit Future City Plan

The Detroit Works Project began in 2010 as a visioning project begun by Mayor Bing and spearheaded by 14 members of the business, government, and non-profit communities. This group solicited (and gained!) broad public input that resulted in a series of short and long-term actions for the city, framed under the umbrella of the Detroit Future City Plan.10

3. EXISTING ASSETS AND TRAVEL

Infrastructure in the SEMCOG region consists of:

- 27,700 miles of roads, of which 5,200 miles are truck routes
- 3,500 bridges
- 2,000 miles of fixed route bus service
- 500 miles of walking/biking facilities
- 1,000 miles of active rail
- 35 airports
- 5 marine ports
- 7 intermodal terminals

Travel in the region is primarily by car (84%), with another 8% of commuters using carpool/vanpool and 2% taking transit.

9 http://www.theride.org/wally.asp
10 http://detroitworksproject.com/the-framework/
Of the over 27,000 miles of public road, 51% are categorized as being in fair condition and 16% as good, while 30% are designated as being in poor condition. 8,000 miles of roadway are federal aid facilities.

**Automobile Traffic**

In general, the breakdown of major roadway type corresponds to national averages (Figure 10). These 8,000 miles of roadway is the equivalent of approximately 21,200 lane miles.¹¹

![Figure 10. Roadway network by type](image)

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>SEMCOG Region</th>
<th>National Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway</td>
<td>1,264</td>
<td>4.6%</td>
</tr>
<tr>
<td></td>
<td>4,848</td>
<td>17.5%</td>
</tr>
<tr>
<td>Collector</td>
<td>1,888</td>
<td>6.8%</td>
</tr>
<tr>
<td>Local</td>
<td>19,700</td>
<td>71.1%</td>
</tr>
<tr>
<td>Total</td>
<td>27,700</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: SEMCOG Asset Management Road Condition Report, 2008 and FHWA Functional Classification Guidelines

Southeast Michigan is served by a number of major interstates and highways. The city of Detroit and region are oriented around a system of arterial spokes that converge in the downtown core.

I-75 is one of three major north-south freeways in the state. I-75 is the only one that continues on to and across the Mackinac Bridge and on to Sault St. Marie and Canada. Within the SEMCOG region, I-75 is among the most heavily traveled, and congested, commuter and freight routes.

I-94 is the state’s most significant east-west truck freight corridor connecting Detroit all the way across the state via Jackson and Kalamazoo on eventually to Chicago. I-94 cuts through the downtown core of Detroit and continues on to Sarnia, Ontario.

I-96 is a critical economic corridor linking Detroit to Lansing and Grand Rapids and similarly a heavily traveled corridor.

The north-south aligned I-275 and east-west oriented I-696 create a beltway of sorts through the suburban jurisdictions surrounding the regional center. I-275 connects to the international airport. I-696 serves some of the most heavily populated centers of the region and as such, routinely experiences a high level of congestion.

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¹¹ The Asset Management Road Condition Report gathered data on 4,000 miles of federal-aid roads, which is the equivalent of 10,600 lane miles. Since the sample tried to gather evenly from throughout the region, it is assumed that the full 8,000 miles of federal-aid roads equals twice as many lane-miles.
**Figure 13** shows 2012 average daily traffic. The red roads may be generally at capacity; freeways in the SEMCOG region generally consist of three to four lanes per direction, and in general a free-flow highway can accommodate 1,800 vehicles per lane per hour.

Currently 1,470 miles of roads are congested (18% of federal-aid roads or 5% of all roads), causing 2.9 hours of delay per 1,000 vehicle miles traveled. SEMCOG bases the threshold of congestion on volume/capacity ratios gleaned from the travel demand forecasting model and real-time speed data from speed studies and road sensors. A roadway with a v/c ratio of 0.8 - 0.9 ranks as “moderate congestion”, 0.9 - 1 as “high congestion” and more than 1.0 as “severe congestion.” The Travel Time Index as the ratio of peak period travel time to non-peak travel time; thus a TTI of 1.2 means a peak trip takes 20% longer than off-peak (36 minutes versus 30 minutes).

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12 SEMCOG’s long range goal is to reduce delay to 2.8 hours per 1,000 miles of travel

13 [http://www.semcog.org/uploadedFiles/Programs_and_Projects/Transportation/Congestion/CngDeThreshold.pdf](http://www.semcog.org/uploadedFiles/Programs_and_Projects/Transportation/Congestion/CngDeThreshold.pdf)
Parking

Parking in Detroit is generally managed by the City of Detroit and data on existing on and off-street supply was not available. The city operates seven municipal parking garages which have a total of 2,880 spaces. In addition, there are numerous private lots operated by facilities such as the DMC. Monthly rates range from $100-$150 and the maximum daily charge ranges from $10-$15. Parking in downtown Ann Arbor is regulated by the Downtown Development Authority (see Washtenaw County report).

Parking along the arterials outside the city is generally either prohibited or managed by the local jurisdiction.

The Michigan Department of Transportation provides and maintains a number of carpool lots (also known as park and ride lots) in the metropolitan area. Parking at these lots is free, however they are generally at some distance from the urban center.

A partnership with Meijer grocery stores has enabled additional park and ride arrangements at select stores across the state.

\[14\] http://www.detroitmi.gov/DepartmentsandAgencies/MunicipalParkingDepartment/PublicParkingFacilities.aspx
Transit

The region is supported by several transit agencies. Transit generally performs fairly well given the level of funding provided. The southeast Michigan region spends $75 per capita per year on transit, while in larger metropolitan regions this figure averages $184.\textsuperscript{15}

Detroit DOT

DDOT runs 36 bus routes in the immediate Detroit service area. Fares are $1.50 with a monthly pass costing $47.

The agency recently released its draft Five-Year Service Plan\textsuperscript{16} with several key changes including:

- Transition five high ridership routes to Express (including Woodward and Gratiot)
- Opportunity to tap into desire for HOV or HOT lanes
- Identification of transit priority corridors of Eight Mile Road, Grand River Avenue, Gratiot Avenue, Michigan Avenue, and Woodward Avenue
- Locating CBD park and rides in recognition of reverse commuting pattern

Detroit People Mover

This downtown loop is run by the Detroit Transit Commission. The nearly 3 mile long loop has 13 stations. According to the American Public Transit Association it has successfully moved more than 2 million people annually since 2006, however does require a relatively high subsidy averaging a cost of approximately $3/passenger mile for the 75 cent ride. The People Mover does not accept DDOT or SMART transfers and it is estimated to cost approximately $10 million to integrate the People Mover with the other regional systems.\textsuperscript{17}

Suburban Mobility Authority for Regional Transportation (SMART)

This agency’s service area reaches out from

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{highest_ridership_ddot_routes}
\caption{Highest ridership DDOT routes}
\end{figure}

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline Route & Route Name & Average Weekday Ridership \\
\hline 53 & Woodward & 13,803 \\
16 & Dexter & 10,387 \\
21 & Grand River & 10,272 \\
45 & Seven Mile & 9,156 \\
34 & Gratiot & 7,651 \\
14 & Crosstown & 7,595 \\
32 & McNichols & 6,362 \\
22 & Greenfield & 5,861 \\
18 & Fenkell & 5,646 \\
17 & Eight Mile & 5,314 \\
\hline
\end{tabular}
\caption{Highest ridership DDOT routes}
\end{table}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{detroit_people_mover_route_map}
\caption{Detroit People Mover Route Map}
\end{figure}

\textsuperscript{15} Comprehensive Regional Transit Service Plan, P. 5
\textsuperscript{16} http://www.detroitmi.gov/Portals/0/docs/deptoftransportation/pdfs/ddot_fiveyearplan08.pdf
\textsuperscript{17} Comprehensive Regional Transit Service Plan, P. 7
Detroit and into Monroe, Wayne, Oakland, and Macomb Counties. SMART operates 43 fixed transit routes and averages 34,000 weekday riders. The average length of its fixed route is 7 miles. The agency owns 591 vehicles including paratransit and community service vehicles. Point to point trips on the system cost $2.00 per trip. Monthly passes are $66. Trips from park and ride lots are $2.50 or $82 for a monthly pass.

Lake Erie Transit

Lake Erie Transit serves Monroe County residents with eight fixed routes, dial-a-ride by town, and a county-wide lifeline curb-to-curb service. Fares are $1. LET carries 370,856 passengers per year, owns 24 vehicles, and employs 68 people.

Blue Water Area Transit

The Blue Water Area Transportation Commission runs seven fixed routes within the City of Port Huron and Gratiot Township in St. Clair County on 40-minute headways. Two express routes, on I-94 and M-29, provide free transfers to SMART route 560. In May 2009, Blue Water Area Transit carried 81,775 total trips. The agency has applied for FTA funds to build a new bus hub and transfer center replacing the current facility on Quay Street. BWAT hopes to break ground on the $9.86 million construction before summer of 2013 and complete the site in one year. Other transit priorities identified in its long-range plan include further expanding hours of service to connect with more SMART buses and, if funded locally, having county-wide transit.

Ann Arbor Transportation Authority

The Ann Arbor Transportation Authority (AATA; operating as “TheRide”) provides public transit services to the City of Ann Arbor and to other surrounding communities through contract service agreements, including Ypsilanti. In 2012, TheRide provided over 6.4 million rides, a 6% increase over 2011 and a single-year ridership record. TheRide's total operating budget in FY 2012 was $30.36 million. (See Washtenaw County report for more details)

University of Michigan, Ann Arbor

Campus bus service is offered year round with a fleet of 60 buses linking the four main campuses. In 2011, the system carried over 6.75 million passenger trips.

UMHS provides funds for the UMHS Intercampus bus that serves most major locations for UM health services around Ann Arbor and some of the park and ride lots that employees may utilize.

Private Shuttles

Wayne State University, the Detroit Medical Center, and the College of Creative Studies operate their own shuttle systems. None offer transit passes on SMART or DDOT.

A region-wide map showing the coverage of these providers (minus the People Mover and UM) is shown below, followed by average weekday ridership as of 2010.
Average weekday ridership is shown below for the public system as well as private shuttles.
### Figure 19. Average Weekday Ridership

<table>
<thead>
<tr>
<th>System</th>
<th>Average Weekday Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDOT</td>
<td>124,514</td>
</tr>
<tr>
<td>SMART</td>
<td>34,301</td>
</tr>
<tr>
<td>AATA</td>
<td>22,010</td>
</tr>
<tr>
<td>Detroit People Mover</td>
<td>4,011</td>
</tr>
<tr>
<td>BWATC</td>
<td>2,491</td>
</tr>
<tr>
<td>LET</td>
<td>877</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>34,501</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>222,705</strong></td>
</tr>
<tr>
<td>Wayne State University</td>
<td>200-250</td>
</tr>
<tr>
<td>College of Creative Studies</td>
<td>1,500</td>
</tr>
<tr>
<td>Vanguard (DMC)</td>
<td>2,000-2,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,700-4,250</strong></td>
</tr>
</tbody>
</table>

Source: M-1 Rail Business Plan (shuttles); 2010 On-Board Survey (public)

### Pedestrian and Bicycle Facilities

SEMCOG supports better walking and bicycling by awarding Transportation Alternatives Planning grants, providing technical assistance to members, hosting accessibility workshops, and producing bicycle maps. Efforts are generally geared toward expanding the region’s trail network, rather than filling in gaps on the street network, but SEMCOG has undertaken a non-motorized that will document on and off-street conditions. The region has 500 miles of existing or under construction walking and cycling facilities.
Figure 20. Bikeways and trails from Directions 2035

Bike-Suitable Routes and 2008 Greenways Vision
Southeast Michigan

- Bike-Suitable Routes
- 2008 Greenways Vision
  - Existing or Under Development
  - Detailed Design / Study Underway
  - Planned or Preliminary Concept
4. TRANSPORTATION DEMAND MANAGEMENT PROGRAMS

State Programs

Michigan Rideshare
MDOT operates a robust rideshare and vanpool program. Links to this and other sites are available at (http://www.michigan.gov/mdot/0,4616,7-151-9615_11228---,00.html).

MiCommute
MiCommute (http://www.michigan.gov/micommute) is an informational web site with bus and train information, carpool parking locations, and vanpool and rideshare matching. This site provides links to the state’s Guaranteed Ride Home program and local rideshare offices.

MiDrive
MDOT maintains a live map of construction, crashes, and congestion on area roads (http://mdotnetpublic.state.mi.us/drive/Default.aspx).

MichiVan
Commuter vanpools are operated by VPSI (http://www.vpsiinc.com/Home/index.asp?OID=27). MDOT helps employers form vanpools if interested.18 The program began in 1980; in 2008, the 300th vanpool was formed. Vanpooling can save 152,000 gallons of fuel and take 40,430 vehicles off the road each month.19 MDOT also maintains a ridesharing web site (http://www.michigan.gov/mdot/1,1607,7-151-9615_11228---,00.html) with information about ridesharing, carpool parking lots, and vanpools, some of which links to MichiVan. A quarterly newsletter is published (http://www.vpsiinc.com/pdf/Michivan_Spring_2013.pdf). Rides organized through MichiVan or other vanpool programs accounted for 6,319 daily vehicle miles of travel in 2001, or less than 1% of daily VMT.20

Regional Programs

SEMCOG is the local rideshare office for the southeast Michigan region excluding Washtenaw County. SEMCOG has one staff member devoted to TDM but has been impressively effective in promoting TDM programs in the region.

MiRideshare
MiRideshare, begun in 1980, is a free carpooling program matching up people wishing to carpool. Currently more than 6,000 users have registered. SEMCOG estimates that in 2012, MiRideshare reduced VMT by 12 million miles and emissions by 12 million pounds. A typical commuter can save up to $3,000 per year by carpooling (http://www.semcog.org/MiRideshare.aspx). SEMCOG publishes a two-page brochure promoting ridesharing.

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18 For a list of vanpool routes, see http://www.vpsiinc.com/PDF/Michivan_VDL.pdf
19 http://www.michigan.gov/mdot/0,4616,7-151-9615_11228-202505---,00.html
Commuter Challenge
This annual alternate commute program is fairly successful (700 participants in 2012 – a 180% increase) and has been running for seven years.

MiBikematch
Similar to car ridesharing, SEMCOG will match commuters who can travel by bicycle but feel safer traveling with others. SEMCOG publishes a two-page brochure advertising this service.

Transportation Alternatives Program (TAP)
This program provides funds for expansion of non-SOV trips. In Fiscal Year 2013, SEMCOG distributed $5 million to programs such as streetscaping, trail connections, and complete streets. Grants ranged from $80,000 to $1,000,000. Applicants submit their project description and are evaluated by SEMCOG and MDOT.

Guaranteed Ride Home
GRH is managed by the local rideshare offices; in this case, both SEMCOG and AATA have a shared web site (https://mirideshare.org/en-US/rideshare.aspx?pg=grh). Registered carpools and vanpools are reimbursed for taxi, bus, or rental car cost to get home in the case of emergencies. Participants may claim GRH up to twice per month or six times per year.

Park and Ride
AATA and SMSART operate park and ride lots. SMART operates approximately 21 park and rides; AATA operates six. In 2001, Transportation Demand Management in the SEMCOG Region estimated that SMART managed an inventory of 1,500-2,000 parking spaces. SMART does not collect utilization information at its facilities.

Local Programs
Wayne State University
This institution enrolls approximately 20,000 students who primarily live on campus. The Parking and Transportation Services Department operates eight parking structures and 44 surface lots, with a total capacity of 13,000 cars. Semester parking passes cost $260-$340 for students and $300-$380 for staff, depending on location. Wayne State operates complimentary a Main Campus shuttle and a Medical Campus shuttle. Campuses are located east of M-10 and south of Grand Boulevard. A Campus Alternative Transportation Map shows city and SMART bus routes as well as bike rack locations (http://www.catmap.wayne.edu/).

Detroit Medical Center
All DMC employees are assigned a parking space. DMC operates 12 shuttles for patients, visitors, and staff. The Central Campus shuttle is in operation all day, while the other shuttles connect parking structures to the Central Campus or connect different hospital branches are generally available during peak hours and run on 10-minute headways. DMC’s Midtown Shuttle connects to Wayne State University.

http://www.semcog.org/TAPCall.aspx
Ann Arbor and Washtenaw county

Please see the Washtenaw Avenue report for assessment of existing TDM programs for the following:

- City of Ann Arbor
- University of Michigan
- Eastern Michigan University
- Washtenaw Community College
- Veterans Administration Hospital, Ann Arbor

Organizations & Agencies

Numerous emerging organizations have taken a role in transportation in the SEMCOG region, ranging from government agencies to non-profits.

- Regional Transit Authority – Formation was approved by the House in December 2012. While the agency has since been officially formed, its complete structure and authority has not yet been formalized. The FTA awarded $6.5 million to the RTA as initial planning funds as part of the Woodward Avenue Streetcar $25 million grant. The agency’s first task will be to create a transit maser plan for Wayne, Macomb, Oakland, and Washtenaw Counties.
- M-1 Rail – This coalition of business leaders, non-profits, and economic development advocates has proven itself to be a powerful leader, pushing the city and state to move forward with the Woodward Avenue Streetcar after failure of the larger light rail plan (http://www.m-1rail.com/).
- Transportation Choices – Formed by SEMCOG, this recently formed group includes bike advocates, the Detroit People Mover, transit agencies, and employers. Including representatives from a variety of sectors increases leverage ability.
- Transit Riders United – This non-profit organization officially created in 2001 promotes transit and focuses on improving the quality of existing service and implementing future rapid transit.²² (http://www.detroittransit.org/)
- Trans4M – Trans4M is a statewide coalition that aims to create livable communities by focusing on transportation policy reform (http://trans4m.org/).
- Association for Commuter Transportation

5. MAJOR PROJECTS

Several major infrastructure projects occurring or desired over the next TIP cycle present a great opportunity to integrate short and long-term TDM measures into capital construction.

I-75 (from 8 Mile Road to M-59 in Oakland County)

I-75 consists of six lanes connecting downtown Detroit through Oakland County and north through Central Michigan and into Canada. I-75 is shown as a congested corridor²³ and capacity expansion

²³ http://www.semcog.org/uploadedFiles/Programs_and_Projects/Planning/Long_Range_Transportation_Plan/Congestion_Deficiency.pdf
to I-75 in Oakland County is listed as a priority in Direction 2035; however, the Oakland County portion is not listed among the top 10 congestion priority freeways. The 17.7 mile corridor will be widened to four lanes per direction, with the new lane designated as HOV. During construction, the goal is to keep existing lanes open; however, this is a very difficult goal to achieve. MDOT conducted initial environmental reviews 7-8 years ago. At that time, the public was split regarding desire for more general purpose versus HOV lanes on I-75. It is not ideal for a transit-only facility given the suburban commercial development patterns and affluent community. Oakland County has been a major supporter of the project and using the new capacity for HOV. Congestion levels on the corridor fluctuate; ADT ranges anywhere from 103,000 to 174,000. Flows on I-75 are almost evenly split into bi-directional peaks. People who live in Detroit travel to Macomb County and into Oakland County for work; Oakland County residents travel north to Flint or south to Detroit. Currently there is no funding for the project and cost is estimated at $830 million. If the project happens, construction would begin in 2017 or 2018 with a 20-year build-out. Directions 2035 states that even with capacity expansion projects such as this one, it is expected that congestion will remain at current levels from the present to 2035.

Figure 21  I-75 project location

Susan Datta, MDOT, phone interview 4/10/13
Directions 2035, page 4 of full PDF.
I-96 (from Telegraph to Newburgh Roads in Wayne County)

I-96 is an eight-lane, below-grade highway starting at I-275 and connecting to downtown Detroit. MDOT is reconstructing 7 miles of I-96 within the City of Livonia and Redford Township in Wayne County and repairing 37 bridges, including interchanges. Cost is projected at $150 million or more and is 80% federally funded, with the local match provided by the state and City of Livonia under Act 51. The 100% design plans will be completed by June 30, 2013, with construction set to begin in 2014. The project’s expected lifetime is 20+ years. MDOT has surveyed the public to understand preferences for aesthetics and construction staging. Of the 1,787 respondents to the construction survey, 56% preferred a full closure of I-96 to achieve a shorter construction period (current prediction is that the road will be closed for one year). Bypass routes are I 94, I 696, I-275, M-39, and US-24.

Figure 22. I-96 reconstruction

I-94

I-94 from I-96 to Conner Avenue is a key link in the system and is identified as a top priority for congestion mitigation for more than 15 years. The project entails widening the existing six-lane highway to eight lanes, renovating 10 priority bridges, and connecting the current service roads into a continuous local network. The project measures 6.7 miles long and will cost $1.5 billion. Thus far, MDOT has not identified funding for the full project; the agency has completed some conceptual design and engineering reports. While awaiting funding for the bulk of the project, MDOT has begun renovating bridges, such as the Van Dyke Bridge, which is currently being worked on, and creating designs for a second bridge, with $24 million in STP funds. TDM and maintenance of traffic are major focuses of the project. MDOT plans to work on the service roads first, to allow local traffic to use the new continuous roads. The new service roads will include bike lanes; the 65 replaced bridges over the highway will also mostly have bike lanes, with the goal of helping to

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28 Act 51 created the Michigan Transportation Fund, which is replenished through road user taxes such as the gas tax, vehicle registration fees, and other miscellaneous fees. See [http://www.michigan.gov/documents/act51simple_28749_7.pdf](http://www.michigan.gov/documents/act51simple_28749_7.pdf).
29 Additional project information at 96fix.com.
reconnect the neighborhoods originally divided when the interstate was built. MDOT may undertake a design-built process to obtain funding faster. If a funding source were identified, construction could start in 2014 and the agency predicts project completion in 4-5 years.  

**Figure 23. I-94 project location**

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**Woodward Avenue Streetcar**

Funding has been acquired and construction is set to begin on Phase I, the portion within the city limits, in August 2013. The full 3.3 mile streetcar is projected to cost approximately $163 million, which includes $20 million from FHWA for road reconstruction and bridge replacement that can happen coterminous with the streetcar construction lumped together in one contract. M-1 Rail has committed more than $100 million, and the FTA has awarded a previous TIGER I grant slated for the larger light rail project to streetcar, in addition to $6.5 million in planning funds to ramp up the RTA. The balance will be covered by state and local funds. Given the new developments and retail establishments pending downtown, MDOT wants to move construction in the downtown portion forward quickly as Woodward Avenue will likely require full closure for periods of time and the goal is to minimize impacts to new residents and businesses. If construction remains on schedule, Phase II will begin in Spring 2014 and the streetcar will be operational by the end of 2015. Outside the city portion of the alignment, Woodward Avenue has a nine-lane cross section. During construction, the street will be narrowed to one lane per direction plus a center turn lane. This configuration has been used in the past for other construction projects, and the road generally functions fine; the corridor is not especially busy outside of peak times, and people know to find an alternate route. After construction, the cross-section will consist of seven lanes, including parking lanes. Light rail and the streetcar are viewed as economic development tools as well as mobility tools; thus MDOT has not completed calculations on potential VMT reduction or potential mode shift from driving to transit. Given the low levels of congestion on Woodward Avenue, the project

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33 Phone interview with Jonathan Loree, MDOT, 4/9/2013. Dan Gilbert has recently purchased several buildings along Woodward Avenue [http://www.huffingtonpost.com/2013/03/19/1001-woodward-detroit-dan-gilbert_n_2907932.html](http://www.huffingtonpost.com/2013/03/19/1001-woodward-detroit-dan-gilbert_n_2907932.html)
funding does not include money for any TDM measures. Woodward Avenue is not slated to be a bicycle route; parallel Cass Avenue is the future designated facility.

6. ISSUES AND OPPORTUNITIES IN THE SEMCOG REGION

ISSUES

- Regional integration - how much is possible? Detroit vs. Ann Arbor vs St. Clair county
- Previous setbacks - how to make SEMCOG the good leader? e.g. Ann Arbor-Detroit rail setbacks painted a poor picture of the agency
- I-75 (not funded) but might be concurrent to Woodward Ave development
- TDM from the employer side - despite M-1 Rail, there hasn’t been much energy around embracing employer TDM
- I-94 - Right through the heart of downtown - is TDM enough or is this a bigger fish? There are many opposed to the expansion.

OPPORTUNITIES

- Potential leadership between M-1 Rail, the new RTA - Nexus of private interests and economic development desire with need to appear coordinated for funding and expansion
- Transit services - lots of overlap between SMART, DDOT, DTC. Potential to integrate these private shuttles with public agencies
- Corridor critical mass – ability to have transformative change in places like Gratiot, Woodward, Michigan Ave as they are the focus of multiple agency studies
- Desire to focus capacity increase, e.g. emphasis on HOV or HOT lanes